



J2EE / ADVANCE JAVA

MANUAL V8.3

MODULE CODE:

ANUDIP FOUNDATION





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Module 2: Fundamentals of Client Side Scripting and Introduction to Java IDE**Chapter 4**

Objective: After completing this lesson you will be able to :

- * Gain introductions to the NetBeans and Eclipse IDE applications
- * Understand code completion and execution fundamentals

Materials Required:

1. Computer
2. Internet access

Theory Duration: 120 minutes

Practical Duration: 0 minute

Total Duration: 120 minutes

Chapter 4

4.1 Introduce with Net beans/Eclipse environment

NetBeans IDE

The NetBeans IDE is one of the two most famous Java integrated development environments used by many programmers across the globe. NetBeans is used for developing mobile, web, desktop and enterprise applications. Programmers on Mac, Windows, Linux and Solaris operating systems can compile Java code on NetBeans.

The NetBeans environment offers various modules for developing applications. It facilitates fast and error-free coding with features such as code completion. NetBeans IDE is the second most popular development environment for Java developers.

The interface of NetBeans is divided into many sections. These include -

- * a project picker
- * a navigator
- * source and design sections
- * container section
- * menu and toolbars

Features of NetBeans -

- * Multi-language and cross-platform support
- * Debugger
- * Analytical tools
- * Code editor and converter

Eclipse IDE

Eclipse is the most widely used IDE application relied upon by Java programmers. It runs on Windows, Mac and Linux operating systems, and has support for various plugins and extensions. Eclipse IDE can be used for developing desktop and mobile applications.

Eclipse is used mainly for Java application development, but can also be used for other languages as well. It is an environment that allows full-fledged workflow customization, and the use of various third-party plugins or extensions

The interface of Eclipse is divided into many sections. These include –

- * a workbench window
- * a navigator
- * code editor
- * menu, tool and shortcut bar

Features of Eclipse –

- * Multi-language and cross-platform support
- * Marketplace for plug-ins and extensions
- * Debugger and XML editor
- * Analytical tools
- * Code editor and converter

4.2 Code implementation and execution

Java code implementation refers to the interaction of the elements of the language. Implementation in Java is the recognition and utilization of written code within a program.

Java interfaces are implemented by classes. A class that is implementing an interface has to implement all the methods of the interface. Implementation is a process comprising of several steps, which are –

- * **Writing a program** – This step is done on a text editor or IDE software like Eclipse or NetBeans. A file has to be saved with the Java extension (.java)
- * **Compiling a program** – A program has to be compiled after it has been written. Programmers can use the Javac compiler or ones available in IDEs. Following the compilation, the compiler creates a class file (with a .class extension).
- * **Executing (running) a program** – Compiled code has to be done by a Java interpreter. Programmers have to input the class file name on the command line UI. It is then run by the java program.

Instructions: The progress of students will be assessed with the exercises mentioned below.

MCQ (10 minutes)

1. Can NetBeans be used for enterprise application development?

- a) Yes
- b) only used for desktop apps
- c) only used for mobile and web
- d) No

2. Can NetBeans be used by a programmer on both Mac and Linux systems?

- a) No
- b) Yes
- c) only Windows and Mac
- d) Linux not supported

3. NetBeans offers several _____ for application development.

- a) subsections
- b) modules
- c) folders
- d) None of the mentioned

4. The NetBeans ____ completion feature ensures error-free coding.

- a) array
- b) data
- c) code
- d) None of the mentioned

5. Which one of these is the most used Java IDE application ?

- a) BlueJ
- b) Eclipse
- c) NetBeans
- d) None of the mentioned

6. Can a programmer use third-party plugins in Eclipse ?

- a) only on Linux
- b) no
- c) yes
- d) only on Windows

7. What can be accessed through the Eclipse Marketplace ?

- a) plugins and extensions
- b) only C++ extensions
- c) new themes and templates

d) None of the mentioned

8. Java code implementation refers to the interaction between _____.

a) IDE software

b) language elements

c) int arrays

d) None of the mentioned

9. What extension is used for saving a Java file after writing?

a) .class

b) .java

c) .init

d) both a and b

10. Code has to be run by an _____ after compilation.

a) calculator

b) interpreter

c) initiator

d) None of the mentioned