

Dear professor,

To be honest with you, I have not really been working on time, so everything I did happened in the last few days. Doing each task, I have added something to the previous one, so at the end, I have got one Main class with whole code in it. I have made four HashMaps for four first tasks. I had trouble with finding the right regex, but luckily Chat GPT was there to help with that part. I have trimmed App Name, Id, Category, Developer Email and developer Id as strings, price as double and Boolean for checking if the app is free or not. The first task was the hardest for me, because I had to implement everything for the first time, with every other task it was easier. I have spent lots of time on YouTube searching how to write a report, for making code look more convenient. For line

```
AppsPerCat.put(Category, AppsPerCat.getDefault(Category, 0) + 1);
```

A colleague helped me. At first, I was trying to do it with for, and if, but this way was much faster, and I implemented the same logic in the second task. Here, I have come across sorting, understanding of this principle of writing the sorting took me a day to process in my head. As well as

```
for (int i = 0; i < Math.min(sortedCompanies.size(), 100); i++)
```

 this line did, but as soon as I understood it, I used it on the other tasks.

For cleaned company name, I implemented getCleanedCompany function, that took the whole company name, and then split it and took last two words to compare with developers email in ShouldSkipDeveloper function. It compared if developer has company name in email, if he did, it was supposed to skip him. Honestly, I am not sure if this task worked. In calculating apps to buy, I approached you in cafeteria on Thursday, and asked if it should just be the number of apps or the list of names of the apps. You told me It was supposed to be list of names, and this pretty much made the whole friend group go crazy when I told them the same. Nevertheless, I implemented my logic with creating list CalculateAppsToBuy and Map SortByPriceDescending. For some reason, it only takes couple of hundreds of apps, where I know should be over two million since majority are free apps, but I haven't really had time to search for another error, or bad logic implementation, so I just sent it as it is. For the fifth task with installs, I used long type of data, since numbers went over the scope of Integer. I have resolved this with basic parsing and if/else block. This was pretty much the easiest task that had to be done. Of course, I haven't been using the whole file, first I did it on 1000 lines and when it worked on that, I tried to process the whole file 2/3 times.

Finally, to answer your required questions: The most challenging part was the preparation to do this task, since I had few days to catch up with 6 weeks of work. I promise I will not make this same mistake again... Also, I could say that sorting was a big challenge, since I have never really learnt how to do it, so thank you for this assignment, it made me learn it finally. I expected to have more troubles with syntax, but it was easy to catch on to it. I expected taking company name to be easier, but honestly, it took too many tries and hours, and I am still not sure if it's the right approach. If I was starting assignment again, I think I would make separate Apps class, it would be easier to look at and maybe better for this assignment. Also, would probably first learn how to push file to GitHub, and then try, because I had too many fails.

At the end, it was fun, and I really liked it. At first, I was scared that I would not manage to understand everything, but I did, at least I think so.

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