**DEVIKTECH**

Curriculum for the course of

JAVA programming language

Course Instructor –

**Learning Objectives**

* To learn why Java is useful for the design of desktop and web applications.
* To identify Java language components and how they work together in applications.
* To design and program stand-alone Java applications.

**Learning Outcomes**

At the end of the course participants should be able to -

* Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs.
* Read and make elementary modifications to Java programs that solve real-world problems.
* Validate input in a Java program

**Prerequisites**

There are no prerequisites required for the course. But a little knowledge of programming and high school mathematics is a benefit for candidate.

**Schedule**

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| **No** | **Topic** |  | **Total hours** |
| 1 | Introduction, History of JAVA, Environment Set Up, JVM, JRE, JDK, Path Set Up |  | 3 |
| 2 | Control Statements |  | 6 |
| 3 | Array, String |  | 3 |
| 4 | 4 Object-oriented programming(oops), inheritance, polymorphism, data encapsulation |  | 13 |

**CURRICULUM**

1. **Introduction**
2. Java programming
3. History Of Java
4. Environment Set Up
5. Path set Up
6. JVM, JRE, JDK
7. variables
8. data types
9. keywords
10. operators
11. expressions
12. **Control statements**
13. if-else
14. switch
15. for loop
16. while loop
17. do-while loop
18. break statement
19. continue statement
20. goto statement
21. **Functions**
22. JAVA functions
23. Recursion
24. **Array**
25. 1D Array
26. 2D Array
27. **Strings**
28. JAVA Strings
29. JAVA Strings Method
30. **OOPs**
31. oops concept
32. classes
33. objects
34. encapsulation
35. polymorphism
36. Inheritance
37. types of inheritance
38. constructor
39. destructor
40. **Collections in Java**
41. List
42. Array List
43. Linked list
44. Vector
45. Set