Name: Ansari Ashad Hussain.

Roll no: 1

Class: SYBsc.IT

Subject: Software Engineering.

Daar-ul-Rehmat Trust's

# A.E.Kalsekar Degree College

**(Permanently Affiliated to University of Mumbai)**

Add: Near Bharat Gas Factory, Post Dawla, Kausa-Mumbra, Dist Thane, Pin 400612, Maharashtra(India)

## CERTIFICATE

This is to certify that_MR. _Ansari Ashad Hussain_____

(Exam Seat No: _1_)of F. Y. B. Sc. Information Technology class has satisfactory

completed his Practical on __SOFTWARE ENGINEERING_ for the partial fulfillment of the Degree Bachelor of Science in Information Technology as prescribed by University of Mumbai.

For academic Year 20 22 -20 23

HOD | Professor-in-charge

# INDEX

| **PRACTICAL NUMBER** | PRACTICAL LIST | **DATE** |
|---|---|---|
| **1.** | **Study and Implemention of E-R-Daigram** | **2-February-2023** |
| **2.** | **Study and Implemention of Use Case Diagram** | **3-February-2023** |
| **3.** | **Study and Implemention of Data flow Diagram** | **7-February-2023** |
| **4.** | **Study and Implemention of Activity Diagram** | **8-February-2023** |
| **5.** | **Study and Implemention of Class Diagram** | **13-February-2023** |
| **6.** | **Study and Implemention of Component Diagram** | **14-February-2023** |
| **7.** | **Study and Implemention of Sequence Diagram** | **20-February-2023** |

PRACTICAL 1:

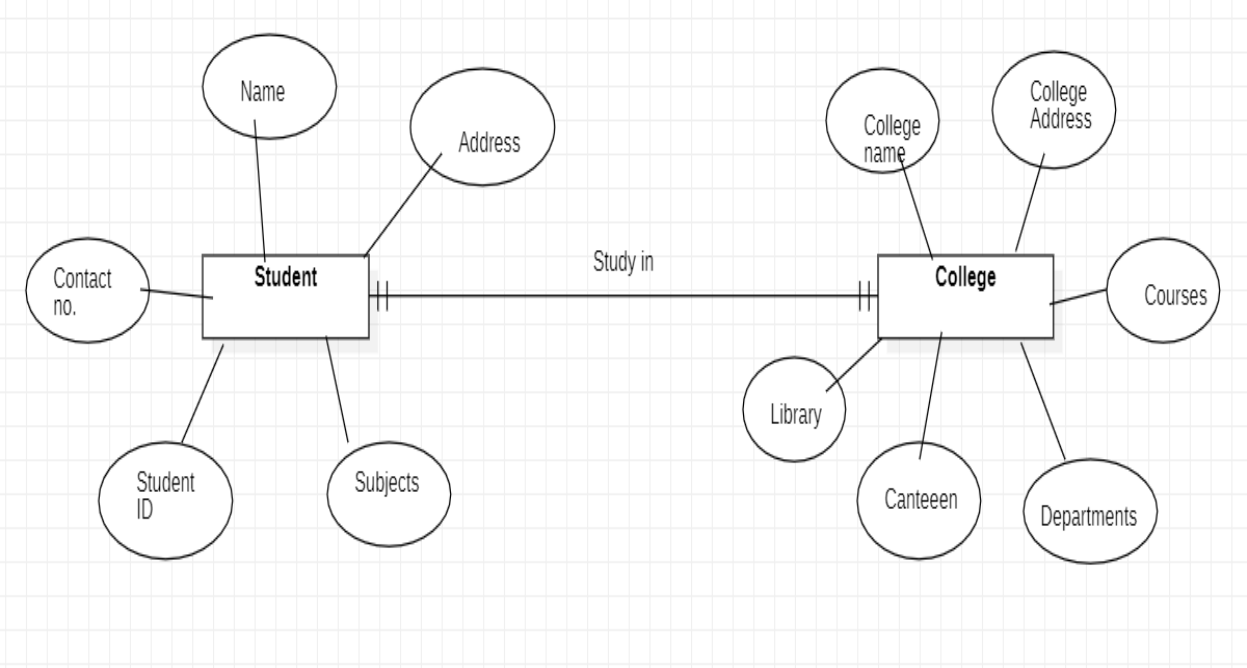
## STUDY AND IMPLEMENTATION OF E-R-DIAGRAM

**AIM:** Implementaion of E-R-Diagram.

An Entity Relationship Diagram is **a diagram that represents relationships among entities in a database**. It is commonly known as an ER Diagram.

