

A list of all the files:

1. Main_code.py
 - a. First, connect to XAMPP and the database name is "airline_managment_database"
 - b. Run the python file in the terminal
 - c. Click on the url the terminal provided to start the system
2. Templates
 - a. Grant_permission.html
 - i. Let the Admin staffs of the Airline Company grant permissions to other staffs within the same company, using the grant permission button
 - ii. View other staffs' permission types in the same company
 - iii. Go back button for the previous page of staff home
 - b. Agent_register.html
 - i. Register page for agents
 - ii. Will automatically check whether the agent's email already exists in the database; **check whether the confirmation passwords match the first one**
 - iii. If successfully registered, will display a message at the bottom and **write the data to the databases with password hashed**
 - iv. Can go back to the previous url with the "GO BACK" button
 - c. Customer_home.html
 - i. View my upcoming flights and can search based on input data (e.g. departure airport, date)
 - ii. Track my spending with bar chart
 - iii. Buy ticket button direct to upcoming_flight.html
 - iv. Log out
 - d. Customer_register.html
 - i. Register page for customer
 - ii. Will automatically check whether the customer email already exists in the database; **check whether the confirmation passwords match the first one**
 - iii. If successfully registered, will display a message at the bottom and **write the data to the databases with password hashed**
 - iv. Can go back to the previous url with the "GO BACK" button
 - e. Login.html
 - i. Login page, able to choose login type (customer, agent, or staff)
 - ii. Set session variable after login
 - f. Staff_home.html
 - i. View all upcoming flights for that airlines with search functions
 - ii. More options available for "Admin"
 1. Only admins can see this part
 2. All functions admin can do is listed here
 - iii. More options available for "Operators"

1. Only Operators can access
 2. All functions operators can do is listed in this div
- iv. All the default function for airline staff is listed here
 1. For view frequent customers, there is a link that you can see all the tickets the customer buys
 2. For detailed reports, there is a link you can search base on a range of times for ticket selling.
- g. Staff_register.html
 - i. Register page for staffs
 - ii. Will automatically check whether the staff's email already exists in the database; **check whether the confirmation passwords match the first one**
 - iii. If successfully registered, will display a message at the bottom and **write the data to the databases with password hashed**
 - iv. Can go back to the previous url with the "GO BACK" button
- h. Upcoming_flight.html
 - i. Display all upcoming flights with search functions
 - ii. If it is a customer, can display buy button to buy tickets
 - iii. If it is an agent, can type in customer email to buy tickets for them
- i. Welcome.html
 - i. Default page when first starting the system
 - ii. Three functions: login, register, view upcoming flight as a visitor
- j. Add_booking_agents.html
 - i. Staff with Admin permission can add booking agents for their company here
 - ii. There is a go back button for the staff home
- k. Change_flight_status.html
 - i. Staff with Operator permission can change the status of flights of their company here
 - ii. There is a go back button for the staff home
- l. Add_new_airplanes.html
 - i. Can add new airplanes to the airline the staff (with Admin permission) work for
 - ii. There is a go back button for the staff home
- m. Add_new_airports.html
 - i. Staff with Admin permission can add new airports and its city to the system
 - ii. There is a go back button for the staff home
- n. Create_new_flight.html
 - i. Staff with Admin permission can create a new flight based on current airplanes for the airline the staff work for
 - ii. There is a go back button for the staff home
- o. Detailed_reports.html

- i. Total amounts of tickets sold based on a range of dates/last year/last month etc. Month wise tickets sold in a bar chart.
- p. View_freq_c.html
 - i. Airline Staff will also be able to see the most frequent customer within the last year. They will be able to see a list of all flights a particular Customer has taken only on that particular airline.
- q. View_all_customer.html
 - i. Check all the customers who bought the tickets for a particular flight
- r. Agent_home.html
 - i. After logging in, booking agents will be able to see the flight information that he/they purchased on behalf of customers. The default should be showing the upcoming flights. Users can also specify a range of dates, specify destination or source airport name, city name, etc to show all the flights that he/she purchased a ticket in.
 - ii. A button for searching and purchasing flight tickets
 - iii. The total amount of commission received, the average commission he/she received per ticket booked, and total number of tickets sold by him in the past 30 days. The agent will also have the option to specify a range of dates to view the total amount of commission received and total number of tickets sold.
 - iv. Two bar charts. 1 - Top 5 customers based on a number of tickets bought from the booking agent in the past 6 months; 2- top 5 customers based on the amount of commission received in the last year.
 - v. A logout button, which will destroy the session, and a “goodbye” page or the login page is displayed.

Besides, we did two bonus parts:

1. We used the hash function to generate a hashed password and then saved it to the database to maintain high security.
2. We checked whether session['username'] == username or session['username'] == email to prevent anyone from going to the page by directly typing the URL.