IQRA National University

FINAL EXAM

OBJECT ORIENTED SYSTEM ANALYSIS AND DESIGN

SUBMITTED TO:

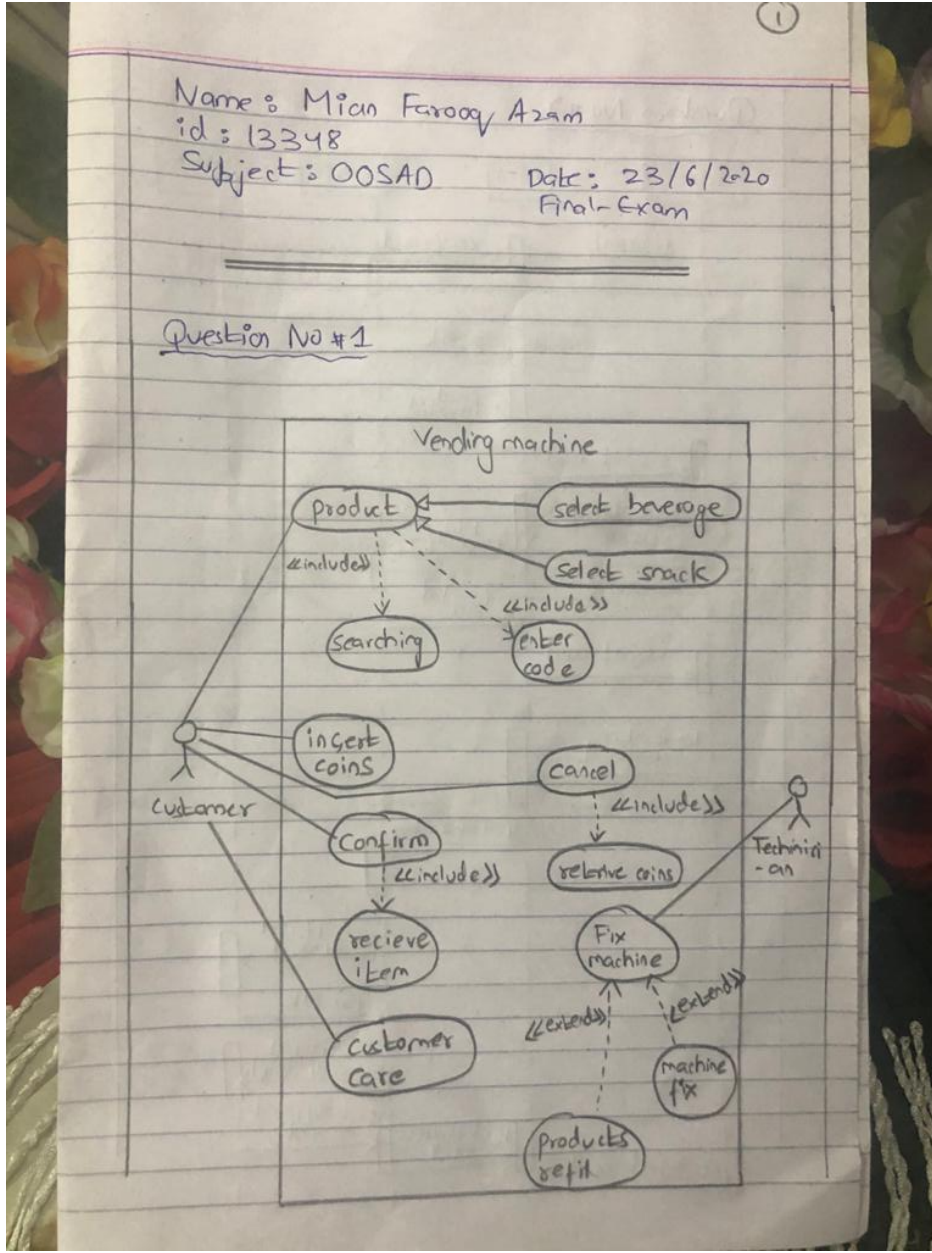## SIR FAHEEM ULLAH

SUBMITTED BY:

