

Exception

Error

Compile-Time(Syntax) Error

Error which prevents the program from compilation.

Logical Error

Programmer's error in logic due to which Output of program is incorrect.

Exception

Exception is an error occurred during the execution of the program.

Exception Handling

```
try {  
  
    // Code that can throw exception  
  
} catch( ExceptionName refVar ) {  
  
    // Exception Handling Code  
  
}
```

Common Exception classes

Exception Class Name
ArithmeticException
ArrayIndexOutOfBoundsException
NullPointerException
NumberFormatException
FileNotFoundException
ClassCastException

Multiple try-catch

```
//statements
try {
    // Code that can throw exception
} catch( ExceptionName refVar ) {
    // Exception Handling Code
}
//statements
try {
    // Code that can throw exception
} catch( ExceptionName refVar ) {
    // Exception Handling Code
}
//statements
```

Nested try-catch

```
//statements
try {
    // Code that can throw exception
    try {
        // Code that can throw exception
    } catch( ExceptionName refVar ) {
        // Exception Handling Code
    }
    //statements
} catch( ExceptionName refVar ) {
    // Exception Handling Code
}
//statements
```

Try with multiple catch

```
//statements
try {
    // Code that can throw exception
} catch( ExceptionName refVar ) {
    // Exception Handling Code
} catch( ExceptionName refVar ) {
    // Exception Handling Code
}
//statements
```

Single try-catch for multiple Exception

```
//statements
try {
    // Code that can throw exception
} catch( ExceptionName | ExceptionName refVar ) {
    // Exception Handling Code
}
```

Finally block

```
//statements
try {
    // Code that can throw exception
} catch( ExceptionName refVar ) {
    // Exception Handling Code
} finally{
    // Code that must execute in any case
}
```

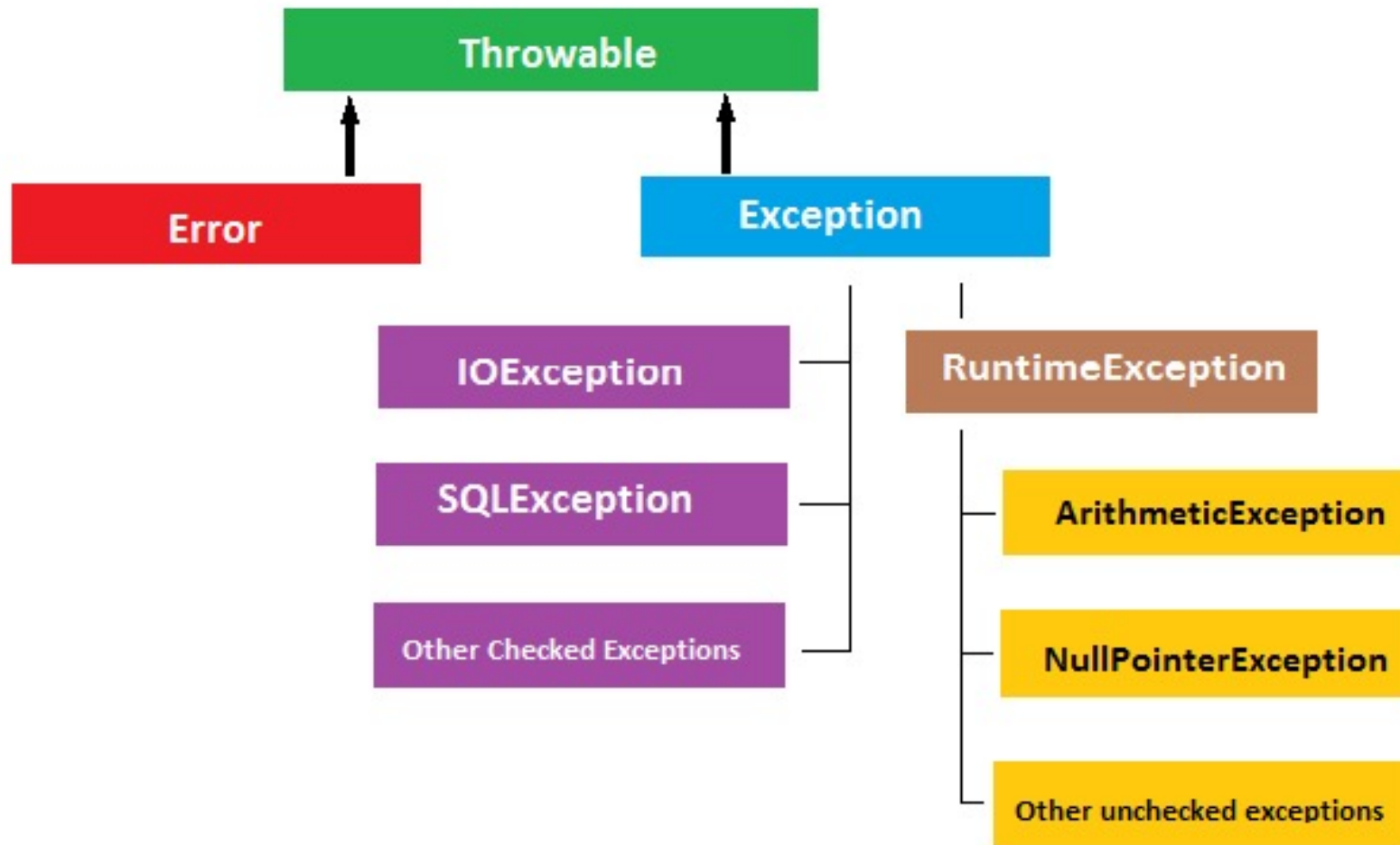

throw and throws keywords



throw keyword used to throw an exception manually .

throws keyword used to specify/indicate that this method or constructor could throw the exception.

Exception Hierarchy



Checked and Unchecked Exception

Checked(Unreported) Exception:

Exceptions that are checked at compile time.

Unchecked(Reported) Exception:

Exceptions that are not checked at compiled time and sub class of RuntimeException or Error.

Custom Exception

```
class MyException extends Exception{  
    // code  
}
```