

LAB PROGRAM 7

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=father's age.

```
class WrongAgeException extends Exception
{
    WrongAgeException(String msg)
    {
        super(msg);
        System.out.println(msg);
    }
}

class Father
{
    int fage;
    Father(int age) throws WrongAgeException
    {
        if (age<0)
            throw new WrongAgeException("Father age cannot be negative");
        fage=age;
    }
}

class Son extends Father
{
    int sage ;
    Son(int fage , int sage ) throws WrongAgeException
    {
        super(fage);
        if(fage<sage)
            throw new WrongAgeException("Father age cannot be less than son's age");
    }
}
```

```

        if(sage<0)
            throw new WrongAgeException("Son age cannot be negative");
        this.sage=sage;
    }

    public void display()
    {
        System.out.println("Father age :" + fage);
        System.out.println("Son age : "+sage);
    }
}

public class Excdemo
{
    public static void main(String[] args) {
        try{
            Son obj3 = new Son(40,20);
            obj3.display();
            Son obj = new Son(40, 50);
            obj.display();

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

    }
}

```

OUTPUT

```
C:\1wn24cs222>javac Excdemo.java

C:\1wn24cs222>java Excdemo
Father age :40
Son age : 20
Father age cannot be less than son's age
Exception caught :WrongAgeException: Father age cannot be less than son's age
```

Code block for negative age

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

            Son obj2 = new Son(40,-20) ;
            obj2.display();

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

    }
}
```

OUTPUT

```
C:\1wn24cs222>javac Excdemo.java

C:\1wn24cs222>java Excdemo
Son age cannot be negative
Exception caught :WrongAgeException: Son age cannot be negative

C:\1wn24cs222>_
```