30-1-24

Lab- Program - 8

Write a program that demonstrates handling of exceptions in inheritance tree.

```
import java.util.Scanner;
class WrongAge extends Exception
{
    public WrongAge(String s){
        super(s);
    }
}

class Father
{
    protected int fatAge;
    public Father() throws WrongAge {
        Scanner s = new Scanner(System.in);
        System.out.println("enter father's age:");
        fatAge = s.nextInt();
        if (fatAge < 0)
            throw new WrongAge("Age cannot be negative");
    }
    public void displayfat(){
        System.out.println("father's age is : " + fatAge);
    }
}

class Son extends Father
{
    private int sonAge;
    public Son() throws WrongAge {
        super();
        Scanner s = new Scanner(System.in);
        System.out.println("enter the son's age : ");
        sonAge = s.nextInt();
```

```
        if(sonAge >= fatAge)
            throw new WrongAge("son's age is more than or equal to father's age");
        else if(sonAge < 0)
            throw new WrongAge("age cannot be negative");
    }
    public void display() {
        System.out.println("son's age is : "+sonAge);
    }
}
public class MainFatson
{
    public static void main(String args[])
    {
        try {
            Son son = new Son();
            son.displayfat();
            son.display();
        }
        catch(WrongAge e) {
            System.out.println("error: "+e.getMessage());
        }
    }
}
```

Output:

1) enter father's age: 45
enter the son's age: 18
father's age: 45
son's age is : 18

2) enter father's age : 23
enter the son's age: 54
error: son's age is more than or equal to father's age

3) enter father's age : -87
error: Age cannot be negative

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