

## LAB 9

```
import java.util.Scanner;  
class WrongAge extends RuntimeException {  
    public WrongAge () {  
        super ("Age cannot be 'negative'");  
    }  
}
```

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

```
class InputScanner {  
    public protected Scanner scanner;  
    public InputScanner () {  
        scanner = new Scanner (System.in);  
    }  
    public int nextInt () {  
        return scanner.nextInt();  
    }  
}
```

```
class Father extends InputScanner {  
    protected int fatherAge;  
    public Father () {  
        System.out.println ("Enter father's age:");  
        fatherAge = super.nextInt();  
    }  
}
```

```
if (fatherAge < 0) {  
    throw new WrongAge ("Age cannot be negative");  
}
```

```
public void display () {  
    System.out.println ("Father's Age : " + fatherAge);  
}
```



```
class Son extends Father {
```

```
    private int sonAge;
```

```
    public Son() {
```

```
        super();
```

```
        System.out.println("Enter son's age:");
```

```
        sonAge = super.nextInt();
```

```
    if (sonAge > fatherAge) {
```

```
        throw new WrongAge("Son's age cannot be greater than  
father's age");
```

```
    } else if (sonAge < 0) {
```

```
        throw new WrongAge("Age cannot be negative");
```

```
    }
```

```
}
```

```
    public void display() {
```

```
        super.display();
```

```
        System.out.println("son's Age: " + sonAge);
```

```
    }
```

```
}
```

```
public class InheritanceException {
```

```
    public static void main (String [] args) {
```

```
        try {
```

```
            Son son = new Son();
```

```
            son.display();
```

```
        } catch (WrongAge e) {
```

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

```
        }
```

```
    }
```

```
}
```



## Output

Enter father's age : 20

Enter Son's age : 40

son's age cannot be greater than father's age.

Enter father's age : -10

Age cannot be negative

Enter father's age : 45

Enter son's age : 20

Father's Age : 45

Son's age : 20.

~~30.01-20~~