

AVANTHI PG COLLEGE

Dilsukhnagar , Hyderabad



Department of computer Science

CERTIFICATE

This is to certify that Mr./Ms. CHALLA SAIKRISHNA

Has satisfactory completed the lab work in

Practica prescribed by Osmaniya University for computer
Science course in the Laboratory for the
year.....

Name : CH.Sai Krishna

Ht.No : 130521862170

Class :

External Examiner

Inetrnal Examiner

Head Of the Department

Contents :

1. Introduction-----	04
Problem definition-----	05
Evidence of problem definition-----	05
Proposed solution-----	05
Scope-----	05
Objectives-----	05
2. System Requirements	
Hardware Requirements-----	06
Software Requirements-----	06
System Analysis-----	07
Study of current/Existing system-----	07
Feasibility study-----	07
Technical feasibility-----	07
Social feasibility-----	07
Economical feasibility-----	07
Operation feasibility-----	08
Design of new proposed system (UML)-----	08
4. System design	
Data dictionary-----	09
Diagram design(UML)-----	09
Use case diagram-----	10
Activity diagram-----	11
Sequence diagram-----	12

Collaboration diagram-----	13
Class diagram-----	13
5.Diagram design(DFD)	
Level 0-----	14
Level 1-----	14
Level 2-----	15
Diagram design(ERD)-----	15
6. Graphical User Interface	
Insert ATM card-----	16
Main menu-----	16
Withdraw-----	17
Enter password-----	17
Balance inquiry-----	18
Receive cash or deposit money -----	18
7. Requirements for ATM	
Functional Requirements-----	19
8. Software Testing-----	20

AIM: To develop the “ATM Application” using Rational Rase Software and to implement the software in visuval base.....

Introduction:

Automated Teller Machine enables the clients of a bank to have access to their account without going to the bank. This is achieved only by development the application using online concepts.

When the product is implemented, the user who uses this product will be able to see all the information and services provided by the ATM, when he enters the necessary option and arguments. The product also provides services like request for cheques, deposit cash and other advanced requirement of the user. The data is stored in the database and is retrieved whenever necessary. The implementation needs ATM machine hardware to operate or similar simulated conditions can also be used to successfully use the developed product.

To develop this ATM system the entire operation has been divided into the following step:

1. verification process
2. language, service and account selection
3. Banking services
4. Transactions
5. Special services

The program is designed in such a way that the user has to card and pin number. Once verified, he is provided a menu and he/she had to enter the option provided in the menu. For example, when the user wants to view the list of payment history than he/she had to enter the option for payment history provided in the main menu. When the option is entered alone with the respective argument, then the payment history is displayed on the screen.

The user also must be given option to browse through the pages like previous page, next page, etc. The user may experience a delay in retrieving or viewing the data, when there are many users logged on to the same bank branch system

Problem definition :

The system mainly used by the bank clients. When a client comes to ATM centre to update and delete their account. It reduces the time consumption and lot of paperwork. For any single operation it involves numerous references and updating also takes subsequent changes in other places.

Evidence of problem definition:

Now- a -days every one very busy in their work. So they feel that the job must be easier so the system is used to reduce their work which is done in the ATM system. Instead of keeping lots of paper into a record or file and it may be missed somewhere so, this system help to keep the record of the customer it also keeps the details of the customer. It is also easy to access.

Proposed solution:

The system customer transactions, satisfies the requirements of the existing system in full-fledged manner. Through this system, customer can make fast transactions and view the last transactions easily.

Scope :

- It can be implemented in ATM machine by owner of bank or in charge of branch.
- It is easy to learn the task..

Objectives:

Our main objective is to speed up the transactions done by customers. No manual transactions needed generally. The second objective is to save the time which is very important now-a-days. It will include other objectives such as :

- To render accurate services to customer.
- The reduction of fraudulent activities
- To achieve speedy processing of customer data
- Security

2. System Requirements:

Hardware Requirements:

- Processor :- Intel Pentium 4 or Later or Compatible
- Hard Disk :- 410GB or more
- RAM :- 1GB or more
- Printer :- Any
- Monitor :- SVGA Color Monitor (Touch Screen or Simple)
- Pointing Device :- Touch Pad or Keys

Software Requirements:.

- Operating System :- Microsoft Windows XP or Later or Equivalent
- Front End :- Visual Basic 6.0
- Back End :- Oracle 8i

3. System Analysis :

Study of current/Existing system:

In the manual system, firstly the bank manager and its staff have to manage information regarding the accounts and transaction of all the customers manually. Doing this manual transaction was really tedious job. Secondly information regarding accounts and transactions of customers were to be maintained.

This process is time consuming and it requires a great manual effort.

Disadvantages:

- ❖ More time is consumed.
- ❖ More hard work to maintain all records.
- ❖ Bulk of paper is to be searched for a single search.

Feasibility study:

Technical feasibility:

The system is being developed in Visual Basic 6.0. It provides comprehensive function to make it user friendly. The data entry and report generation is also made easy. Backup and restore of the database facility are also provided. It also provides easy retrieval of data. The machine configuration also supports this software.

Social feasibility:

As this system is user friendly and flexible some problems will also be solved which employee may be facing when using existing system. So we can say that system is socially feasible.

Economical feasibility:

The cost of converting from manual system to new automatic computerized system is not probably more. For construction of the new system, the rooms and its facilities are available so it does not require any extra resource, only the software requirement is there.

Operation feasibility:

Since the system is being in user friendly way, the new customers within a few time can master it.

Design of new proposed system (UML):

This system provides paperless maintenance. Initially a cashier or an clerk can be appointed to do all the transaction and update and maintain records. In the new system the customer himself can do all the transaction and the computerized system automatically updates and maintains the records. Advantages:

- Less effort to complete transaction.
- Less time required.
- No need to maintain the bulk of papers.

System design:

Data dictionary:

Table Name: customer

Column Name	Data Type
cust_id	varchar2
Cust_name	varchar2
Date Of Birth	Data
Contact_number	number
Cust_address	varchar2
a_c_no	varchar2
a_c_type	varchar2
Bal	number
Card_no	number
card_pin	number
b_branch_id	varchar2

Table Name : Bank

Column Name	Data Type
b_branch_id	varchar2
b_branch_name	varchar2
b_branch_add	varchar2
b_admin_id	varchar2

Table Name : Branch_Admin

Column Name	Data Type
b_admin_id	varchar2
b_admin_name	varchar2
b_admin_pin	Number
b_admin_rights	varchar2

