Program - 7

wrete a program that demonstrate 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 < 0. In son class implement a constructor that calls both father and son's age and throws an exception if son's age is >= father's age

```
import java.util.*;

class fatherAageException extends Exception
{
 public strengtostring()

 {
  return ("Father's age is less that 0");
  }
}
class sonageException extends Exception
 {
  int a;
  son ageException (int age)
   {
    a=age;
```

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```
public string tostring()
{
  if (a<0)
  return ("son's age is less than 0");
  else
   return ("son's age is more than father's
          age ");

   }
  }

class father
 {
  int age;
  Scanner in = new Scanner (system.in);
  Father ()
 {
 system.out.println ("Enter the father's
                 age: ");

   age = in.nextInt ();
  }
 void ex1 () throws FatherAage Exception
    {
     if (age<0)
      throw new fatherAage Exception();
    }

 }
```

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```
class  Son  Extends  Father
 {
 int age ;
 son ()
  {
  System.out.println ("Enter the age of
                              son: ");
      age = in.next Int();
     }
 void exc2 () Throws  sonAge Exception
         {
         if (age <0 || age >super.age)
       {
       Throw  new  sonAge Exception (age);
     }
   }
 }

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

```
Catch ( fatherAge Exception e)
      {
       System.out.println (e);
     }
    try {
        S.ex2();
    }
   catch (sonAgeException e)
   {
    System.out.println(e);
   }
  }
}
```

Output

```
class main age
{
  public static void main (string xx[])
  {
    father f1 = new father();
    try { f1. check Age(); }
    catch (no zero age ae)
    {
      system.out println (ae);
    }
    son s1 = new son()
    try { s1.checkAge();
          s1. checkAge();
        }
    catch (no zero ae)
    { system.out.println (ae);
    }
    catch ( not less than father's age)
    { systen .out. println (ae);
    }
  }
}
```

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