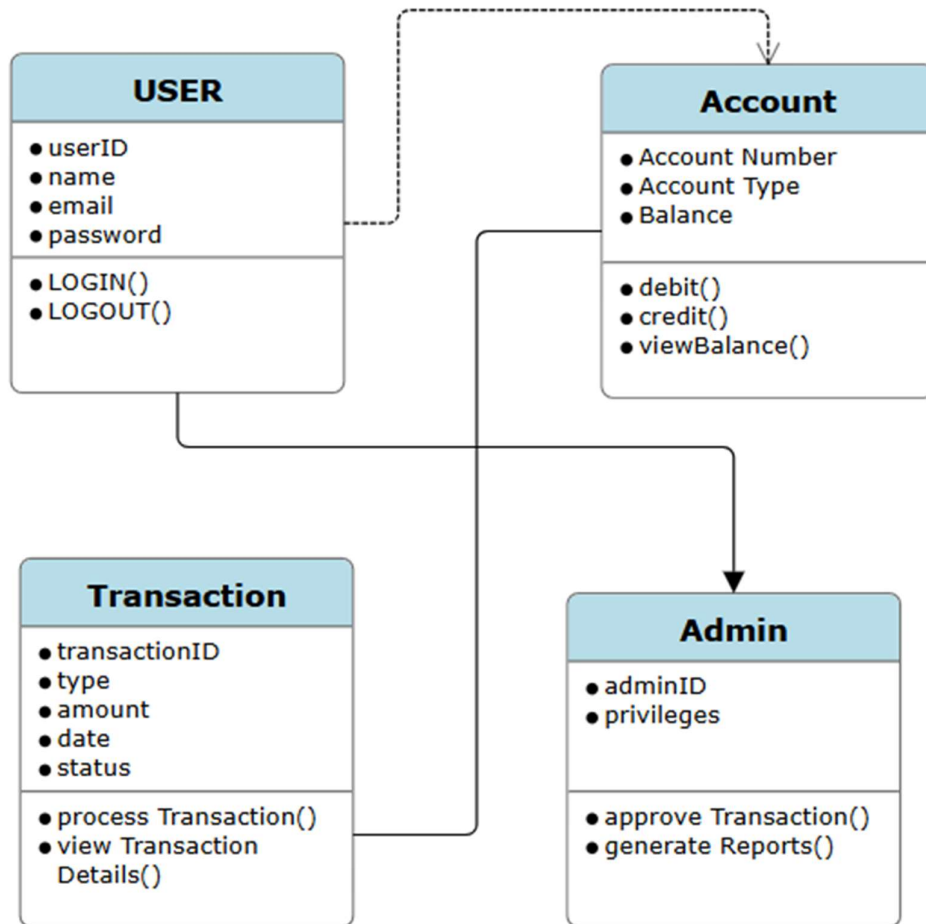


UML DIAGRAMS

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Class Diagram:



CODE:

class Customer:

```
def __init__(self, customer_name, account_number, address, phone):
```

```
    self.customer_name = customer_name
```

```
    self.account_number = account_number
```

```
    self.address = address
```

```
    self.phone = phone
```

```
def create_account(self):
```

```

pass

def deposit(self, amount):
    # Logic to deposit money
    pass

def withdraw(self, amount):
    # Logic to withdraw money
    pass

class Account:
    def __init__(self, account_number, customer_name, balance=0):
        self.account_number = account_number
        self.customer_name = customer_name
        self.balance = balance
    def update_account(self):
        # Logic to update account details
        pass
    def check_account(self):
        return self.balance

class Bank:
    def __init__(self, customer_details):
        self.customer_details = customer_details # A list of customers
        self.loan_details = []
    def give_loan(self, customer, amount):
        # Logic to give a loan to a customer
        pass
    def update_details(self):
        # Logic to update bank details
        pass
    def collect_money(self, customer, amount):
        # Logic to collect money
        pass
    def transaction(self):
        # Logic to handle transactions

```

pass

Example of creating objects and using the classes

if __name__ == "__main__":

Creating a customer

customer1 = Customer("John Doe", "12345", "123 Elm St", "555-1234")

Creating an account for the customer

account1 = Account(customer1.account_number, customer1.customer_name, 1000)

