PROGRAM 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 age and throws the exception WrongAge() when the input age<0. In Son class, implement a constructor that uses both father and son's age and throws an exception if son's age is >=father's age.

CODE:

```
class WrongAge extends Exception {
    public WrongAge(String message) {
        super(message);
    }
}

class Father {
    int fatherAge;

    public Father(int age) throws WrongAge {
        if (age < 0) {
            throw new WrongAge("Father's age cannot be negative.");
        }
        this.fatherAge = age;</pre>
```

```
public int getFatherAge() {
       return this.fatherAge;
class Son extends Fathe<u>r</u> {
   int sonAge;
   public Son(int fatherAge, int sonAge) throws WrongAge {
       super(fatherAge);
       if (sonAge < 0) {</pre>
            throw new WrongAge("Son's age cannot be negative.");
        if (sonAge >= fatherAge) {
            throw new WrongAge("Son's age cannot be greater than or equal
to Father's age.");
      this.sonAge = sonAge;
   public int getSonAge() {
       return this.sonAge;
public class EX {
   public static void main(String[] args) {
```

OUTPUT:

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Father's age: 40
Son's age: 20
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