

## Scholar 51

### Chapter 51

“Oh, you can’t stick flyers here?”

Lin Yuxiang said innocently, “Although I can pretend I didn’t see anything, it’ll still soon be taken away by other student union staff...”

This is troublesome...

Lu Zhou was thinking about what to do. Lin Yuxiang walked forward and looked at the flyers.

“Campus train app? Wow, I didn’t know you knew how to program. Did you write this yourself?”

Hey, you’re too close to me...

Lu Zhou subtly moved half a step backward and asked, “Yes, why?”

“Why don’t you post it on our school’s Tieba forum? The students that are already here probably won’t use a ticket-buying app right?” Lin Yuxiang pointed out.

Do you think that I didn’t think about this already?

Lu Zhou said grudgingly, “... It got banned because it was flagged as an advertisement.”

Lin Yuxiang’s eyes lit up and she smacked her fist into her palm.

“Oh, I see. Then I’ll sort this out for you.”

Lu Zhou was surprised, “Sort it out?”

Lin Yuxiang played with her hair. She smiled and nodded, "Yeah! Our school's Tieba forum is managed by the student union. The administrator account is used by the union president and I can just tell him about your situation. You can have it stickied on the forum for a few days. Oh yeah, send me the QR code or the APK file. I've heard that many students posting on Tieba about having troubles getting a taxi."

Lu Zhou was surprised.

"Really... Thank you so much!"

Lin Yuxiang smiled, "Don't need to thank me. I should be thanking you."

This...

The power of having connections?

She was just a normal staff during her first year, but now, she was the vice president of the student union.

Lu Zhou looked at her walking away and could not help but think.

What a scary woman...

But regardless, I'm thankful!

He was originally quite mad at this "useless" teammate, but now he had nothing to complain.

Wait a minute...

Lu Zhou's heart moved, he seemed to have realized something.

A lot of students are asking about taxis...

The target demographic of his "Campus Train" app was students.

"Getting a taxi is a problem. Not just taxis..." thought Lu Zhou. When he first arrived, he even went to the wrong campus. He started to seriously think about this problem. "It's perfectly possible to add a student route into the main app interface and have options for leaving from school and traveling to school. This can help new students to buy the tickets and also give them the shortest transportation route."

"But then I would have to crawl data from major bus stations... Wait a minute, I can directly crawl data from third-party maps. Baidu Gaode has a transportation system! How did I forget about this!"

The more Lu Zhou thought about this, the brighter his eyes became.

Not only did the students travel by bus and subway, but they also traveled by car. They would get off the train and carpool using unlicensed taxis.

If he used his app to collect the user's train number, travel information, and the number of various university students, then he could team the students up for carpool right?

Even if the students did not want to carpool, they could still find a group of other students to travel together.

It was easier traveling to than from school. Many high schools had subway lines directly to the universities. However, it was not as easy leaving school, especially when they got off the train in their hometown. If there was a need for carpooling, the students could find other students to carpool with. It would be better than carpooling with strangers.

How many universities are there in the country?

How many college students?

Even if he managed to only reach half of the market share, the number of the users would still be astronomical.

Also, the user's group location would be tracked accurately and the value of that was unimaginable.

Lu Zhou stopped hesitating. He immediately went back to his dorm and began to write the version 0.12 update.

[During this major update, the app will remember (bind) the user's university and train information. If the user is bound to the university information while sitting on the train, they can know how many other students on the train are also using this "Campus Train" app.]

[Add friend features, messages, carpooling, travel route notifications... These are a must. I could also add group chats to increase user's usage. Although it would require a lot of work, there are many problems involved as well, I have to push this back till later.]

[Because of the number of changes I have to make to the core code, the amount of work needed is extremely large. Coupled with the addition of sub-features for students, the entire user interface has to be adjusted]

To save time, Lu Zhou consumed 150 general points. He handed over some of the difficult parts of the code to the system to solve. He then copied the code from his memory onto the app. He finally finished the final stability test before the end of August.

His general points balance was 775.

"Uploading updates..." murmured Lu Zhou. He took a deep breath before saying, "This change is groundbreaking. I hope I can stand out from other apps."

He looked at the download numbers. It was only 15.

Lu Zhou tried to comfort himself. It was double the amount of downloads version 0.11 had. It could be counted as a good start. He sent the link to Lin Yuxiang so that she could log onto the school's Tieba today. After that, his user numbers would surely increase.

"Oh yeah, if I can advertise on Tieba, why can't I try to advertise on other platforms?"

Lu Zhou suddenly remembered that he had registered a Weibo account during his fight with Zhu Fangcai.

He did not hesitate and logged on.

The f\*ck?

Did I get another 10,000 followers?

Lu Zhou looked at the number of followers and he was surprised.

He then looked at the 99+ private messages and frowned.

He clicked on it and unsurprisingly, they were all either asking for his contact information or asking him to write a thesis.

F\*ck, can't these people give me a price?

Maybe then I'll write the theses for them?

Why are they so insincere!

Lu Zhou shook his head. He wrote a Weibo blog post and attached the link.

[Campus Train app is released, come to download it...]

Emm...

Bit awkward.

How should I write this advertisement?

Lu Zhou could not think of anything and he gave up. He randomly added a line at the end.

[I will pick ten fans that re-post and edit their SCI thesis (not signed)]

He could not offer anything else other than his talent.

His fans were mostly college students so in theory, this advertisement should work.

Who cares if this doesn't work.

Lu Zhou hit post and closed Weibo.

I did the planning and god will determine the outcome!

Chapter 52

It was the next day in the afternoon.

Lu Zhou was eating dinner when he pulled out his phone and checked Weibo. He was shocked.

Why are there so many re-posts?

However, most of the re-post captions were just people jumping on the bandwagon.

Lu Zhou was suspicious. When he opened the trending page, he was surprised.

Number four on trending!

How did it get up there?

Even though a lot of people re-posted, it's still a bit far fetched to be on trend, right?

Lu Zhou opened up the trending page and found out that a marketing account reported his app but not his blog post.

The earliest new source that reported it was called [New Things On Campus] and that blog was re-posted by a marketing account with millions of followers. Finally, it even caught the attention of [Huaguo Youth Daily] and they re-posted it.

Although they did not re-post his blog, the name [Campus Train] was still in the report.

[A first-year undergraduate student from the University of Jin Ling who could not buy a train ticket wrote his own free app for students to use. Look at how impressive this guy is...]

[Remember that undergraduate student that wrote ten SCI theses in a month? This time he is back at it again. (dog)]

These were the types of headlines in the reports.

After that, a chain reaction happened and it went out of control...

“...”

Lu Zhou saw this situation and was hysterical.

He did not expect to go on trending twice within two months.

Lu Zhou used his phone to log into the developer platform and entered his administrator account and password. He looked at the download data.

What?! The number of registered users reached 150,000!

With the number of user downloads experiencing explosive growth in the Android app store, it had even made its way into the Top Daily Downloads.

It seemed that his app had been accepted by a lot of college students.

As for how many users would stay active, it would depend on what happened next.

At this moment, he received a call from Chen Yushan.

“Lu Zhou Lu Zhou! Did you write that app?” asked the female voice on the other end of the phone. She was so excited that she sounded like she was happier than Lu Zhou.

Lu Zhou, “Yeah, I wrote it, why?”

“...”

After she received the confirmation, she became silent.

After a while, she sighed and her voice became heavier as she said, “Nothing. I feel like you’re flying so high, I... Don’t know what to say.”



Lu Zhou was confused, "Flying so high? Not really. It'll still be three years till I graduate."

"You're right," said Chen Yushan. She laughed and changed the topic, "Oh yeah, my cousin came back from Shanghai. My auntie wanted to ask if you still have time to do tutoring next semester?"

