LAB 5- ACCOUNT

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

class Account {

	String name, abc;
	int account_No;
	char type_of_account;
	double bal = 0;
	double deposit;
	Scanner in = new Scanner(System.in);



	void input_data() {
		System.out.println("Enter your account type (Savings/Current):");
		abc = in.nextLine();
		type_of_account = abc.charAt(0);
	}



	void deposit() {
		System.out.println("Enter an amount to deposit: ");
		deposit = in.nextDouble();
		bal += deposit;
		System.out.println("Balance has been updated. ");
```

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}



void view_balance() {
        System.out.println("Balance = " + bal);
}



public static void main(String[] args) {
        Scanner s = new Scanner(System.in);
        int x;
        Account a1 = new Account();
        a1.input_data();
        if(a1.type_of_account == 'C' || a1.type_of_account == 'c'){
                Current a2 = new Current();
                do {
                        System.out.println("WELCOME TO YOUR CURRENT ACCOUNT");
                        System.out.println("1. Deposit ");
                        System.out.println("2. Check Balance ");
                        System.out.println("3. Issue Cheque ");
                        System.out.println("4. Exit");
                        System.out.println("Enter your choice: ");
                        x = s.nextInt();
                        switch(x) {
                                case 1: a2.deposit();
                                break;
                                case 2: a2.check_balance();
                                break;
                                case 3: a2.issue_cheque();
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                    break;
                    case 4: System.exit(0);
                    break;
                    default: System.out.println("ERROR. INVALID CHOICE.");
                }
            } while(x <= 4 && x >= 1);
        }
        else if (a1.type_of_account == 'S' || a1.type_of_account == 's'){
            Savings a3 = new Savings();
            do {
                System.out.println("WELCOME TO YOUR SAVINGS ACCOUNT");
                System.out.println("1. Deposit");
                System.out.println("2. View Balance");
                System.out.println("3. Withdraw ");
                System.out.println("4. Calculate compound interest ");
                System.out.println("5. Exit ");
                System.out.println("Enter your choice: ");
                x = s.nextInt();
                switch(x) {
                    case 1: a3.deposit();
                    break;
                    case 2: a3.view_balance();
                    break;
                    case 3: a3.withdraw_balance();
                    break;
                    case 4: a3.compute_CI();
                    break;
                    case 5: System.exit(0);
                    break;
                    default: System.out.println("ERROR. INVALID CHOICE.");
                }
```

```
                } while(x <= 5 && x >=1);
            }
            else System.out.println("INVALID ACCOUNT TYPE");
        }
}

class Current extends Account {
        Current() {
            System.out.println("Enter your name: ");
            name = in.nextLine();
            System.out.println("Enter your account number: ");
            account_No = in.nextInt();
            deposit();
        }

        double chq_amount;

        void issue_cheque() {
            System.out.println("Enter amount for which cheque is to be issued.");
            chq_amount = in.nextDouble();
            if(chq_amount > bal) {
                System.out.println("ERROR! Insufficient balance in account.");
            }
            else {
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                bal -= chq_amount;
                System.out.println("Cheque has been issued SUCCESSFULLY");
            }
        }

        void check_balance() {
            if(bal < 1000) {
                System.out.println("Current available balance is lesser than minimum
required balance.");
                bal -= 100;
                System.out.println("Service charge of Rs.100 has been deducted from your
balance.");
            }
            view_balance();
        }
}

class Savings extends Account {
        double CI, withdrawal_ammount, time;
        Savings() {
            System.out.println("Enter your name: ");
            name = in.nextLine();
            System.out.println("Enter your account number: ");
            account_No = in.nextInt();
            deposit();
        }
```

```
        void compute_CI() {
                System.out.println("Enter time period: ");
                time = in.nextInt();
                CI = bal * Math.pow(1 + (0.08 / 12), 12 * time) - bal;
                System.out.println("CI = " + CI);
                bal += CI;
                System.out.println("CI has been deposited");
    }



        void withdraw_balance() {
                System.out.println("Enter the amount you want to withdraw: ");
                withdrawal_ammount = in.nextDouble();
                if(withdrawal_ammount > bal) {
                        System.out.println("ERROR! THE ENTERED AMOUNT IS GREATER THAN THE
AVAILABLE BALANCE...");
                }
                else {
                        bal -= withdrawal_ammount;
                        System.out.println("AMOUNT HAS SUCCESSFULLY BEEN WITHDRAWN!");
                }
        }
}
```

```
Enter your account type (Savings/Current):
savings
Enter your name:
anitej
Enter your account number:
12345
Enter an amount to deposit:
200
Balance has been updated.
WELCOME TO YOUR SAVINGS ACCOUNT
1. Deposit
2. View Balance
3. Withdraw
4. Calculate compound interest
5. Exit
Enter your choice:
1
Enter an amount to deposit:
200
Balance has been updated.
WELCOME TO YOUR SAVINGS ACCOUNT
1. Deposit
2. View Balance
3. Withdraw
4. Calculate compound interest
5. Exit
Enter your choice:
exit
```

```
Enter your account type (Savings/Current):
current
Enter your name:
anitej
Enter your account number:
12345
Enter an amount to deposit:
300
Balance has been updated.
WELCOME TO YOUR CURRENT ACCOUNT
1. Deposit
2. Check Balance
3. Issue Cheque
4. Exit
Enter your choice:
3
Enter amount for which cheque is to be issued.
240
Cheque has been issued SUCCESSFULLY
WELCOME TO YOUR CURRENT ACCOUNT
1. Deposit
2. Check Balance
3. Issue Cheque
4. Exit
Enter your choice:
```