

# Exception Handling

Exception is broadly classified into the following categories

- [Checked Exception](#)
  - The classes that extend Throwable class except [RuntimeException](#) and [Error](#) are known as checked exceptions. E.g. [IOException](#), [SQLException](#), etc. Checked exceptions are checked at compile-time.
- [Unchecked Exception](#)
  - The classes that extend [RuntimeException](#) are known as unchecked exceptions. For example, [ArithmeticException](#), [NullPointerException](#), [ArrayIndexOutOfBoundsException](#), etc. Unchecked exceptions are not checked at compile-time rather they are checked at runtime.

## Example

```
(ns clojure.examples.example
  (:gen-class))

;; This program displays Hello World
(defn Example []
  (def string1 (slurp "Example.txt"))
  (println string1))
(Example)
```

## Output

```
Caused by: java.io.FileNotFoundException: Example.txt (No such file or
directory)
at java.io.FileInputStream.open0(Native Method)
at java.io.FileInputStream.open(FileInputStream.java:195)
at java.io.FileInputStream.<init>(FileInputStream.java:138)
at clojure.java.io$fn__9185.invoke(io.clj:229)
at clojure.java.io$fn__9098$G__9091__9105.invoke(io.clj:69)
at clojure.java.io$fn__9197.invoke(io.clj:258)
at clojure.java.io$fn__9098$G__9091__9105.invoke(io.clj:69)
```

## Example

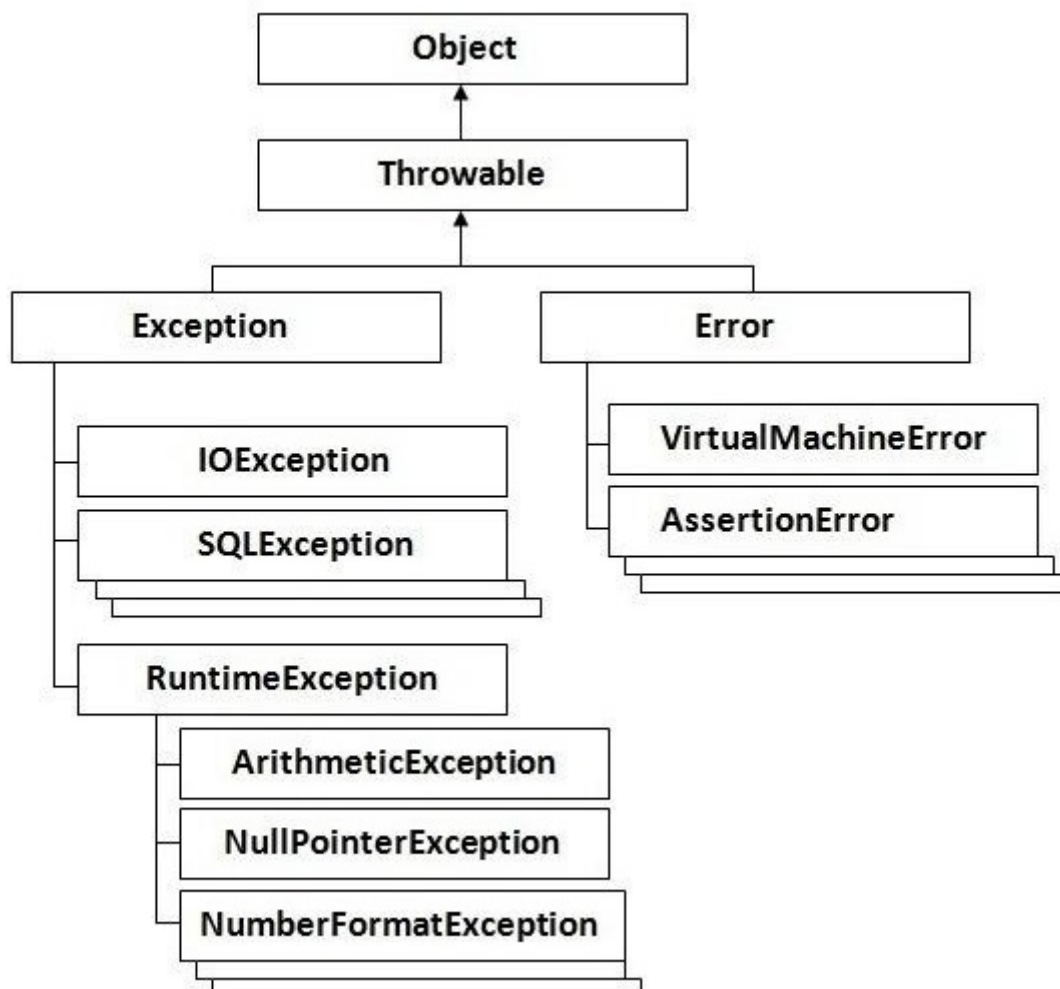
```
(ns clojure.examples.example
  (:gen-class))
(defn Example []
```

```
(try
  (aget (int-array [1 2 3]) 5)
  (catch Exception e (println (str "caught exception: " (.toString e))))
  (finally (println "This is our final block")))
(println "Let's move on"))
(Example)
```

