

## Exceptions are of two types

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- ❑ The class Exception represents exceptions that a program faces due to abnormal or special conditions during execution.
- ❑ Exceptions can be of 2 types: **Checked** (Compile time Exceptions)/ **Unchecked** (Run time Exceptions).



## Unchecked Exceptions

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- ❑ **Unchecked exceptions** are RuntimeException and any of its subclasses
- ❑ ArrayIndexOutOfBoundsException, NullPointerException and so on are all subclasses of the java.lang.RuntimeException class, which is a subclass of the Exception class.



## Class Hierarchy



## Four ways

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- Default throw and default catch
- **Default throw and our catch**
- Our throw and default catch
- Our throw and our catch



## Default throw and our catch

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```
try
{
    <code>
} catch (<exception type> <parameter>) {
    // 0 or more <statements>
}
finally {
    // finally block <statements>
}
```



## Remember

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- ❑ For each try block there can be zero or more catch blocks, but only one finally block
- ❑ The catch blocks and finally block must always appear in conjunction with a try block
- ❑ A try block must be followed by either at least one catch block or one finally block.
- ❑ The order exception handlers in the catch block must be from the most specific exception



```
Example.java
1 class Example{
2     public static void main(String[] args){
3         try{
4             System.out.println(3/0);
5             System.out.println("In try");
6         }
7         catch(NullPointerException e)
8         {
9             System.out.println("Exception: "+e.getMessage());
10        }
11        catch(ArithmeticException e){
12            System.out.println("Exception: "+e.getMessage());
13        }
14        System.out.println("Hello");
15    }
16 }
17 }
```