

Georgia State University



## **Airline Reservation System Project**

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## Introduction

Our application simulates a flight reservation using Java Programming Language. Within the application, there are two different types of users that can use this system: customer and admin. A customer is able to search flights and book them through the system. An Admin will perform all of the same functions as the customer but they have additional privileges such as adding and deleting flights. New customers will need to register before logging into the application. For existing customers, they will be able to recover their password if it is forgotten through answering a security question. Once the customer logs onto the application, they will see previous flights that were booked. They also are able to search for flights, book flights, check booked flight information, and general flight information. Throughout the application, the user will be able to go back to the main menu or log out.

## Requirements & Functionality

- When opening the application, the user will see a splash screen where they will be able to log in, register, recover password of a current account, or exit the application
- Login requires a username and a password that will then be validated within the database.
- To register, the user will input the following information that will be stored into a database:
  - First name
  - Last name
  - Address
  - Zip Code
  - State
  - Username

- Password
  - Email
  - SSN
  - Security question for password recovery
  - Security answer for password recovery
- User is able to login using a username and password if validated by the database
- Recovering the password will require an existing username that will then be validated through the database.
- If the username is valid, a security question will display for the user with a field for user input
- If the input for the security question is correct, an notification will display with the password for the account
- The two types of users are admin and customer.
- After a successful login, the account main page will appear with all flights booked by the user displayed.
- After successful login, the user will be able to:
  - Search flight database for flights based upon different criteria
  - Book a flight and add it to account
  - Delete a flight from account
  - Log out of application
  - Go back to main menu from other pages
- The user will not be able to:
  - Book the same flight more than once
  - Book a flight with a date and time conflict (notification will appear to warn customer of this)

- Book a flight if it is full - application tracks number of passengers booked at each flight
- An admin will be able to do all customer activities as well as be able to add, update, or delete a flight.

## UML Diagram