Example:

Student study in College.



PRACTICAL 2:

**STUDY AND IMPLEMENTATION OF USE CASE DIAGRAM.**

**AIM:** Implementaion of Use Case Diagram.

Use-case diagrams **describe the high-level functions and scope of a system**. These diagrams also identify the interactions between the system and its actors. The use cases and actors in use-case diagrams describe what the system does and how the actors use it, but not how the system operates internally.

Example:

Website Use Case Diagram.

PRACTICAL 3:

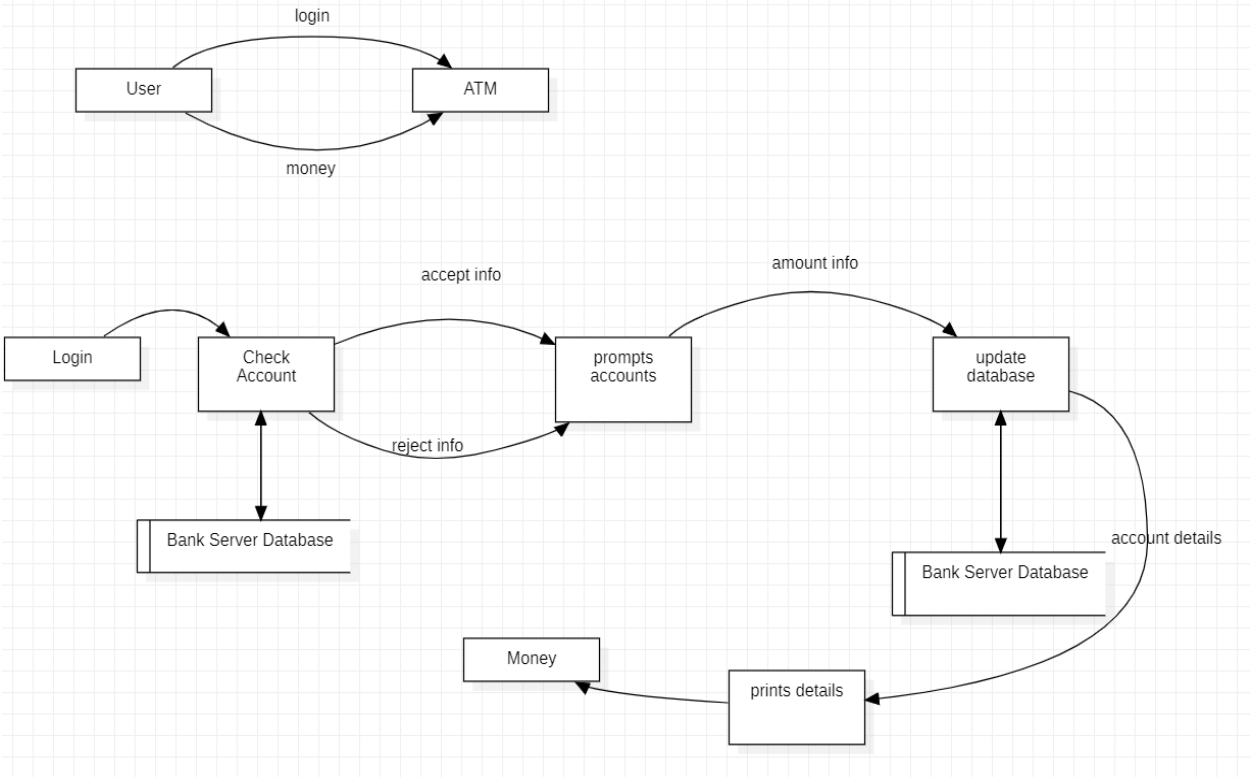
**STUDY AND IMPLEMENTATION OF DATA FLOW DIAGRAM.**

**AIM:** Implementaion of Data Flow Diagram.

A data flow diagram (DFD) is **a graphical or visual representation using a standardized set of symbols and notations to describe a business's operations through data movement**. They are often elements of a formal methodology such as Structured Systems Analysis and Design Method (SSADM).

