**Lab Tasks**

1.Draw the Sequence Diagram of the below given Usecase:

Usecase Name: "Reset Library User Account Password"

Basic Flow of Events:

Librarian receives a request from a user to reset their library account password.

The librarian accesses the system to initiate the password reset process.

The librarian selects the user's account that requires a password reset.

The system prompts the librarian to verify the user's identity through security questions or other authentication methods.

Upon successful verification, the librarian generates a temporary password or initiates a password reset link to be sent to the user's registered email address.

The user receives the temporary password or password reset link and follows the instructions provided to set a new password.

Once the user sets a new password, the system updates the user's account with the new password.

A confirmation email is sent to the user, informing them that their password has been successfully reset.

2.Draw the Sequence Diagram of the below given Usecase:

Use Case Name: "Update User Profile"

Basic Flow of Events:

The user accesses the profile management system and selects the option to update their profile.

The system retrieves the user's current profile information from the database.

The user modifies the desired profile details (e.g., name, email, phone number).

Once the modifications are made, the system validates the updated information against any constraints or business rules stored in the database.

If the validation is successful:

The system updates the user's profile information in the database.

The system sends a confirmation message to the user indicating that their profile has been successfully updated.

If the validation fails:

The system notifies the user of the validation error(s) and prompts them to correct the information accordingly.

The process returns to step 3, allowing the user to make necessary corrections.

3.Draw the Sequence Diagram of the below given Scenario:

The customer accesses the online food ordering system and selects the desired items from the menu. The customer adds the selected items to their virtual shopping cart. Upon completion of selecting items, the customer proceeds to checkout. The system prompts the customer to provide delivery details such as address and contact information. The customer enters the delivery details and selects a preferred payment method. The system calculates the total cost including taxes, delivery fees, and any applicable discounts. Once payment is confirmed, the system generates an order confirmation and sends it to both the customer and the restaurant. The restaurant receives the order notification and begins preparing the food. The delivery service is notified of the new order and assigns a delivery person. The delivery person picks up the order from the restaurant and delivers it to the customer's provided address. Upon successful delivery, the system updates the order status to "delivered" and sends a confirmation to the customer. The customer receives the order and enjoys their meal.

4.Draw the Sequence Diagram of the below given Scenario:

The guest accesses the online hotel reservation system and selects the desired check-in and check-out dates. The guest chooses the preferred location and room type (e.g., single, double, suite). Upon completion of selecting the room preferences, the guest proceeds to check room availability. The system checks the availability of the selected room type for the chosen dates. If the selected room type is available: The system prompts the guest to provide personal details and payment information. The guest enters the required information. The system proceeds with the standard reservation confirmation process. If the selected room type is unavailable for the chosen dates: The system notifies the guest of the unavailability

5. Draw the Sequence Diagram of the below given Scenario:

The student accesses the online course enrollment system and browses available courses. The student selects a desired course to enroll in. The system checks the prerequisites for the selected course. If the student meets the prerequisites: The system prompts the student to proceed with enrollment. The student confirms enrollment and provides payment information. The system processes the enrollment and sends a confirmation. If the student does not meet the prerequisites: The system notifies the student of the prerequisite requirements. The student can choose to go back to step 2 to select a different course or exit the enrollment process. If the student chooses to select a different course: The student goes back to step 2 to browse and select another course. Steps 3 to 5 repeat until the student successfully enrolls in a course or decides to exit the enrollment process.