Project Summary:

1) Project Name: A Flight Away

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3) High-level Overview: A Flight Away is a Java application that will allow users to easily book flights. In this application, users will be able to log into their accounts, view upcoming flights to different places, compare flight prices, book multiple flights, and cancel booked flights.

Status Summary:

- So far, I've built a terminal-based flight booking application. It reads in flight data from a file and displays the flights to the user. The user is prompted to log in upon the program starting (entering their first and last name) and then they can choose to book a flight, view their current flights, or cancel a flight.
- I made a few pivots. Initially, I was working on IntelliJ to build the terminal based program. I learned that Eclipse has a pretty neat GUI building feature and switched over to start building my user interface. I then learned that IntelliJ offers the same GUI building features and am now switching back.

Changes:

- Originally, I planned to have a flight and ticket class. I am debating whether or not it is still necessary to have two separate classes or if I should just condense everything into one class.
- I was originally going to use CSV files to store all my data. Now, I am considering building an SQL database.

Patterns:

- I am aiming to implement factory pattern this week for my ticket object creations
- Once I set up my database and make it so that users can log in and out seamlessly, I will make my user objects Singleton

Plans for Next Iteration:

- Finish GUI
- Connect GUI to database
- Implement patterns
- I will utilize Thanksgiving break to get most of this done. Before project 7, I hope to have a seamless, user-friendly application where users can log in, view tickets, and book tickets.

UML Class Diagram and Pattern Use

ProgramManager Class

- · initializes the application
- · displays all the features and objects
- · runs the heavy logic of the application

Main class

- Calls the ProgramManager class
- Runs the program

User Class

- . SINGLETON PATTERN to initialize the user of the
- programfirst namelast name
- date of birth
- vector of booked flights
- void BookFlights()
 OBSERVER PATTERN to record when ticket is
- booked
- O DECORATOR PATTER to record user
- celebration when flight is booked string viewMyFlights()
- void CancelFlight()
- DECORATOR PATTERN to record user

Ticket Class

- FACTORY PATTERN to generate tickets
- User who booked arrival location
- departure location
- boolean booked
- price

Flight Class

- Map of users on the flight
- · Map of tickets sold to users on the flight o ITERATOR PATTERN to traverse through this list
- Number of passengers
- · arrival location
- · departure location
- boolean full

Regular User

- lose 100 travel points every ticket they cancel a ticket
- travelPoints()

Premium User

- plus 100 travel points every ticket they book
- travelPoints()