# Use Case Diagrams

* 1. **User Registration**

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| **Use Case Name:** User Registration **ID:** UC-1 **Priority:** High |
| **Actor:** Customer |
| **Description:** Allows customers to register and access the system. |
| **Trigger:** A new user wants to register an account**.** |
| **Type:** External |
| **Preconditions:**   1. **The system is accessible online.** |
| **Normal Course:**   1. The user navigates to the registration page. 2. The user fills in the registration form with name, email, and password. 3. The user submits the form. 4. The system validates the email. a. If the email is unique, the system creates an account. b. If the email exists, an error message is displayed. 5. The system stores user data. 6. The system confirms registration. |
| **Postcondition:**   1. The new user is registered. 2. The user is eligible to log in. |

**1.2 User Login**

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| **Use Case Name:** User Login **ID:** UC-2 **Priority:** High |
| **Actor:** Customer, Admin, Mechanic |
| **Description:** Allows users to log in to the system. |
| **Trigger:** A user attempts to access their account. |
| **Type:** External |
| **Preconditions:**   1. The user must be registered. |
| **Normal Course:**   1. The user navigates to the login page. 2. The user enters login credentials. 3. The system validates the credentials. 4. If correct, access is granted. 5. The user is directed to their dashboard 6. If incorrect, an error message is displayed. |
| **Postcondition:**   1. The user accesses their account. 2. The system logs the user session. |

**1.3 Service Booking**

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| **Use Case Name:** Book a Service **ID:** UC-3 **Priority:** High |
| **Actor:** Customer |
| **Description:** Customers can book a mechanical service. |
| **Trigger:** A user wants to book a service. |
| **Type:** External |
| **Preconditions:**   1. The user must be logged in. |
| **Normal Course:**   1. The user searches for available mechanics by ZIP code. 2. The user selects a mechanic and service type. 3. The user selects Home Service or Workshop Visit. 4. The user confirms booking. 5. The system updates the mechanic’s schedule and stores booking details. 6. The system sends booking confirmation |
| **Postcondition:**   1. The service is booked successfully. 2. Notification will be sent to the customer |

**1.4 Mechanic Registration**

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| **Use Case Name:** Mechanic Registration **ID:** UC-4 **Priority:** High |
| **Actor:** Mechanic |
| **Description:** Customers can book a mechanical service. |
| **Trigger:** A user wants to book a service. |
| **Type:** External |
| **Preconditions:**   1. The mechanic must have valid business details |
| **Normal Course:**   1. The mechanic fills out a registration form. 2. The mechanic submits the registration request. 3. The system validates details and stores them. 4. Admin reviews and approves or rejects the request. 5. Upon approval, the mechanic account is activated. |
| **Postcondition:**   1. The service is booked successfully. 2. Notification will be sent to the customer |

**1.5 Report Generation**

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| **Use Case Name:** Generate Report **ID:** UC-5 **Priority:** High |
| **Actor:** System |
| **Description:** Customers can book a mechanical service. |
| **Trigger:** A user wants to book a service. |
| **Type:** External |
| **Preconditions:**   1. At least one service booking must be completed |
| **Normal Course:**   1. The system identifies a completed service. 2. The system generates a PDF with booking details. 3. The system sends the report to the admin |
| **Postcondition:**   1. The report is successfully generated and sent. 2. The admin will have complete booking details. |