

## Lab - 9

Write a program that demonstrates handling of exceptions in inheritance tree. Create a base class called "Father" and derived class called "Son" which extends the base class. In Father class, implement a constructor which takes the age and throws the exception WrongAge() when the input age  $\leq 0$ . In Son class, implement a constructor that takes both father and son's age and throws an exception if son's age is  $\geq$  father's age.

```
import java.util.*;
class WrongAge extends Exception
{ private static final long serialVersionUID = 1L;
  String str;
  WrongAge(String s)
  { str = s;
  }

  public String toString()
  { return "Wrong Age: " + str;
  }
}

class Father
{ public int age;
  public Father(int a) throws WrongAge
  { age = a;
    if (a < 0)
      throw new WrongAge("Age cannot be than 0");
    else
      System.out.println("Valid");
  }
}
```



```
class Son
```

```
{ Son(int s, int f) throws WrongAge
```

```
{ if (B >= f)
```

```
    throw new WrongAge("Age cannot be less than 0");
```

```
    else
```

```
        System.out.println("Valid");
```

```
}
```

```
}
```

```
class prog8
```

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

```
{ try
```

```
{ Scanner sc = new Scanner (System.in);
```

```
    int f, s;
```

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

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

```
    Father ob1 = new Father(f);
```

```
    Son ob2 = new Son(s, f);
```

```
}
```

```
catch (WrongAge e)
```

```
{ System.out.println(e);
```

```
}
```

```
}
```

Output

Enter father's age: 45

Enter Son's age: 15

Valid

Valid