Example:

Data Flow Diagram for ATM system



PRACTICAL 4:

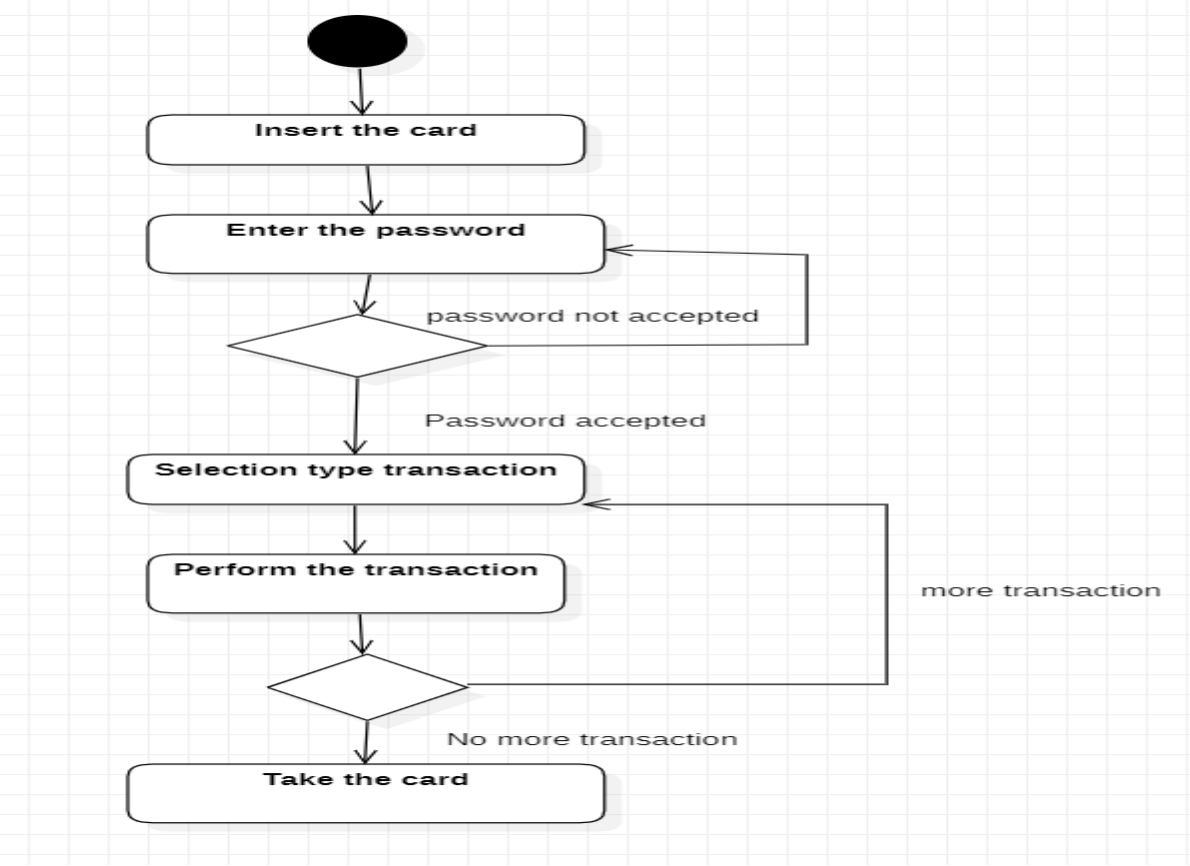
**STUDY AND IMPLEMENTATION OF ACTIVITY DIAGRAM.**

**AIM:** Implementaion of Activity Diagram.

An activity diagram **shows business and software processes as a progression of actions**. These actions can be carried out by people, software components or computers. Activity diagrams are used to describe business processes and use cases as well as to document the implementation of system processes.