Table Name : ATM

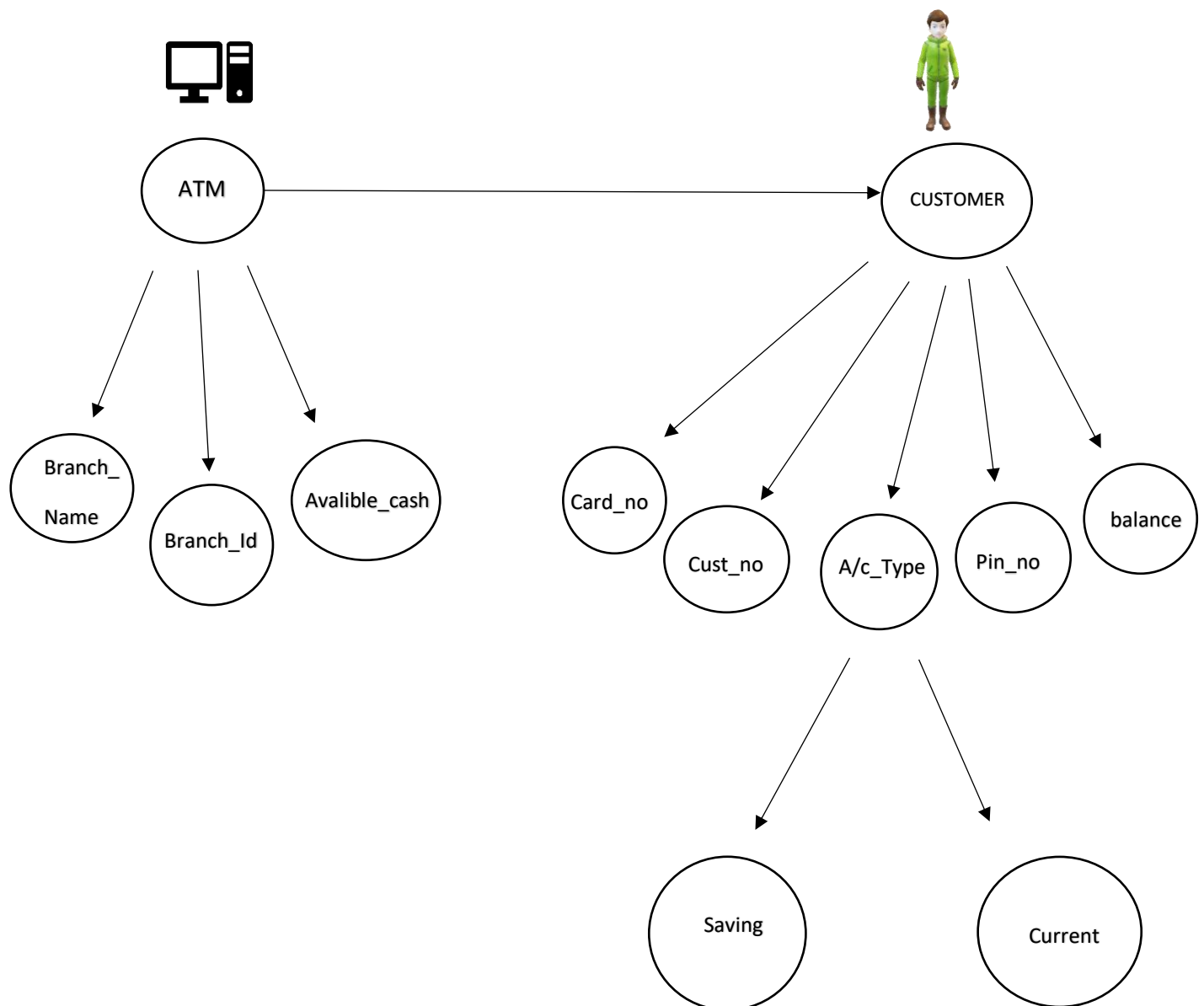
Column Name	Data Type
a_branch_id	varchar2
a_branch_name	varchar2
a_branch_add	Number
a_admin_id	varchar2
available_cash	Number
b_branch_id	Varchar2

Table Name : Admin_ATM

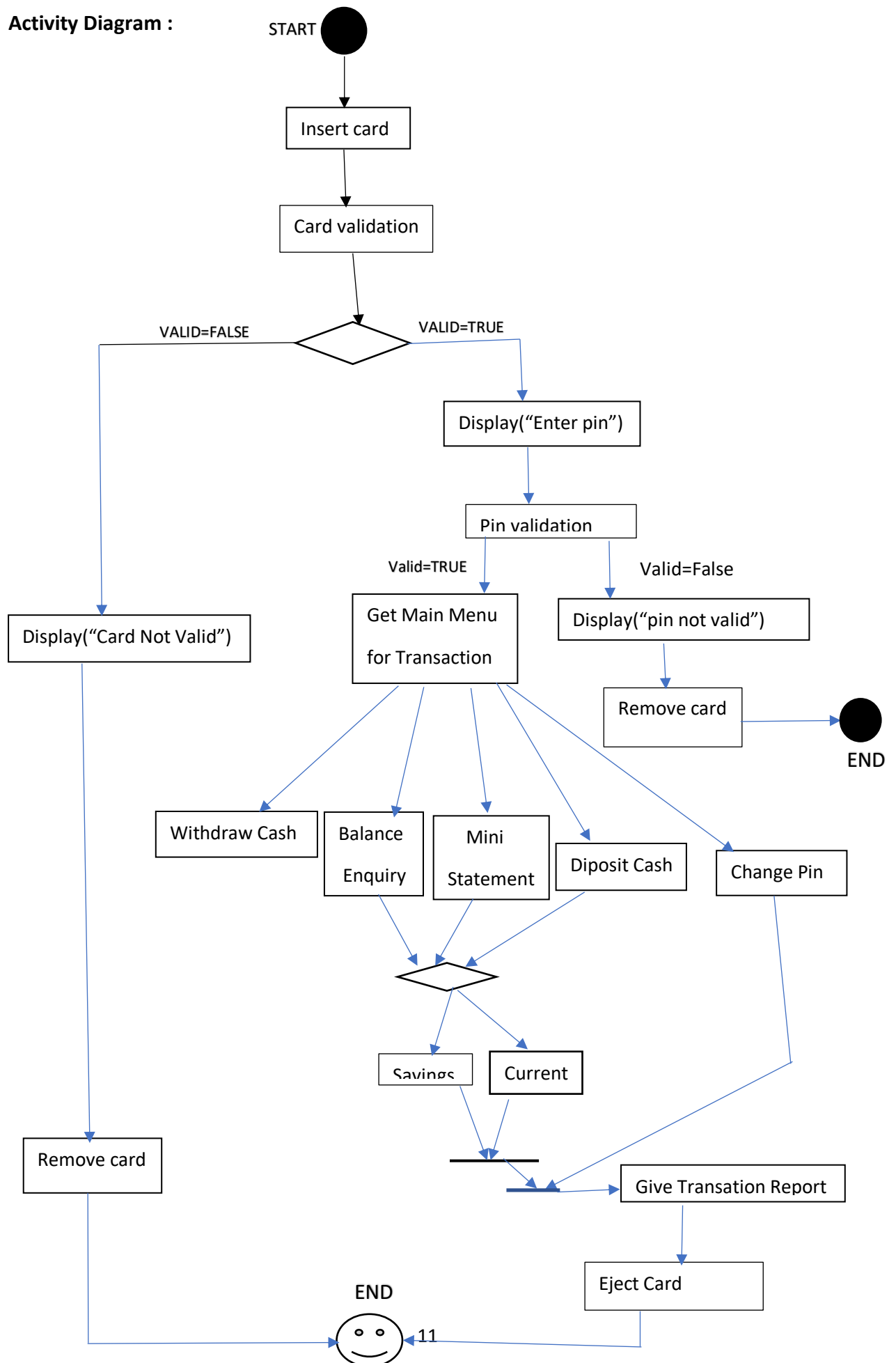
Column Name	Data Type
a_admin_id	varchar2
a_admin_name	varchar2
a_admin_pin	number
a_admin_rights	varchar2
a_branch_id	Varchar2

Diagram design(UML):

