

INTRODUCTION OF JAVA

CODE: (JAVA-2M)

1. INTRODUCTION TO JAVA VIRTUAL MACHINE

- a. JAVA VIRTUAL MACHINE ARCHITECTURE
- b. CLASS LOADING PROCESS BY CLASS LOADERS
- c. ROLE OF JUST IN TIME COMPILER (JIT)
- d. DATA TYPES, VARIABLES AND ARRAYS
- e. OPERATORS
- f. CONTROL STATEMENTS
- g. OBJECT ORIENTED PARADIGMS
- h. THE THREE OOP PRINCIPLES (ENCAPSULATION, INHERITANCE AND POLYMORPHISM)

2. JAVA CLASSES AND OOP IMPLEMENTATION

- a. CLASS FUNDAMENTALS
- b. COMMAND LINE ARGUMENTS
- c. DECLARATION OF OBJECTS
- d. OVERLOADING AND OVERRIDING OF METHODS
- e. UNDERSTANDING OF ACCESS CONTROLS
- f. USING FINAL TO PREVENT OVERRIDING & INHERITANCE
- g. GARBAGE COLLECTION

3. MULTITHREADED PROGRAMMING

- a. THE JAVA THREAD MODEL
- b. CREATING A THREAD
- c. SYNCHRONIZATION

4. MANAGING INPUT & OUTPUT IN JAVA

- a. INTRODUCTION TO I/O STREAMS
- b. FILE HANDLING

5. DATABASE PROGRAMMING

- a. INTRODUCTION TO JDBC
- b. JDBC DRIVERS
- c. STATEMENTS
- d. SCROLLABLE & UPDATABLE RESULT SET

6. INTRODUCTION TO JAVA J2EE COMPONENTS

- a. WEB COMPONENTS
- b. BUSINESS COMPONENTS

7. MVC ARCHITECTURE

- a. MVC OVERVIEW

8. JAVA SERVELET

- a. ADVANTAGES OF SERVELETS
- b. REQUEST AND RESPONSE
- c. SERVELET LIFECYCLE
- d. PACKING & DEPLOYMENT
- e. EVENT LISTENER

9. JAVA SERVER PAGES

- a. JSP ARCHITECTURE, ELEMENTS, OBJECTS
- b. CUSTOM TAGS

10. JAVA BEANS

- a. BEANS INTRODUCTION
- b. PROPERTIES
- c. METHODS
- d. EVENTS
- e. BEAN BUILDER

11. ENTERPRISE JAVA BEANS

- a. ARCHITECTURE
- b. TYPES OF EJB

12. SESSION BEANS

- a. STATEMENT MANAGEMENT
- b. TYPES, STATELESS, STATEFULL, LIFECYCLE
- c. PERSISTENCE, LIFE CYCLE, TYPES