**Semester Project Documentation**

**Semester Project Title**:  **Event Management System**

**Student Details**

(Fill according to number of team/group members)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Student Name | Student Reg # | Student Degree |
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**Main Features**

1. **Display Available Slots:** Shows the current availability of parking slots for cars, bikes, and trucks.
2. **Book a Parking Slot:** Allows users to book a parking slot for a specific vehicle type, providing details like owner name, license plate, duration, and valet service.
3. **Release a Parking Slot:** Enables users to release a previously booked parking slot.

**Types of Users**

* Parking Lot Manager
* Vehicle Owners

**Requirements Breakdown**

**Feature 1: Display Available Slots**

1.1 Display the total number of slots for each vehicle type. 1.2 Indicate the availability of each slot (occupied or available).

**Feature 2: Book a Parking Slot**

2.1 Prompt the user to enter the vehicle type, owner name, license plate, duration, and valet service preference. 2.2 Check for available slots in the specified vehicle type. 2.3 If a slot is available, assign it to the user and display the booking details, including the total price. 2.4 If no slots are available, display an appropriate message.

**Feature 3: Release a Parking Slot**

3.1 Prompt the user to enter the vehicle type and slot number. 3.2 Check if the specified slot is valid and occupied. 3.3 If valid, release the slot and display a confirmation message. 3.4 If invalid, display an error message.

**Features to Codding Matrix**

*(In the following table you will mention the following items for each feature, mention the items in each column for each feature of your application)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr**  **no.** | **Feature Name** | **Concept Used** | **Functions Created** | **Variables / Obj Created** | **Line of Code Written** |
| **1** | Display Available Slots | Arrays, Loops | display\_slots | Car\_Slots, Bike\_Slots, Truck\_Slots, TotalC\_Slots, TotalB\_Slots, TotalT\_Slots | 12 |
| **2** | Book a Parking Slot | Arrays, Loops, Conditional Statements | Book\_Slot | Car\_Price, Bike\_Price, Truck\_Price | 25 |
| **3** | Release a Parking Slot | Arrays, Conditional Statements | Release\_Slot |  | 10 |