

JAVA Standard Edition
Final project description

Final project description:

Your final project must be GUI based application with a complex functionality. The main objective of your project implementation is to implement your coding skills gained during this semester.

Main technical requirements:

1. Classes and Objects
2. Inheritance
3. Abstractions or Interface implementation
4. Collections: ArrayList or other collection classes (up to you)
5. Object Serialization: You have to store your data or settings into serialized file
6. Threads: Use Threads for multiprocessing
7. Networking: You have to implement threaded networking model
8. GUI interface: Use GUI based interface

Functional description and example:

Project name: Airline Tickets System

Project description: My aim is to create GUI based server – client application, where user can book tickets for aircraft from one destination to another.

Applications:

- a. Server application
- b. Admin application
- c. Cashier application

a. Server Application:

Server application will handle client requests, and work with my database (serialized files).
Server handler will be able to receive or accept multiple clients. (Use threads)

b. Admin Application:

Admin application can manage with tickets, flights, aircrafts and ticket prices.

Admin application will not have a direct access to database.

Every operation will be done by sending requests (sending serialized object to server by network) to a server application.

c. Cashier Application:

Cashier application can book tickets for a client.

Cashier application can list available tickets.

Cashier application can cancel booked tickets.

Entities

- a. Aircrafts
- b. Cities
- c. Flights
- d. Tickets

a. Aircrafts.java

String name;

String model;

int businessClassPlaces;

int economClassPlaces;

b. Cities.java

String name;

String country;

String shortName; // Example ALA for Almaty, TSE for Astana

c. Flights.java

```
Aircraft aircraft;  
  
City departureCity;  
  
City arrivalCity;  
  
int distance; // in KM  
  
int economPlacePrice; // in USD  
  
int businessPlacePrice; // in USD
```

d. Tickets.java

```
String name;  
  
String surname;  
  
String passportNo;  
  
Date departureTime;  
  
Flights flight;
```

So, your project must be completed by using this functionality.