"Yeah, of course," said Lu Zhou without any hesitation.

Upgrading the Alibaba cloud server, upgrading disk space, purchasing network communication traffic bandwidth, designing a beautiful UI interface... Everything required money!

Right now his app was free. It was hard to tell how much he would have to spend before he could monetize it.

It was not like he could exchange general points for money and so, he had to rely on working for some extra cash.

A happy voice traveled through the phone, "That's great, Meng Qi said that you are a good mathematics tutor. She would understand the question after one explanation from you."

"It's mainly because she's talented," said Lu Zhou with a smile.

Chen Yushan, "Oh yeah, also when she enters Grade 11, she'll only have Sundays off. You only have to tutor her one day. Is that fine with you?"

Lu Zhou, "No problem, I'm free regardless."

...

Zhang Zhongjie opened the door and walked into Dean Lu office. He said with a smile, "Dean Lu, you have quite a talent there in your mathematics department."

Dean Lu did not say anything at first. He put his pen down, adjusted his glasses, and sighed before saying, "Say it, what did that Lu Zhou kid go and do now?"

Dean Zhang smiled and said, "Oh, I didn't even tell you. How did you know it was Lu Zhou?"

"He's the only troublemaker of his caliber in the department."

"It seems that you're not happy?" said Dean Zhang as he sat on the sofa. With a smile, he said, "If that's the case, how about you transfer Lu Zhou to my computer science department. I quite like him."

"Oh," said Dean Lu. He leaned against his office chair and stared before saying rudely, "Don't even think about it!"

What a joke.

University of Jin Ling's mathematics department was not strong even though the university was ranked amongst the countries' Top 10 universities. It was not nearly as strong as their physics department.

They finally had such a genius in their department and Lu Fangping would never let him go. Not even if he had to deceive Lu Zhou!

"Why are you getting so riled up? I'm just kidding. It's up to him if he wants to transfer," said Dean Zhang. He smiled and continued, "Ok, serious talk. Have you seen Weibo recently?"

"Weibo?" asked Dean Lu. He frowned, "What's on Weibo?"

Although Lu Fangping knew about Weibo, he had not downloaded it on his phone. First of all, he was disinterested in the trending female celebrities. Secondly, the text on the phone was too small and thus, it was unsuitable for old people to read. Thirdly, he was busy with his job and side projects. He did not have so much free time to stare at his phone.

Furthermore, he did not keep up with the trends as much as Dean Zhang who was from the computer science department.

“The Lu Zhou from your department made an app called Campus Train. A few teachers from our department looked at it and found that it is pretty good. The school is encouraging entrepreneurship, right? I wanted to help him and so, I came over here,” said Dean Zhang while smiling.

Dean Lu heard the good news and smiled as well. He then squinted his eyes as if he remembered something.

In order to encourage technological innovation at various universities and to promote the spirit of entrepreneurship, the Ministry of Education issued a [University Student Entrepreneurship Plan] which was issued directly to various institutions and education bureaus.

Dean Lu had heard of this plan. It was mainly for fourth-year undergraduate students that did not plan on getting a master’s degree. Simply put, the state would provide financial support (loans) while the school would provide the resources to help students achieve their dreams of entrepreneurship!

Of course, not all projects could apply for this interest-free loan. For example, if one decided to open a bubble tea shop, or to sell clothes on Taobao, or if one simply wanted to use the money to buy stocks, the school definitely would not have approved.

Projects that could apply for this loan must first meet the criteria of not only being a technological innovation but it must also be realistic. For example, it was unrealistic if one wanted to build a rocket and needed to come up with a new type of rocket fuel.

The second criterion was that it must be able to create jobs.

After all, projects that were hatched by university alumni would be more inclined to hire students from their own university.

The University of Jin Ling wanted to appeal to the government. All of the departments allocated a certain amount of money towards the startups by the students. After all, employment was the top

priority. If the school could really incubate a large project, it might even count as a scientific achievement!

Generally speaking, this policy only applied to fourth-year students. After all, their goal was still to study. They could not delay their academics for entrepreneurship. The school should not convince students to take the wrong path!

However, these criteria obviously were inapplicable when it came to Lu Zhou. Being able to write mathematical theses at his level meant it would be a piece of cake for him to get his bachelor's degree. Most professors did not look at him as an undergraduate student, at least not a first-year undergraduate.

But...

However talented this Lu Zhou kid may be, he's still part of our mathematics department. Why is the computer science department here?

Dean Lu knew instantly that this guy came here to undermine him!

Dean Zhang saw that Dean Lu did not speak. He smiled and used a kind tone as he said, "You shouldn't think that this will affect his studies. It's important to manifest his studies by doing projects. My suggestion will definitely be beneficial to Student Lu. Furthermore, a few teachers in my department did some research and felt that this project is interesting, so..."

"Don't even think about it! I'll go and find our head of department right now!" said Dean Lu. He stood up and smiled as he said, "Don't even try to undermine me! We were just worrying about how to use this money!"

There isn't any place to spend it on!

It was not like mathematics was useless, but what could one create with mathematics?

The few applications that were submitted all pretended like they were making big data statistical analysis software but they were actually about starting online shops! Who would give them money!

Finally, a person like Lu Zhou came along. Dean Lu would never give him up and so, he refused Dean Zhang.

You are here, again and again. You say you're helping our incubator project, but when the chicken finally laid eggs, your computer science department wants to steal the eggs!

Just because I have thick glasses and run around the office all day while being an honest man doesn't mean that I can't see through your schemes!

How naive!

How simple!

"I'm telling you, Old Lu. This is wrong, right? The project in your mathematics department isn't even related to mathematics but is related to computer science. What will people say about this?" said Dean Zhang as he laughed.

"If I say it's related then it's related. How come data science isn't related to mathematics? I'm approving it!" said Dean Lu as he stared at Dean Zhang. He suddenly realized that he had not even received an application yet, so he continued his momentum and said, "I'll give Lu Zhou a call today and ask for his application. I'll personally give it to the head of the department for him to approve!"

Dean Zhang was anxious, "You can't do this. You should ask the student's opinion! This is for his own good!"

Oh, you're trying to talk logic with me now?

Dean Lu turned his eyes and said swiftly, "Ok, I'll talk to him later. Wait for my response."

“No!” said Dean Zhang as he disagreed. He crossed his legs and said, “You’re not honest. I’m sitting right here. Call him now! If not, you’re buying me dinner.”

Dean Lu called Dean Zhang shameless but the man did not even give him a reaction. Dean Lu knew that he had to solve this today and so, he picked up his phone and called Lu Zhou.

### Chapter 53

Registering a bank account for a company was easy. Who would not want an interest-free loan!

The problem was that both the computer science and mathematics department wanted to fund the project.

The mathematics department claimed that their quota had nowhere else to be used and they offered to loan 500,000 yuan. If needed, they could even give more. There were no other projects that they were interested in anyway.

The computer science department had a lot of projects and they were running on available quota. They could at most give 200,000 yuan. However, they had talented people. There was no problem from any single project that the professors could not solve. They were all professors that did consultation work for big companies.

Indeed, it was difficult to decide.

Lu Zhou was leaning towards the latter as he would not have to spend as many general points. Besides, not everything could be bought with money. However, the dean of mathematics was right in front of him and he could not blatantly embarrass him. Otherwise, he would have a difficult time staying in the mathematics department.

What if the two departments collaborated...

Lu Zhou thought that in addition to being honest and handsome, his biggest strength was being self-aware. Even though he was a genius, he could not bend the rules.

At least not yet.

If the two departments actually collaborated, they definitely would not listen to Lu Zhou's suggestions. They would just take the lead, like in the mathematical modeling competition.

