classmate
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LAB 7 – EXCEPTION HANDLING

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 exception WrongAge() when the input age < 0. In son class, implement a constructor that takes both father and son's age and throws an exception if son's age is >= father's age

```
import java.util.*;
class WrongAge extends Exception
{
    public WrongAge(String s)
    {
        super(s);
    }
}

class father
{
    private int age;
    public father(int age) throws WrongAge
    {
        this.age = age;
        if(age < 0)
        {
            throw new WrongAge("Age of father cannot be
                                negative");
        }
    }
}
```

```
class Son extends father
{
    Private int SonAge;
    public Son(int fatherAge, int sonAge) throws WrongAge
    {
        super(fatherAge);
        if(SonAge <0)
        {
            throw new WrongAge("Son's age cannot be negative");
        }
        else if(SonAge >=fatherAge)
        {
            throw new WrongAge("Son's cannot be older/equal
                                than father");
        }
        else if(fatherAge - SonAge <= 20)
        {
            throw new WrongAge("Difference of age is less");
        }
        else
        {
            System.out.println("Age is valid");
        }
        this.SonAge=SonAge;
    }
}

class fatherSonAge
{
    public static void main(String args[])
    {
        try {
```

```
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the Age of the ...
        int SonAge = sc.nextInt();
        System.out.println("Enter the fathers age...
        int fatherAge = sc.nextInt();
        Son son = new Son(fatherAge, SonAge);
      }
      catch(Exception e)
      {
        System.out.println(e.getMessage());
      }
    }
}
```

Output:

```
Enter the Age of Son:
23
Enter the Age of father:
-10
Age of father cannot be negative

Enter the Age of Son:
-20
Enter the Age of father:
25
Age of Son cannot be negative
```

Enter the age of son:
23
Enter the age of father:
56
Age is valid

Enter the age of son:
56
Enter the age of father:
23
Son cannot be older/equal to father

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