

06/11/2020

LAB 5:

```
import java.util.*;  
import java.util.*;
```

```
class Account {  
    String name;  
    int acct_num;  
    char acct_type;  
    double balance = 0;  
    Scanner in = new Scanner(System.in);
```

```
    void input_details() {
```

```
        System.out.println("Enter your Name:");  
        name = in.nextLine();  
        System.out.println("Enter your Account Number:");  
        acct_num = in.nextInt();  
        System.out.println("Please enter your account type [C/S]:");  
        acct_type = in.next().charAt(0);  
    }
```

```
    void deposit() {
```

```
        System.out.println("Enter the amount to deposit:");  
        double dep = in.nextDouble();  
        balance += dep;  
        System.out.println("Amount Successfully Deposited!!!");  
        System.out.println("Account Balance: " + balance);  
    }
```

```
    void view_balance() {
```

```
        System.out.println("Account Balance: " + balance);  
    }
```

```
}
```

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```

class Current extends Account {
    Double cheq_amt;
    void issue_cheque() {
        System.out.println("Enter the amount to issue the Cheque:");
        cheq_amt = in.nextDouble();
        if (cheq_amt > balance) {
            System.out.println("Unable to issue cheque!!  
Entered amount Unavailable in Account!!");
        }
        else {
            balance = balance - cheq_amt;
            System.out.println("Cheque for Rs." + cheq_amt +  
" only Issued Successfully!");
        }
    }
}

void check_balance() {
    if (balance < 5000 && balance > 0) {
        System.out.println("Current Account Balance is  
below the Minimum Required Balance!!");
        balance = balance - 1000;
        System.out.println("Service Charge of Rs. 1000 deducted  
- from Account Balance!!");
    }
    view_balance();
}
}
    
```

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```
class Savings extends Account {
```

```
    Double withdraw_amt; CI;
```

```
    void withdraw () {
```

```
        System.out.println("Enter the Amount to Withdraw: ");
```

```
        withdraw_amt = in.nextDouble();
```

```
        if (withdraw_amt > balance) {
```

```
            System.out.println("Entered Amount Unavailable in  
            Account Balance!!");
```

```
        }
```

```
        else {
```

```
            balance = balance - withdraw_amt;
```

```
            System.out.println("Successfully Withdrawn Rs.  
            + withdraw_amt + " from Account!!");
```

```
        }
```

```
    }
```

```
    void compute - CI () {
```

```
        System.out.println("Enter time period (in years): ");
```

```
        int time = in.nextInt();
```

```
        CI = (balance * Math.pow(1 + (0.02/12), 12 * time)) - balance;
```

```
        System.out.println("Compound Interest for " + time +  
        " years compounded monthly at a rate of 2%: Rs. " + CI);
```

```
        balance = balance + CI;
```

```
        System.out.println("Interest has been Successfully  
        Deposited!!");
```

```
    }
```

```
}
```


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class Lab 5 {

public static void main (String args[]) {

int choice;

Scanner in = new Scanner (System.in);

Account A = new Account ();

A.input-details();

if (A.acct-type == 'c' || A.acct-type == 'C') {

Current Ac = new CurrentC();

System.out.println(" **** CURRENT ACCOUNT **** ");

do {

System.out.println(" ----- MENU ----- ");

System.out.println(" (1) DEPOSIT AMOUNT ");

System.out.println(" (2) VIEW BALANCE ");

System.out.println(" (3) ISSUE CHEQUE ");

System.out.println(" (4) EXIT ");

System.out.println(" Enter your choice : ");

choice = in.nextInt();

switch (choice) {

case 1: Ac.deposit();

break;

case 2: Ac.check-balance();

break;

case 3: Ac.issue-cheque();

break;

case 4: System.exit(0);

break;

default: System.out.println(" Invalid Input ");

}

{ while (choice <= 4 && choice >= 1);

}

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```
else if (A.acct_type == 's' || A.acct_type == 'S') {
    Savings As = new Savings();
    System.out.println("**** SAVINGS ACCOUNT ****");
    do {
        System.out.println("----- MENU -----");
        System.out.println("(1) DEPOSIT AMOUNT");
        System.out.println("(2) VIEW BALANCE");
        System.out.println("(3) WITHDRAW");
        System.out.println("(4) COMPUTE COMPOUND INTEREST");
        System.out.println("(5) EXIT");
        System.out.println("Enter your choice:");
        choice = in.nextInt();
        switch (choice) {
            case 1: As.deposit();
                    break;
            case 2: As.view_balance();
                    break;
            case 3: As.withdraw();
                    break;
            case 4: As.compute_CIC();
                    break;
            case 5: exit System.exit(0);
                    break;
            default: System.out.println("Invalid Input!!");
        }
    } while (choice <= 5 && choice >= 1);
}
else {
    System.out.println("INVALID ACCOUNT TYPE !!");
}
}
```