Creating a bank

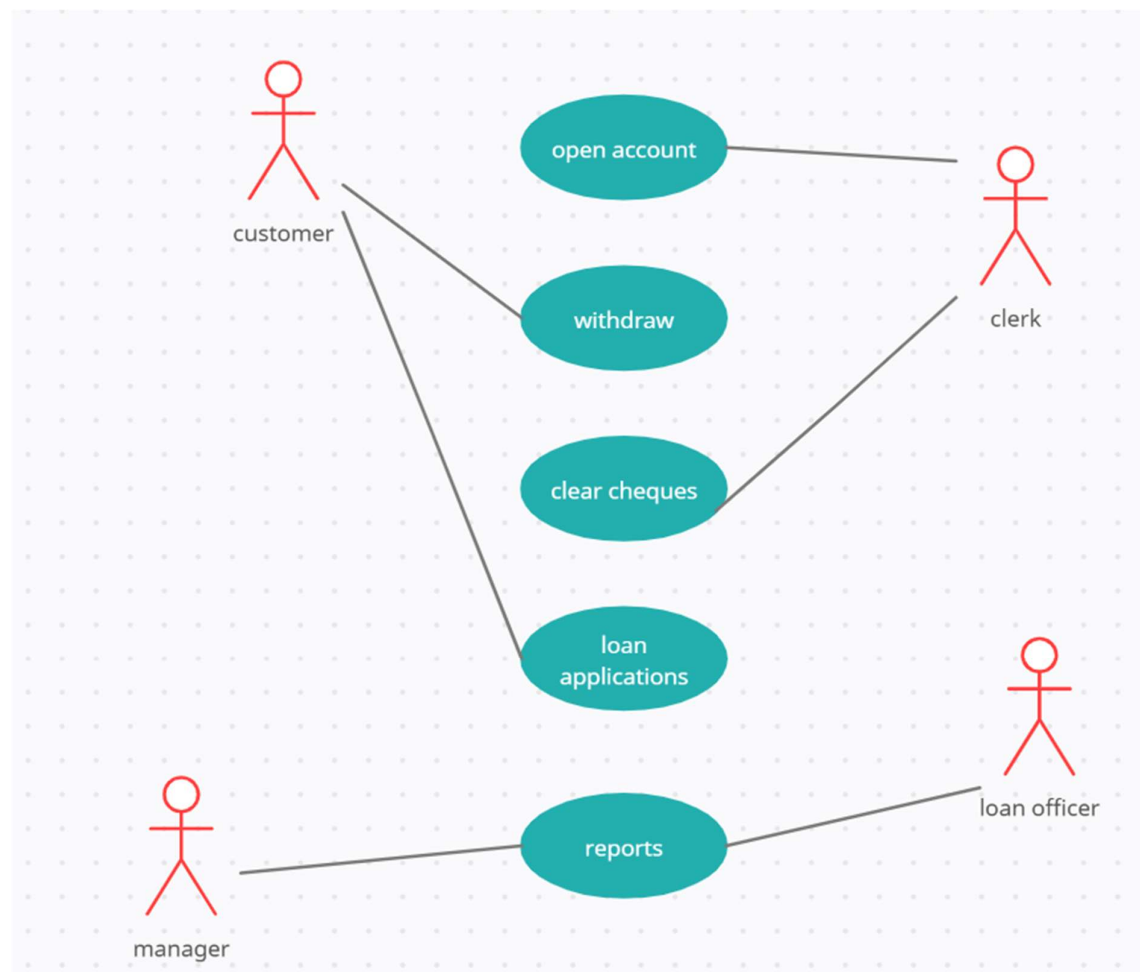
bank = Bank(customer_details=[customer1])

