

Flight Booking System

1. The design and architecture of the system

- Flight, Airline, Customer, and Booking classes capture aspects of the flight booking process.

2. How the OOP concepts are applied

- Inheritance: the flight class inherits from extending the services class and reusing pricing logic
- Encapsulation: the customer class hides customer information, so that access is obtained through interaction methods of management
- Polymorphism: different flight types (e.g. economy, business) can implement their specific pricing as creating subclasses of Flight assuming it for economy class in this code
- Abstraction: The customer interacts with high level methods through GUI without needing to understand the complexity of booking

3. The relationships between different classes

- Aggregation: Flight aggregates Airport and Airline
- Composition: Booking indicates a composition relationship by referencing customer and flight
- Association: Airline has association with multiple flight instances

4. GUI:

Customer Name
Menna
Customer Email
mxbjhcb
Departure Airport
CIA
Arrival Airport
AIA
Book a flight