The two deans didn't mention collaborating. It must mean that it would be difficult to do!

Lu Zhou analyzed this logically. He guessed that this was not only about pride but it contained actual value. If one of the departments incubated a successful project, then they would feel very prideful during the annual meeting.

"Dean Zhang, I'm sorry," said Lu Zhou apologetically. With a sincere voice, he said, "The code for Campus Train is already written and I can single-handedly manage the updates. Dean Lu is offering what I need."

Although he rejected Dean Zhang, he still tried to soften the blow as much as possible.

However, it seemed like Lu Zhou was over-thinking as Dean Zhang did not seem to care that much. He was just disappointed.

"Oh, I understand. I see... Oh yeah, if you've any computer science questions, feel free to ask me."

But don't think that the computer science department will allocate a professor as your advisor. Everyone is busy and no one has that much free time. It would take the head of the mathematical department himself to request for help if you want help from us.

Of course, no one is stopping you from finding a professor or graduate student for help.

"Thank you!" said Lu Zhou solemnly.

"I didn't even help you, no need to thank me! Oh yeah, pay attention to the mathematical modeling competition. If you don't get the first prize, then don't come to find me. I don't know you!" said Dean Zhang with a serious tone. He then waved his hand, stood up, and said, "I'm busy, I have to go."

“Take it easy,” said Dean Lu. With a beaming smile, he said, “I won’t send you out.”

“Ha, look at how happy you are.”

The pair had a pretty good private relationship and they would often joke around.

Lu Zhou observed secretly as he was thinking in his heart.

Zhang Zhongjie left and Dean Lu paused for a moment before saying, “Oh yeah, Lu Zhou, I have an application form here. Take it back, fill it out, and bring it back to my office tomorrow.”

“Okay!”

Dean Lu was satisfied with Lu Zhou’s enthusiasm. He nodded and reminded Lu Zhou.

“Oh yeah, even though this project is a good idea, don’t forget about your real job.”

Lu Zhou smiled and said, “Don’t worry about it. I’ve already finished learning the second and third year courses. You can test me right now.”

“Oh, I’m not worried about your studies. Who said I was talking about that?” said Dean Lu as he laughed. He then said jokingly, “I don’t care about anything else. I just have one rule. You better publish one thesis in the core journal this year. If I don’t see your thesis, I’ll take away your scholarship.”

Lu Zhou: “...”

Even though he knew Dean Lu was doing this for his good, Lu Zhou still wanted to insult him!

...



The 500,000 yuan loan solved Lu Zhou's urgent problem. At least he did not have to use his living expenses to pay for this expensive project.

At first, he had not expected that there would be so many users. He was happy with ten thousand users and he had not expected his app to have such a high reputation amongst college students.

Of course, this meant that he had to give up on another section of the demographic. As the name [Campus Train] was not very attractive to non-college students, many of the features were useless to the general public.

So far, the total number of downloads for [Campus Train] had reached 200,000 with a total of 310,000 tickets bought successfully.

It was the peak time for students to return to school and thus, it was also peak usage time.

The company was registered and it took three days to get all the formalities together. The money had entered into his account and Lu Zhou immediately paid for the server upgrade.

If he wanted to keep the users, he had to keep the users happy. The app should not lag. The users would be annoyed if they refreshed the page and still could not get a ticket. In that case, they might jump to another app.

Lu Zhou opened the developer panel and looked at the increasing number of downloads.

In a few days, the Android app store would release their recommendation for free apps. This would bring a new wave of users to his app. After that, the back-to-school period would end around 10th September. By then, he would know how many stable active users there are.

"The next step is to continue the updates and maintenance, I have money to hire two programmers so this shouldn't be a problem."

Lu Zhou stretched and continued to stare at the screen. Suddenly, he saw an unread notification where it said there were many bug reports.

This was a big problem and he had to take it seriously.

Lu Zhou was alert. He immediately sat up straight and expanded the notification.

“Bug reports... Why are there so many bug reports? Let me look at this.”

[Master can you look at my thesis? My WeChat is...]

[Please help to write my thesis, WeChat is...]

[The Weibo lucky draw was shady, I don't care, it was rigged.]

Lu Zhou: “...”

F\*ck sake!

Why did you chase me all the way here? What a bunch of sinister people!

Chapter 54

Lu Zhou suddenly realized what he said but it was too late.

As expected, Shi Shang was unhappy.

Why did they bring up his socks?

Did they even respect him as a dorm leader?

Shi Shang slapped the table and said, "What are you trying to say? My socks are smelly? I just washed them two days ago!"

Two days ago!

The facial expression of the three people changed instantly.

However, Shi Shang failed to notice. He opened the drawer as if he was trying to prove something.

Liu Rui: "..."

Lu Zhou: "..."

Huang Guangming: "..."

The atmosphere in the dorm became awkward...

There was a stench.

With three pairs of eyes staring at Shi Shang, he gradually lost his confidence.

Without saying anything else, he coughed slightly before heading to the bathroom to wash his socks.

...

The last roommate had returned to dorm 201 as they started their life as a second-year undergraduate. The cold and empty dorm room soon returned to its former noisiness.

"League of Legends is about to release a new champion. Did you see the trailer? It's OP."

“It’s on the NA server already and it’s sh\*t.”

“No way! 1v1 me later! Call me daddy if you lose!”

“Okay, I’m playing Garen and you can play whatever.”

“Screw you!”

“...”

If this was a few months ago, Lu Zhou might have joined into this heated argument. However, the joy of learning had made him turned his back on League of Legends.

He had already reached the last stage of the system mission. He only had one more boss to capture.

That boss was the insanely difficult [Integrated Circuit Design].

That circuit design book was basically inhumane. Circuit lines from metal1 to metalN drawings, countless flip-flops, and inter-layer channels. It was torture!

According to rumors, the University of Jin Ling’s electronics department had the highest percentage of bald teachers. If one wanted to know the skill level of a professor, one just had to see the amount of hair on his head. Lu Zhou now knew where the root of the balding problem was.

The amount of content in chip design was way too large and there was absolutely no way an undergraduate student could completely understand it. Even though this was an introductory textbook, Lu Zhou still felt immense pressure.

Of course, this field had good potential.

Integrated circuit design was not China's strong suit and there was an insufficiency of talent. In addition, in this field, the strong only became stronger which resulted in many talented people with the skills to choose to move overseas. A 500,000 yuan salary was no problem if one were proficient in integrated circuit design.

An integrated circuit design project was large. Each step had a cumbersome process and any of the steps could be considered a scientific research project. Every step of the production line was a job opportunity.

Then again, with the difficulty in getting jobs, very few people could reach the standards that were required. In order to participate in an integrated circuit design laboratory, one would at least need a PhD.

Huang Guangming was playing League when he saw Lu Zhou reading the textbook. He then asked, "Lu Zhou, league? Liu Rui is feeding too hard. I can't carry without your ganks."

Liu Rui did not respond. Instead, he started to hum a song in embarrassment.

Lu Zhou thought and said, "I'll play in a few days I'm pretty busy now."

Shi Shang, who was playing top lane, said, "F\*ck, last time you said you would play after exams but until now, you still haven't logged on yet."

In a serious tone, Huang Guangming said, "Zhou, you will lose your friends like this!"

"No friends? Impossible," said Lu Zhou as he shook his head. He then added, "We all take the same classes, mathematical analysis 3, linear algebra, ordinary differential equation, complex functions..."

"Brother Lu, stop talking," said Shi Shang as he suddenly let go of his mouse. He turned around and begged Lu Zhou, "From the moment I saw you, I knew that we would be brothers for life... You have to lend me your notes!"

Lu Zhou laughed.

Oh, what a weak student.

