SLIIT UNI
THE KNOWLEDGE UNIVERSITY

Faculty of Computing

Year 2 Semester 1 (2025)

SE2030 - Software Engineering Lab Sheet 04

Activity Diagram

Lab Duration: 2 Hours
Objective: In this lab, you will learn to model the flow of activities within a system by identifying actions, decisions, and parallel processes, and draw appropriate Activity Diagrams to represent the behavior of given use case scenarios.

We will be using Draw.io software (accessible at `https://www.draw.io/`) to draw the activity diagrams.

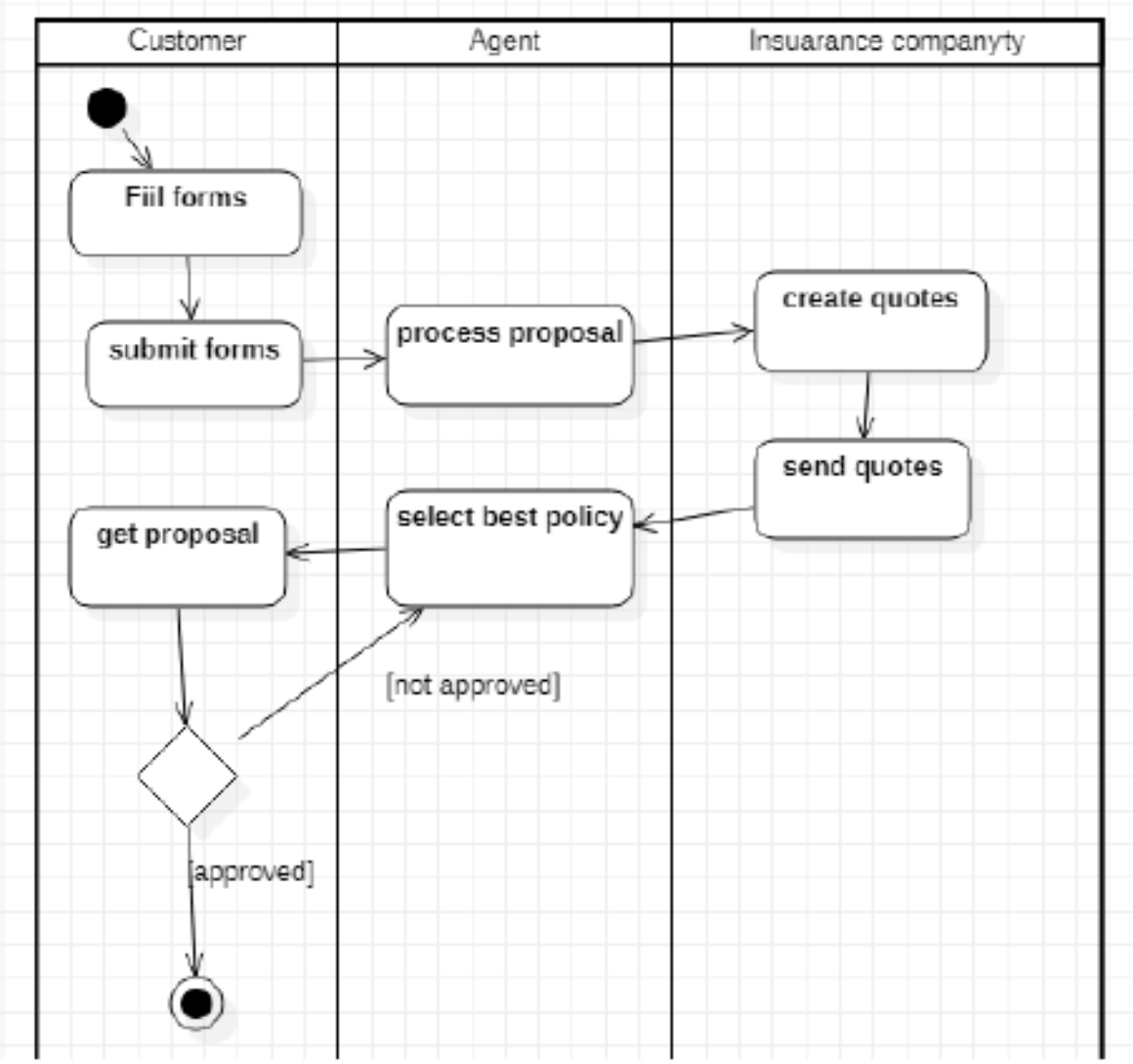
Practice Activity

Develop an activity diagram with swim lanes based on the following scenario using Draw.io.

The purpose of the **Open Access Insurance System** is to provide automotive insurance to car owners. Initially, potential customers fill out an insurance application and submit it, providing information about themselves and their vehicles. This information is then sent to an agent for processing. The agent forwards these details to various insurance companies to obtain quotes.

Once the responses are received, the agent determines the best policy based on the type and level of coverage required and sends the customer a copy of the insurance policy proposal along with the quote for approval. If the customer approves the policy, it is confirmed. If not, the agent will send an alternative policy until the customer provides approval.

Sample Answer



Group Project Task and Submission

1. Form your pre-assigned groups of 6 members.
2. Use the same project topic assigned to you in the previous lab.
3. Design and draw activity diagrams for each main use case scenario of your project, covering all major functions.

   Note: : Each member should design and draw his/her activity diagram for their respective main function. (Adding swim lanes is not necessary)
4. Compile a Group Report including:

   a. Group ID, Topic Name, and Group Members

   b. Each member's use case scenarios (completed in the previous lab)

   c. The corresponding individual activity diagram for each member

   d. Repeat this structure for all members
5. Submit your report via GitHub before the deadline.
   o File Name Format: BatchNumber_GroupID_Activity.pdf

Submission Checklist

- Group Details
- Use Case Scenarios (one per member)
- Activity diagrams
- Clear and structured report format
- File uploaded to GitHub with correct naming format

Self-Study Activity

Draw an Activity Diagram with swim lanes for the given use case scenario.

Use Case: Make an appointment.
Main flow:

1. Use case starts when customer successfully logins to the system.
2. Customer selects the date and time that are needed to take the appointment.
3. System checks for available hairdressers for customer.
4. Display the list of available hairdressers.
5. Customer selects the hairdresser.
6. System sends appointment details to the relevant hairdresser and to the payment counter.
7. Hairdresser and the payment counter receive notification about the appointment.
8. While payment counter processes the payment details, hairdresser schedules in the calendar.
9. Use case ends when the system sends confirmed appointment details to the customer.

Extensions:

1.A. If customer login is invalid,

(a) Display an error message.
(b) Allow customer to login again.

3.A. If there are no available hairdressers on that time,

(a) Ask user to choose a different date and time.
(b) Repeat from step 2.