Example actions

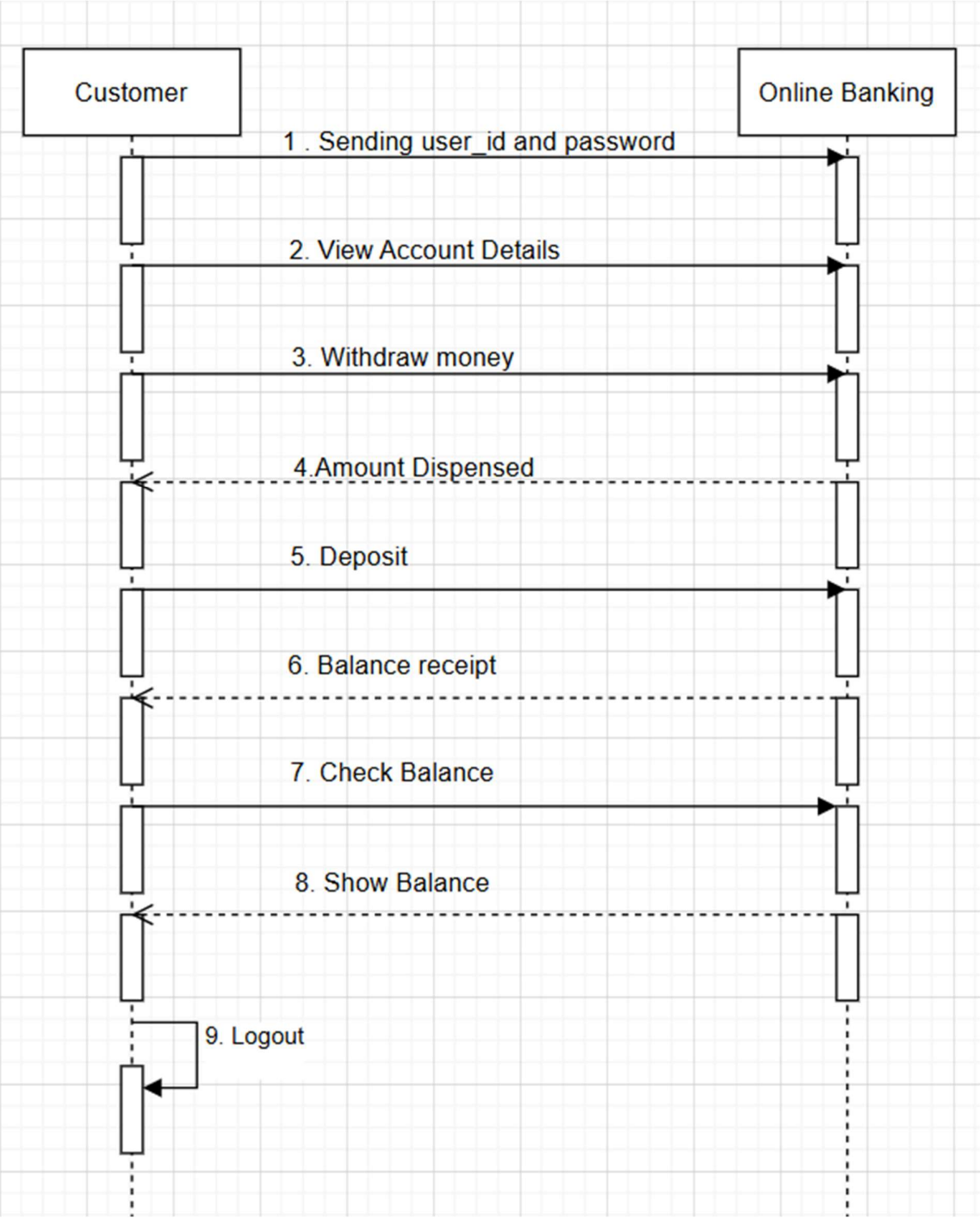
account1.deposit(500)

account1.withdraw(200)

