

INHERITANCE TREE

EXCEPTION

Week 7

INPUT:

```
import java.util.Scanner;
class Father{
    int Father_age;
    public Father(int Fa){
        try{
            Father_age = Fa;
            if(Father_age < 0){
                throw new Exception("Error! Age is less than 0");
            }
            else{
                Father_age = Fa;
            }
        }
        catch(Exception e){
            System.out.println("Caught : "+e);
        }
    }
}
```

```

class Son extends Father{
    int Son_age;
    public Son(int Fa,int Sa){
        super(Fa);
        try{
            Son_age = Sa;
            if(Son_age<0){
                throw new Exception("Error! Son's age is less than
0");
            }
            else if(Son_age >= Father_age){
                throw new Exception("Error! Son's age cannot be
more than the Father's age");
            }
            else{
                Son_age = Sa;
            }
        }
        catch(Exception e){
            System.out.println("Caught : "+e);
        }
    }
    void display(){
        System.out.println("Father's age = "+Father_age);
        System.out.println("Son's age = "+Son_age);
    }
}

```

```
class InheritanceTree extends Exception{
    public static void main(String args[]){
        Scanner ss = new Scanner(System.in);
        int a,b;
        System.out.println("Enter the father's age");
        a = ss.nextInt();
        System.out.println("Enter the son's age");
        b = ss.nextInt();
        Son ob1 = new Son(a,b);
        ob1.display();
    }
}
```

OUTPUT:

```
Command Prompt

C:\Users\Admin\Documents\1BM21CS248>javac InheritanceTree.java

C:\Users\Admin\Documents\1BM21CS248>java InheritanceTree
Enter the father's age
49
Enter the son's age
19
Father's age = 49
Son's age = 19

C:\Users\Admin\Documents\1BM21CS248>javac InheritanceTree.java

C:\Users\Admin\Documents\1BM21CS248>java InheritanceTree
Enter the father's age
49
Enter the son's age
-2
Caught : java.lang.Exception: Error! Son's age is less than 0
Father's age = 49
Son's age = -2

C:\Users\Admin\Documents\1BM21CS248>javac InheritanceTree.java

C:\Users\Admin\Documents\1BM21CS248>java InheritanceTree
Enter the father's age
49
Enter the son's age
50
Caught : java.lang.Exception: Error! Son's age cannot be more than the Father's age
Father's age = 49
Son's age = 50

C:\Users\Admin\Documents\1BM21CS248>javac InheritanceTree.java

C:\Users\Admin\Documents\1BM21CS248>java InheritanceTree
Enter the father's age
-20
Enter the son's age
40
Caught : java.lang.Exception: Error! Age is less than 0
Caught : java.lang.Exception: Error! Son's age cannot be more than the Father's age
Father's age = -20
Son's age = 40
```

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