Exception (OHOHOH)

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```
1        try {
2          your_original_code ();
3        }
4        catch (Exception e) {
5          listen_to_complaint ();
6        }
```

- when `your_original_code` "ohohoh",
  `listen_to_complaint` part will **handle** it

```
1        try {
2          line_1 ;
3          line_2 ;
4          line_3 ;
5        }
6        catch ( Exception e ) {
7        try { line_4 ;    } catch {          }
8          line_5 ;
9        }
```
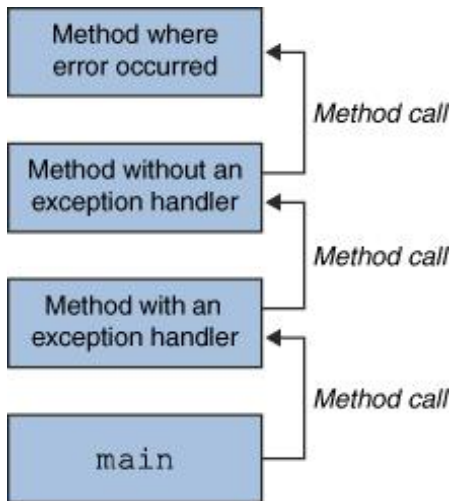
- when **exception** happens at line_1: [1], 4, 5
- when **exception** happens at line_2: 1, [2], 4, 5
- when **exception** happens at line_3: 1, 2, [3], 4, 5
- when **exception** happens at line_1 and line_4: [1], [4], ?

```
1          try {
2            line_1;
3            line_2;
4            Exception e = new Exception("ohohohohohoh");
5            throw e;
6            //or throw new Exception("ohohohohohoh");
7            line_3;
8          }
9          catch (Exception e){
10           line_4;
11           line_5;
12         }
```

- if no other exception happens: 1, 2, 4, 5

```
1      // class NullPointerException extends Exception
2      try {
3        line_1 ;
4        throw new Exception ("ohohohohohoh") ;
5        line_2 ;
6      }
7      catch (NullPointerException n) {
8        line_3 ;
9        line_4 ;
10     }
11     catch (Exception e) {
12       line_5 ;
13     }
```

- if NPE happens at line 1: [1], 3, 4
- if Exception happens at line 1: [1], 5
- if no exception happens at line 1: 1, 5
- if exception happens at line 2?

```
1          try {
2            line_1 ;
3            throw new Exception ( "ohohohohohoh" ) ;
4            line_2 ;
5          }
6          catch ( Exception e ) {
7            line_5 ;
8          }
9          catch ( NullPointerException n ) {
10           line_3 ;
11           line_4 ;
12         }
```

- if NPE happens at line 1: [1], 5
- if Exception happens at line 1: [1], 5
- "need to catch more specific exceptions first" (hahaha if not)

Exception Class Hierachy

Throwable

Exception   Error

RTE CNFE   VME

NPE

```
1    public class java.lang.Throwable;
2    public class java.lang.Exception
3      extends Throwable;
4    public class java.lang.Error
5      extends Throwable;
6    public class java.lang.RuntimeException
7      extends Exception;
8    public class java.lang.NullPointerException
9      extends RuntimeException;
10   public class java.lang.ClassNotFoundException
11     extends Exception;
12   public abstract class java.lang.VirtualMachineError
13     extends Error;
```