

Lab-8 Week-8

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

```
class WrongAge extends RuntimeException {  
    public WrongAge() {  
        super("Age cannot be negative");  
    }
```

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

```
}
```

```
class InputScanner {
```

```
    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("Sons 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

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