

30/01/24

Lab 8.

Write a program that demonstrates handling exception in inheritance tree. Create a base class called "Father" and derived class called "SON" which extends the base class.

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

```
        super(message);  
    }  
}
```

```
class Father  
{
```

```
    int fatherAge;
```

```
    Father() throws WrongAge {
```

```
        Scanner s = new Scanner(System.in);
```

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

```
        fatherAge = s.nextInt();
```

```
        if (fatherAge < 0)  
        {
```

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

```
    }
```

```
}
```

```
void display()
```

```
{
```

```
    System.out.println("Father's age is: " + fatherAge);  
}
```

```
}
```

```
class Son extends Father {
```

```
    int sonAge;
```

```
    Son() throws WrongAge {
```

```
        super();
```

```
        Scanner s = new Scanner(System.in);
```

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

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

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

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

```
    else if (sonAge == fatherAge)
```

```
    {
        throw new WrongAge("Son's age cannot be equal to father's age");
    }
```

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

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

```
    void display()
```

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

```
        System.out.println("Son's age is: " + sonAge);
    }
```

```
public class Main
```

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

```
    {
        try
```

```
        {
            Son s = new Son();
```


s. display();

}

catch (WrongAge e)

{

System.out.println(e.getMessage());

}

}

}

O/P:

Enter Father's age

22

Enter Son's age

22

Son's age cannot be same as father's age

Enter Father's age

30

Enter Son's age

31

Son's age cannot be greater than father's age

Enter Father's age

-9

Age can't be negative

Enter Father's age

34

Enter Son's age

8

Father's age is 34

Son's age is 8

~~JP~~
~~30/11/24~~