**Flight Management App**

**Report**

**Project Overview**

The Flight Management App is designed to manage and streamline various aspects of flight operations, focusing on basic CRUD functionalities. The app aims to provide an intuitive user experience while ensuring efficient backend operations. The following technologies were utilized in building this application:

* **Frontend**: HTML, CSS, JavaScript, React
* **Backend**: Golang
* **Database**: MongoDB

**1. Frontend**

The frontend of the Flight Management App is developed using HTML, CSS, JavaScript, and React.

**HTML & CSS**:

* HTML (HyperText Markup Language) structures the content and layout of the web pages.
* CSS (Cascading Style Sheets) styles the HTML elements and ensures a responsive design.

**JavaScript**:

* JavaScript is used to create dynamic and interactive user interfaces.
* It enhances user experience by enabling real-time updates and interactive elements.

**React**:

* React is a powerful JavaScript library for building user interfaces, developed by Facebook.
* It allows for the creation of reusable UI components.
* React ensures the app is efficient and scalable by using a virtual DOM for performance optimization.

**2. Backend:**

The backend of the Flight Management App is powered by Golang (Go).

**Golang**:

* Golang is a statically typed, compiled programming language designed for simplicity and efficiency.
* It is known for its performance and concurrency capabilities, making it ideal for building high-performance web applications.
* The backend handles business logic and user authentication.

**3. Database**

The app uses MongoDB as its database solution.

**MongoDB**:

* MongoDB is a NoSQL database known for its flexibility and scalability.
* It stores data in JSON-like documents, making it easy to work with hierarchical data structures.
* MongoDB ensures efficient data storage and retrieval for the application.

**4. Application Architecture**

The Flight Management App follows a modern web application architecture, divided into frontend and backend components:

* **Frontend**: User interfaces built using React, communicating with the backend through RESTful APIs.
* **Backend**: Golang-based server handling API requests, business logic, and database interactions.
* **Database**: MongoDB for storing and managing application data.

**5. Features and Functionality**

The Flight Management App includes the following key features:

1. **Add Flight**: Allows the user to add new flight schedules and details to the system.
2. **Delete Flight**: Provides functionality to remove existing flight schedules from the system.
3. **Update Flight**: Enables the user to update and modify the details of existing flights.
4. **Edit Flight**: Allows for in-depth editing of flight information.
5. **View Flights**: Provides a view to list and browse all flight schedules and details.
6. **Track Flights**: Keeps track of all flights, including their status, schedules, and other relevant details.