Assignment - 1

Page No. 1
Date

Name - Archit Srivastava
Course - BTech CSE Cyber Security
RollNo - 2401410009

```
import java.util.Scanner;

class BankingApplication {

    Static class Account {
        int accountNumber;
        String accountHolderName;
        double balance;
        String email;
        String phoneNumber;

    Account(int accNum, String name, double bal, String mail,
            String phone)
    {
        accountNumber = accNum; accountHolderName = name;
        balance = bal; email = mail; phoneNumber = phone;
    }

    boolean deposit(double amount) {
        if (amount <= 0) {
            System.out.println("Amount must be positive");
            return false;
        }
        balance += amount;
        System.out.println("Deposit Successful! New balance"
                           + balance);
        return true;
    }
```

```
boolean withdraw (double amount ) {
    if (amount <=0) {
      System.out.println ("Amount must be positive");
      return false;
    }
    if (amount > balance) {
      System.out.println ("Insufficient balance");
      return false;
    }
    balance -= amount;
    System.out.println ("withdraw successful! Remaining
                         balance!" + balance );
    return true;
}

void displayAccountDetails() {
    System.out.println ("Account Details");
    System.out.println ("Account Number" + accountNumber);
    System.out.println (" Name :" + accountHolderName );
    System.out.println (" Balance :" + balance );
    System.out.println ("Email" + email );
    System.out.println ("Phone:" + phoneNumber );
}

void updateContactDetails (String newemail, String newPhone ) {
    if (newemail.contains("@") && newemal.contains(".")) email = newemail;
    if (newPhone.matches "\\d{10,}")) phoneNumber = newPhone;
    System.out.println ("Contact Details updated");
}
}
```

```
Static Account[] accounts = new Account[100];
Static int accountCount = 0;
Static Scanner scanner = new Scanner(System.in);
Static int nextAccountNumber = 1001;

Static void creatAccount() {
    if (accountCount >= 100) {
        System.out.println("Maxium account reached");
        return;
    }

    System.out.println("Enter account holder name");
    String name = scanner.nextLine().trim();
    if (name.isEmpty()) {
        System.out.println("Name cannot be emptly");
        return;
    }

    System.out.println("Enter initial deposit amount:");
    double deposit = getValidAmount();
    if (deposit < 0)
        return;

    System.out.println("Enter phone number:");
    String phone = scanner.nextLine().trim();
    if (!phone.matches("\\d{10,}")) {
        System.out.println("Invalid phone number");
        return;
    }
```

```
accounts[accountCount++] = new Account(nextAccountNumber, name,
                                       deposite, email, phone);
System.out.print("Account created successfully with account
                  number: " + nextAccountNumber++);

}

Static void performDeposit() {
    Account acc = getAccount();
    if (acc==null)
        return;
    System.out.println("Enter amount to deposit");
    acc.deposit(getvalidamount());
}

Static void performWithdrawal() {
    Account acc = getAccount();
    if (acc==null)
        return;
    System.out.println("Enter amount to withdraw");
    acc.withdraw(getValidAmount());
}
Sta
Static void showAccountDetails() {
    Account acc = getAccount();
    if (acc!=null)
    acc.displayAccountDetails();
}
```

```
Static void updateContact() {
    Account acc = getAccount();
    if (acc==null)
      return;
    System.out.println("Enter new email");
    String email = Scanner.nextline().trim();
    System.out.println("Enter new phone:");
    String phone = Scanner.nextline().trim();
    acc.updateContactDetails(email, phone);
}

public Static void main(String[] a) {
    System.out.println("Welcome to banking system");

    While (true) {
        System.out.println("1. Creat a new account");
        System.out.println("2. Deposit money");
        System.out.println("3. withdraw money");
        System.out.println("4. View account dedo details");
        System.out.println("5. Update contact Details");
        System.out.println("6. Exit");
        System.out.println("Enter your choise");

        String choice = Scanner.nextline().trim();

        Switch (choice) {
            case "1": creatAccount();
                break;
            case "2": performDeposit();
                break;
```

```
Case "3": performWithdrawal();
    break;
Case "4": showAccountDetails();
    break;
Case "5": updateContact();
    break;
Case "6":
    System.out.println("Thank you for choosing");
    Scanner.close();
    return;
default: system.out.println("Invalid choice! Enter 1-6");
        }
    }
}
```