Liu Rui was killed and sent back to the fountain. As he leaned against his chair, he asked, "Aren't you friends with Lu Zhou because you saw his sister's photo?"

Lu Zhou, "F\*ck off!"

He had nothing to say to this group of animals.

When Lu Zhou heard the sound of League abilities being used impetuously, he could not calm down.

In the end, he gave up in testing his own strength. He packed his stuff and walked outside with his backpack.

It was now the 1st of September and only two days left until the third. A large number of first-year students would be pouring into campus on that day. All kinds of community activities and studying were going to happen that night. In addition, the students who were preparing for the graduate entrance exam were trying their best to study and so, he had no hope to find an empty classroom.

There was not much time left for him to study quietly.

Coincidentally, Lu Zhou only had one focus capsule left. He did not know if it would be enough for him to finish the [Introduction to IC Design] textbook.

After dinner, Lu Zhou sat in an empty classroom and ate the final focus capsule. He planned to immerse himself into the book by entering into a state of high concentration.

The circuit lines gradually solidified in his brain and the layers of electronics unfolded.

He discovered this ability when he was studying topology. When he was highly focused, he could use his spatial imagination to “see” the graphics in his mind. It was hard to describe in words, but the resolution of his imagination was very precise and he could see every electrical circuit and every flip-flop.

Of course, entering into this status had great side effects. It would accelerate the fatigue of the brain. Although it would not decrease the focus capsule’s active duration to under five hours, it would make him very sleepy after five hours.

Therefore, he had already used two focus capsules while studying integrated circuit design and this was his third capsule.

Also, this was only introductory material, it only briefly explained topics such as RTL code, logic synthesis and RC time constant. The latter half was circuit wiring, which did not even count as core knowledge.

Time slowly passed and soon it was twelve o’clock. Lu Zhou stared at the last page of the textbook and sighed. He then collapsed onto the table.

Using his last remaining strength, he whispered quietly, “Enter... System space.”

Suddenly, the world spun and he was surrounded by a pure white space. His consciousness was immediately detached from the real world and transformed into the system space.

It was strange. His brain had a massive headache in the outside world but after entering this pure white world, his headache seemed to have disappeared.

However, he did not have time to cherish this feeling and he immediately stepped forward. With his hands placed on the semi-transparent information screen, he stared at it.

“System, show mission progress!”

[Mission 30/30]

[Congratulations user for completing the first reward. Double mission rewards are given. Hope you make persistent efforts!]

Chapter 55

He did not have any special reason for that. It was purely because his physics class was about to start this semester.

Confirm selection!

White lights flickered and a line of text appeared on the semi-transparent information screen.

[Note: Engineering level 0 -> level 1, Physics level 0 -> level 1]

Lu Zhou saw this line of text and could not wait to open his characteristic panel to see his statistics.

[

Host: Lu Zhou

Core science:

A. Mathematics: Level 1 (0/10000)

B. Physics: Level 1 (100/10000)

C. Biochemistry: Level 0 (0/1000)

D. Engineering: Level 1 (0/10000)

E. Materials science: Level 0 (0/1000)



F. Energy science: Level 0 (0/1000)

G. Information science: Level 1 (0/10000)

General points: 775

Mission: None

]

Like last time, he leveled up two subjects at once!

Lu Zhou looked at his characteristic panel and was very happy.

Now the only zeros left were biochemistry, materials science, and energy science. In the short term, he probably had no use for these subjects, and so, it would not be too late to upgrade them when there were appropriate missions.

Now the first priority was to understand what the unlocked technology branch was about!

Lu Zhou looked at the semi-transparent information screen before clearing his throat and ordered.

“System, upgrade technology branch; artificial intelligence!”

[Upgrade technology branch “artificial intelligence” to level 1 requires 100 general points. Confirm selection?]

“Confirm!”

Lu Zhou answered without any hesitation.

The white light flashed slightly and soon, his general points were deducted by 100. He had 675 left.

In the technology branch column, the level of artificial intelligence was raised from level 0 to level 1 (0/1000).

It was similar to raising core subjects and nothing special happened.

Lu Zhou thought that there would be a “huge flow of information into the brain”, followed by a “sudden realization”. However, it seemed that his brain was not filled with the knowledge that was unheard of.

A USB icon was suspended on top of the semi-transparent information screen.

Lu Zhou walked over and looked at the line of text next to the icon.

[Artificial intelligence program – untitled (level 1) (not deployed)]

[Description: The program will be automatically copied onto the device once the USB is inserted. “Untitled” will be migrated to the electronic device, 1TB of storage space is required. The program can be improved by machine learning. The learning speed is determined by the computing power of the device and any external information provided. Meeting the upgrade requirements will automatically level up artificial intelligence. In addition, general points can be consumed for level up.]

Lu Zhou saw this description paragraph and thought seriously.

Although the description given by the system was hard to understand, it was easy to interpret with an analogy.

The so-called “untitled” artificial intelligence was equivalent to the system giving him an egg. He could incubate it to level 2, level 3 or even higher. At the same time, it could be used as research material or core codes.

Of course, artificial intelligence was also in the scope of information science. Therefore, he had to meet the information science pre-requisites in order to upgrade artificial intelligence with general points.

“I see, the so-called technology branch has an independent upgrade system,” said Lu Zhou as he recalled the instructions of the original system while rubbing his chin.

“What about the genetic technology branch that the system mentioned? The way to upgrade to crack the genetic code? Or to collect genetic samples? The ultimate goal... Is it to remove the telomere of the DNA? To achieve life outside of the body? Or to create epic creatures...”

It made no sense. He would have to figure it out after he unlocked the technology.

Right now, he was still young and so, he did not have to worry about aging.

“Now, I have to find a place to give this level 1 artificial intelligence a home. I definitely can’t use a cloud server or my second-hand laptop... I guess I need a new computer,” thought Lu Zhou.

Next up...

The exciting mission selection stage.

Lu Zhou took a deep breath and prayed as he reached out to the mission panel.

“Come on, give me a good mission!”

He had no idea what mission he would get.

As long as the mission isn’t too sh\*tty!

[

Mission1: Health is everything

Description: Even though the user is lazy, the system still recommends him to exercise. Exercise with the goal of being the strongest man!

Requirements: Walk 50 kilometers, do 2000 squats, 2000 push-ups.

Reward: 1000 experience points of free distribution. 500 general points. One lucky draw ticket (95% garbage, 5% sample).

]

[

Mission 2: Reproduction is more important than scientific research

Description: Find a girlfriend immediately

Requirements: Female with the compatibility of 60 or more. Establish a relationship.

Reward: 2000 general points. Sample: Durable strengthening needle (5 hours active period, increase muscle cell development by 50%, metabolic rate increased by 100%).

]

[

Mission 3: Please do not use the system's resources on retarded questions

Description: In a week, the National Mathematical Modeling Competition is going to begin. The lazy user will want to consume general points to solve retarded questions.

Requirements: Under the condition of not using the system for help, win the first prize from the National Mathematical Modeling Competition.

Reward: Determined by the discipline of the competition question (4000 total experience points). 500 general points. One lucky draw ticket (80% garbage, 10% samples, 5% blueprint)

]

The mission one is okay, what the hell is mission two?

Why would the system care about me being a loner?

Which means...

I only have one mission left to choose?

Lu Zhou was pissed off at the system as he sighed and picked mission three.

Chapter 56: You Have To Always Give Your Child A Good Foundation

Lu Zhou left the system space and his consciousness fell into darkness.

Only then did he realize that before he entered the system space, he ate the last focus capsule...

By the time he woke up, it was already the next morning.

This was different than his previous study grinds. His sleep quality this time was quite good. He woke up early and he even used his book as a pillow.