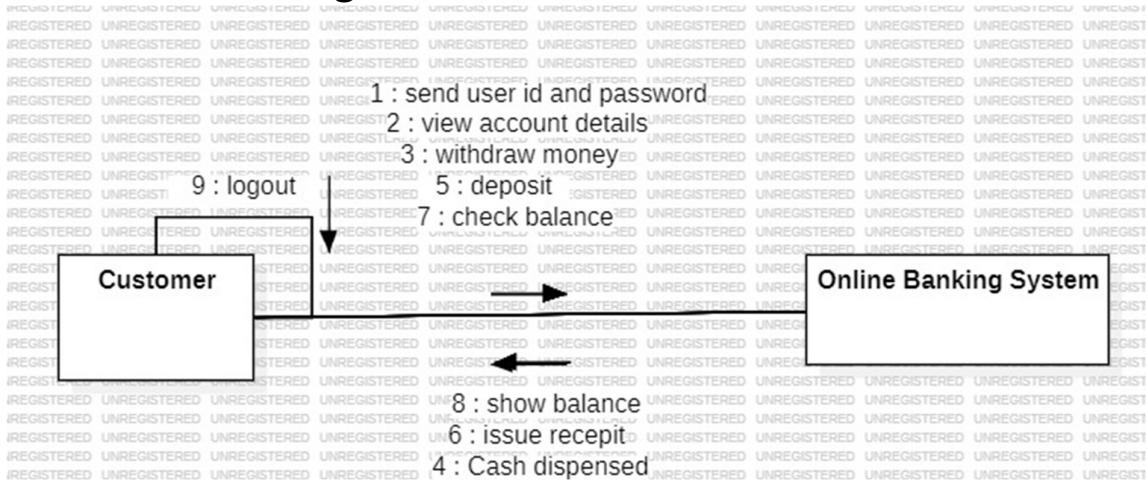
Use Case Diagram :



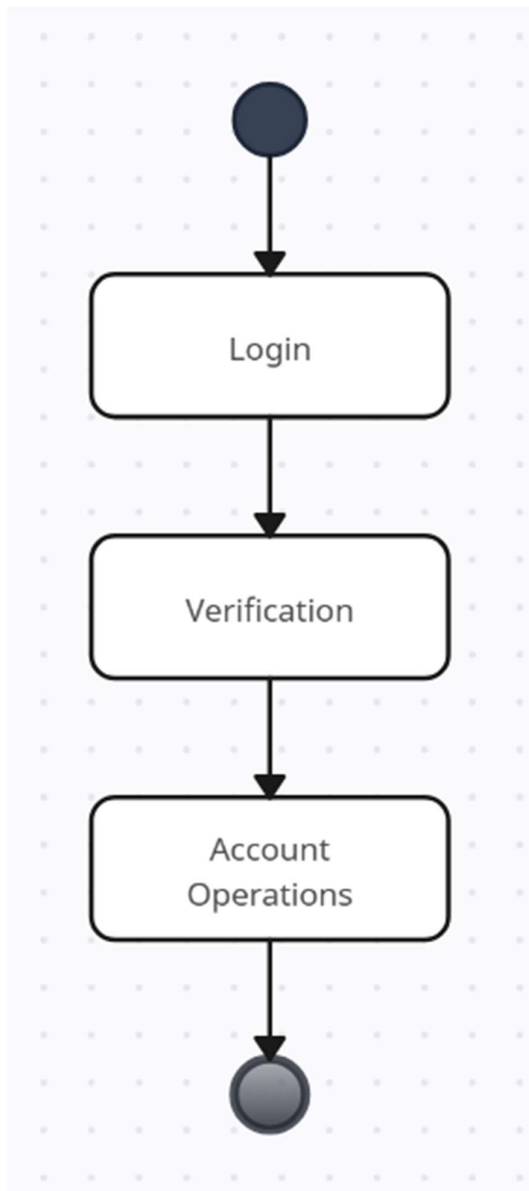
Sequence Diagram :



