OOJ LAB-WEEK 10-LAB PROG 6 AND 7

Program and Output

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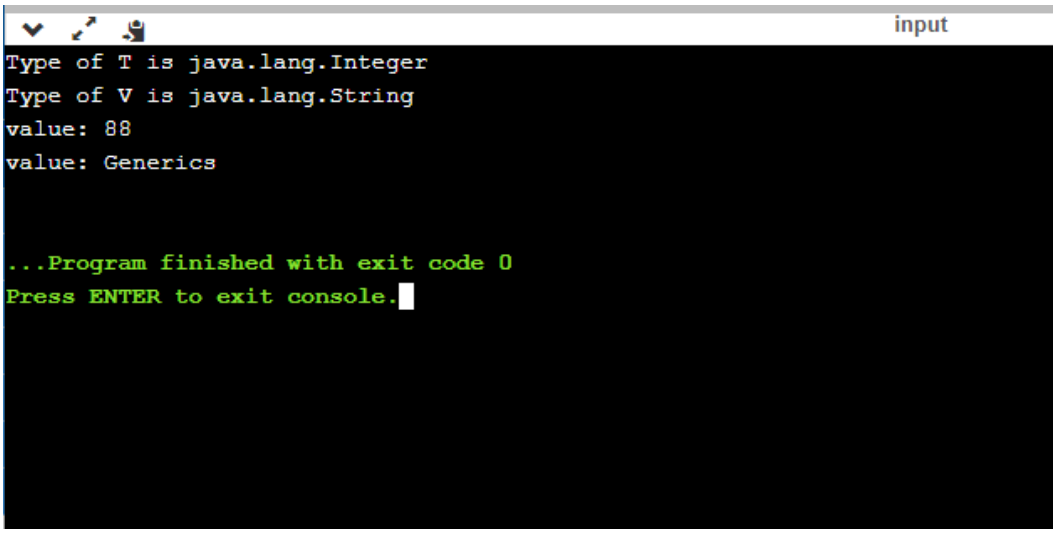
Program 6-

Write a program to demonstrate generics with multiple object parameters.

```
class TwoGen<T, V> {
 T ob1;
 V ob2;
 TwoGen(T o1, V o2) {
 ob1 = o1;
 ob2 = o2;
 }
 void showTypes() {
 System.out.println("Type of T is " + ob1.getClass().getName());
 System.out.println("Type of V is " + ob2.getClass().getName());
 }
 T getob1() {
 return ob1;
 }
 V getob2() {
 return ob2;
 }
}
```

```
class Main {
 public static void main(String args[]) {
 TwoGen<Integer, String> tgObj = new TwoGen<Integer, String>(88, "Generics");
 tgObj.showTypes();
 int v = tgObj.getob1();
 System.out.println("value: " + v);
 String str = tgObj.getob2();
 System.out.println("value: " + str);
 }
}
```

