B.Sc. in Computer Science and Engineering

School of Science and Technology

Bangladesh Open University

Information System Analysis and Design Lab [CSE22P5]

Lab Report – 01

Submitted By:	**Submitted To:**
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Course Code: CSE22P5	School of Science and Technology
Course Title : Information System Analysis and Design Lab	Bangladesh Open University
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Experiment No: 01.

Date: 01 Mar 24.

Name of the Experiment: Design a flowchart of 'General Problem-Solution Approach' using EdrawMax (or any other) software.

Objective:

- This lab experiment aims to equip with skills to systematically identify and solve complex problems, using clear and concise visual representations. Flowcharts play a crucial role in simplifying complex methodologies, aiding understanding and communication among stakeholders.

- The lab experiment focuses on using software like EdrawMax to design a flowchart that visually represents a well structured problem-solving method.

Theory: The generalized form is divided into the following six steps –

i. **Problem Identification**:- The first step is to identify the problem or opportunity that requires attention. This involves understanding the current state of affairs, analyzing potential challenges or inefficiencies and defining the desired outcome.

ii. **Identification of a Possible Solution**:- The next step is to brainstorm potential solutions or approaches to address the problem. This may involve gathering input from stakeholders, researching best practices and considering various alternatives.

iii. **Basic Calculation**:- It is essential to perform basic calculations or feasibility assessments to evaluate the viability of each solution option. This may include estimating costs, assessing resource requirements and projecting potential benefits.

iv. **Simulation**:- Simulation involves creating models or prototypes to simulate the behavior of the proposed solution in a controlled environment. In the context of Information System Analysis and Design, simulation techniques may include any established previous method or customized now once or even an entirely new one on the basis of the problem behavior in systems and processes.

v. **Judgment**:- Once the simulation is performed, the results are analyzed, and judgments are made based on predefined criteria or objectives. This involves evaluating the performance, efficiency and effectiveness of the proposed solution and comparing it against the desired outcomes.

vi. **Interactive Refinement**:- If the judgment indicates that the proposed solution is satisfactory, **Detail Engineering** or implementation activities can proceed. However, if the solution falls short of expectations, **Modification**(s) are made based on feedback and insights gained from the simulation and judgment process. This iterative refinement loop continues until a satisfactory solution is achieved.

Required Tools and Software:

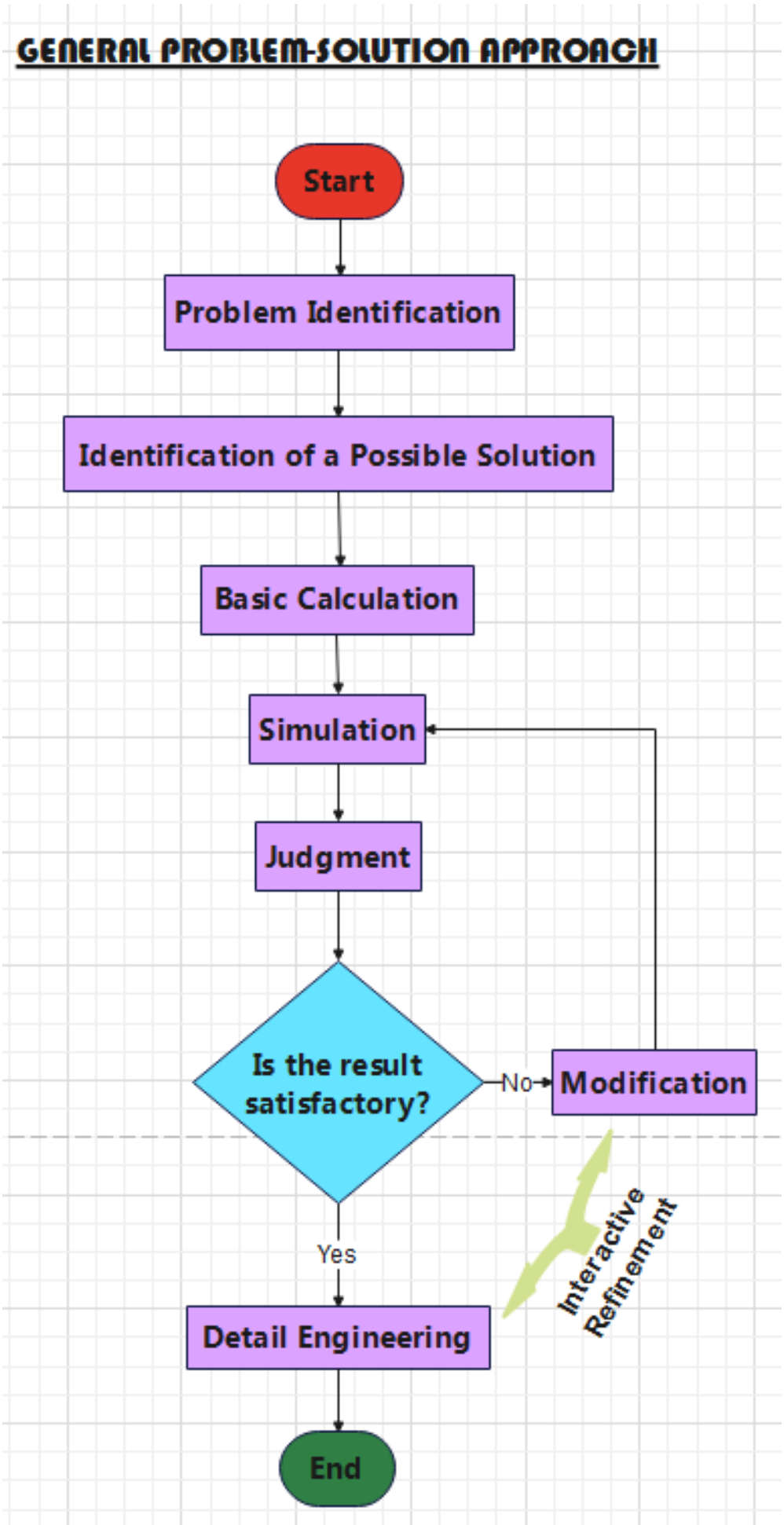
- EdrawMax (for designing the flowchart)
- MS Word (for writing and furnishing)

Execution:

- Drawing the Flowchart using EdrawMax
  - Launch EdrawMax and create a new flowchart document.
  - Use symbols and connectors to represent each section.
  - Arrange sections logically and add labels for clarity.
  - Review and revise the flowchart as needed.

- Formatting the Report using MS Word
  - Open MS Word and create a new document.
  - Set up layout and formatting preferences.
  - Type content for each section.
  - Organize content with appropriate headings and subheadings.
  - Insert the flowchart from EdrawMax and align it with the corresponding section.
  - Review the entire document for coherence and professionalism.

Output:


GENERAL PROBLEM-SOLUTION APPROACH
Start
Problem Identification
Identification of a Possible Solution
Basic Calculation
Simulation
Judgment
Is the result satisfactory?
No
Modification
Interactive Refinement
Yes
Detail Engineering
End