## Output

```
caught exception: java.lang.ArrayIndexOutOfBoundsException: 5
This is our final block
Let's move on
```

## Error



## Catching Exceptions

```
(try
  (//Protected code)
  catch Exception e1)
(//Catch block)
```

## Example

```
(ns clojure.examples.example
  (:gen-class))
(defn Example []
  (try
    (def string1 (slurp "Example.txt"))
    (println string1)
    (catch Exception e (println (str "caught exception: " (.getMessage
e))))))
(Example)
```

## Output

```
caught exception: Example.txt (No such file or directory)
```

## Multiple Catch Blocks

### Example

```
(ns clojure.examples.example
  (:gen-class))
(defn Example []
  (try
    (def string1 (slurp "Example.txt"))
    (println string1)
    (catch java.io.FileNotFoundException e (println (str "caught file
exception: " (.getMessage e))))
    (catch Exception e (println (str "caught exception: " (.getMessage
e))))))
  (println "Let's move on"))
(Example)
```

## Output

```
caught file exception: Example.txt (No such file or directory)
Let's move on
```

## Finally Block

```
(try
  (//Protected code)
  catch Exception e1)
(//Catch block)
(finally
  //Cleanup code)
```

## Example

```
(ns clojure.examples.example
  (:gen-class))
(defn Example []
  (try
    (def string1 (slurp "Example.txt"))
    (println string1)
    (catch java.io.FileNotFoundException e (println (str "caught file
      exception: " (.getMessage e))))
    (catch Exception e (println (str "caught exception: " (.getMessage
e))))
    (finally (println "This is our final block")))
    (println "Let's move on"))
  (Example))
```

## Output

```
caught file exception: Example.txt (No such file or directory)
This is our final block
Let's move on
```

## Example

```
(ns clojure.examples.example
  (:gen-class))
(defn Example []
  (try
    (def string1 (slurp "Example.txt"))
```

```
(println string1)
(catch java.io.FileNotFoundException e (println (str "caught file
  exception: " (.toString e))))
(catch Exception e (println (str "caught exception: " (.toString e))))
(finally (println "This is our final block"))
(println "Let's move on")
(Example)
```

## Output

```
caught file exception: java.io.FileNotFoundException: Example.txt (No such
file
or directory)
This is our final block
Let's move on
```

## Refs

- [https://www.tutorialspoint.com/clojure/clojure\\_exception\\_handling.htm](https://www.tutorialspoint.com/clojure/clojure_exception_handling.htm)

- [clojure syntax](#)

From:

<https://jace.link/> - **Various Ways**

Permanent link:

<https://jace.link/open/exception-handling>

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