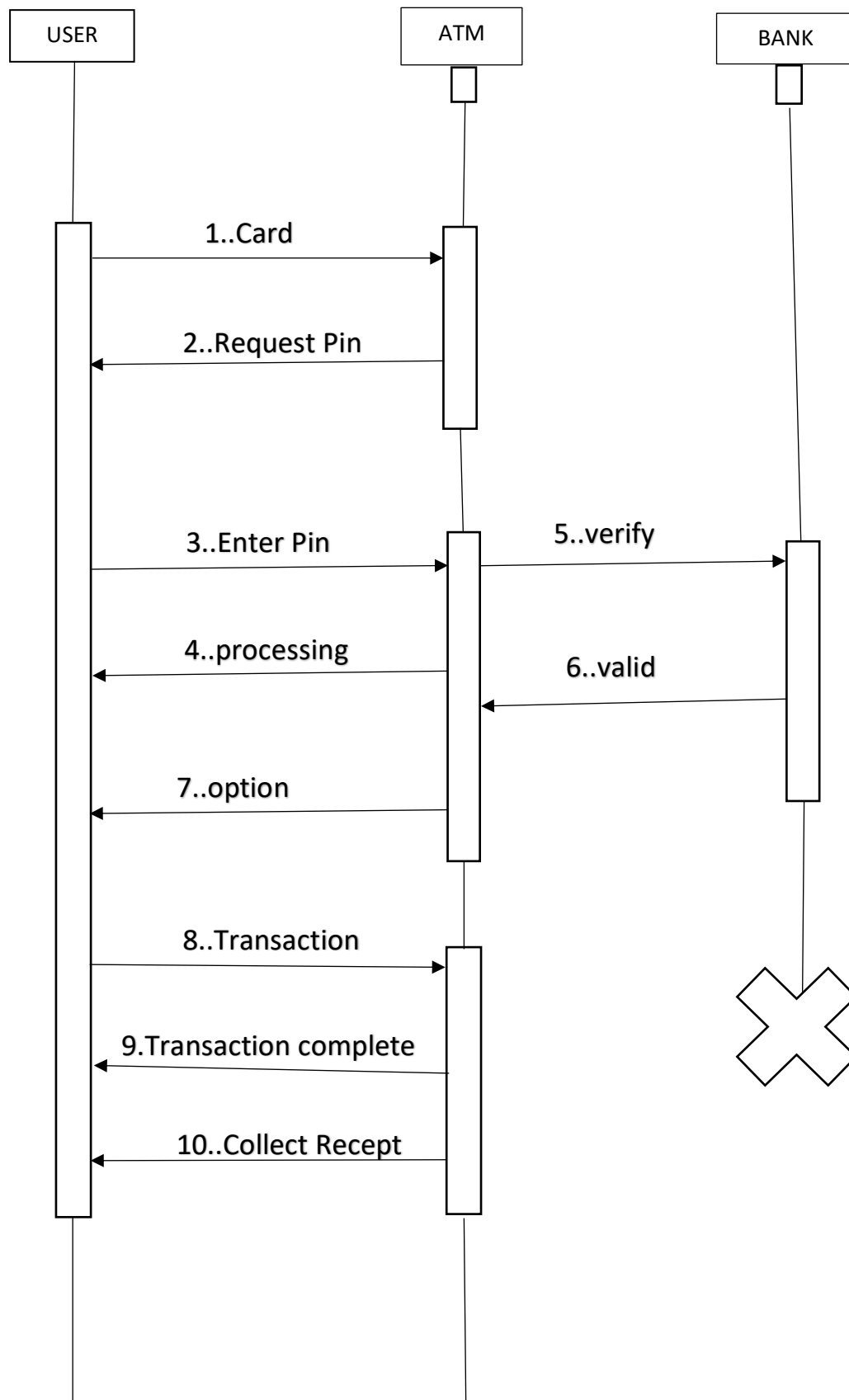
Use Case Diagram



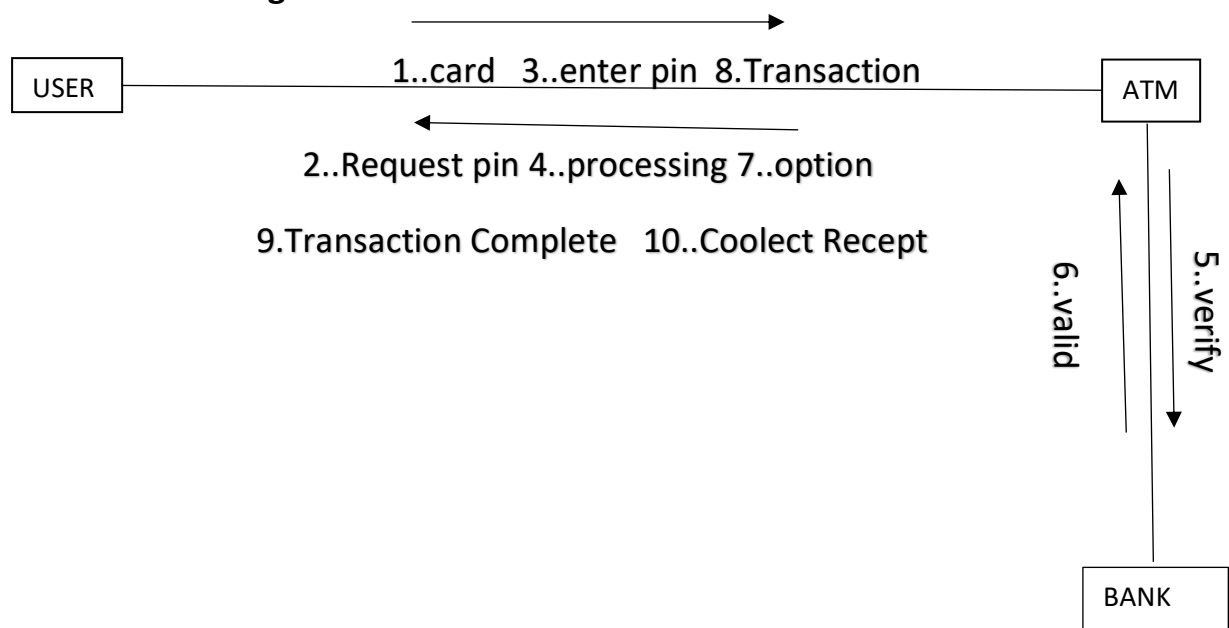
Activity Diagram :



Sequence diagram:



Collaboration diagram:



Class diagram:

