

INTRODUCTION TO JAVA BLUEJ ENVIRONMENT

Q. Why is Java often termed as a platform?

Ans: Platform is the environment in which programs execute. Instead of interacting with the Operating System directly, Java programs runs on a virtual machine provided by Java, therefore Java is often referred to as a platform also.

Q. What is a bytecode?

Ans: Bytecode is a set of pseudo mechanic language instructions that are understood by the JVM (Java Virtual Machine) and are independent of the underlying hardware.

Q. What do you understand by JVM?

Ans: JVM or Java Virtual Machine is an

abstract machine designed to be implemented on top of existing processors. It hides the underlying OS from Java application. Programs written in Java are compiled into Java byte-code, which is then interpreted by a special java Interpreter for a specific platform. Actually this Java interpreter is known as Java Virtual Machine (JVM).

Q. What is JDK (Java Development Kit)?

Ans: The Java development kit comes with a collection of tools that are used for developing and running java programs.

Q. What are Java APIs?

Ans: The Java APIs (Application Program Interface) consist of libraries of pre-compiled code that programmers can use in their application.

Q. Write the five characteristics of Java/BlueJ?

Ans: 1. Write Once Run Anywhere 2. Light weight code 3. Security 4. Built in

Graphics 5. Object Oriented Language 6. Support Multimedia 7. Platform Independent. 8. Open Product.

Q. What do you know about BlueJ?

Ans: BlueJ is a Java development environment. It is an IDE (Integrated Development Environment), which includes an editor a debugger and a viewer.

Q. How you create, compile and execute a program in Java or BlueJ? Explain your answer?

Ans: Create: Click on new class button from BlueJ editor, then type the class name a program icon will be created. double click on it, a program editor will be open, erase the code and type your program coding. Compile: click the compile button on the left of the window or right click on the class icon and select compile from the menu options. Execute: Right click on the class icon and select new class name option. A dialogue box appears type the

name of the object. A object icon will be created at the bottom. Right click on the object icon and select the method we want to execute.

Q. The two types of Java programs/applications are?

Ans: The two types of Java Applications are 'Internet Applets' and 'Stand alone application'.

Q. State the distinguishing features of Java and C++?

Ans: (i) Java does not support operator overloading.

(ii) Java does not use pointers.

(iii) There are no header files in Java.

(iv) Java does not have template classes as in C++.

Q. State the differences between Syntax errors and Logical errors.

Ans: The compiler can only translate a program if the program is syntactically correct; otherwise the compilation fails and

you will not be able to run your program. Syntax refers to the structure of your program and the rules about that structure. The second type of error is a run-time error, so-called because the error does not appear until you run the program. In Java, run-time errors occur when the interpreter is running the byte code and something goes wrong.

Q. “Object is an instance of a class”, explain.

Ans: Object of a class contains data and functions provided in a class. it possesses all the features of a class. Hence object is termed as instance of a class.

Q. Name four basic features of JAVA.

Ans: Basic features of Java as follows:

i) It is an object oriented language.

ii) Java program is both compiled and interpreted..

iii) Java program can be application or applet.

iv) java is case sensitive language, i.e. it distinguished upper and lower case letters.

Q. Differentiate between Compiler and Interpreter.

Ans: Compiler convert source code to machine language whole at a time.

Interpreter converts program from high level language to machine level language line by line or statement by statement.

Q. Java uses compiler as well as interpreter, explain.

Ans: Java compiler converts Java source code to byte code. This byte code is further converted into machine code to make it applicable for the specific platform by using interpreter.

Q. Differentiate between Source code and Byte code.

Ans: Source code is the program developed in Java Language, which is input to a computer through the keyboard.

Compiler converts source code to byte code for interpretation.

Q. Differentiate between Testing and Debugging.

Ans: Testing is the process of checking program logic manually to ensure whether it contains any error or not. Debugging is the process of removing errors from a program.