

30/11/24

classmate

Date _____

Page _____

LAB PROGRAM - 7 (User Defined Exception)

```
import java.util.Scanner
```

```
class WrongAge extends Exception
```

```
{  
    public WrongAge (String message)  
    {  
        super (message);  
    }  
}
```

```
class Father
```

```
{  
    protected int fatherAge;  
    public Father (int age) throws WrongAge  
    {  
        fatherAge = age;  
        if (fatherAge < 0)  
        {  
            throw new WrongAge (message:  
                "Father's age  
                cannot be  
                negative");  
        }  
    }  
}
```

```
class son Son extends Father
```

```
{  
    private int sonAge;  
    public Son (int fatherAge, int sonAge)  
        throws WrongAge
```

```

    {
        super(fatherAge);
        this.sonAge = sonAge;
        if (sonAge <= 0)
        {
            throw new WrongAge (message:
                                "Son's age
                                cannot be
                                negative or
                                zero");
        }
    }

```

```

        if (sonAge >= fatherAge)
        {
            throw new WrongAge (message:
                                "Son's age
                                cannot be
                                greater than
                                or equal
                                to father's
                                age");
        }
    }
}

```

```

}
}
}

public class Main
{
    public static void main (String args[])
    {
        Scanner scanner = new Scanner(System.in);
        try {
            System.out.println("Enter father's
                               age : ");
            int fatherAge = scanner.nextInt();
        }
    }
}

```



```

System.out.println("Enter son's age:");
int sonAge = scanner.nextInt();
Son son = new Son(fatherAge, sonAge);
System.out.println("Father's age: " + fatherAge);
System.out.println("Son's age: " + sonAge);
}

```

```

catch (WrongAge e)
{

```

```

    System.out.println("Exception caught: " + e);
    System.out.println("Exception caught: " +
        e.getMessage());
}

```

```

catch (Exception e)
{

```

```

    System.out.println("Error: " + e);
    System.out.println("Error: " + e.getMessage());
}

```

```

finally
{

```

```

    scanner.close();
}
}
}

```

Output:

```

Enter father's age: 35
Enter son's age: 12
Father's age: 35
Son's age: 12

```

Enter father's age: 67

Enter son's age: 78

Exception caught: Wrong age: Son's age

cannot be
greater than
or equal to
father's
age

~~Ans~~
30.01.24