FINAL REPORT
PROJECT FLIGHTS

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VANIER COLLEGE COMPUTER SCIENCE AND TECHNOLOGY Application Development 2

Project Aim and Description

The aim of Project Flights is to develop a mobile application that helps users view flights. The application will provide features such as flight tracking, searching, and favorites. It aims to simplify the process of picking out and managing flights, as well as empower users to track live airplanes.

Functional and Non-functional Requirements

Functional Requirements:

- User registration and login

- View Profile

- View flights from API

- Add to favorites

- Search flights

Non-functional Requirements:

- Flight tracking: live map with airplanes

- Security: The application should ensure secure user authentication and data encryption.

- Performance: The system should provide a smooth and responsive user experience.

- Scalability: The application should handle a growing number of users and data without performance degradation.

- Usability: The user interface should be intuitive and easy to navigate.

- Compatibility: The application should be compatible with major web browsers and devices.

User Stories

1. As a user, I want to be able to register and create an account.
2. As a user, I want to be able to log in securely to see flights on the map.
3. As a user, I want to be able to add flights to favorites
4. As a user, I want to search for my flights.
5. As a user, I want to track my flight's progress.
6. As a user, I want to receive notifications for upcoming flights, departure and arrivals.

Test Cases

User Registration

Preconditions: The user is on the registration page.

Steps:

1. Enter valid email, username, and password.
2. Click on the "Register" button.

Expected Result: The user should be registered successfully and redirected to the login page.

Log in and view flights

Preconditions: The user is on the login page of the application and the user has valid login credentials.

Steps:

1. Enter valid email, and password.
2. Click on the "Login" button.

Expected Result:

- The user should be logged in successfully.
- The map view with flights should be displayed.

Add to favorites

Preconditions: The user is logged into their account and the application displays a list of available flights.

Steps:

1. Navigate to the list of available flights.
2. Identify a flight from the list that the user wants to add to favorites.
3. Click on the "Add to Favorites" button/icon/link for the selected flight.

Expected Result:

- The selected flight is successfully added to the user's favorites list.
- The "Add to Favorites" button/icon/link for the selected flight is updated to reflect that it has been added to favorites.
- The favorites list is updated and displays the selected flight.

Search for flights

Preconditions: The user is logged into their account and the application displays a list of available flights.

Steps:

4. Navigate to the list of available flights.
5. Identify a flight from the list that the user wants to add to favorites.
6. Click on the "Add to Favorites" button/icon/link for the selected flight.

Expected Result:

- The selected flight is successfully added to the user's favorites list.
- The "Add to Favorites" button/icon/link for the selected flight is updated to reflect that it has been added to favorites.
- The favorites list is updated and displays the selected flight.

Track flight progress

Preconditions: The user is logged into their account and the application displays a list of available flights.

Steps:

7. Navigate to the list of available flights.
8. Identify a flight from the list that the user wants to add to favorites.
9. Click on the "Add to Favorites" button/icon/link for the selected flight.

Expected Result:

- The selected flight is successfully added to the user's favorites list.
- The "Add to Favorites" button/icon/link for the selected flight is updated to reflect that it has been added to favorites.
- The favorites list is updated and displays the selected flight.

View Notifications

Preconditions: The user is logged into their account and the application displays a list of available flights.

Steps:

10. Navigate to the list of available flights.
11. Identify a flight from the list that the user wants to add to favorites.
12. Click on the "Add to Favorites" button/icon/link for the selected flight.

Expected Result:

- The selected flight is successfully added to the user's favorites list.
- The "Add to Favorites" button/icon/link for the selected flight is updated to reflect that it has been added to favorites.
- The favorites list is updated and displays the selected flight.

Individual's Role and Responsibilities

Sayem

- Implemented the user interface design.

- Developed user interactions and ensured responsiveness.

- Ensured a user-friendly and visually appealing interface.

- Described project requirements and specifications.

Ali

- Developed server-side logic and integrated APIs.

- Implemented database management and ensured data security.

- Collaborated with Sayem and Imran to establish smooth communication between the front-end and back-end.

- Monitored and troubleshot server-related issues.

- Contributed to implement the design.

Imran

- Designed test cases based on requirements and user stories.

- Executed tests and reported bugs.

- Created wireframes and designed the user interface.

- Ensured scalability, security, and performance.