Week 6
29 dec 2022
Bank Program using java
YASH GUPTA
1BM21CS251

INPUT

```
import java.util.Scanner;

class account {
    String name;
    int account_num;
    String acc_type;
}

class sav_acct extends account {
    double balance;

    sav_acct(String n, int ac, String actype, Double bl) {
        name = n;
        account_num = ac;
        actype = acc_type;
        balance = bl;
    }

    Scanner sc = new Scanner(System.in);

    void deposit(int val) {
        balance += val;
    }
```

```
    void display_bal() {
        System.out.println("Balance is: " + balance);
    }

    void deposit_interest() {
        double int_rate = 0.05;
        double time = 0;
        System.out.println("enter the time period");
        time = sc.nextDouble();
        double amount;
        amount = balance * Math.pow((1 + int_rate), time);
        balance = amount;
    }

    void withdraw(int val) {
        if (val > balance) {
            System.out.println("out of funds, withdraw lesser");
        } else {
            balance -= val;
            System.out.println("withdrawal successful");
            System.out.println("new balance: " + balance);
        }
    }

    void check_min() {
        Double min_bal = 1000.00;
        Double penalty = 100.00;
        if (balance < min_bal) {
            System.out.println("balance lesser than minimum balance, penalty
imposed");
            balance -= penalty;
        }
        else{
            System.out.println("balance higher than minimum balance");
        }
```

```
    }
}

class cur_acct extends account {
    double balance;

    cur_acct(String n, int ac, String actype, Double bl) {
        name = n;
        account_num = ac;
        actype = acc_type;
        balance = bl;
    }

    void deposit(int val) {
        balance += val;
    }

    void display_bal() {
        System.out.println("Balance is: " + balance);
    }

    void deposit_interest() {
        System.out.println("Current account doesnt provide any interest");
    }

    void withdraw(int val) {
        System.out.println("Current account doesnt provide withdrawal
facility");
    }

    void check_min() {
        Double min_bal = 1000.00;
        Double penalty = 100.00;
        if (balance < min_bal) {
```

```
            System.out.println("balance lesser than minimum balance, penalty
imposed");
            balance -= penalty;
        }
        else{
            System.out.println("balance higher than minimum balance");
        }
    }

    void cheque_withdrawal(int val) {
        balance -= val;
        System.out.println("withdrawal successful");
        System.out.println("new balance: " + balance);
    }
}

class bank {
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        System.out.println("enter your name, account number, aacount
type(savings/current), balance");
        String name = sc.nextLine();
        int account_num = sc.nextInt();
        String acc_type = sc.next();
        double balance = sc.nextDouble();
        if (acc_type.equals("savings")) {
            sav_acct a1 = new sav_acct(name, account_num, acc_type,
balance);
            int choice = 0;
            while (choice != 6) {
                System.out.println(
                        "1.deposit\n2.display balance\n3.compute and deposit
interest\n4.withdraw\n5.check for minimum balance\n6.exit");
                choice = sc.nextInt();
                switch (choice) {
```

```
                case (1):
                    System.out.println("enter the value to deposit");
                    int val = sc.nextInt();
                    a1.deposit(val);
                    break;
                case (2):
                    a1.display_bal();
                    break;
                case (3):
                    a1.deposit_interest();
                    break;
                case (4):
                    System.out.println("enter the value to withdraw");
                    int withd = sc.nextInt();
                    a1.withdraw(withd);
                    break;
                case (5):
                    a1.check_min();
                    break;
                case (6):
                    System.out.println("exited");
                    break;
                default:
                    System.out.println("enter a valid choice");
                    break;
            }
        }
    } else {
        cur_acct a1 = new cur_acct(name, account_num, acc_type,
balance);
        int choice = 0;
        while (choice != 6) {
            System.out.println(
                    "1.deposit\n2.display balance\n3.compute and deposit
interest\n4.withdraw using cheque\n5.check for minimum balance\n6.exit");
```

```
            choice = sc.nextInt();
            switch (choice) {
                case (1):
                    System.out.println("enter the value to deposit");
                    int val = sc.nextInt();
                    a1.deposit(val);
                    break;
                case (2):
                    a1.display_bal();
                    break;
                case (3):
                    a1.deposit_interest();
                    break;
                case (4):
                    System.out.println("enter the value to withdraw");
                    int withd = sc.nextInt();
                    a1.cheque_withdrawal(withd);
                    break;
                case (5):
                    a1.check_min();
                    break;
                case (6):
                    System.out.println("exited");
                    break;
                default:
                    System.out.println("enter a valid choice");
                    break;
            }
        }
    }
}
```

OUTPUT

Savings account

```
enter your name, account number, aacount type(savings/current), balance
yash
1001
savings
10000
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw
5.check for minimum balance
6.exit
1
enter the value to deposit
1000
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw
5.check for minimum balance
6.exit
2
Balance is: 11000.0
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw
5.check for minimum balance
6.exit
3
enter the time period
1
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw
5.check for minimum balance
6.exit
2
Balance is: 11550.0
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw
5.check for minimum balance
6.exit
4
enter the value to withdraw
1550
withdrawal successful
new balance: 10000.0
```

```
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw
5.check for minimum balance
6.exit
5
balance higher than minimum balance
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw
5.check for minimum balance
6.exit
2
Balance is: 10000.0
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw
5.check for minimum balance
6.exit
6
exited
```

Current account

```
C:\Users\Admin\Desktop\1bm21cs251>java bank
enter your name, account number, aacount type(savings/current), balance
gupta
1002
current
10000
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
1
enter the value to deposit
2000
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
2
Balance is: 12000.0
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
3
Current account doesnt provide any interest
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
4
enter the value to withdraw
15000
withdrawal successful
new balance: -3000.0
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
5
balance lesser than minimum balance, penalty imposed
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
2
Balance is: -3100.0
```

```
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
1
enter the value to deposit
4100
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
2
Balance is: 1000.0
1.deposit
2.display balance
3.compute and deposit interest
4.withdraw using cheque
5.check for minimum balance
6.exit
6
exited
```