Mian Farooq Azam

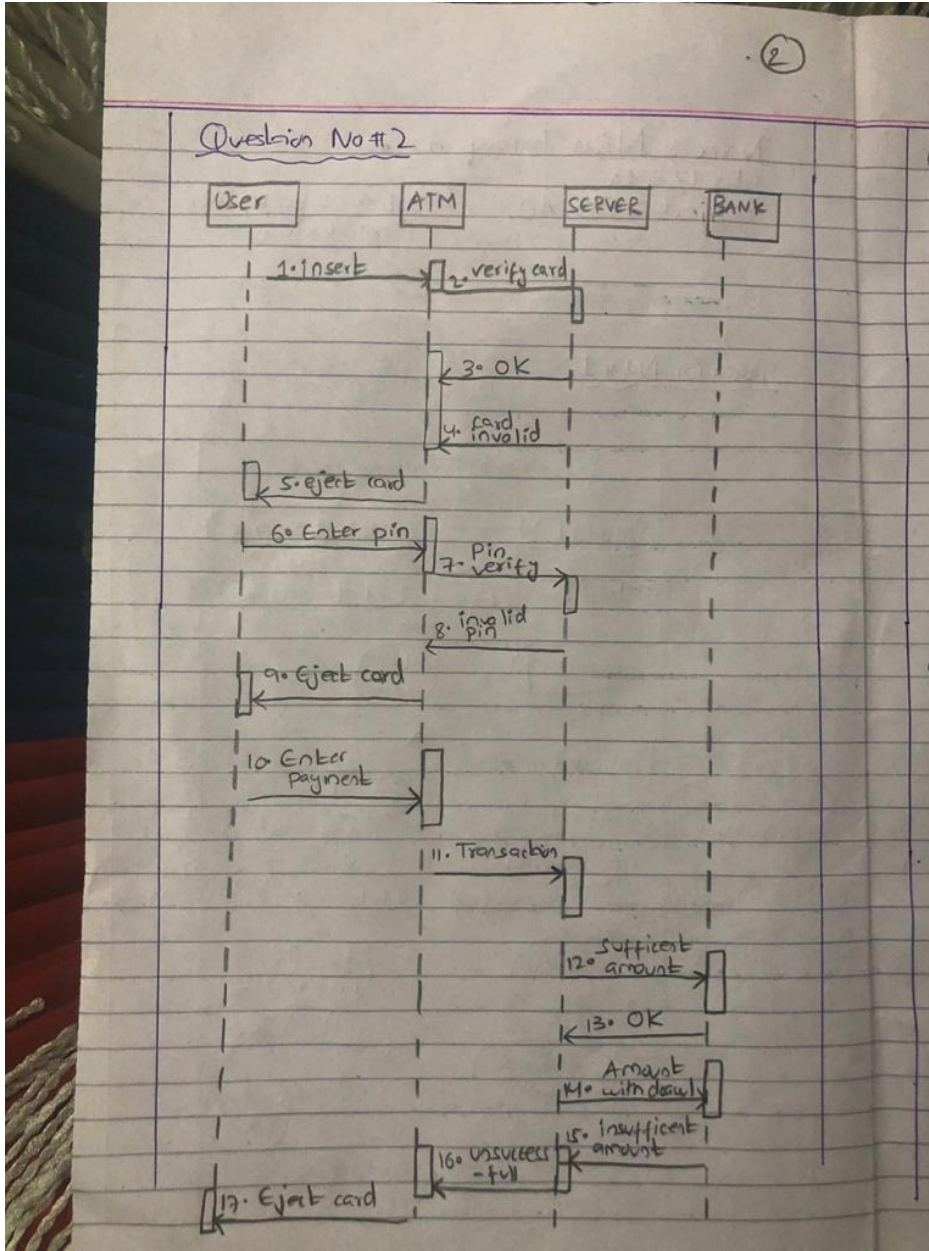**ID : 13348**

BSSE 8th SEC A

Last Date: 23rd June 2020

Question# 1:

Use Case Diagram:
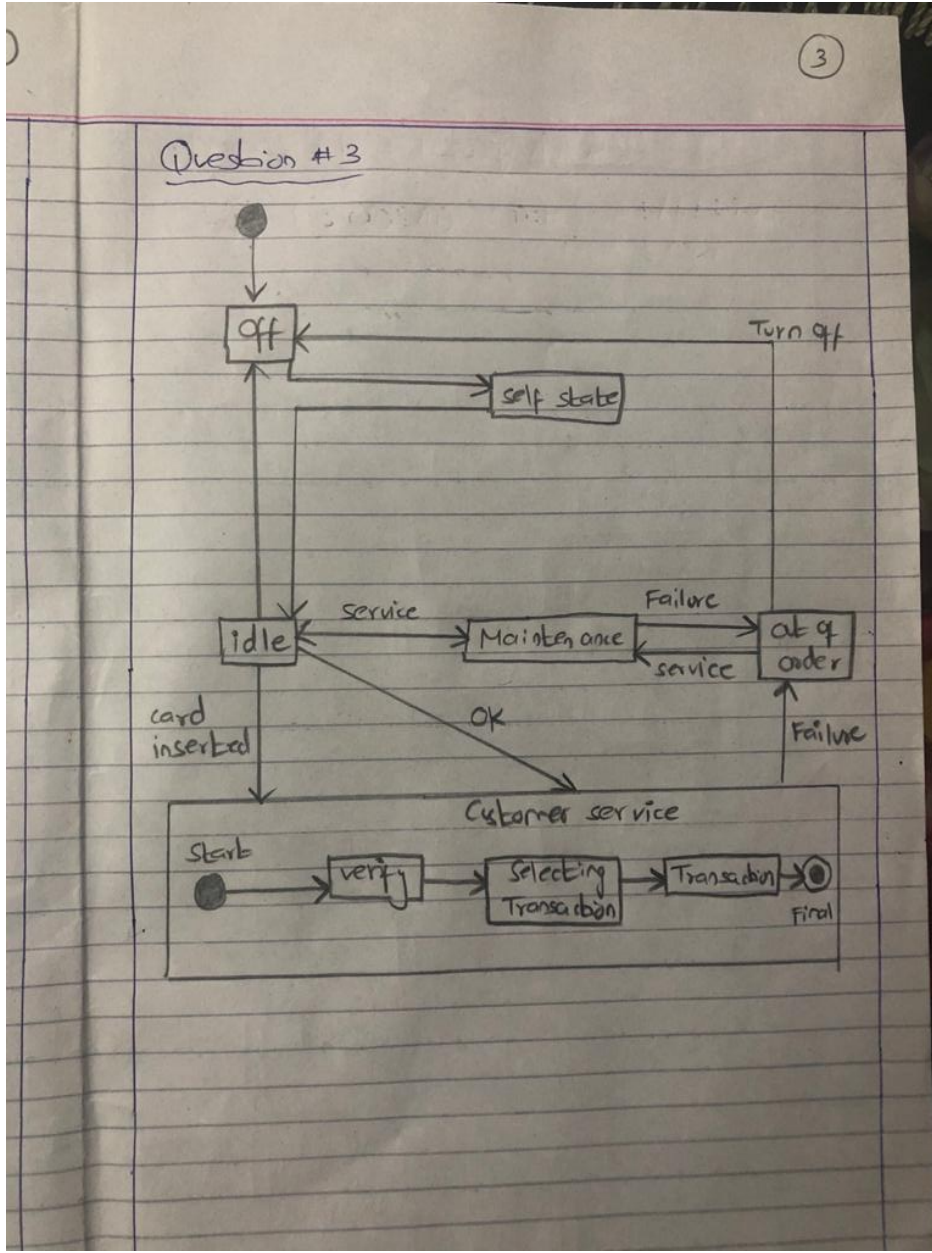
Question# 2:

Sequence Diagram:

Question No #2

| User | ATM | SERVER | BANK |

1. insert
2. verify card
3. OK
4. card invalid
5. eject card
6. Enter pin
7. Pin verify
8. invalid pin
9. Eject card
10. Enter payment
11. Transaction
12. sufficient amount
13. OK
14. Amount with drawl
15. Insufficient amount
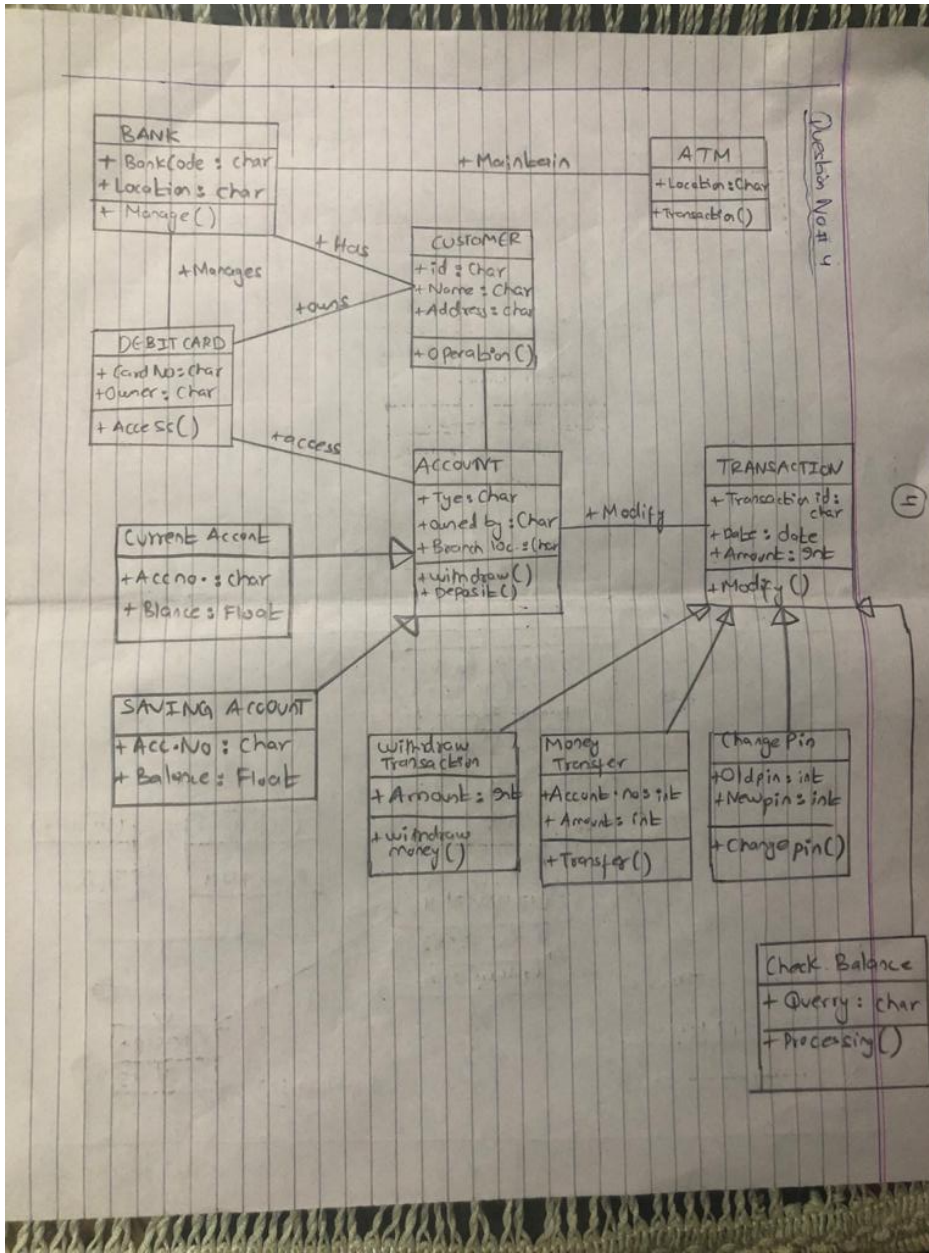16. unsuccess -full
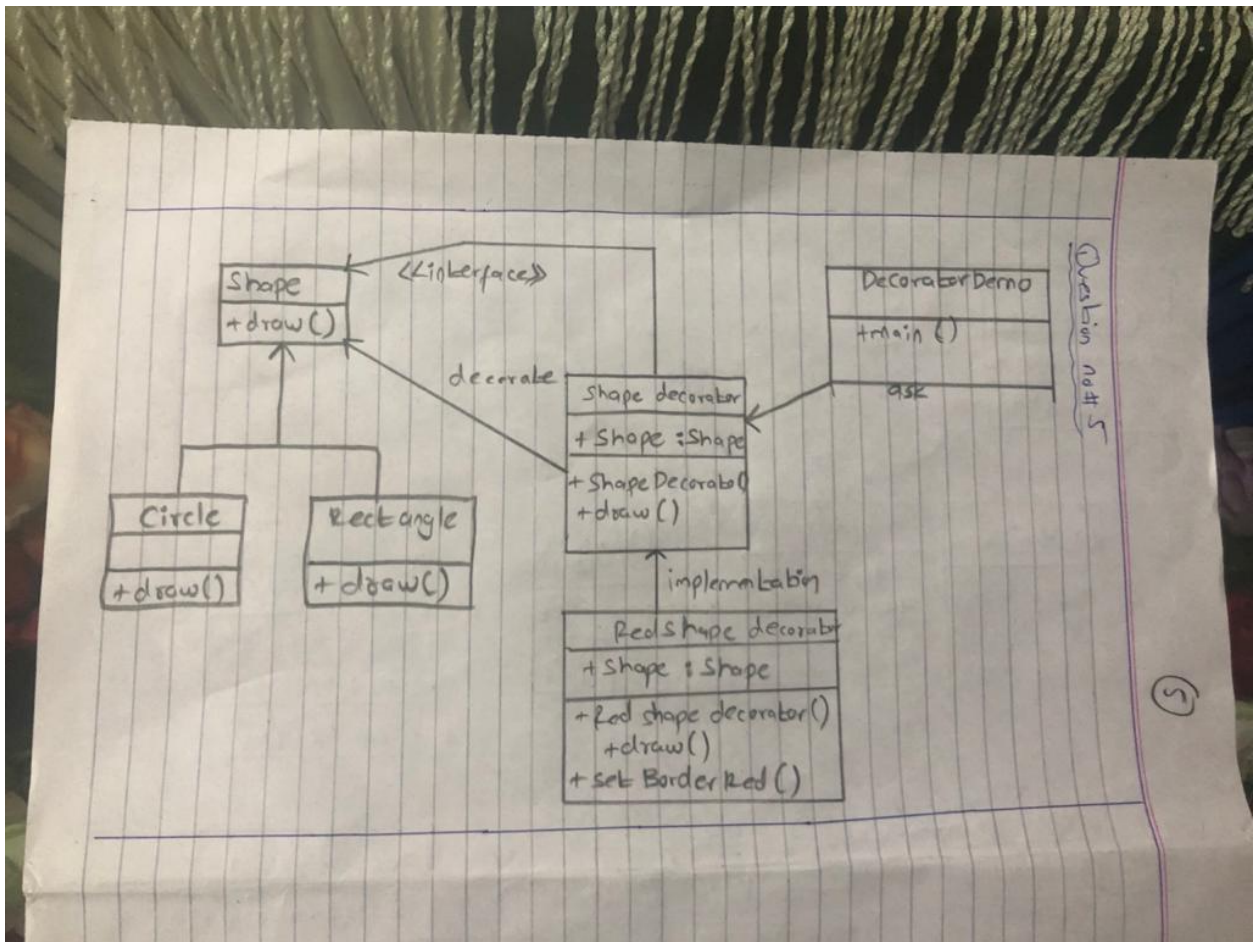17. Eject card

Question# 3:

State Chart Diagram:

Question# 4:

Class diagram:

Question# 5:

Design Pattern:

Pattern used is decorator pattern, which allows user to add new functionality without disturbing the structure.