The only unfortunate thing was that the last page of [Introduction to IC design] had been covered in his saliva.

Fortunately, it was not too obvious. It would be dried up in the current hot weather in two minutes.

“This all-day study grinding life is horrible,” said Lu Zhou as he moved his painful back.

It was seven o’clock in the morning and not a lot of people were in the school building. Through the windows, he could see people running on the track field.

Lu Zhou’s towel and toothbrush were in his bag and so, he first went into the bathroom and cleaned himself up. Then, he walked to the cafeteria under the morning sun.

As always, he bought two steamed buns and a cup of soy milk. He then sat at a corner of the cafeteria and while eating, he pulled out his phone.

First, Lu Zhou went on Weibo. All of the trending topics were celebrities and he had no interest in them. The number of his followers did not seem to change much. In fact, it was similar to when he was still on trending, which is in the tens of thousands.

Lu Zhou looked at the news briefly before closing Weibo. He logged onto the app developer platform and surprisingly found out that “Campus Train” had broken 500,000 users and was growing steadily.

The momentum was good but he had to work harder as compared to other third-party booking software, his number was tiny!

With his sleepy eyes half opened, Lu Zhou ate the buns quietly. He then moved his thumbs and opened WeChat so that he could take a look at his news feed.

[Shi Shang: Forward: Notice of the semi-final campus basketball match.]

Hmm...

He was disinterested but he still liked it to indicate that he read it.

As Lu Zhou took a bite of his bun, he continued to scroll.

[Lin Yuxiang: Mathematical modeling is so hard, the competition is starting soon, I'll have to study and grind all night ~ (effort)]

She also posted a picture of a textbook.

Lu Zhou: "..."

I want to block this chick...

Forget it, I'll do it after the competition.

...

The campus was gorgeous. With colorful ribbons hanging on the parasol trees, the environment was as lively as a festival.

Numerous cars dropped off students in front of the school gate and countless students were registering at the sign-up spot. Parents carried suitcases, helped their children to fill out forms, bought sim cards, cleaned up dorm rooms, etc. It was only eight o'clock but the street in front of the dorms was completely blocked.

Lu Zhou walked on the track field and watched the crowds from afar. He thought back to when he first entered the school. At that time, his mother was in the hospital and his dad had to take care of her. He took the train for hundreds of kilometers and entered the unfamiliar city by himself.

That was the first time he traveled so far.

Looking back at it, the time had flown by so fast and it had already been a year.

He soon noticed two familiar figures in the crowd.

One was Fat Wu. He was wearing a telecom t-shirt and was sweating as he managed a team of student workers. They guided the parents towards the telecom store. Every time school started, he would be busy. The student union was busy welcoming the new, while he was busy making money.

The other was Lin Yuxiang. She wore a plain white dress and sat under the shed at the reception for new arrivals. She smiled and had a flushed face as she handed out the forms to the younger students.

As the vice president of the student union, she was working with the student association and youth league committee, working the job that no one wanted to work. She was quite the fighter.

Lu Zhou did a rough analysis in his heart.

He was unfamiliar with the operations of the student union and he only knew about it when his class leader bragged about it.

Lin Yuxiang noticed Lu Zhou. She smiled gently at him as she waved her hand and said hello.

Lu Zhou nodded and said hello back. He did not stay for long and walked back to his dorm.

When he arrived at his dorm, Shi Shang was worried.



“Lu Zhou, you didn’t come back to the dorm last night? Where were you? You didn’t pick up my calls.”

Lu Zhou placed his bag on the table and replied casually, “I was reading books all night.”

Liu Rui was studying a physics textbook and he complained, “... You’re too good.”

Huang Guangming was lying in bed with his phone and he sighed as he said, “He’s not even a genius, he’s a god... Zhou, did you go to heaven last night?”

“Yeah I did, almost did. I won’t stay up this late after school starts,” said Lu Zhou before he yawned. He sat in his chair and opened his laptop before he logged onto JD to search for a suitable laptop.

After he paid for tuition, he still had 40,000 yuan left. It was not a problem to buy a laptop for less than 20,000 yuan. The artificial intelligence USB was still sitting in the system space. He planned on buying a machine and quickly install the USB.

However, he had not expected that his words would surprise his two roommates.

Shi Shang was shocked as he said, “F\*ck me, what do you mean you won’t stay up this late after school starts? Does this mean for the entire summer...”

Huang Guangming gulped. He did not say anything but he stopped playing on his phone.

Liu Rui laughed miserably as he said, “You only just found out? I can’t even understand the books he was reading.”

His expression conveyed, “Now you know how much pressure I had for the summer, right?”

Huang Guangming: “...”

Shi Shang: “...”

The two did not say anything but they showed a sympathetic look towards Liu Rui.

Lu Zhou failed to notice the interactions between his roommates as he was browsing the web. Finally, he chose an HP Zbook15 that was released this year.

Strictly speaking, it was not an “ultrabook” but more of a “mobile work station”. The hardware specifications were better than high-end laptops such as “gaming laptop” or “super laptop”. It had insane graphics imaging processing capabilities.

Of course, high performance meant high prices. The highest configuration model would cost him 25,000 yuan and it was not even used for gaming.

However, when Lu Zhou thought about that artificial intelligence USB in the system space, he clicked the purchase button reluctantly.

“Motherf\*cker, this high tech system is so demanding...”

He had no other choice as he had to give his artificial intelligence “child” a good foundation.

If he picked a sh\*tty laptop, he might turn the artificial intelligence into artificial retardation.

The money in his card instantly became 10,000 yuan or so and it was back to where he began.

As for the 500,000 yuan in the company’s account, Lu Zhou could only look at it. It was not that he could not use it, but he was an honest man and he would never do something that would stain his record.

Maybe the school would not know?

Haha, one would be lying to oneself. For this type of small-sized company, the accounting would be done by the teachers from the Department of Statistics. When he registered the company, it even saved him a small sum of money because he did not have to hire a professional accountant.

If the first big purchase he made with that money was a computer, he would definitely make Dean Lu disappointed in himself.

“I hope that little guy will be happy with this computer home as I can’t afford anything that is more expensive,” sighed Lu Zhou as he turned off his laptop.

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## Chapter 57

When he got back to the dorm, his three roommates were playing league of legends. A member of the student union, Li Tao, who lived next door, stood behind Huang Guangming.

This kid was short and he wore glasses and was a video game enthusiast. Other than League of Legends, he played a variety of foreign Triple-A games. He even had a desktop in his dorm. He played games such as Battlefield, Call of Duty, Dead Island, etc. However, the games were all graphics card killers and there was no way a laptop could run them.

When he saw Lu Zhou's parcel, his eyes lit up and out of curiosity, he walked over.

"Oh, Lu Zhou, you bought a laptop? What is the graphics card?"

Lu Zhou was unboxing when he said, "N card."

Li Tao stood behind Lu Zhou and watched him unbox as he said, "N card? Is this a gaming laptop? GTX 970 is about to be released. Why didn't you wait a few days?"

As Lu Zhou installed the USB, he smiled and said, "I can't, the data modeling competition is in a few days. I can't wait till the new card is released as I don't even know where they would be sold."

"Is that a GTX 960?"

Lu Zhou thought and said, "K2100M."

When Li Tao heard this, he was shocked.

What is that thing?

Aren't there only two types of Nvidia graphics cards? A low-end GT series, and a high-end GTX series. Everyone is talking about these two models. This is my first time hearing a graphics card that starts with a K.

Li Tao suddenly felt out of his element and he was speechless. As he stood behind Lu Zhou, he pulled out his phone and began to search for the card.



Graphics card, mainly used for mobile work stations...

Li Tao skipped the description as he was unable to understand it. When he looked at the price, he was shocked.

