Java Lab Program 8

Code:

```java
import java.util.Scanner;
class fatherAgeException extends Exception
{
  public String toString()
  {
    return("Wrong Age!! Father's age is less than 0");
  }
}


class sonAgeException extends Exception
{
  int a, b;
  sonAgeException (int sage, int fage)
  {
    a = sage;
    b = fage;
  }
  public String toString()
  {
    if(a==b)
      return("Wrong Age!! Son's age is equal to father's age");
/*    if(a<0)
      return("Wrong Age!! Son's age is less than 0");
*/    else
      return("Wrong Age!! Son's age is more than father's age");
```

```java
    }
}


class Father
{
    public int agel;
    Scanner scan = new Scanner(System.in);
    int age1;
    Father()
    {
        System.out.print("Enter father's age: ");
        age1 = scan.nextInt();
    }
    void ex1() throws fatherAgeException
    {
        if (age1 < 0)
            throw new fatherAgeException();
    }
}


class Son extends Father
{
    public int age2;
    Son()
    {
        System.out.print("Enter son's age: ");
        age2 = scan.nextInt();
    }
    void ex2() throws sonAgeException
```

```java
  {
    if(age2 < 0 || age2>=age1)
    throw new sonAgeException (age2, age1);
  }
}


class Main
{
  public static void main(String [] args){
    Son s = new Son();{
    try{
      s.ex1();
    }
    catch(fatherAgeException e)
    {
      System.out.println(e);
    }
    try
    {
      s.ex2();
    }
    catch (sonAgeException e)
    {
    System.out.println(e);
    }
    }
  }
}
```

Output:

```
C:\Users\Deepesh\Desktop\java\java>javac main.java

C:\Users\Deepesh\Desktop\java\java>java Main
Enter father's age: 4
Enter son's age: 50
Wrong Age!! Son's age is more than father's age

C:\Users\Deepesh\Desktop\java\java>java Main
Enter father's age: 0
Enter son's age: 4
Wrong Age!! Son's age is more than father's age

C:\Users\Deepesh\Desktop\java\java>java Main
Enter father's age: -1
Enter son's age: 5
Wrong Age!! Father's age is less than 0
Wrong Age!! Son's age is more than father's age
```