

Pseudo-code Problems - Day 4

1. Java OOPs

Moderate

1. Banking Portal

- a. Implement a base **Account** class and subclasses like **Saving**, **Current**.
Override methods for withdrawal rules.

Difficult

1. Vehicle Rental System

- Abstract vehicle types, interfaces for **Rentable**, implement factory patterns to create vehicles.

2. Data Structures & Algorithms

Moderate

1. Flight Price Analyzer

- a. Sort flights based on price and duration using **Custom Comparator** and **Merge Sort**.

Difficult

1. Crime Prediction Heatmap

- Represent city zones using **Graph**, and apply DFS to find high-risk areas based on past data.

3. Collections, Generics, Streams

Moderate

1. College Course Registration

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- a. Maintain a multimap-like structure with `Map<Course, List<Student>>`. Display students per course.

Difficult

1. **Digital Wallet Transactions Report**

- Use streams to group transactions by merchant and month, and generate summary reports.