F\*ck me! A thousand yuan more than a GTX 970?

What a rich f\*cker!

Li Tao looked at Lu Zhou and was suddenly inspired.

No wonder he's a genius. He even wants to play league with such a high end graphics card.

Lu Zhou did not care what the kid was thinking. He installed the operating system, tested the hardware, and carried his new laptop to bed.

Lu Zhou secretly looked at his roommates. When he saw that Li Tao's attention was back to Huang Guangming, Lu Zhou took in a deep breath and secretly whispered "USB, USB" while imaging the USB icon above the semi-transparent information screen.

Without any warning, his right hand was holding a cold and hard object.

Just like the last few times, the USB appeared out of thin air into his hand.

"..."

Lu Zhou did not waste his time and inserted the USB.

Immediately after, the scene that appeared shocked him.

The second he inserted the USB, the screen of the laptop went black like it contracted a virus. After that, the fans started to spin quickly, as if all of the hardware was being pushed to the limit.

“It’s not dead, right?”

Lu Zhou quickly pulled out the manual. He looked at it and saw that the laptop had 2TB of disk space, 16GB of ram, and a top of the line CPU.

The laptop was getting louder and louder. Lu Zhou’s heart was both anxious and thankful.

He was thankful that he did not use his old laptop to install the thing or it would have blown his old laptop into pieces!

Finally, the computer screen flashed. A soft blue light was on and the spinning fans also stopped.

Immediately after, something happened that made Lu Zhou’s eyeballs popped out.

The USB in his laptop disappeared.

That was right, he saw it with his own eyes that it disappeared!

It was like it turned into ashes and flew away.

“F\*ck... What’s this? Some kind of auto-degradable material? After it downloads, it breaks into gas molecules?”

Lu Zhou tried to analyze it but he could not figure it out no matter how hard he tried.

When the data transfer was completed, the USB hardware automatically decomposed. This was outside of his knowledge level.

At this moment, the computer restarted. The original Windows 7 operating system was changed and it turned into a semi-graphic, semi-command line operating system that was similar to Linux.

Lu Zhou looked at the screen. He thought, “Why didn’t the system tell me that this would delete the laptop operating system. Then I wouldn’t have to spend all that effort...”

He placed his hands on the keyboard and was about to play with this artificial intelligence mission reward. What exactly was happening?

A line of text appeared on the screen.

[Welcome to “unnamed” artificial intelligence, do you wish to set a custom name? Y/N]

Lu Zhou hesitated before he pressed Y and hit enter.

[Please enter your new name.]

What should I put?

Lu Zhou’s fingers rubbed against the keyboard as he frowned and began to think.

He was very indecisive. Whenever he had to set a username in a video game, he would have to think about it for ages.

Yes...

Yes...

Lu Zhou's brain flashed and his fingers started to move. He typed three letters on the keyboard.

Eye!

The Chinese name "ai"!

It means that that the digital world is unable to be seen by the eye!

The love and peace of mankind will depend on you, Eye!

Even though the name was pretty short, Lu Zhou still could not help but praise his own creativity.

As for your nickname, I'll call you Xiao Ai!

The light blue screen flashed, a dialog popped up in the center of the screen.

[Custom name is completed. Artificial intelligence Xiao Ai serves you.]

## Chapter 58

However, Xiao Ai's intelligence worried Lu Zhou. He had briefly tested it and commanded it using a simple language. He asked her to open a computer folder and run a program. Without any problems, it could even auto-completed the program he was typing.

However, these operations could be done by entering command lines and so, it seemed kind of useless.

As for normal conversations, Xiao Ai could only say hello. When it came to difficult sentences, it would often ask, "What does XXX mean?"

It was like a little baby learning how to talk.

However, it was better than a baby. He would only have to explain to it one time for it to understand and it would never forget anything.

Lu Zhou had not discovered other uses, at least not now.

As he leaned against the wall behind him, he sighed and thought, "Is the so-called level one artificial intelligence just this? I guess I have to wait for level 2."

It was a lot worse than Google's DisBelief and it was even worse compared to the Deep Blue program from a decade ago.

Of course, Lu Zhou knew that it was unfair. The former had thousands of servers for support and it basically ran on a supercomputer. The computing power could not be compared to his laptop.

It was like a person. No matter how logical they were, if they did not have enough brain cells they would still be a retard.

Emm...

Right now, Xiao Ai was no different than a retard.

He could only wait to change a better "brain" for it. For example, a server or something.

However, that was still far away. The laptop could handle level 1 Xiao Ai and he could wait until level 2 before he should upgrade the hardware.

Lu Zhou sat cross-legged on the bed as he began to study the methods of upgrading the artificial intelligence.

Simply speaking, he had two paths.

One path was by using general points. The exchange rate between general points and the technology branch experience points was 1:1.

The other way was by relying on Xiao Ai to do machine learning while he slowly accumulated the experience points needed for Xiao Ai to upgrade.

Xiao Ai seemed to have a certain level of self-learning ability. Lu Zhou just had to allocate some computing power to self-learning and the program would automatically increase its “intelligence progress bar”.

According to instructions given by Xiao Ai, when the progress bar was filled once, the artificial intelligence technology branch experience would increase by 100.

Which was saying, if he allocated all the computing power to self-learning and waited for the progress bar to be filled ten times, his technology branch would be upgraded.

What a slow upgrading method...

Lu Zhou stared at the screen for a while. He could not even see the progress bar moving.

“A 20,000 yuan computer isn’t enough for this thing? Xiao Ai needs so much computing power...” Lu Zhou could not help but complain about the situation.

If he had just left it alone, it would take forever to progress.

If Lu Zhou was not worried about the program leaking or causing unpredictable consequences, he would have uploaded it onto Alibaba’s cloud server.

For the time being, he had to rely on his AFK method.

I should study two books on machine learning to see if there are any shortcuts. This way, maybe I can increase the speed of Xiao Ai.

Just in case someone tried to open his computer, he set a password for artificial intelligence Xiao Ai.

Lu Zhou did all this before he left the laptop on his bed. Once he was done packing his stuff, he put his backpack on and left the dorm.

It was the last training session for the National Mathematical Modeling Competition and Professor Liu had some important words to say. They were mainly competition regulations, rules, and some other matters that needed attention.

It was the last training session and Lin Yuxiang came quite timely. Not only did she not arrive late, but she was also the first one there. Wang Xiaodong was in the computer room, figuring out his timetable, so he was slightly late.

Apparently, the genius had already finished half of the third year subjects in his second year. Other people were still selecting their majors while he was already preparing for graduation.

After everyone arrived, Professor Liu smiled and walked onto the podium.

“You guys aren’t little kids anymore and so, I won’t emphasize on safety issues. I’ll briefly talk about the rules of the competition and some things to be aware of.”

“The competition has a time period of 72 hours and the requirement is to submit the completed thesis within that time. You guys will be staying up late so I suggest you get a good night’s sleep the day before. From my past experience, the person responsible for modeling and writing the thesis can only sleep on the second night. The person coding can’t sleep on the second night and can only sleep a few hours in the third night. You guys have to cooperate with your teammates and complete the thesis.”

“Modeling, coding, thesis writing. Every single one of those three is important. I’ve talked about this already so I won’t repeat myself.”

“The other problem is discipline. During the time frame of the competition, the teams are forbidden to communicate with other teams and the contestants are also forbidden to communicate with teachers. You can use the Internet to download or look at materials, but you cannot message anyone.”

In reality, this rule was not strictly enforced. Some weaker teams would get their teacher to look over the materials but none of them would directly get the teacher to do the question. Good schools had honest teachers but some bad schools...

The teachers might have been worse than the students.