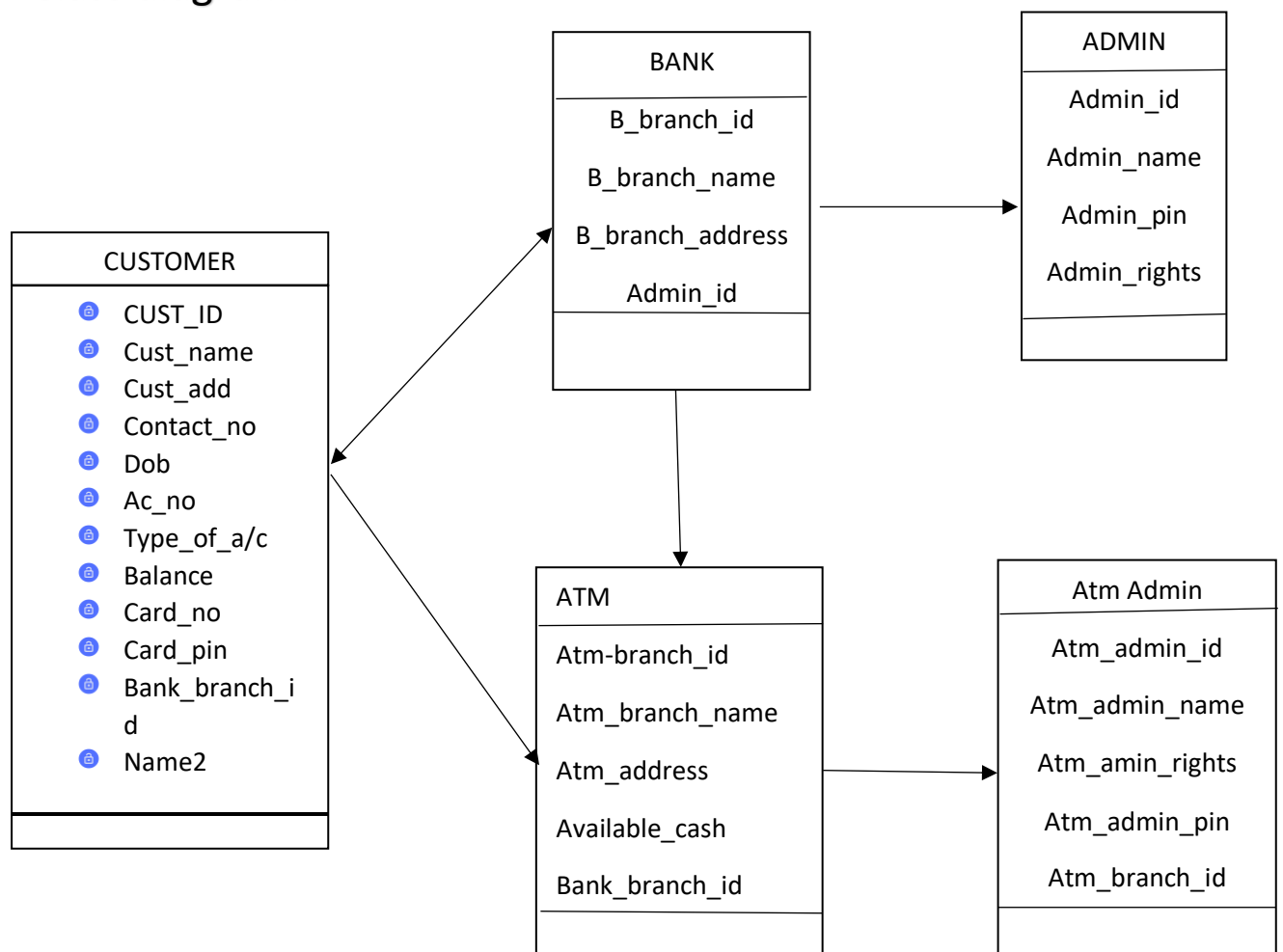
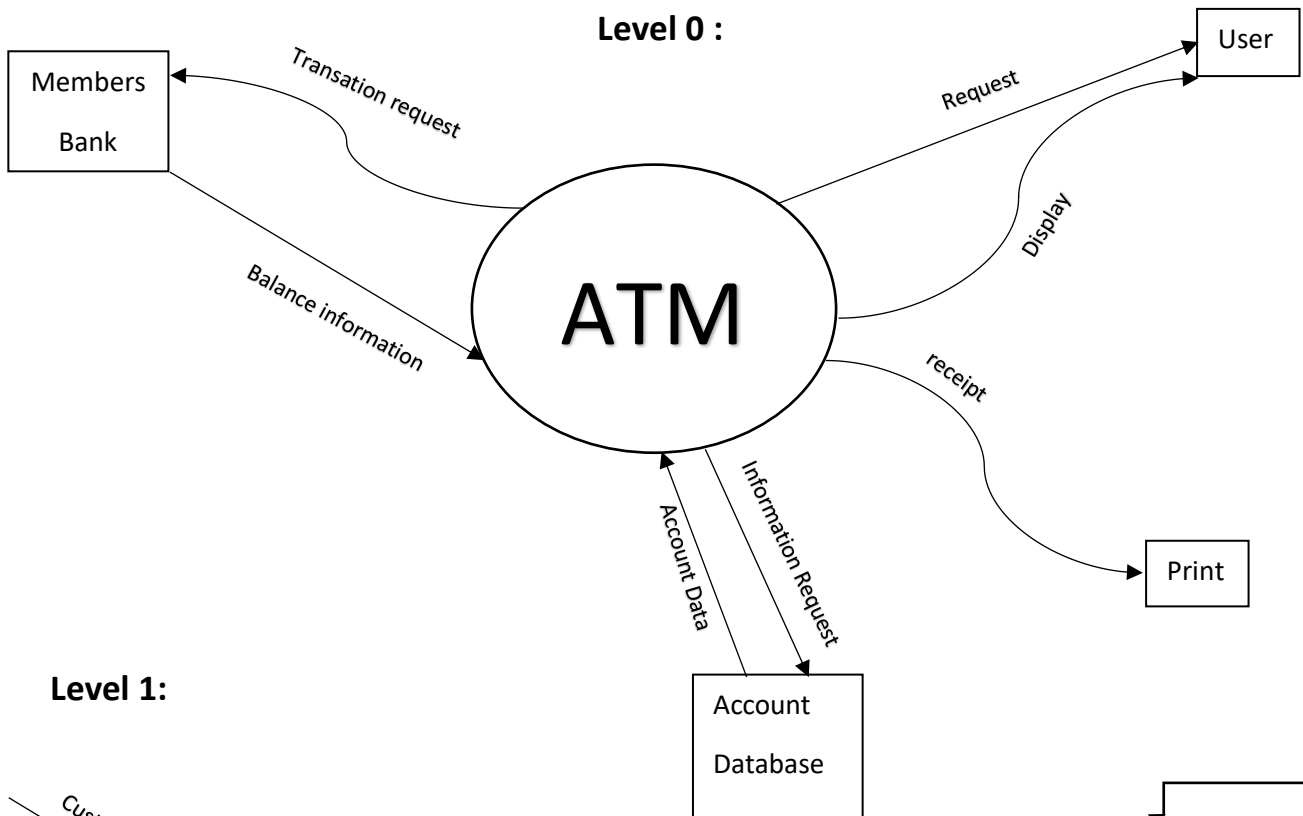
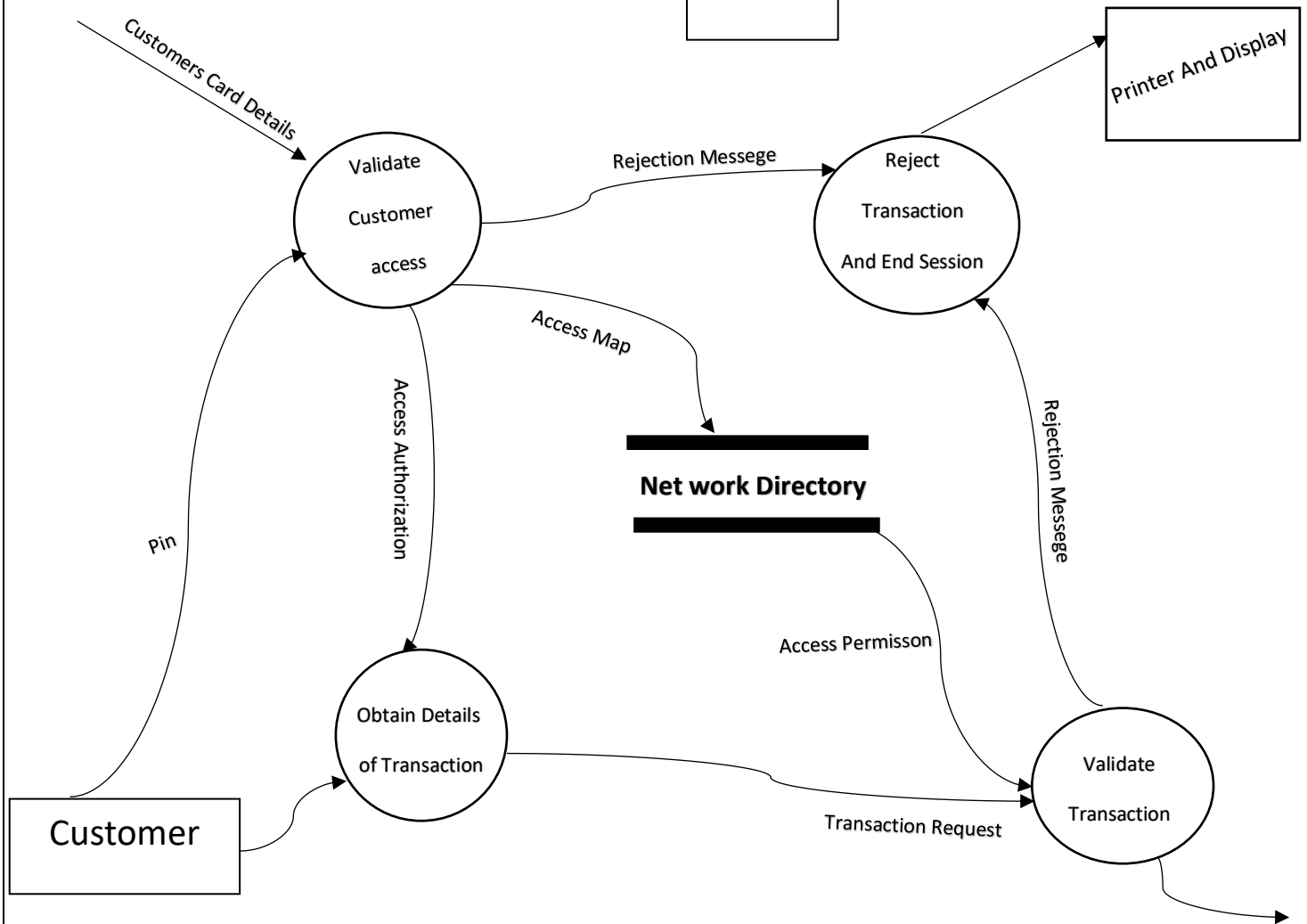