Output-



Program 8-

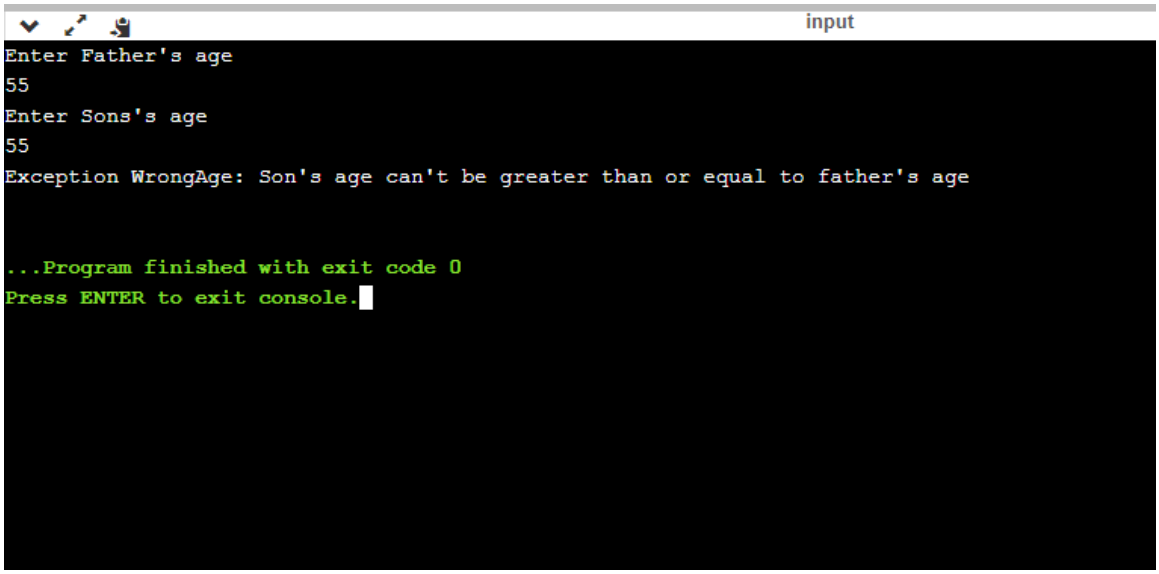
Write a program that demonstrates handling of exceptions in inheritance tree. Create a base class called "Father" and derived class called "Son" which extends the base class. In Father class, implement a constructor which takes the age and throws the exception Wrong Age( ) when the input age=father's age.

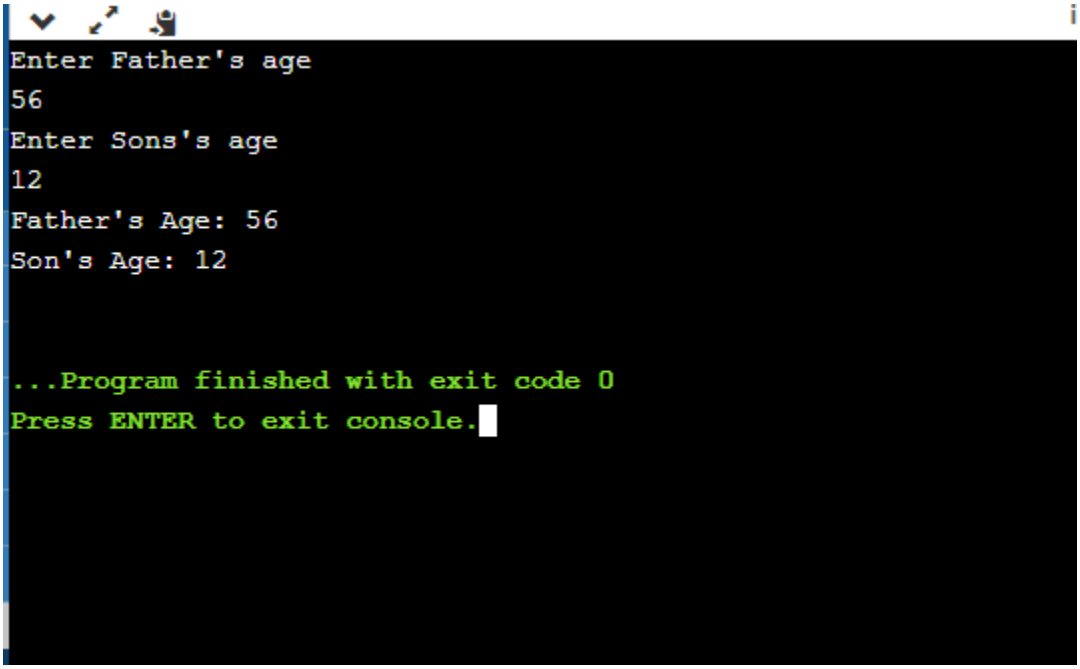
```
import java.util.Scanner;


class WrongAge extends Exception {
   public WrongAge(String s){
      super(s);
   }
}
class Father {
   int fatherAge;
 Father(int fAge, int sAge) throws WrongAge{
      if(fAge <= sAge){
         throw new WrongAge("Son's age can't be greater than or equal to father's age");
      }else{
         this.fatherAge = fAge;
      }
   }
}
class Son extends Father {
   int sonAge;
```