That statement was no exaggeration. Teaching and doing it yourself were two different things. After all, the coverage area and randomness of the mathematical model was too big. Even professors could not do everything.

“Teacher, what if I searched for answers on Baidu?” asked Lin Yuxiang with her hand raised.

Teacher Liu laughed and he said, “You can try, see if you find anything.”

When Lu Zhou heard her, he laughed in his heart.

Anyone that asked that question was someone that knew nothing about mathematical modeling. Not only that they had not experienced the feelings of being dominated by those insanely hard questions, they thought this was similar to Olympic maths when it was nothing like it.

If a person was given a customer data for a telecommunications company and asked to design products for different customers according to the requirements, where would the person go and search for the answer? Some of the questions were related to the competition’s sponsors. If the model that was designed was good enough, the sponsors might just take it and use it. There were no answers for the person to search for.

Lin Yuxiang’s face was slightly red with embarrassment as she pulled down her right hand in.

Teacher Liu paused for a second before continuing, “The other problem is the team leader. There is no requirement for one. Our school has always secretly acknowledged the first name on the prize list as the captain. But this is just a false title. It doesn’t mean anything. According to previous competitions, the captain is generally held by the person writing the thesis and is responsible for integrating the



teammates together. However, you can also set the captain according to your year. What do you guys think?"

Wang Xiaodong pushed his glasses, "Just make it Lu Zhou, I don't care."

Lin Yuxiang was holding her thighs and she nodded. Naturally, she did not have any opinions.

"What do you think?" asked Professor Liu as he looked at Lu Zhou and smiled.

"I... don't have an opinion."

The two teammates trusted Lu Zhou so much, it would seem insincere if he rejected and so, he simply agreed.

Professor Liu smiled and nodded his head as he continued to speak.

"When the time comes, the school will arrange a school bus to send you guys to the old school where a temporary accommodation will be arranged for you."

"Finally, remember to ask for a permission slip from your instructor and clearly write down the reason for your absence. As for the lectures missed during the competition, you guys will have to think of a way to make up for it."

"Ask me if you have any questions. If not, you guys can leave."

Chapter 59

Lu Zhou was stunned.

"What? Scared?" asked Li Rongen with a smile.

"Nope," said Lu Zhou. He fixed his composure, shook his head, and said, "Professor, please go ahead and ask me."

“The first question, take this,” said Li Rongen as he handed Lu Zhou an A4 sized paper. With a smile, he said, “Write as much as you want. I want to see the working.”

You even prepared the questions?

Lu Zhou felt like the man premeditated this. Otherwise, why would the question be printed on an A4 paper?

Lu Zhou did not say anything as he took the A4 paper and started to read the question.

[The half-life of uranium 238 in a nuclear submarine is  $4.5 \times 10^9$  years. There is a 0.7% probability of a uranium 234 decay, which will release a high-energy photon, 93% of which is absorbed by the submarine steel plates. In 1981, a nuclear submarine from the Soviet Union transmitted a high-energy photo, which was measured by the detector 1.5m from the nuclear source (treat the source as a point). The instrument's positive incident area is  $22\text{cm}^2$ , the efficiency is 0.25% (one pulse signal per 400 incident photos), 125 signals are measured per hour.

1. Find the average life of the uranium 238 core. ( $\ln 2 = 0.693$ )
2. Find the mass of uranium 238 in the submarine (kg as a unit, 2 sig figs)

]

Lu Zhou finished reading the question and sighed in his heart.

No wonder he is named one of the “four physics devil” professors. What a question!

Speaking of which, the first physics lecture is next Monday. Why is she asking me this nuclear physics question?

“Do you want to sit down?”

“It’s okay, I’ll stand.”

Lu Zhou took the pen and draft paper from Professor Li. He stood next to the office table. With a frown, he began to think.

Physics was not his strong suit.

However, after an entire summer of grinding, he was invulnerable!

Five minutes passed and Lu Zhou relaxed before he started to write.

[Law of decay:  $N=N_0e^{(-\lambda t)}$ ]

The relationship between the decay constant and half-life constant is:  $N_0/2=N_0e^{(-\lambda T_{1/2})}$ , from which  $T_{1/2}=\ln 2/\lambda$

]

Lu Zhou wrote down the two equations and his eyes flashed.

He had successfully turned a physics problem into an advanced algebra problem.

Next up, he just had to solve it!

First part!

The pen moved quickly on the A4 paper.

[(1) Average lifetime of radionuclide  $t = \int \lambda N dt / N_0 = \dots = 1.1443 T_{1/2}$

Substituting data gives  $T = 6.49 \times 10^9$  years.

]

Professor Li looked at that A4 paper with his eyebrows raised and he had a look of interest in his eyes.

Lu Zhou did not notice Professor Li's change of expression. He was too concentrated on the question as he began to answer the next part.

[From the information provided, the number of high-energy photons generated by decaying to U234 at dt time is  $dN \cdot n_0 = n_0 \lambda N dt$ ]

Let the efficiency of photons passing through the steel plate as  $n_1$ , and the number of photons passing through the steel plate in the dt time is calculated as  $dN_1 = n_0 \lambda N dt \cdot n_1$

The number of photons entering the detector...

The number of signals generated...

Able to calculate the number of uranium 238 in the submarine, which gives the mass.

]

Lu Zhou substituted all of the data and calculated the number of uranium 238 as  $N = 7.456 \times 10^{25}$ .

However, just he was preparing to substitute N to calculate the mass and complete the final blow to the enemy, Professor Li suddenly spoke.

“Okay, I’ll count that you passed.”

Lu Zhou: ? ? ?

He was not happy at all.

What do you mean you’ll count that I passed?

I already did it up to this point. Can’t you just let me finish before speaking!

“Professor, I haven’t finished...”

“A middle school student can finish this step,” said Li Rongen. With a smile, he said, “You can finish it if you want.”

The momentum of solving the question was destroyed and Lu Zhou was left speechless.

His OCD forced him to finish the question.

Answer  $M = 29.634\text{kg}$ , two sig fig as  $30\text{kg}$ .

The steps were right and the answer was definitely correct.

Lu Zhou wrote down a full stop as he completed the question.

“Do you want to hear the second question?” asked Li Rongen with a smile.

Although Lu Zhou wanted to say “No”, he remembered that the professor had not signed the permission slip yet, so he replied, “Say it.”

Li Rongen laughed and said, "Don't be nervous, the second question is very easy. Just tell me the second law of thermodynamics."

When Lu Zhou heard this question, he sighed in relief.

He thought that the professor would give him an impossible question to defeat him and to destroy his ego. He had not expected to be set free by Professor Li.

Normally speaking, there were two different expressions of the second law of thermodynamics. One was the famous Kelvin equation, the other was the expression mentioned by Rudolf Clausius in the 1850 thesis.

As for Hatsopoulos-Keenan's expression, it was a relatively new expression that only recently emerged.

Lu Zhou read the textbook carefully and so he did not miss it.

"For a system with a given energy, material composition, and parameters, there is a stable equilibrium state. Other states can always be achieved through a reversible process," said Lu Zhou as he recited this expression effortlessly.

"Not bad," said Li Rongen as he nodded with approval.

The textbooks used by physics majors did not mention the more advanced expression in the text even though they might have mentioned it in the appendix. Students who were not interested in physics would never know this expression.

Lu Zhou even recited this obscure fact, which proves that he had thoroughly understood the [University Physics] textbook.

After this investigation, Li Rongen could confirm that there was not anything an undergraduate physics course could teach Lu Zhou.

I guess Old Tang wasn't bragging, this kid is talented!

He would have signed the permission slip regardless as he was only joking around.

Since yesterday, he had signed dozens of permission slips for the mathematical model. Another one would not be any problem.