Diagram design(DFD): Data Flow Diagram

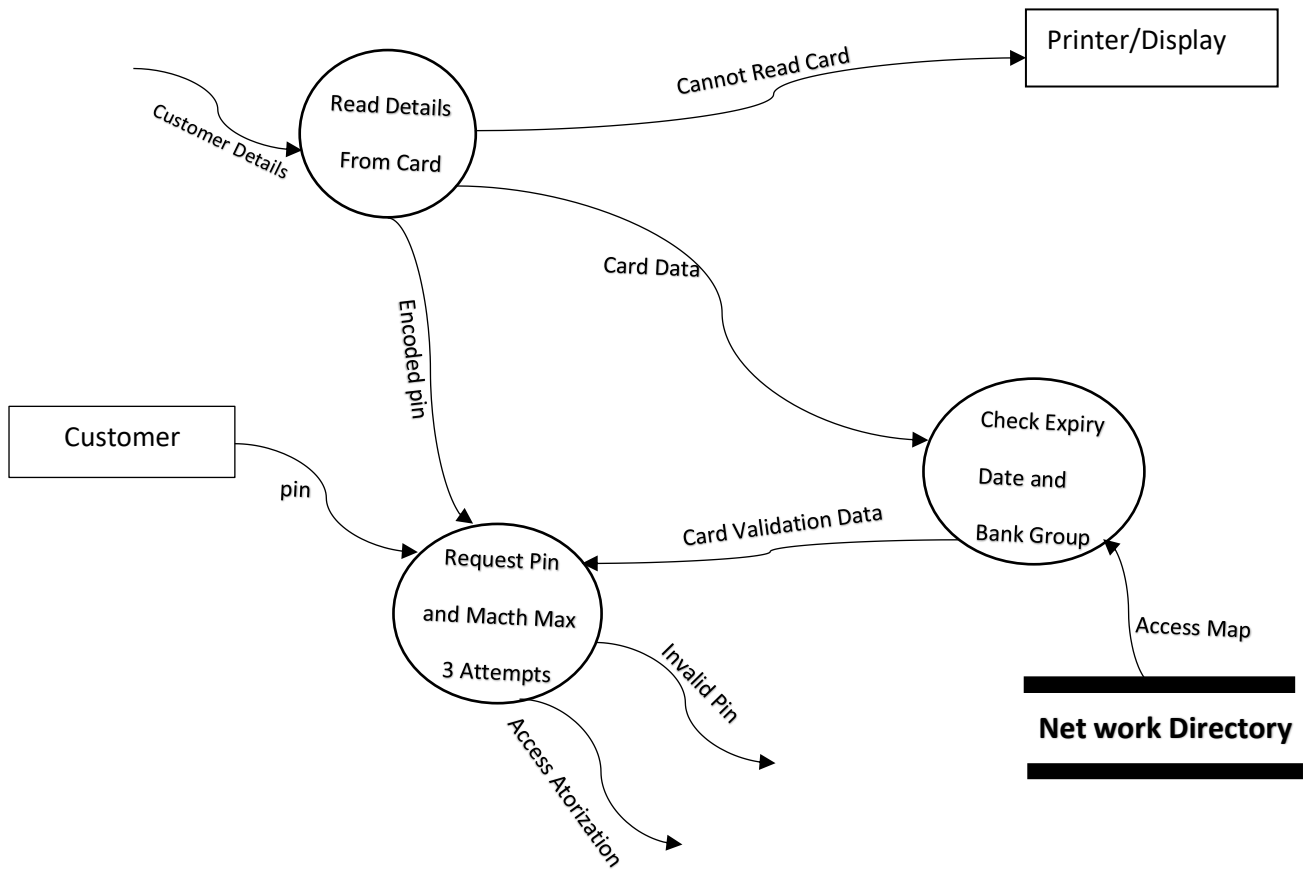
Level 0 :



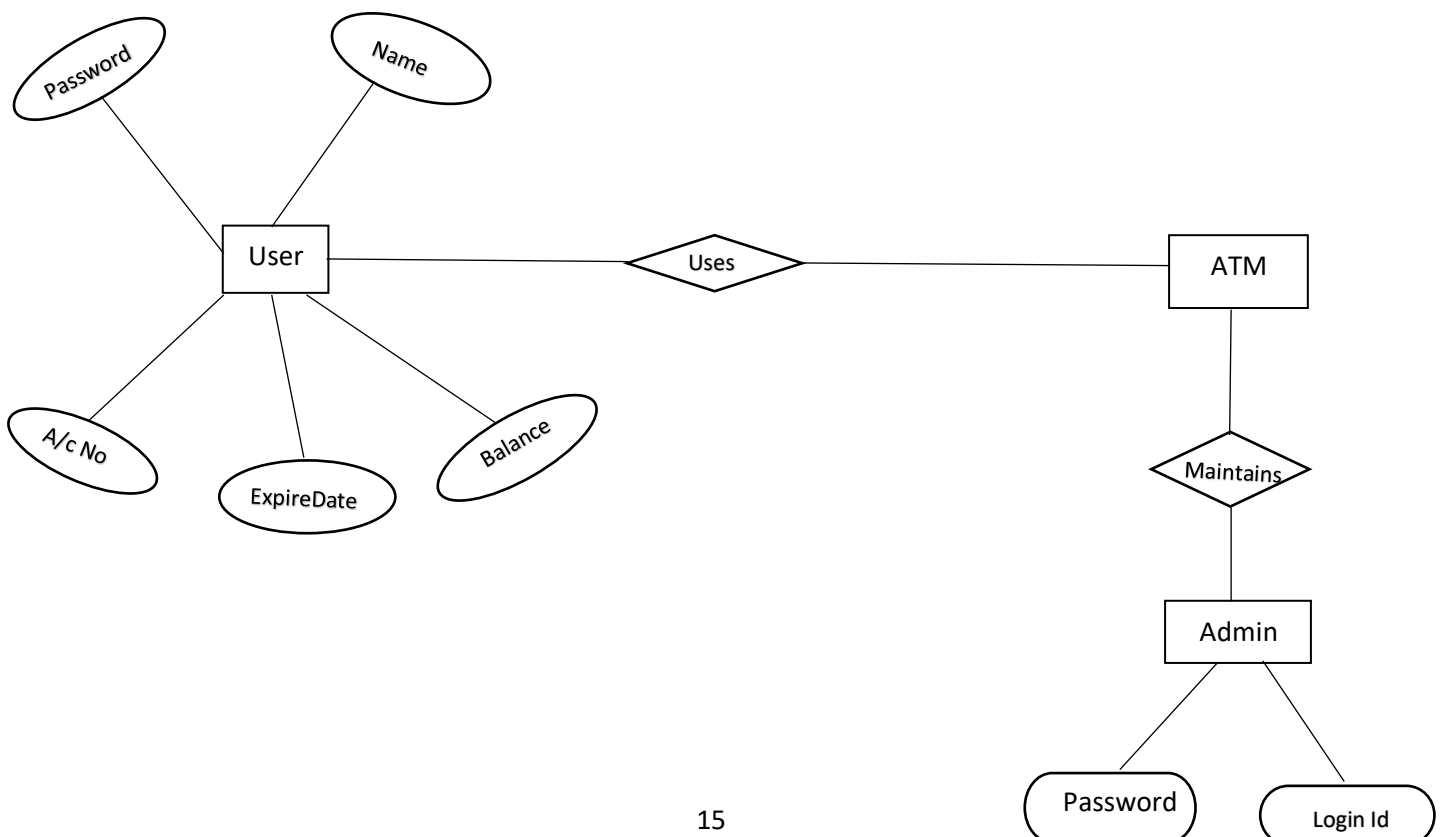
Level 1:



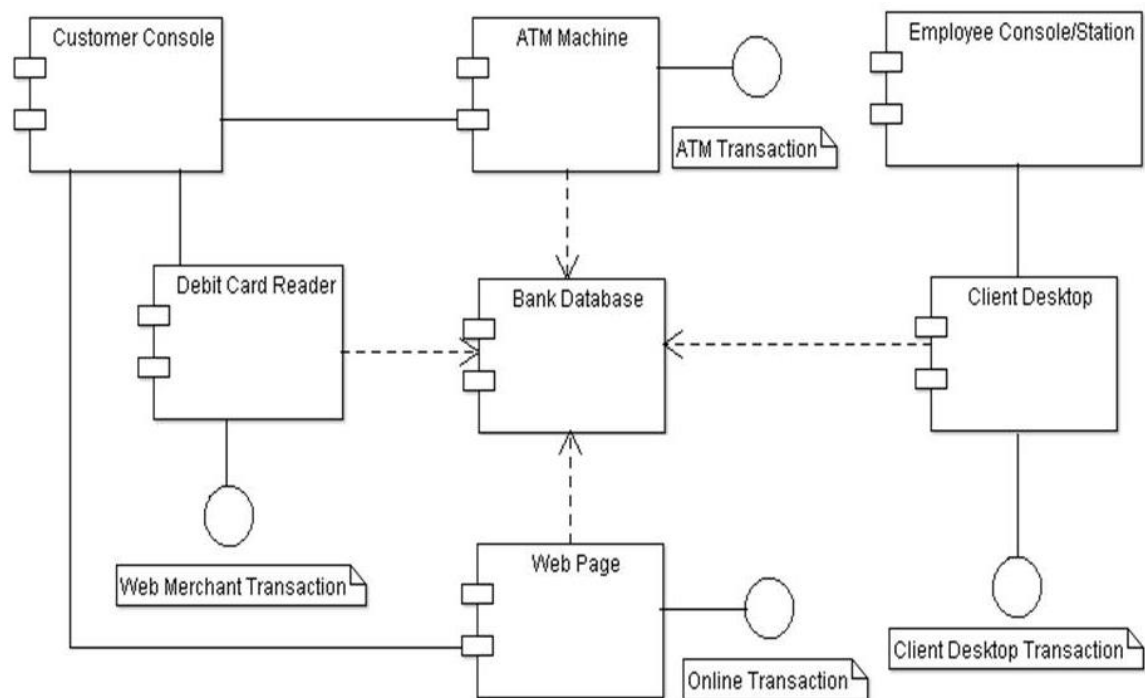
Level 2 :



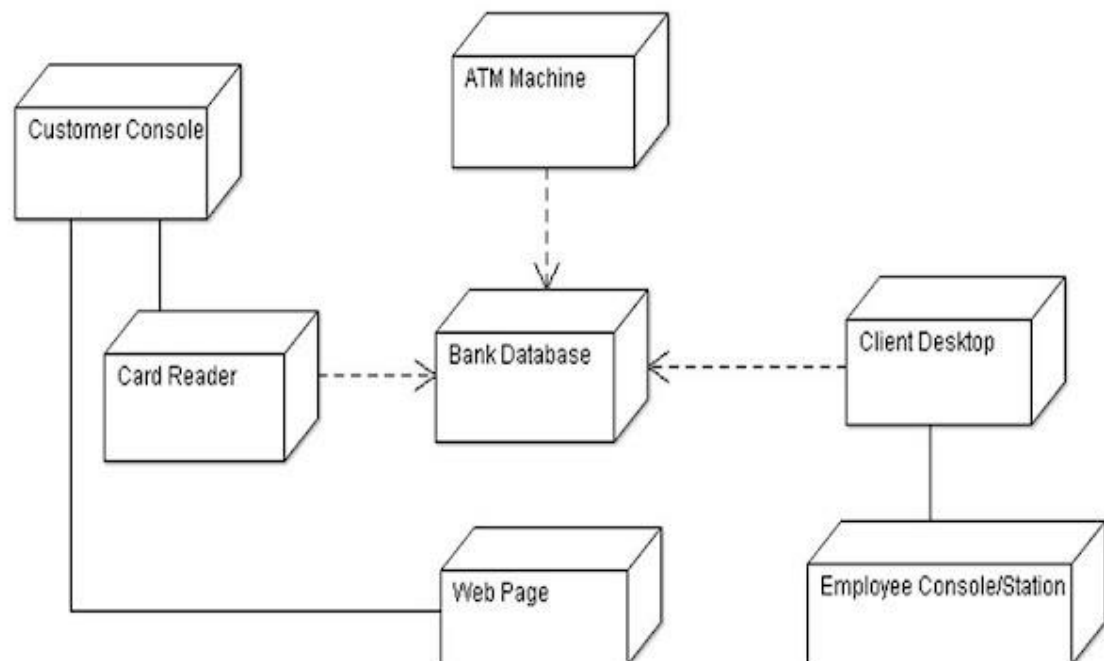
Entity Relationship Diagram :



