1. What are the four access modifiers available in Java and what is their significance in terms of class, method, and variable accessibility?

Four types of access modifiers available in Java:

1. **Default :**

* When no access modifier is specified for a class, method, or data member – It is said to be having the **default** access modifier by default.
* Within the package class only it can be used.

1. **Private :**

Declare the particular entity is accessible throughout from within or outside the class, within or outside at package.

1. **Protected :**

Not accessible outside the class

1. **Public :**

Allows access to entities through subclass of the class in which entity is declared

1. What is the difference between Exception and error?

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| **Exception** | **Error** |
| * Can be handled | * Cannot be handled |
| * It classified into two types 1.Checked 2.Unchecked | * All errors in java are unchecked. |
| * Based on type of exception it occurs at compile time or run time | * It occurs only at runtime |
| * **Checked Exceptions:** IOException **Unchecked Exceptions:** NullPointerException, ArithmaticException | * Java.lang.outpfmemoryerror |
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1. What is the difference between checked Exception and unchecked Exception?

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| * Checked exceptions occur at compile time. | * Unchecked exceptions occur at runtime. |
| * The compiler checks a checked exception. | * The compiler does not check these types of exceptions. |
| * These types of exceptions can be handled at the time of compilation. | * These types of exceptions cannot be a catch or handle at the time of compilation, because they get generated by the mistakes in the program. |
| * They are the sub-class of the exception class. | * They are runtime exceptions and hence are not a part of the Exception class. |
| * Here, the JVM needs the exception to catch and handle. | * Here, the JVM does not require the exception to catch and handle. |
| Examples of Checked exceptions:   * File Not Found Exception * Class Not Found Exception | Examples of Unchecked Exceptions:   * Arithmetic Exception * Null Pointer Exception * Array Index Out of Bounds Exception |