Even if Lu Zhou did not answer, he would have just roasted Lu Zhou a bit but he would still sign it.

Li Rongen signed his signature before pulling out a name list from his drawer. He drew two ticks on it before he spoke with an elderly tone.

"Lu Zhou."

"What?"

"Do you have plans for a master's?"

Lu Zhou thought and said with an uncertain tone, "Sure."

Who knows what can happen in the future?

However, Professor Li's intuition was weaker than Professor Tang's. He did not hear the uncertainty in Lu Zhou's tone. Instead, he merely nodded his head in approval and continued.

"The physics department of our University of Jin Ling is one of the best in the nation. Humbly speaking, we're tied for first. But for superconducting physics, electronic system, condensed physics, and material design, they are not as good as us. We are the best. IF you are interested in physics, come to our carbon nanotubes laboratory when you graduate. We are always looking for talented mathematicians."

This is...

Is he implying that I should apply to be his graduate student?

Lu Zhou laughed. He was only a second year and was still far from doing a master's.

Regardless, the teacher was being kind.

Lu Zhou sincerely said, "Thank you, professor."

Li Rongen smiled and nodded his head, "Okay, take the permission slip and leave. You should enter more competitions like this if you can. If you want to do a master's, you should watch out for a guaranteed master's spot. Or you can wait till you're in the third year and ask me or Professor Tang, whatever you want."

Lu Zhou smiled and expressed his gratitude. Without saying anything else, he took his hard-earned permission slip and left.

## Chapter 60

The competition was co-sponsored by the Higher Education Department of the Ministry of Education and the China Institute of Industrial and Applied Mathematics. Therefore it was rigorous and fair. Its influence was lesser than the "Challenger Cup", but the reward was in some sense more valuable than the "Challenger Cup".

It was half-past seven in the morning when the ten teams sat in a computer room.

Even though most people chose to use their own laptop to answer questions, they brought their laptop to the computer room. After all, wifi in the computer room and library could allow students to download theses online for free. They were expected to win this kind of competition through resources on Baidu.

When Professor Liu came, he smiled and said hello to his three students. He did not talk about the competition. Instead, he asked how they slept or how were the dorms. After that, he walked out of the computer room, drove the school bus, and went back to do his own projects.



At eight o'clock, the bell rang.

Everyone quickly logged into the official website and downloaded the questions.

The questions were divided into ABCD for four major questions. Of which, AB was for undergraduate students, while CD was for students doing a specialized degree. Every team had to choose one question. The teams were given an md5 hash from the official website and they had to upload the thesis in PDF form and pass the md5 check.

In general, as they only had half an hour to choose the question, everyone was scrambling to read the question.

However, when they saw the questions, they were dumbfounded.

"Question A is the design and control of the landing trajectory for Chang'e 3 spacecraft... Question B is designing a folding table! F\*ck! What the hell are these questions this year?"

"These are totally different from the training questions we did!"

"I did something similar a few days ago. It was something like designing the launch of the Shenzhou Rocket... But I didn't expect that question to come up in the competition... I'm too careless!"

"For f\*ck sake, didn't you get 95 in advanced algebra? Think about something!"

"I studied advanced algebra, not rocket science!"

"Designing a table... How are you supposed to do that? Aren't there only four legs? Foldable... We can try adding a spring behind the legs?"

The computer room was quite lively and it was obvious that the students were troubled by these questions as they had no idea where to begin.

However, some students were different.

For example, Luo Rundong from Lu Zhou's class was quietly communicating with his teammates.

And Liu Rui... That kid seemed to be quite reliable as he had already finished reading the questions and was already assigning work to his teammates.

Wang Xiaodong looked at the two questions and frowned.

The sky seemed to have collapsed.

The two questions were both related to physics.

The first question was related to space trajectory calculations which certainly impossible to solve with just high school physics knowledge. On the surface, the second question looked simple, but it actually was not much easier than the first question. It involved the dynamic motion analysis of the table legs, material stress analysis, and a dozen other problems. Not only would it require mathematical modeling knowledge, but it also required a certain degree of involvement in structural mechanics as well as materials science.

However...

The "mathematical genius" Lu Zhou in the group was only a second-year student and he had only just started his physics class.

They had to choose the easier question.

The first question was impossible to do without physics knowledge. They could try to turn the second question into a mathematical problem by using resources online.

Wang Xiaodong looked at Lu Zhou, "Should we choose question B?"

Lu Zhou shook his head, "Choose question A."

"Question A?" asked Wang Xiaodong. He frowned, "Are you sure?"

"I've already finished studying university-level physics. Even though aerospace physics seems complicated, Lu Zhou. He paused for a second before looking around and said, "Also, look at how many teams that are choosing question B."

Since question A was so scary, it was natural that most teams selected question B. Lu Zhou had to be brave and confront the dragon!

Of course, Lu Zhou made this selection because he was confident about question A.

Wang Xiaodong nodded and naturally understood the meaning behind Lu Zhou's last sentence.

"Okay, then you'll have to do the modeling."

"I got this."

The two geniuses had reached a consensus.

Lin Yuxiang looked at her teammates and asked weakly, "Which... Part can I help?"

Wang Xiaodong gave her a gentle smile. He was about to say "I'll do everything" when Lu Zhou, who was busy writing on an A4 paper, interrupted Wang Xiaodong and said impolitely, "Bring food and water, thanks."

Programming, thesis writing, and modeling. All these three tasks were allocated already and the only thing they needed was someone for food delivery.

Lu Zhou thought, "Don't think it's that easy to get a free win." He had to make this girl do something at least.

Wang Xiaodong: "..."

Lin Yuxiang did not complain. Instead, she nodded energetically, "Ok, I'll do it!"

The advantage of one person doing both mathematical modeling and thesis writing was that it removed the problem of communication.

At the same time, as the captain, Lu Zhou could issue orders to Wang Xiaodong, who was responsible for coding.

Therefore, there would not be any disagreements between the teammates!

There were three sub-questions:

(1) Determine the position of the moon's far side and close side landings. Also, determine the speed and location of Chang'e 3.

(2) Determine the optimal trajectory of Chang'e 3 and the optimal control of the six stages.

(3) Make corresponding error analysis and sensitivity analysis for your designed landing trajectory and control strategy.

"The next part is the summary. This part can be left until the entire thesis is written. The focus is on the question's analysis, which involves the entire thought process of the modeling, which is the entire soul of the paper," murmured Lu Zhou as he bit down on his pen and tapped his fingers on the keyboard. He wrote the outline of the thesis and began to define the critical soul of this paper based on his calculations.

[Question 1. In order to get the far and close side moon locations of the landing, as well as the size and direction of the corresponding velocity of Chang'e 3, we first use the Newtonian physics combined with the known conditions for calculation. The motion of the main deceleration stage of Chang'e 3 is divided into a uniform variable speed linear motion. Using MATLAB, the main deceleration phase of the iterative operation...]

[Question 2. In order to ensure optimal landing trajectory of the Chang'e 3 and the optimal control of the six stages, take minimum fuel consumption as the goal. Using the parameters given by the problem, use MATLAB to identify obstacles on the digital elevation map. To achieve the identification of obstacles and location of landing points, simulate an optimal landing orbit mode..." ]

[To analyze the error of the landing orbit control strategy designed in part 2, we need to first list all possible variables that can cause an error...]

Lu Zhou went into a state of being deep in his own thoughts. He was entirely focused on the question.

After he analyzed the question, he felt like his brain was definitely clearer. Even the entire general framework of the thesis started to form in his mind.

What was left was to translate the outline into a mathematical question...

For most teams, they did the thesis after the programming and modeling, but for Lu Zhou, he could do both at the same time!

This was their team's biggest advantage!