B.Sc. in Computer Science and Engineering

School of Science and Technology

Bangladesh Open University

CSE22P5 Information System Analysis and Design Lab

Lab Report – VI

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Course Title : Information System Analysis and Design Lab	Bangladesh Open University
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Experiment No: VI.

Date: 29 Mar 24.

Title: Design a Use Case Diagram for ATM System.

Context: No of Actor: 2 (1. Customer and 2. ATM Technician)

Use Case of Customer:

1. Check Balance
2. Deposit Funds
3. Withdraw Cash
4. Transfer Funds

Use Case of Technician:

1. Maintenance
2. Repair.

Objective:

- Identify and define actors in the ATM System.
- Outline distinct functionalities of each actor.
- Visualize these functionalities depicting actor-use case relationships.
- Provide a clear representation of ATM System operations.

Theory: The key components we will require for the Use Case Diagram are –

i. **Use Case Diagram**:- A use case diagram is a visual representation that illustrates how users interact with a system and the various functionalities the system provides.

ii. **Actor**:- Actors represent the external entities (such as users or systems) that interact with the system being modeled. They are depicted as stick figures or labeled rectangles outside the system boundary.

iii. **Boundary**:- The system boundary represents the scope of the system being modeled. It separates the system from its external environment and encloses all the use cases.

iv. **Use Case**:- A use case represents a specific functionality or behavior that the system provides to its actors. It describes a sequence of actions that accomplish a goal for a user. Use cases are depicted as ovals within the system boundary.

Required Tools and Softwares:

- Sketch Pen & Pad (for sketching the model)
- Wondershare EdrawMax (for designing the diagram)
- MS Word (for writing and furnishing)

Execution:

Sketching The Model Using Sketch Pen & Pad

- Understand system requirements.
- Identify actors.
- Consider use case and association carefully.
- Design layout on pad allocating space for each component appropriately.
- Arrows and labels to represent information clearly.
- Carry out refinements before implementation in software.

Drawing the diagram using Wondershare EdrawMax

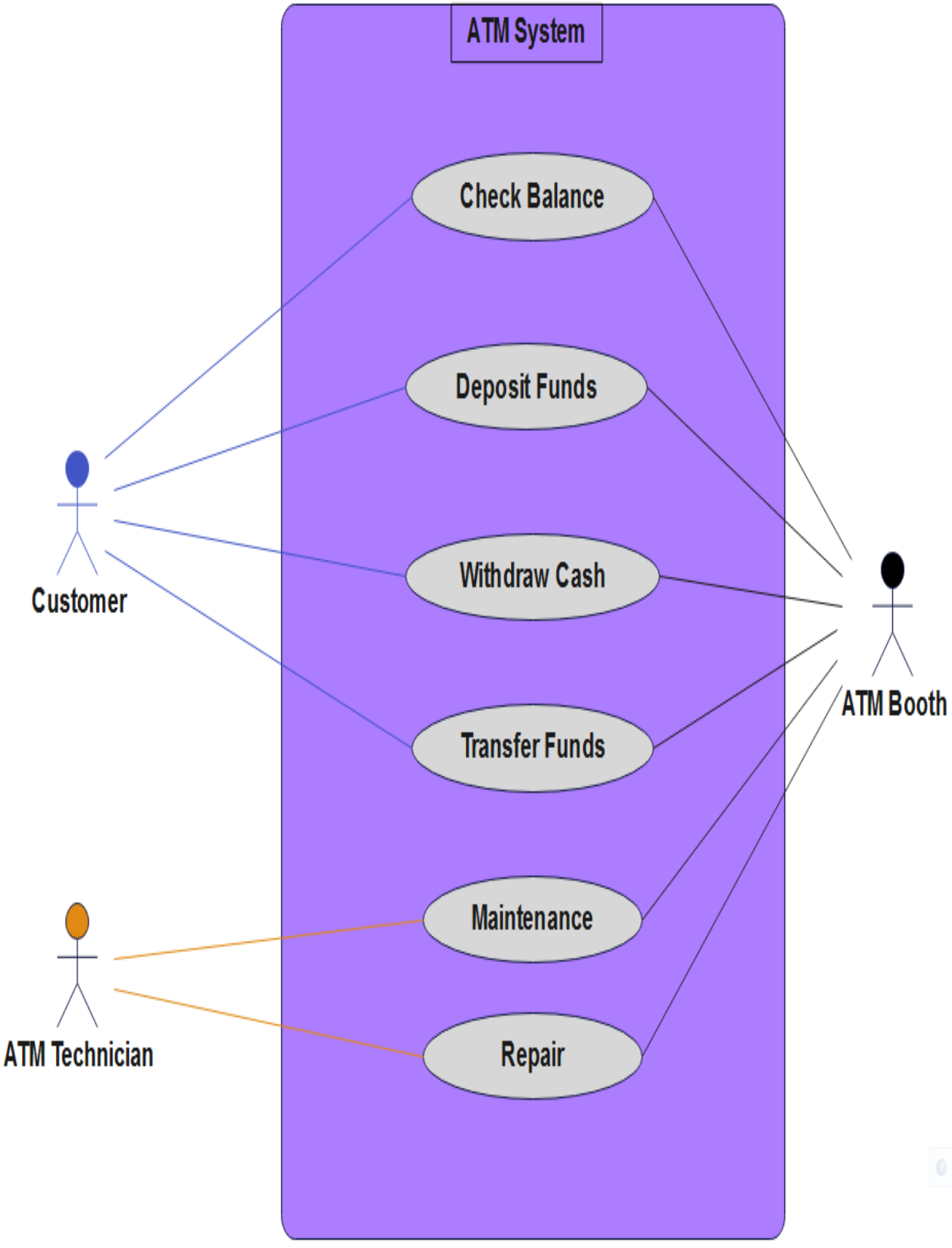
- Launch Wondershare EdrawMax and create a new Use Case Drawing.
- Use symbols and connectors to represent all functionalities.
- Arrange sections logically and add labels & texts for clarity.
- Review and revise as needed.