Example:

Activity Diagram for overall ATM Machine.



PRACTICAL 5:

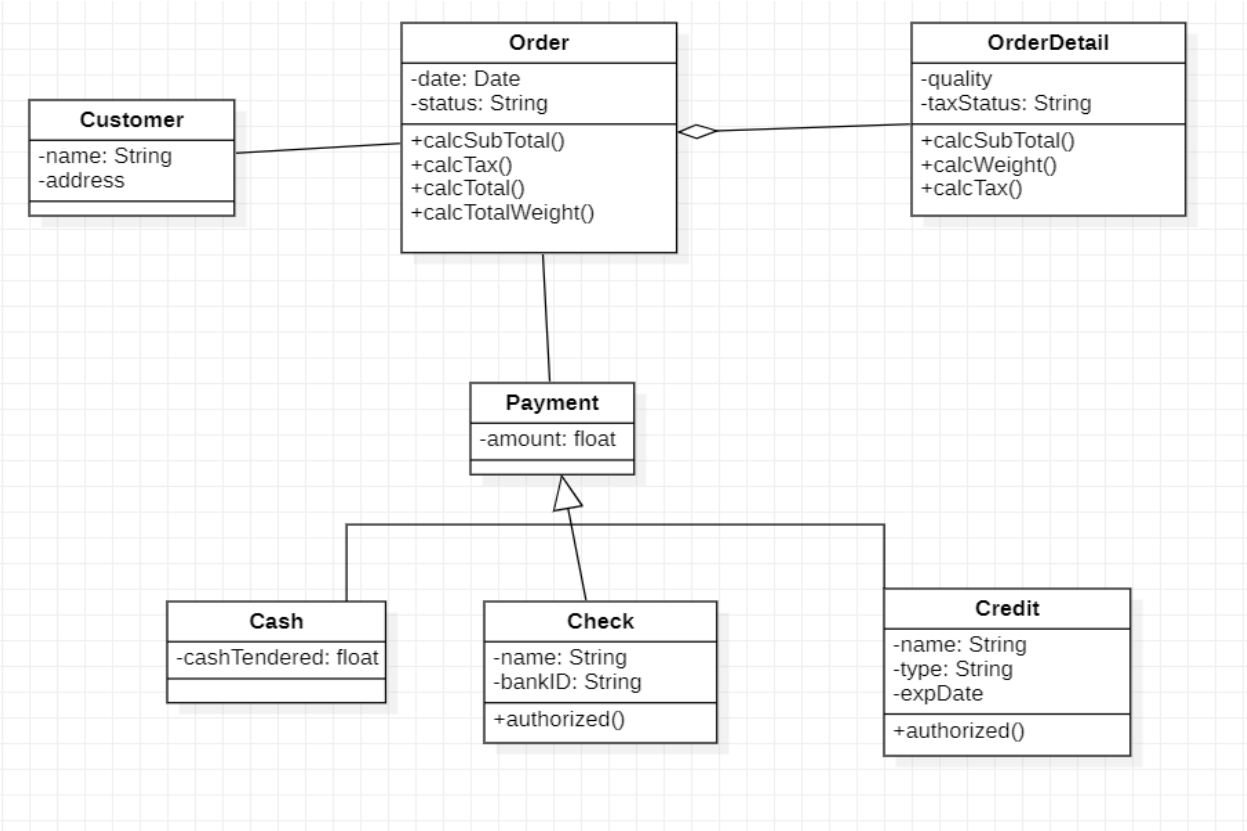
**STUDY AND IMPLEMENTATION OF CLASS DIAGRAM.**

**AIM:** Implementaion of Class Diagram.

Class diagrams are **the blueprints of your system or subsystem**. You can use class diagrams to model the objects that make up the system, to display the relationships between the objects, and to describe what those objects do and the services that they provide. Class diagrams are useful in many stages of system design.