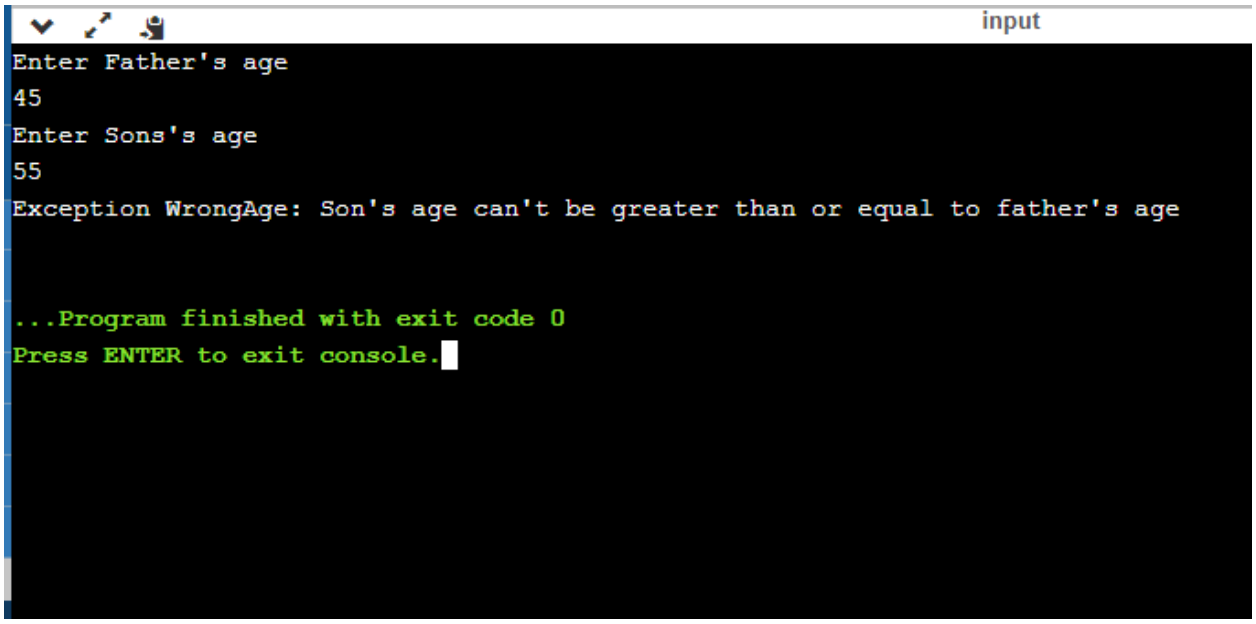
```
    Son(int fAge, int sAge) throws WrongAge{
        super(fAge, sAge);
        this.sonAge = sAge;
    }

    void print(){
        System.out.println("Father's Age: " + fatherAge);
        System.out.println("Son's Age: " + sonAge);
    }
}

public class Main {
    public static void main(String[] args){
        int fAge,sAge;
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter Father's age");
        fAge = sc.nextInt();
        System.out.println("Enter Sons's age");
        sAge = sc.nextInt();

        try{
            Son son = new Son(fAge, sAge);
            son.print();
```

```
    }catch(WrongAge err){
        System.out.println("Exception " + err);
    }
}
}
```

Output-






input
Enter Father's age
45
Enter Sons's age
55
Exception WrongAge: Son's age can't be greater than or equal to father's age
...Program finished with exit code 0
Press ENTER to exit console.