* **Exception Handling:**
  + Two main types of errors:
    - Compile time errors. (Syntax errors)
    - Runtime errors. (Logical errors)
  + Exception Handling is only for Runtime errors.
  + **Exception:** An exception is an erroneous event which occurs in a method of a Java object at runtime.
  + When such a event occurs information about the erroneous event is encapsulated in an object of an appropriate class and thrown.
  + The application later can then catch this object, retrieve the erroneous event and take some remedial action.
  + Java provides a construct try-catch finally block to handle exceptions.
  + java.lang.Object has a class ‘Throwable’. ‘Throwable’ and all its sub classes are appropriate classes.
  + Throwable:
    - Exception:
      * IOException.
        + FileNotFoundException
      * RemoteException.
      * SQL Exception.
      * Runtime Exception (Unchecked Exceptions)
        + NullPointerException.
        + ArithematicException.
        + NumberFormat Exception.
        + StringIndexOutofBOund Exception.
        + ArrayIndexOutofBound Exception.
        + Etc.
  + Error: Errors are very critical. In case of an error JVM shuts down.
  + Syntax:
    - try{} catch(\_\_\_\_\_\_\_\_ e){}.
    - try{} catch(\_\_\_\_\_\_\_\_ e){} catch(\_\_\_\_\_\_\_ e){}.
    - try{} catch(\_\_\_\_\_\_\_\_ e){} finally{}.

**User-Defined Exceptions:**

* + IF the exception needs to be checked by **CONVENTION** the exception should extend to Exception class.
  + IF the exception needs to be un-checked by **CONVENTION** the exception should extend to RuntimeException class.