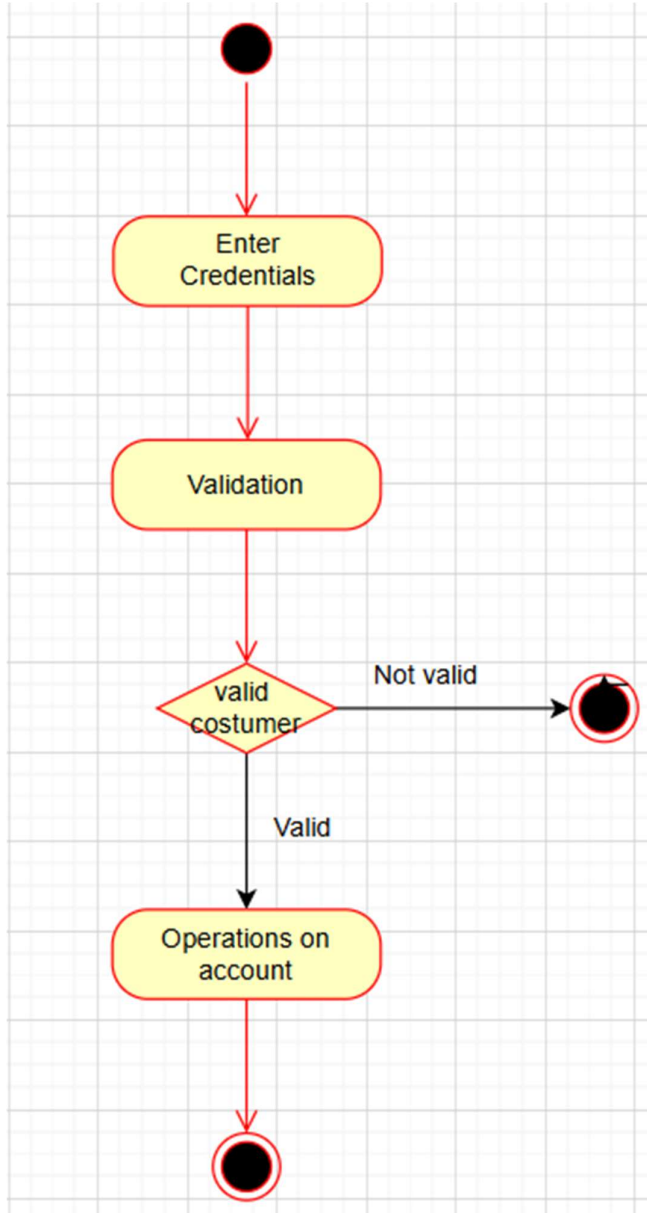
Collaboration Diagram :



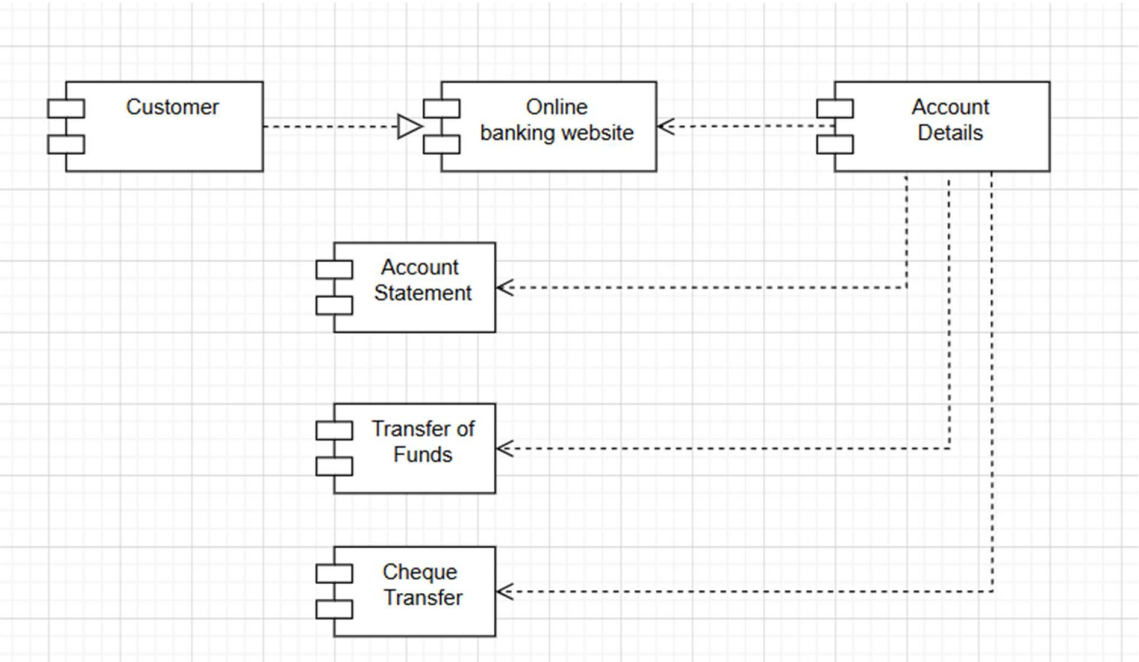
Statechart Diagram :



Activity Diagram :



Component Diagram :



Deployment Diagram :