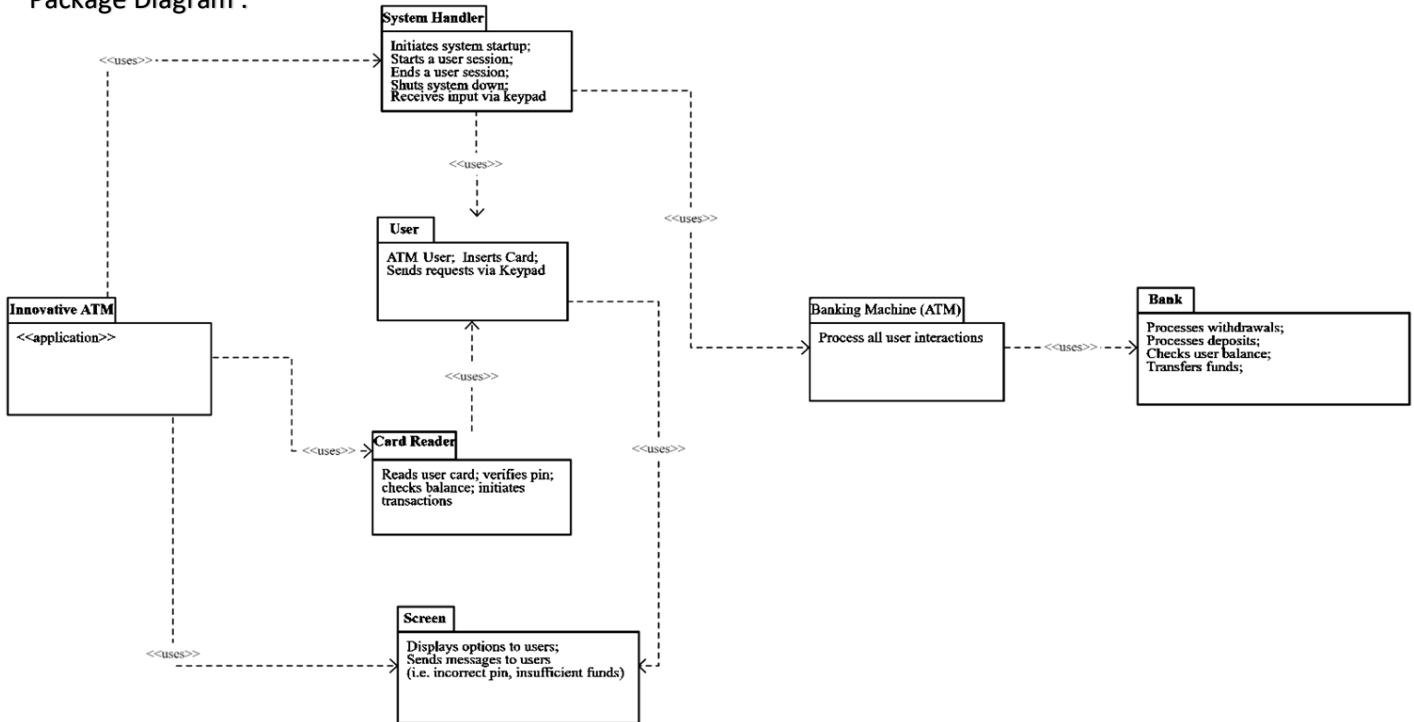
Component Diagram :



Deployment Diagram :

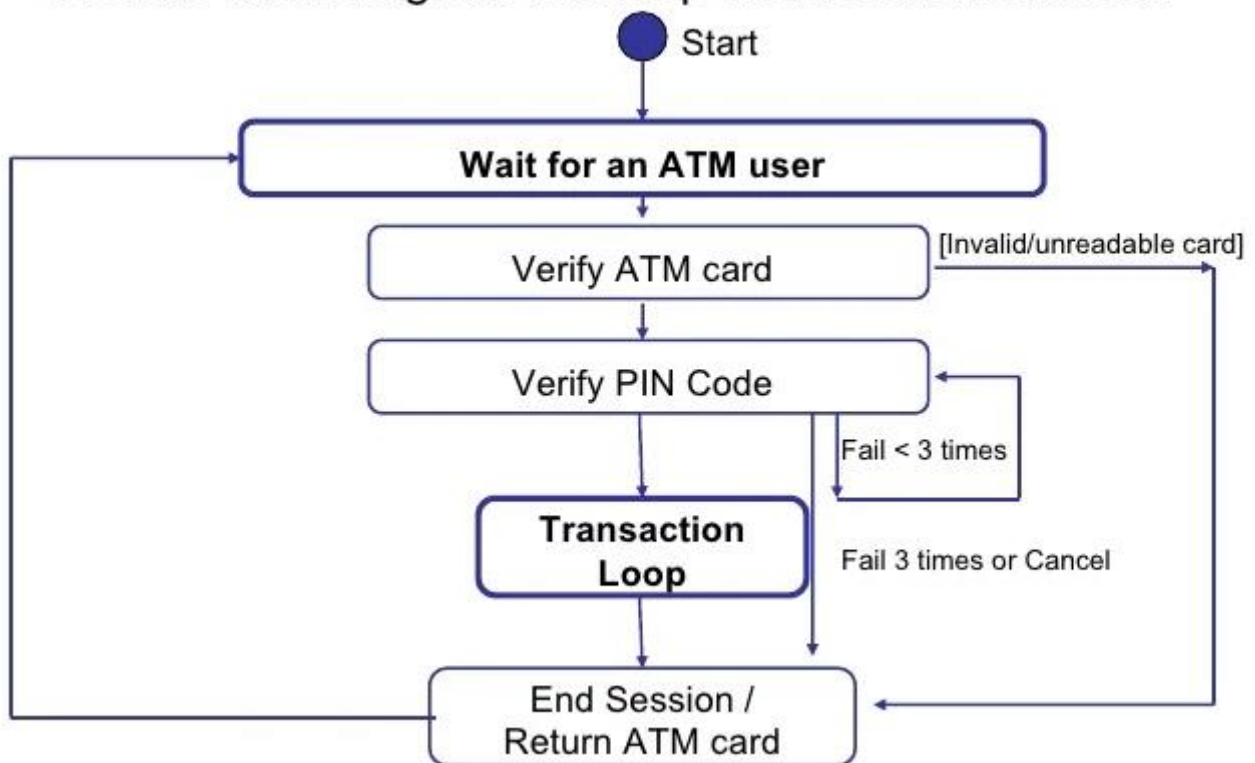


Package Diagram :



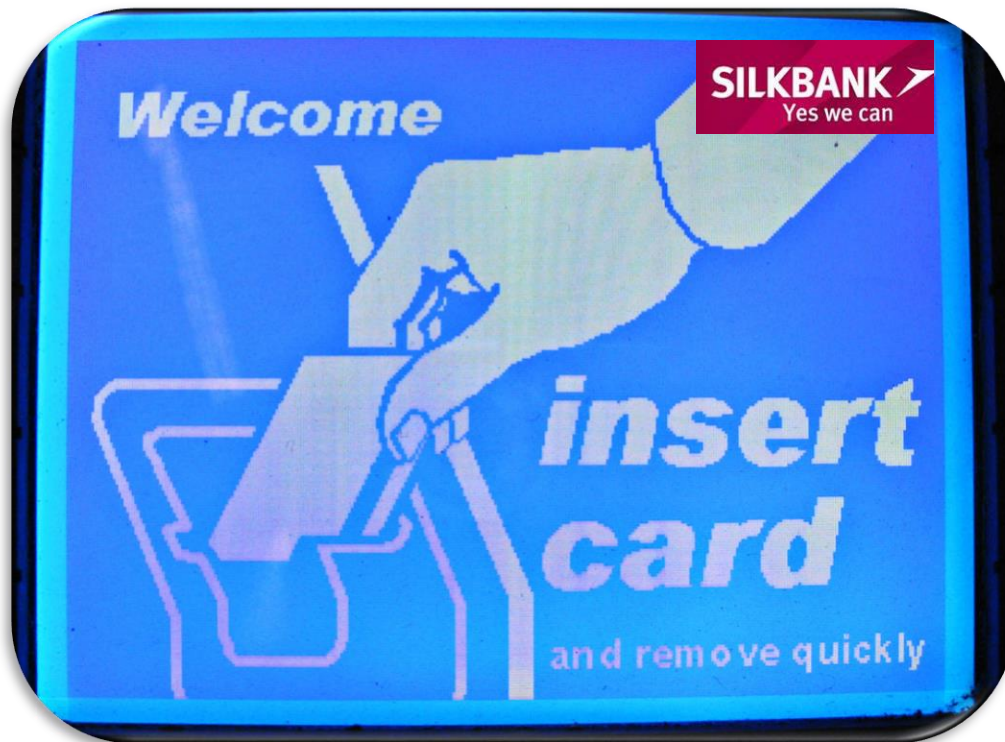
State Chart Diagram:

- A state chart diagram can help understand behavior.

