**Exception Handling – Part-03 – Checked VS Unchecked Exception**

* **Checked vs Unchecked Exception:**

**Checked Exception:**

The exceptions which are checked by compiler for smooth execution of the program are called checked exceptions.

Example:

HallTicketMissingException

PenNotWorkingException

FileNotFoundException etc.

In our program if there is a chance of raising checked exception, then compulsory we should handle that checked exception (either by try/catch or throws keyword) otherwise we will get compile time error.

**Analogy:**

If you are going to public exam, then your mom will ask the following questions before you leave the home, have you taken the hall ticket, do you have extra pen? Because these are the common problems which will occur in exam.

If mom asks these questions before going for the exam we can cross check, so at runtime our execution will be smooth.

Apply the same analogy for checked exception, the exceptions which are checked by compiler for the smooth execution those are called unchecked exception.

**Unchecked Exception:**

The exceptions which are not checked by compiler whether programmer handling or not such type of exceptions are called unchecked exceptions.

Example:

ArithmeticException

BombBlastException

**Analogy:**

If mom asks when you are writing exam if there is a bomb blast happen, how will you handle it? The chance of this

situation is very rare. So, in general mom won’t ask or check

this kind of situation.

So, the exceptions which are not checked by compiler are

called unchecked exception.

**Note:**

1. Whether it is checked or unchecked every exception occurs at runtime only, there is no chance of occurring any exception at compile time.
2. Runtime exceptions and its child classes, error and its child classes are unchecked. Except these remaining are checked.

* **Fully checked vs partially checked:**

A checked exception is said to be fully checked if and only if all its child classes also checked.

Example: IOException, InterruptedException

A checked exception is said to be partially checked if and only if some of its child classes are unchecked.

Example: Exception, Throwable

Note:

The only possible partially checked exceptions in Java are Exception, Throwable

Analogy:

If you are going to shopping mall with your family including kids, in the entrance they will check only the adult members, they won’t check the kids, this is called partially checked.

If you are going to Airport for abroad travel with the same set of people, there they will check everyone, there is no partiality that adult or kid, this type of checking is called full checking.

* **Describe the behavior of following exceptions:**

IOException – Checked (Fully checked).

RuntimException – Unchecked exception.

InterupptedException – Checked (Fully Checked).

Error - Unchecked

Throwable – Checked (Partially Checked)

ArithmeticException – Unchecked exception.

NullPointerException – Unchecked exception.

Exception – Checked (Partially checked).

FileNotFoundException – Checked (Fully Checked).