DAY – 11

# JAVA:

****EXCEPTION HANDLING:****

It is one of the powerful mechanisms to handle run time errors. So that the normal flow of the application can be maintained.

****EXCEPTION****

An Exception is an error that occurs during the execution of a program that disrupts the normal flow of instructions. When an exception occurs, it is typically represented by an object of a subclass of the java.lang.Exception class.

ADVANTAGE OF EXCEPTION HANDLING:

To maintain the normal flow of the application.

**TYPES OF JAVA EXCEPTIONS:**

* Checked Exception
* Unchecked Exception
* Error

CHECKED EXCEPTION:

That are checked at compile-time.

* IOException
* SQLException
* ParseException
* ClassNotFound Exception

UNCHECKED EXCEPTION:

* That are run-time Exceptions, are not checked at compile-time.
* These exceptions occur due to programming errors, such as logical errors or incorrected assumptions in the code.
* NullPointer Exception
* ArrayIndexOutOfBounds Exception
* Arithmetic Exception
* IllegalArgument Exception

ERRORS:

Errors represent exceptional conditions. They are caused by issues outside, such as system failures.

* OutOfMemory Error
* StackOverFlowError
* NoClassDefError

**JAVA EXCEPTION KEYWORDS:**

* try
* catch
* finally
* throw
* Throws

JAVA THROW EXCEPTION:

We can create custom exceptions, make code recovery, and debug easier.

JAVA THROW KEYWORD:

* The Java throw keyword is used to throw an exception explicitly.
* We can throw either checked or unchecked exceptions by throw keyword. It is mainly used to throw custom exceptions.

Syntax:

throw new exception\_class (“error message”);

Example:

throw new IOException (“SORRY”);

JAVA THROWS KEYWORD:

* The throws keyword is used to declare an exception.
* It gives information to the programmer that there may be an exception.

Syntax:

return\_type method\_name() throws exception\_class (“error message”);

{

// method\_name

}

* It can be used to indicate the checked exceptions.