EXPERIMENT 4

AIM:

To design a **UML Diagram** for an **ATM System** that models the interactions between the **Customer, Banking System, Administrator, and Technicians** in performing financial transactions and maintaining the system.

PROCEDURE:

1. Identify Main Actors

- **Customer**: Interacts with the ATM to perform financial transactions.
- Banking System: Processes the customer's requests and manages account data.
- Administrator: Manages ATM settings and monitors transactions.
- **Technician**: Maintains and repairs the ATM hardware and software.

2. Define Use Cases (Functionalities)

Customer Actions:

- Withdraw Cash: Customer inputs account details and withdraws money.
- **Deposit Cash**: Customer deposits cash into their account.
- Check Balance: Customer views account balance.
- **Transfer Funds**: Customer transfers funds to another account.
- Change PIN: Customer updates their PIN.

Banking System Actions:

- Authenticate User: Verifies customer credentials.
- **Process Transactions**: Manages all requests (withdrawals, deposits, transfers).
- Update Account Data: Updates balances and transaction history.

Administrator Actions:

- Monitor Transactions: Reviews transaction logs for security and performance.
- Update ATM Settings: Configures limits, language, and regional settings.

Technician Actions:

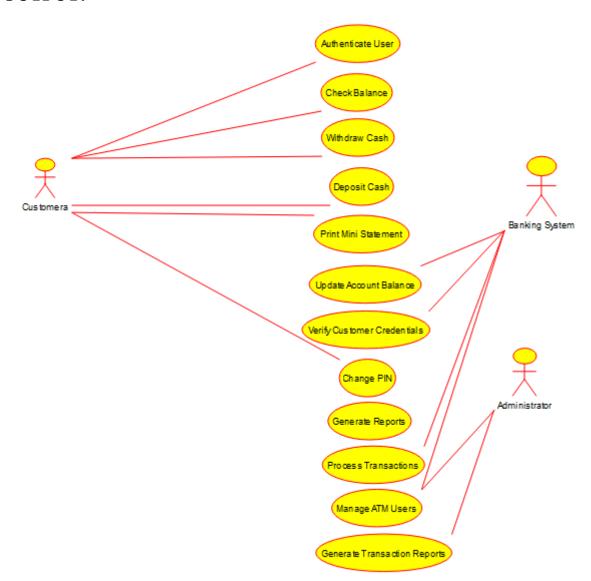
- Load Cash: Fills the ATM with sufficient cash.
- **Maintain ATM**: Repairs hardware/software and ensures the system operates smoothly.

3. Draw the UML Diagram Using a CASE Tool

• Use **Actors** to represent the **Customer**, **Banking System**, **Administrator**, and **Technician**.

- Use Use Cases to represent system functionalities, such as Withdraw Cash, Deposit Cash, and Load Cash.
- Connect **Actors** to their respective **Use Cases** with associations.
- Group related functionalities under the **ATM System** boundary for clarity.

OUTPUT:



RESULT:

The **UML Diagram** for the **ATM System** is successfully created using a CASE tool. It clearly represents the interactions between **Customer**, **Banking System**, **Administrator**, and **Technician** and their respective functionalities, ensuring a comprehensive understanding of the system's workflow.

Hence, the ATM System's processes and actor roles are effectively modeled.