LAB PROGRAM 6:

Write a program that demonstrates handling of exceptions in inheritance tree. Create a base class called "Father" and derived class called "Son" which extends the base class. In Father class, implement a constructor which takes the age and throws the exception WrongAge( ) when the input age<0. In Son class, implement a constructor that cases both father and son's age and throws an exception if son's age is >=father's age.

```
import java.util.Scanner;
class WrongAge extends Exception{
    public String detail;
    WrongAge(String a){
    detail=a;
    }
    public String toString(){
      return "WrongAge["+detail+"]";
     }
  }


class Father{
       int father_age;
       Father(int x)
       {
        father_age=x;
       }
     }


class Son extends Father{
      int son_age;
      Son(int x,int y)
      {
        super(x);
```

```
        son_age=y;

      try{
        if(son_age<=0 || father_age<=0)
                {
        throw new WrongAge("Son's age or Father's age is less than or equal to zero");
                }
        if(father_age<=son_age)
                {
        throw new WrongAge("Son's age is greater than or equal to Father's age");
                }
                else
        {
        System.out.println("Entered Age is Valid!!!");
            }
       }

      catch(WrongAge e){
      System.out.println("caught"+e);
       }
    }
}

 class Age{
       public static void main(String args[]){
        Scanner sc=new Scanner(System.in);
        int father_age,son_age;
        System.out.println("Enter father age");
        father_age=sc.nextInt();
        System.out.println("Enter son's age");
        son_age=sc.nextInt();
        Son s=new Son(father_age,son_age);
```

```
    }
}
```

OUTPUT:

```
Enter the Account Type (S for Savings , C for Current) : s

Enter the Customer Name: harika

Enter the Account Number: 12345

Enter the Starting Amount (Minimum Amount = 5000): 6000

1. Deposit
2. Withdrawal
3. Check Balance
4. Check Interest
5. Show Account Details
6. Exit Transaction

Enter your choice: 1

Enter the amount to be deposited: 1000

Balance: 7000.0

1. Deposit
2. Withdrawal
3. Check Balance
4. Check Interest
5. Show Account Details
6. Exit Transaction

Enter your choice: 3

Balance: 7000.0

1. Deposit
2. Withdrawal
3. Check Balance
```

```
4. Check Interest
5. Show Account Details
6. Exit Transaction

Enter your choice: 2

Enter the amount to be withdrawn: 400

Amount Withdrawn: 400.0
Balance: 6600.0

1. Deposit
2. Withdrawal
3. Check Balance
4. Check Interest
5. Show Account Details
6. Exit Transaction

Enter your choice: 4

Interest Credited: 396.0
Balance :6996.0

1. Deposit
2. Withdrawal
3. Check Balance
4. Check Interest
5. Show Account Details
6. Exit Transaction

Enter your choice: 5

Customer Name: harika
Account Number: 12345
Amount: 6996.0

1. Deposit
2. Withdrawal
3. Check Balance
4. Check Interest
```