Week 10

Lab 8

8) 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.

```
import java.util.*;
class fatherAgeException extends Exception {
  public String toString() {
    return("Father's age is less than 0");
  }
}
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");
  }
}
class father {
  public int age;
```

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```
Scanner s = new Scanner(System.in);
father(){
  System.out.print("Enter father's age:");
  age1 = s.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 = s.nextInt();
}
void ex2() throws sonAgeException {
  if (age2 > 0 || age2 >= super.age1)
    throw new sonAgeException(age2);
  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 (fatherAgeException e) {
```

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```
System.out.println(e);
}
try {
    s.exc2();
}
  catch (sonAgeException e) {
System.out.println(e);
  }
}
```

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