Example:

Class Diagram for Online Shopping.



PRACTICAL 6:

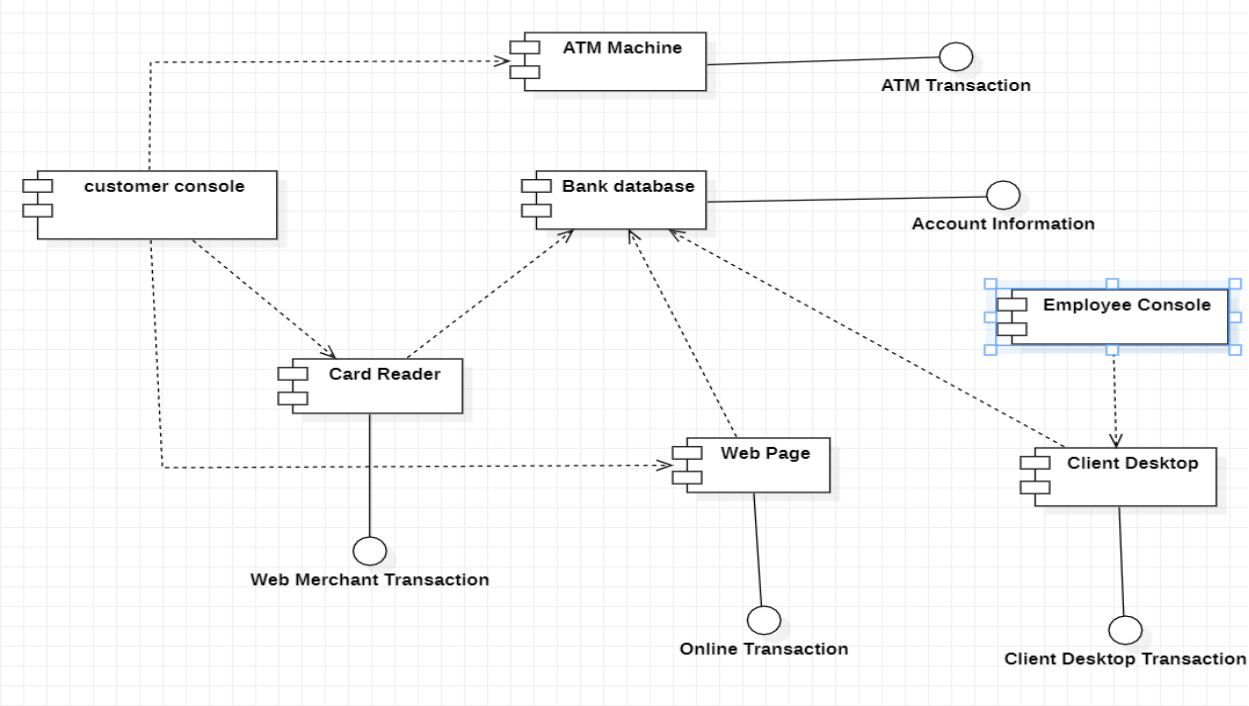
**STUDY AND IMPLEMENTATION OF COMPONENT DIAGRAM.**

**AIM:** Implementaion of Component Diagram.

Component diagrams are **special type of UML diagrams used for different purposes**. These diagrams show the physical components of a system. To clarify it, we can say that component diagrams describe the organization of the components in a system

Example:

Component Diagram for ATM Machine.



PRACTICAL 7:

**STUDY AND IMPLEMENTATION OF SEQUENCE DIAGRAM.**

**AIM:** Implementaion of Sequence Diagram.

A sequence diagram is **a Unified Modeling Language (UML) diagram that illustrates the sequence of messages between objects in an interaction**. A sequence diagram consists of a group of objects that are represented by lifelines, and the messages that they exchange over time during the interaction.

Example:

Sequence Diagram for Email Verification.