Car Rental Management System

Our project focuses on developing a **Car Rental Management System** that combines a **MySQL database backend** with a **Python-based frontend**. The system is designed to streamline the operations of a car rental service by managing customer information, vehicles, reservations, and transactions in an efficient and organized way.

At the core, the **MySQL database** will act as a centralized storage system where all records and activities are maintained. This database will contain multiple interrelated tables to capture real-world entities and processes. Key tables include:

- **Customers** – storing customer details such as name, contact information, and license number.
- **Cars** – maintaining records of all vehicles, including car model, type, registration details, and availability status.
- **Reservations** – tracking booking requests and linking customers with specific cars.
- **Rentals** – storing details of active and completed rental periods.
- **Payments** – recording transaction details, payment methods, and billing history.
- **Locations** – managing pickup and drop-off points across branches.
- **Transaction History** – providing a log of all completed business transactions.
- **Accident History** – maintaining records of accidents and associated vehicle/customer data.
- **Employees** – managing staff information, roles, and assigned duties.
- **Branches** – organizing different rental offices and the resources they manage.
- **Available Cars** – a dynamic view/table highlighting cars ready for booking at any given time.

Additional tables will be added later on according to the need of the project.

The **Python frontend** will serve as the user interface, allowing staff or customers to interact with the system easily. Python's libraries and frameworks can be used to create intuitive forms for entering data, generating reports, processing reservations, and handling payments. It will also handle validation, ensuring that only correct and consistent data is entered into the system.

By combining Python with MySQL, our project ensures both **ease of use** and **data integrity**. The system will provide better management of resources, reduce manual paperwork, and make it easier to scale as the business grows. Ultimately, this project aims to deliver a **reliable, user-friendly, and efficient solution** for car rental management.