Lab-8.

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1) 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 Wrong Age () when the input age = father's age.

```
→ import java.util.*;
class fatherAgeException extends Exception
{   public String toString()
    { return("Father's age is less than0);
    }
}
Class sonAgeException extends Exception
 {   int a;
     sonAgeException (int age)
     {   a= age;
     }
     public String toString()
   {  if (a<0)
      return ("Son's age is less than 0");
else
return("Son's age is more than or equal
                to father's age");

   }
}
```

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```
class Father
{    public int age 1;
     Scanner s = new Scaner (System.in);
     father()
   { System.out.print("Enter father's age:");
       age 1 = S.nextInt();
   }
   void ex1() throws fatherAgeException
 {     if (age1<0)
        throw new fatherAgeException();
    }
}
class Son extends father
{ public int age 2;
    Son()
 { System.out.print(" Enter son's age");
     age 2 = s.nextInt();
 }
  void ex2() throws SonAge Exception
  { if (age 2<0 || age 2 >= super.age 1)
     throw new SonAgeException(age 2);
   System.out.println(" No logical error
                          in the entered data");
  }
}
class Main
{ public static void main(String args[])
  {  Son S= new son();
        try
   {  S. ex1(); }
catch (fatherAge Exception e)
  { System.out.println(e); }
```

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```
try
{   s.ex2();   }
catch (SonAgeException e)
{  System.out.println(e);
    }
}
}
```

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