**Lab Tasks**

**1.Draw the Swimlane Activity Diagram of the below given Usecase:**

**Use Case Name:** Create Customer Account

**Actors:** Customer

**Basic Flow Of Events:**

1.Customer will open customer account registration form.

2. The system will display the customer account registration form.

3. Customer fills the required customer data

4. The system will display the customer data.

5. Customer inputs the credit info

6. System creates account of customer, verifies credit info, and saves the account details.

**Alternative Flows:** None

**2. Draw the Swimlane Activity Diagram of the below given Usecase:**

**Use Case Name:** Enroll A Course

**Actors:**

* Student
* University Course Registration System

**Description:**

* **Precondition:** The student accesses the course registration portal of the university.

**Main Success Scenario:**

1.The student logs into the course registration portal.

2.The system displays a list of available courses.

3.The student searches for a desired course.

4.If the desired course is found: The student views the course details including the schedule, instructor, and prerequisites.

5.If the student meets the prerequisites: The student adds the course to their enrollment.

6.If the student does not meet the prerequisites: The student selects another course.

7. The student can view and edit their course enrollment.

8.After finalizing the course enrollment: The student confirms their course selection.

9.The system registers the student in the selected courses.

10.The student exits the course registration portal.

**Alternative Flows:**

* **Desired Course Not Found:**
  + If the desired course is not found in the list:
    - The student may choose to search for another course or exit the system.
* **Prerequisites Not Met:**
  + If the student does not meet the prerequisites for a course:
    - The system notifies the student about the prerequisites.
    - The student selects another course that they are eligible for.

**Postconditions:**

* The student has successfully enrolled in the desired courses for the upcoming semester.
* The university updates the student's course enrollment records.

**3. Draw the Swimlane Activity Diagram of the below given Scenario:**

Consider an online shopping system for ABC Co. where the user searches an item. The system displays a list of items. If the item he is looking for is not found the user leaves the system else, he views an item. If the item price is too high than normal the user leaves the ABC Co. online shopping system else, he adds the item to his shopping cart. The user can view and edit the shopping cart. After carefully viewing and editing the shopping cart the user confirms the order, make payment and exits the ABC Co. online shopping system.

**4. Draw the Swimlane Activity Diagram of the below given Usecase:**

**Use Case Name:** Book a Car

**Actors:**

* Customer
* System

**Description:**

* **Precondition:** The customer has access to the car booking system.

**Main Success Scenario:**

1. The customer logs into the car booking system.
2. The system presents the customer with options to book a car.
3. The customer selects the option to book a car.
4. The system initiates the booking process.
5. The system searches for the nearest available cars.
6. The system presents the available cars to the customer.
7. The customer selects a car for booking.
8. The system confirms the booking and reserves the selected car for the customer.
9. The system completes the booking process.
10. The customer receives a booking confirmation along with details of the reserved car.

**Alternative Flows:**

* **Cancel Booking:**
  + At any point during the booking process, the customer decides to cancel the booking.
  + The system interrupts the ongoing actions.
  + The system cancels the booking process.
  + The customer receives a notification confirming the cancellation of the booking.

**Postconditions:**

* The customer has successfully booked a car.
* The reserved car is ready for the customer to pick up at the designated location.
* The system updates the availability status of the booked car.

**5.Draw the Activity Diagram of the below given Usecase:**

**Use Case Name:** Product Packaging

**Actors:**

* Warehouse Staff

**Description:**

* **Precondition:** The warehouse has received a shipment of products for packaging.

**Main Success Scenario:**

1. The warehouse staff receives a shipment of products for packaging.
2. For each product in the shipment: 3. The warehouse staff selects the product for packaging.
   1. The warehouse staff prepares the packaging materials.
   2. The warehouse staff packs the product into the prepared packaging.
   3. The warehouse staff seals the packaging securely.
3. The warehouse staff completes the packaging process for all products in the shipment.

Alternative Flows:

* No Products Received:
  + If no products are received for packaging, the process is halted until products are received.

**Postconditions:**

* All products in the shipment are successfully packaged and ready for distribution.
* The warehouse updates the inventory to reflect the packaging status of the products.

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