JVM, or the Java Virtual Machine, is an interpreter which accepts ‘Bytecode’ and executes it.

Java has been termed as a ‘Platform Independent Language’ as it primarily works on the notion of ‘compile once, run everywhere’. Here’s a sequential step establishing the Platform independence feature in Java:

* The Java Compiler outputs Non-Executable Codes called ‘Bytecode’.
* Bytecode is a highly optimized set of computer instruction which could be executed by the Java Virtual Machine (JVM).

“JDK” stands for Java Development Kit. The JDK is a bundle of software that is used to develop Java based software.

“JRE” stands for the Java Runtime Environment. The JRE is an implementation of the Java Virtual Machine which actually executes Java programs.

Int data type is a 32-bit signed two's complement integer. For whole numbers.

* Min value is -2,147,483,647).(-2^31)
* Maximum value is 2,147,483,647(inclusive).(2^31 -1)

Double data type is a double-precision 64-bit standard floating point. (IEEE 754)

* This data type is generally used as the default data type for decimal values, generally the default choice.

Short data type is a 16-bit signed two's complement integer. Used to save space like byte.

* Minimum value is -32,768 (-2^15)
* Maximum value is 32,767 (inclusive) (2^15 -1)

Byte data type is an 8-bit signed two's complement integer. Used to save space in large arrays.

* Minimum value is -128 (-2^7)
* Maximum value is 127 (inclusive)(2^7 -1)

Long data type is a 64-bit signed two's complement integer. For longer numbers than ints.

* Minimum value is -9,223,372,036,854,775,808.(-2^63)
* Maximum value is 9,223,372,036,854,775,807 (inclusive). (2^63 -1)
* **String** : A sequence of characters (eg, "Hello User 6555")  
  (no specified maximum length, as far as I'm aware!)
* **boolean** : A true/false value.  
  Can only contain either the value **true** or **false**.

5. What is the difference between STRINGBUFFER and STRING?

* String object is immutable.
* StringBuffer/StringBuilder objects are mutable.

**Polymorphism** allows an entity such as a variable, a function, or an object to have more than one form.

**Encapsulation in Java** is a mechanism of wrapping the data (variables) and code acting on the data (methods) together as a single unit.

**Abstraction** is the process of **abstraction in Java** is used to hide certain details and only show the essential features of the object.

**Inheritance** allows a class to use the properties and methods of another class.

**Overriding** is declaring a method in **subclass** which is already present in the **parent class.**

**Overloading** is a feature that allows a class to have two or more methods having same name.

**Constructor** is a block of code, which runs when you use **new** keyword in order to**instantiate an object.**

 A [**constructor**](http://beginnersbook.com/2013/03/constructors-in-java/) with no argument is known as **default constructor** in java.

### **What is Checked Exception in Java?**

**Checked Exception in Java** is all those Exception which requires being catches and handled during [compile time](http://javarevisited.blogspot.com/2012/03/what-is-static-and-dynamic-binding-in.html). If Compiler doesn’t see try or catch block handling a Checked Exception, it throws a Compilation error. –Example IOexception

### **What is Unchecked Exception in Java?**

**Unchecked Exception in Java** is those Exceptions whose handling is not verified during Compile time. Unchecked Exceptions mostly arise due to programming errors like accessing method of a null object, accessing element outside an array bonding or invoking method with illegal arguments. –example ArrayIndexOutOfBounds exception

A difference between Checked and UnChecked Exception is that checked Exception requires mandatory try catch or try finally block but unchecked Exception don't.

**FileInputStream** contains the input byte from a file and implements an input stream.

**FileOutputStream** uses for writing data to a file and also implements an output stream.

**FileReader :** The FileReader class makes it possible to read the contents of a file as a stream of characters. It works much like the FileInputStream, except the FileInputStream reads bytes, whereas the FileReader reads characters.

**FileWriter :**This class is used to write to character files. Creation of a FileWriter is not dependent on the file already existing.

int c;

FileReader fread = new FileReader("xanadu.txt");

FileWriter fwrite = new FileWriter("characteroutput.txt");

while ((c = fread.read()) != -1)

fwrite.write(c);

An **ArrayList** is a dynamic data structure, meaning items can be added and removed from the list. A normal array in java is a static data structure, because you stuck with the initial size of your array.

In computer science, a **linked list** is a linear collection of data elements, called nodes pointing to the next node by means of a pointer.

ArrayList search operation is pretty fast compared to the LinkedList search operation.

ArrayList is **better for storing and accessing** data while LinkedList is **better for manipulating** data.

Iterator also allows you to remove elements from collection during traversal but Enumeration doesn't allow that, it doesn't got the remove() method. Enumeration is also a legacy class and not all Collection supports it e.g. Vector supports Enumeration but ArrayList doesn't.