Lab 5

Q) Bank Account with Current Account & Savings Account

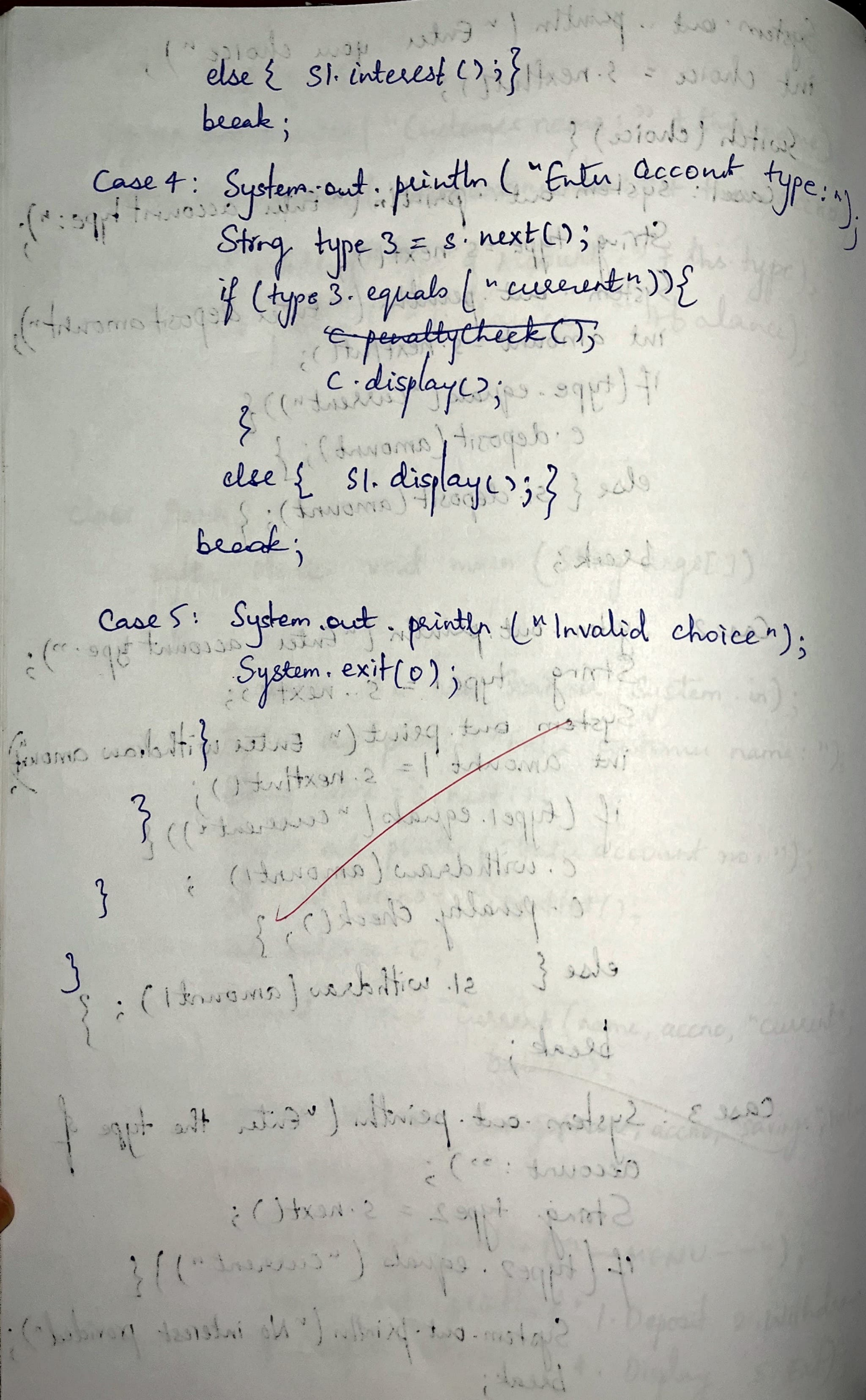
```
impost java.util.Scannee;

abstract class Account{

    String name;
    String accno;  String type;

    Account(String name, int accno, String type){
     this.name=name; this.accno=accno; this.type=type;}
    final int min_balance=300;
}

class Savings extends Account{
  int balance;
  Saving(String name, int accno, String type, int balance){
   super(name, accno, type);
   this.balance=balance;
  }
  void deposit(int amount){ balance+=amount;}
   void interest(){
    double interest; final double rate=0.2;
    System.out.println("Compaunt interest:");
    interest=(balance*rate)/100;
    System.out.println(interest);
   }
```

```
    void withdraw(int amount) { balance -= amount; }
    void display() {
System.out.println("Customer name: " +this.name);
System.out.println("Account number: " +this.accno);
System.out.println("Type of Account: " + this.type);
System.out.println("Balance: " + this.balance);
}
}
class Current extends Account {
    int balance;
    Current(String name, int accno, String type, int
    balance) { super(name, accno, type);
               this.balance = balance; }
    void deposit(int amount) { balance += amount; }
    void withdraw(int amount) { balance -= amount; }
    void penaltyCheck() {
        if(balance < min_balance) {
            int penalty = 300; balance -= penalty;
        System.out.println("You have 0 balance or
        negative balance due to penalty of
        300 :" + this.balance); } else {
        System.out.println("No penalty");
        }
    }
```

```
    void display(){
    System.out.println("Customer name:" + this.name);
    System.out.println("Account number:" + this.accno);
    System.out.println("Type of Account:" + this.type);
    System.out.println("Balance:" + balance);
    }
}
class Bank{
    public static void main(String args[])
    {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter customer name:");
        String name = s.next();
        System.out.println("Enter account no:");
        int accno = s.nextInt();
        int balance = 0;
        Current c = new Current(name, accno, "current",
                                balance);
        Savings s1 = new Savings(name, accno, "savings", balance);
        while(true){
            System.out.println("--MENU--");