Formatting the Report using MS Word

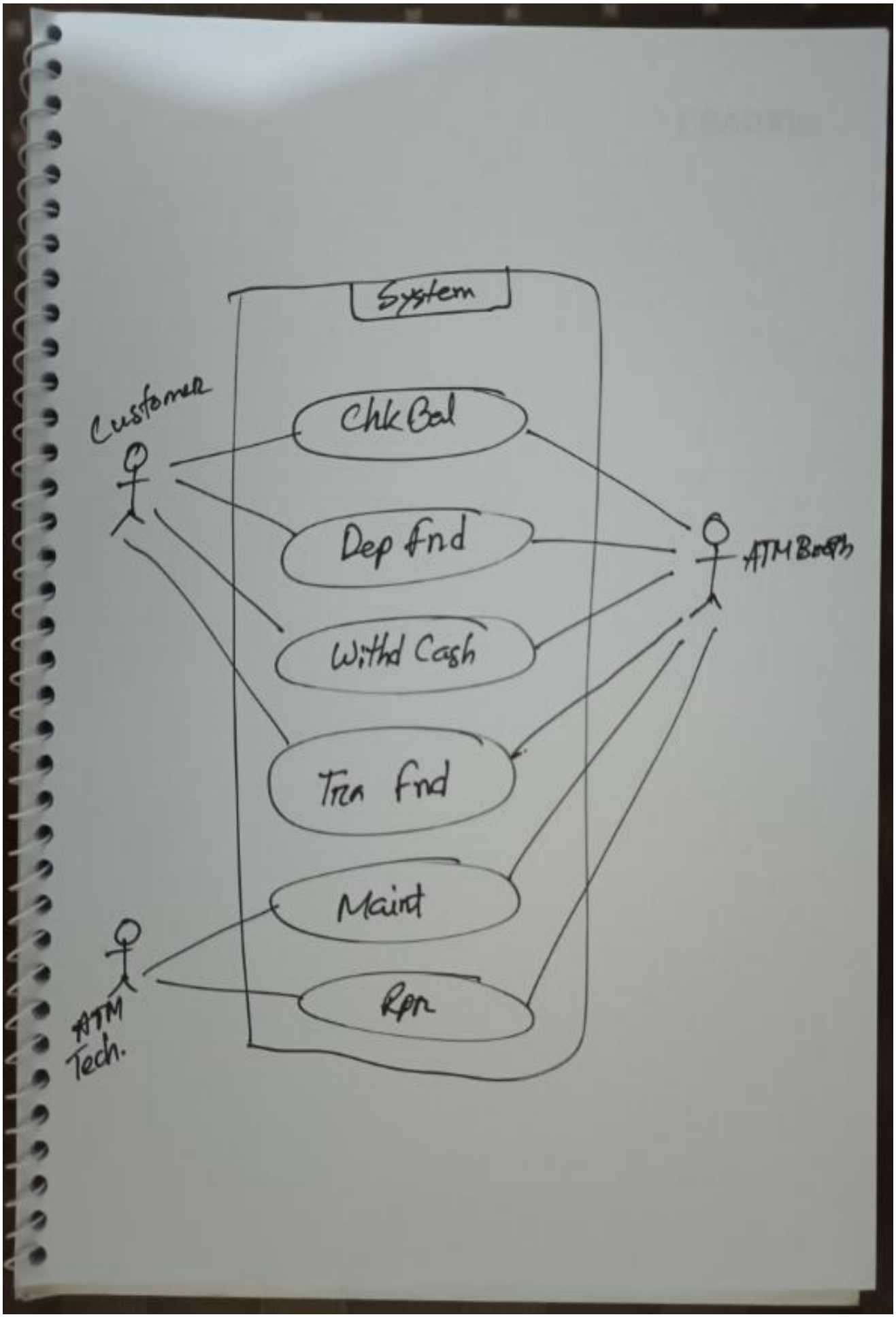
- Open MS Word and create a new document.
- Set up layout and formatting preferences.
- Type content for each section.
- Organize content with appropriate headings and subheadings.

- Insert the use case diagram from Wondershare EdrawMax.
- Review the entire document for coherence and professionalism.

Output:



Appendix: Sketch



References:

- Book

  Schmuller, Joseph, ***SAMS Teach Yourself UML in 24 Hours*** (3rd ed.), SAMS

- URL
  - ***Edraw Max User Manual Professional and All-in-one Diagramming Software***

    https://www.edrawsoft.com/guide/edraw-max-user-manual-en.pdf
  - ***Edraw Max User Guide***

    https://images.edrawsoft.com/guide/edrawmax/edrawmax-user-manual-en.pdf

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