California State University Fullerton

CPSC 462



Object Oriented Software Design

Domain Model

for the



Tuffy Flights

System

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Revision History:

| Version | Date | Summary of Changes | Author |
| --- | --- | --- | --- |
| 1.0 | 11/08/2020 | * Initial Release * Added domain major concepts * Got a headstart on designing the domain model (have not posted it inside the document yet) * Added domain model and made changes * Added connection on domain model from airports to planes * Updated domain model * Removed seats, saw it wasn’t necessary * Cleaned up document | Jared Castaneda |
| 2.0 | 12/7/2020 | * Edited user roles | Jared Castaneda |

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# Domain’s Major Concepts

## Ticket

Since this is an app to buy plane tickets, this is the essential item in every transaction. All sales will have tickets applied to them. It will let a Customer onto a flight. Tickets are redeemable for one seat on the flight. You cannot have more than one seat for a ticket. The system provides the tickets once the flight is purchased.

## Flight

The flight is what Customers are focused on. They want to travel from one destination to another by taking a flight. These flight destinations are specifically assigned to be airports. Planes are the vehicles used in these flights. The FlightDescription describes all the details of the flight.

## Sale

A transaction between a Customer and the System. This allows the Customer to purchase a specific amount of tickets. The number of tickets is tracked by a value for quantity. Dates and total price of the sale are also recorded. Sales can add on additional flight options such as bags and meals, at the request of the customer.

## Plane

What is used to transport Customers from one airport to another. It can hold anywhere from 10 to 138 seats, with one Customer per seat.

## FlightDescription

The things that describe a flight include dates, departure, destination, stops, type of trip, weather, and status. Each flight has their own unique flight description. Multiple flights can fly to any given airport. Customers need the System to provide this information to them easily so they know everything about their flight.

## Airport

The main location where flights end. Planes depart and arrive with their Customers on board. Many flights arrive and depart from one Airport. Planes not in use or waiting for their own flight will be stored here.

## Bags

Customers can purchase extra Bags if they have many they need to bring on board. They are priced by total weight. Up to five extra bags can be brought onto the flight. The amount that one can bring on is specified and purchased inside of a Sale.

## Meals

A meal will exist with or without a purchase. Customers can choose whether they want a meal for the flight or not. They have an option to order multiple meals for a flight. The situation around this can be multiple meals for a long flight or for a party of people.

# Domain Model Diagram