            System.out.println("1. Deposit 2. Withdraw
            3. Compute interest 4. Display 5. Exit");
```

```
System.out.println("Enter your choice");
int choice = s.nextInt();

Switch (choice) {
 case1: system.out.println("Enter account type:");
        String type = s.next();
        System.out.println("Enter deposit amount\n");
        int amount = s.nextInt();
        if(type.equals("current")){
            c.deposit(amount); }
        else { si.deposit(amount); }
        break;

 Case 2: System.out.println("Enter account type:");
        String type1 = s.next();
        System.out.print("Enter withdraw amount");
        int amount1 = s.nextInt();
        if (type1.equals("current")) {
           c.withdraw(amount1) ;
           c.penalty check(); }
        else {   si.withdraw(amount1); }
        break;

Case 3: System.out.println("Enter the type of
        account:");
        String type2 = s.next();
        if (type2.equals("current")) {
            System.out.println("No interest provided");
            break;
        }
```

```
        else { s1.interest(); }
        break;

Case 4: System.out.println("Enter Account type:");
        String type3 = s.next();
        if (type3.equals("current")){
            ~~penaltycheck();~~
            c.display();
        }
        else { s1.display(); }
        break;

Case 5: System.out.println("Invalid choice");
        System.exit(0);
```



OUTPUT:

// Current Account

Enter customer name: Sanjana

Enter account number: 1

--MENU-- 1. Deposit 2. Withdraw 3. Interest 4. Display 5. Exit

Enter your choice: 1

Enter account type: current

Enter the deposit amount: 3000

--MENU--

Enter choice: 3

Enter type of account: current

No interest provided

--MENU--

Enter choice: 2

Enter account type: current

Enter withdraw amount: 2800

You have 0 or negative penalty due to

penalty: -100

--MENU--

Enter choice: 4

Enter account type: current

Customer name: Sanjana

Account number: 1

Type of Account: current

Balance: -100

// Savings account

--MENU--

Enter your choice : 1

Enter type of account: Savings

Enter the deposit amount : 4000

--MENU--

Enter your choice: 3

Enter the type of account: Savings

Compound interest : 8.0

-- MENU --

Enter your choice : 4

Enter ~~your choice :~~ type of account : Savings

Customer name : Sanjana

Account number: 1

Type of account : Savings

Balance : 4000

23/1/24