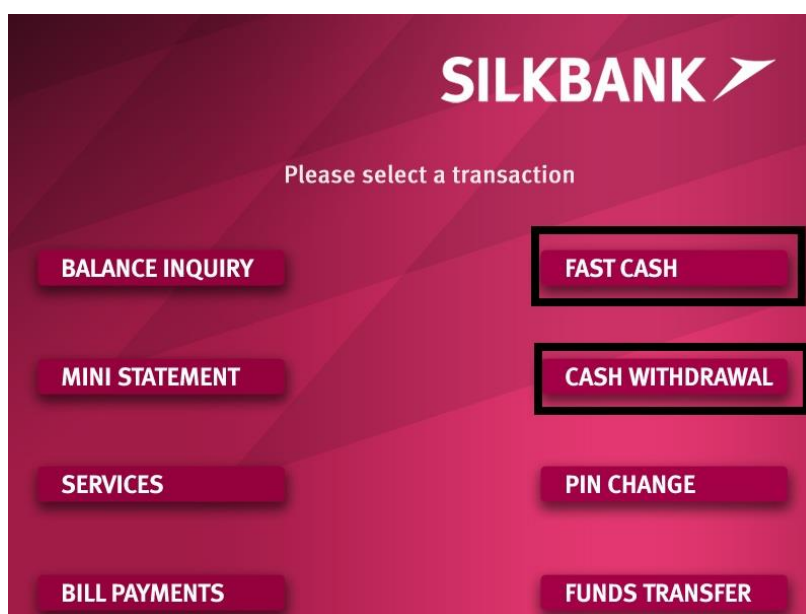


Graphical User Interface(GUI):

Insert ATM card :



Main Menu:



Withdraw:



SILKBANK
Yes we can

ACCOUNT NAME: Juan, Dela Cruz
ACCOUNT NUMBER: 12345 658910
Remaining Balance: P85,500.00

WITHDRAW > SAVINGS

Enter PIN:

Amount: P 500 P 1,000 P 2,000
P4,000 P6,000 P 8,000
P10,000 P 15,000 Enter Other Amount

Print Receipt No Receipt

CONTINUE TRANSACTION



SILKBANK
Yes we can

ACCOUNT NAME: Juan, Dela Cruz
ACCOUNT NUMBER: 12345 658910
Remaining Balance: P85,500.00

WITHDRAW > SAVINGS

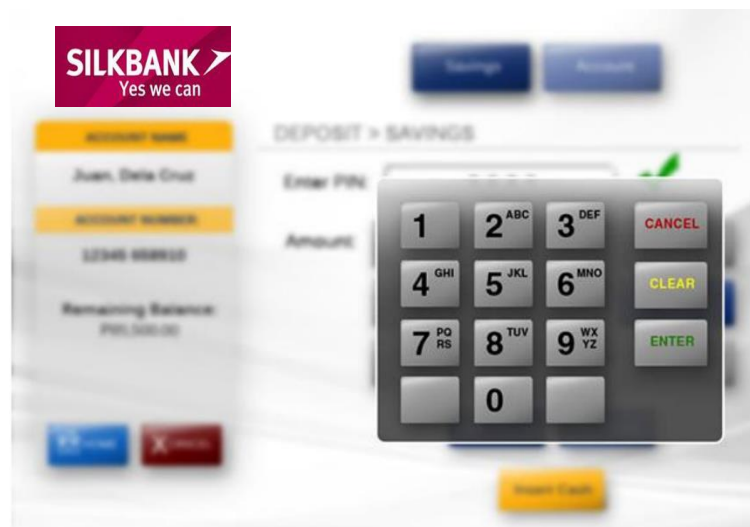
Enter PIN: ✓

Amount: P 500 P 1,000 P 2,000
P4,000 P6,000 P 8,000
P10,000 P 15,000 Enter Other Amount

Print Receipt No Receipt

CONTINUE TRANSACTION

Enter Pin :



SILKBANK
Yes we can

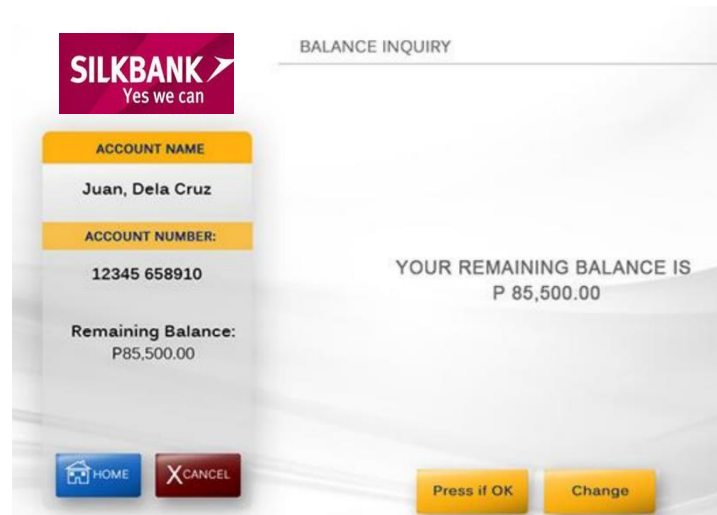
DEPOSIT > SAVINGS

Enter PIN:

Amount:

1 2 ABC 3 DEF CANCEL
4 GHI 5 JKL 6 MNO CLEAR
7 PQ RS 8 TUV 9 WX YZ ENTER
0

Balance Inquiry :



Receive cash or deposit money :



Requirements for ATM

Functional Requirements:

ATM-FR-X----- ATM functional requirement

ATM-FR-1 -----The card reader determines the account number from entered card

ATM-FR-2 -----ATM is in the idle state when there is no operation

ATM-FR-3----- The user is prompted to enter a PIN after a card is entered.

ATM-FR-4 -----A menu is displayed to the user with following options: Withdraw, Deposit,

Pay bill, Account update and Exit.

ATM-FR-5 -----The cash Dispenser has the ability to dispense cash.

ATM-FR-6----- A transaction record can be printed upon demand.

ATM-FR-7----- The card is ejected when the session is completed.

ATM-FR-8----- The envelope feeder accepts envelopes

ATM-FR-9 -----The envelope feeder is aware when an envelope has been inserted.

ATM-FR-10----- The printer determines whether there is sufficient paper and ink.

ATM-FR-11----- The ATM default to idle state.

ATM-FR-12----- The cash dispenser is aware of the cash amount available.

ATM-FR-13-----The user is prompted to make between 1 and 3 bill payments.

ATM-FR-14----- The keypad accepts input from the user.

ATM-FR-15----- The ATM is aware of state of the envelope drawer. (Which can be either
empty or full).

ATM-FR-16----- The ATM can withhold a bank card

ATM-FR-17----- Transactions can be canceled at any prompt by the user pressing the

CANCEL button.

SOFTWARE TESTING:

UNIT TESTING:

Unit testing involves the design of test cases that validate that the internal program logic. It is the testing of individual software units of the application.

INTEGRATION TESTING:

Integration tests are designed to test integrated software components to determine if they are actually run as one.

FUNCTIONAL TESTING:

Functional testing provide the systematic demonstration of the functions that perform in this process.

WHITE BOX TESTING:

It is the testing in which the software has the knowledge of the inner workings, structure and language of the software.

BLACK BOX TESTING:

Black box testing is the testing software without any knowledge of the inner workings, structure or language of the module being tested.

RESULT :

Thus the project to develop ATM application system using Rational Rose Software and to implement the project in Visual Basic is done successfully.