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University of Information Technology & Sciences

Lab Report-04

Activity Diagram

Course Title: Software Engineering and System Analysis Lab

Course Code: CSE 356

Submitted To

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Experiment No: 04

Experiment Name: Design and Analysis of Activity Diagram for Blood Donation Management System

Objectives:

- To model the workflow of a Blood Donation System using an activity diagram.
- To visualize the sequence of operations for donors, recipients, and administrators.
- To identify decision points and parallel processes within the system.
- To enhance understanding of system behavior for improved design and implementation.

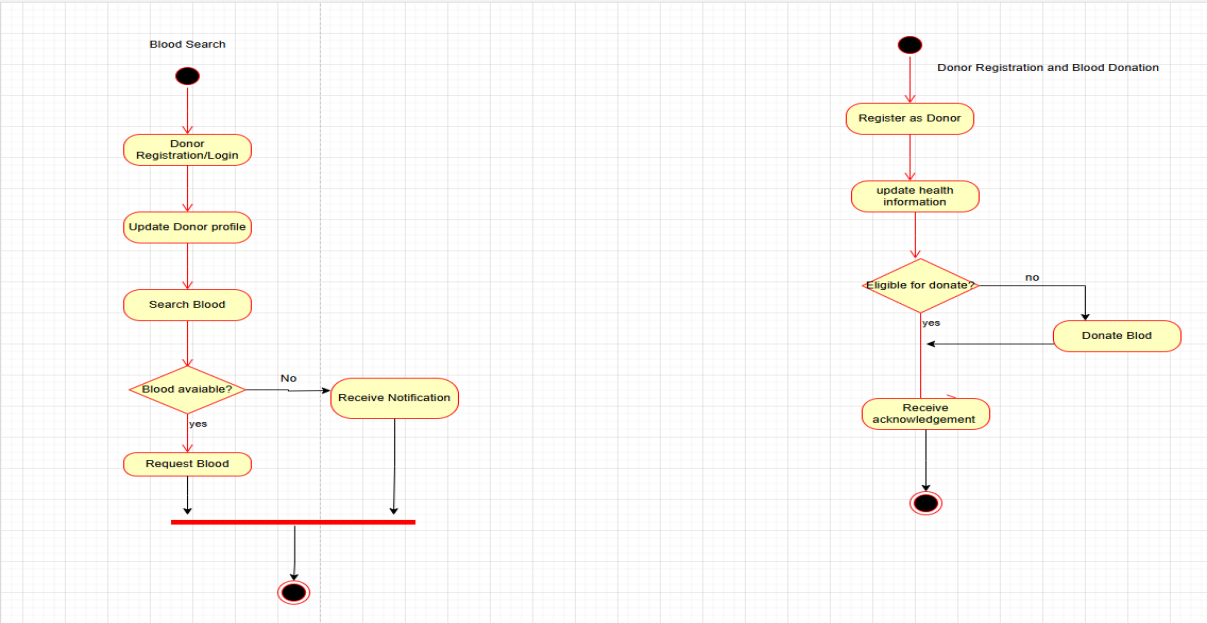
Apparatus Required:

- Computer with internet access
- Draw.io

Theory:

An activity diagram is a behavioral UML diagram that represents the flow of activities within a system. It illustrates the dynamic aspects by showing the sequence and conditions for coordinating lower-level behaviors. In the context of a Blood Donation System, activity diagrams help in understanding the processes involved in donor registration, blood request handling, and inventory management.

Diagram:



Result and Discussion:

The activity diagram effectively captures the primary workflows within the Blood Donation System. It delineates the distinct paths for donors, recipients, and administrators, highlighting their specific actions and decision points. For instance, donors can view their donation history and schedule new donations, recipients can search for specific blood types and request blood, while administrators manage inventory and oversee the approval process. This visualization aids in identifying potential bottlenecks and ensures that all user interactions are accounted for in the system design.

8) Conclusion:

The activity diagram serves as a vital tool in modeling the dynamic behavior of the Blood Donation System. By clearly outlining the sequence of activities and decision points for each user role, it facilitates better understanding and communication among stakeholders. This, in turn, contributes to a more efficient and user-friendly system design.