# WEEK 7

Week-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 ages and throws an exception if son's age >= father's age.

```
import java.util.Scanner;
class WrongAge Exception extends Exception
{
    public String toString()
    return "Wrong age can't be accepted";
}
class Age Exception extends Exception{
    public String toString(){
    return "Son can't be older than father";
    }
}
```

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```
class Father {
    int father_age;
    Father(int x) throws WrongAgeException
    {
        father_age = x;
        if (father_age < 0) {
            throw new WrongAgeException();
        }
    }

class Son Extends Father {
    int son_age;
    Son(int x, int y)

    super(x);
    son_age = y;
    if (Son_age < 0) {
        throw new WrongAgeException();
    }
    if (son_age >= father_age) {
        throw new AgeException();
    }
}
}
```

```
class lab7
{
Public static void main (String args[])
  {
  try {
  Scanner s = new Scanner (System.in);
  System.out.println ("Enter father and
                son age");
      int x = s.nextInt();
      int y = s.nextInt();
      Son so = new Son (x,y);
      System.out.println ("Father's %.0f years
  old and son's %.0f years old",
      so.fatherage, so.sonage);
  }
  catch (WrongAgeException wa){
          System.out.println (wa);
    }
    catch (AgeException a){
          System.out.println (a);
    }
    catch (Exception e){
       System.out.println ("Enter valid data");
    }
  }
}
```

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Or.

Enter father and son's ages

35 15

Father is 35 years old and son is 15 years old

Enter father and son's ages

-98 10

negative ages not accepted

Enter father's and son's ages

34 -9

negative ages ~~can't~~ be accepted

Enter father and son ages

23 32

son can't be older than father.

```
Enter father's and son's ages
35 15
Father is 35 years old and son is 15 years old
```

```
Enter father's and son's ages
-98 90
Negative age can't be accepted
```

```
Enter father's and son's ages
34 -9
Negative age can't be accepted
```

```
Enter father's and son's ages
34 -9
Negative age can't be accepted
```