**Exception Handling**

* Java Exception Handling is a mechanism to handle runtime errors such as ClassNotFoundException, IOException, SQLException, RemoteException, etc.

**Exception**

* **Dictionary Meaning:** Exception is an abnormal condition.
* **Exception** is an unwanted or unexpected event, which occurs during the execution of a program, i.e. at run time, that disrupts the normal flow of the program’s instructions.
* Exceptions can be caught and handled by the program.
* When an exception occurs within a method, it creates an object.
* This object is called the exception object.
* It contains information about the exception, such as the name and description of the exception and the state of the program when the exception occurred.

**Major reasons why an exception Occurs**

* Invalid user input
* Device failure
* Loss of network connection
* Physical limitations (out of disk memory)
* Code errors
* Opening an unavailable file

**Errors**

* **Errors** represent irrecoverable conditions such as Java virtual machine (JVM) running out of memory, memory leaks, stack overflow errors, library incompatibility, infinite recursion, etc.
* Errors are usually beyond the control of the programmer, and we should not try to handle errors.

**differences between Error and Exception**

* **Error:**An Error indicates a serious problem that a reasonable application should not try to catch.
* **Exception:**Exception indicates conditions that a reasonable application might try to catch.

### Exception Hierarchy

All exception and error types are subclasses of class **Throwable**, which is the base class of the hierarchy. One branch is headed by **Exception**. This class is used for exceptional conditions that user programs should catch. NullPointerException is an example of such an exception. Another branch, **Error** is used by the Java run-time system([JVM](https://www.geeksforgeeks.org/jvm-works-jvm-architecture/)) to indicate errors having to do with the run-time environment itself(JRE). StackOverflowError is an example of such an error.