BIKE-RENTAL DATABASE MANAGEMENT SYSTEM

**Purpose & Scope (**Database Planning and System definition)**:**

1. **Purpose of Our System**

The purpose of our system is to effectively manage the operations of a bike rental business. This will include:

* Facilitating the rental and return of bicycles.
* Tracking the availability and location of all bikes int the inventory.
* Managing customer information, including rental history and payment details.
* Providing reporting for management to monitor business performance.

1. **Main Users of the System**

The system will be used by three main groups of people, each with a different set of needs and permissions.

* **Customers:** Individuals who will rent the bikes. They will need to be able to:
* View available bikes and their locations.
* Register for an account.
* Rent for bikes.
* View their rental history and current rental status.
* Make Payments.
* **Staff:** Employees who work at the rental locations. They will need to be able to:
* Assist customers with rentals and returns.
* Add, update, and remove bike information int the inventory.
* Check bike availability and condition.
* Process payments and issue receipts.
* Manage customer accounts.
* **Administrator:** The owner or manager of this business will require:
* Full access to all system data.
* The ability to generate comprehension reports on rentals, revenue, and bike usage.
* Permissions to manage staff accounts and system settings.
* The ability to add or remove rental locations.

1. **Key Functions of the System**

The system will be able to support the following core processes:

* **Bike Management:**
* Adding new bikes to the inventory.
* Removing bikes that are damaged or sold.
* Updating bike status (e.g., “Available”, “Rented”, Under Maintenance”).
* Tracking the location of each bike.
* **Customer Management:**
* Registering new customers and creating their profiles.
* Updating customer information.
* Storing customer rental history.
* **Rental/Return Process:**
* Recording whenever a bike is rented, including the start time, location, and customer.
* Recording whenever a bike is returned, including the end time, return location, and final cost.
* Calculating the rental fee based on duration.
* **Payment and Billing:**
* Processing payments for rentals.
* Handling different payment methods (e.g., credit card, mobile money).
* Generating and storing transaction records.
* **Reporting:**
* Generating reports on daily/monthly revenue.
* Tracking the most popular bikes and rental locations.
* Monitoring bike usage to identify high-traffic areas.