



Department of Information Technology		LP:VD22801 Rev. No: 01
B.E/B.Tech/M.E/M.Tech : Information Technology	Regulation:2022	Date: 20/1/2025
PG Specialisation : NA		
Sub. Code / Sub. Name : VD22801 Introduction to Java Programming		
Unit : 1		

Unit Syllabus: Java Programming Platform

4

Applications of Java – JVM – Programming Environment – I/O statements - Data types –variables – operators - conditional constructs – looping constructs - arrays

Objective:

To give an overview of the capabilities of Java that set it apart from other programming languages.

Session No *	Topics to be covered	Ref	Teaching Aids
1	Applications of Java -JVM – Programming Environment	1-ch 1;pg 1-16 1-ch 2;pg 17-30 2-ch 1;pg 1-6	BB/PPT/ Hands On
2	I/O statements - Types – variables – operators	1-ch 3;pg 76-85 1-ch 3;pg 35-61 2-ch 4;pg 33-76 2-ch 14;pg 380-387 2-ch 15;pg 482-525	BB/PPT/ Hands On
3	Conditional constructs – looping constructs	1-ch 3;pg 109-125 2-ch 14;371-380	BB/PPT/ Hands On
4	Arrays	1-ch 3;pg 52-55 2-ch 10;pg 287-294	BB/PPT/Hands On

Content beyond syllabus covered (if any):

* Session duration: 50 minutes



Sub. Code / Sub. Name: VD22801/Introduction to Java Programming

Unit : II

Unit Syllabus: Object oriented Programming Concepts

7

Objects – Classes - Access specifiers - Encapsulation – Abstraction - Polymorphism – Inheritance – String and String Buffer classes

Objective:

To Understand Java fundamentals like Objects, Classes, Access Specifiers, Encapsulation, Abstraction, Polymorphism, Inheritance, String that facilitates building efficient, modular, and scalable Java applications.

Session No *	Topics to be covered	Ref	Teaching Aids
5	Objects	1-ch 4;pg 125-141 1-ch 4;pg 170-181	BB/PPT/ Hands On
6	Classes - Access specifiers	1-ch 4;pg 141-155 2-ch 8;pg 173-240 2-ch 6;pg 138-145	BB/PPT/ Hands On
7	Encapsulation	1-ch 4;pg 95-100	BB/PPT/ Hands On
8	Abstraction	1-ch 4;pg 100-104	BB/PPT/ Hands On
9	Polymorphism	1-ch 5;pg 223-234	BB/PPT/ Hands On
10	Inheritance	1-ch 5;pg 213-222 3-ch 12;pg 269-279	BB/PPT/ Hands On
11	String -String Buffer classes- String Builder Class	1-ch 3;pg 61-70 2-ch 4;pg 48-49	BB/PPT/ Hands On
Content beyond syllabus covered (if any):			

* Session duration: 50 mins



Sub. Code / Sub. Name: VD22801/ Introduction to Java Programming

Unit : III

Unit Syllabus: Packages, Interfaces, and Wrapper Classes

7

Package names – Access class path – imports – Interface concept – abstract classes – Inner Classes - Auto-boxing and un-boxing

Objective:

Learn to have full access to the power of Java's completely object-oriented approach to programming to have code cleaner and more concise.

Session No *	Topics to be covered	Ref	Teaching Aids
12	Package names- imports	1-ch 4;pg 186-190 2-ch 7;pg 160-169	BB/PPT/ Hands On
13	Access class path	1-ch 4;pg 190-198 2-ch 7;pg 154-160	BB/PPT/ Hands On
14	Interface concept	1-ch 6;pg 311-338 2-ch 8;pg 175-178	BB/PPT/ Hands On
15	Abstract classes	2-ch 9;pg 260-270	BB/PPT/ Hands On
16	Inner classes	1-ch 6;pg 357-376 2-ch 8;pg 181-183	BB/PPT/ Hands On
17	Auto-boxing and un-boxing	1-ch 5;pg 259-263 2-ch 5;pg 86-89	BB/PPT/ Hands On
18	Application development using interface	2-ch 9;pg 259-281	BB/PPT/ Hands On
Content beyond syllabus covered (if any):			

* Session duration: 50 mins



Sub. Code / Sub. Name: VD22801/ Introduction to Java Programming

Unit : IV

Unit Syllabus: Exceptions and Generic Programming

6

Dealing with Errors – Exception handling – simple Generic class – generic methods – Object class - reflection – Inheritance rules for Generic Types.

Objective:

To learn how to handle errors and make programs easier to read and safer.

Session No *	Topics to be covered	Ref	Teaching Aids
19	Dealing with Errors	1-ch 7;pg 387-397 2-ch 11;pg 297-299	BB/PPT/ Hands On
20	Exception handling-catching exceptions	1-ch 7;pg 397-411 2-ch 11;pg 299-301	BB/PPT/ Hands On
21	Exception handling	1-ch 8;pg 233-236 2-ch 11;pg 302-307	BB/PPT/ Hands On
22	simple Generic class– generic methods	1-ch 8;pg 447-454 2-ch 8;pg 178,220-221	BB/PPT/ Hands On
23	Object class - reflection	1-ch 8;pg 475-483	BB/PPT/ Hands On
24	Inheritance rules for Generic Types	1-ch 8;pg 472-475 2-ch 8;pg 224-228	BB/PPT/ Hands On
Content beyond syllabus covered (if any):			

* Session duration: 50 mins



Sub. Code / Sub. Name: VD22801/ Introduction to Java Programming

Unit : V

Unit Syllabus Collections

6

Collection framework – Collection interface - interfaces in Collections framework – Concrete collections - Maps - Algorithms

Objective:

To empower developers to manage, manipulate, and process collections of objects efficiently, leading to more robust, scalable, and maintainable software solutions.

Session No *	Topics to be covered	Ref	Teaching Aids
25	Collection framework	1-ch 9;pg 497-501	BB/PPT/ Hands On
26	Collection interface	1-ch 9;pg 501-507	BB/PPT/ Hands On
27	Interfaces in Collections framework	1-ch 9;pg 508-510	BB/PPT/ Hands On
28	Concrete collections	1-ch 9;pg 510-535	BB/PPT/ Hands On
29	Maps	1-ch 9;pg 535-545	BB/PPT/ Hands On
30	Algorithms	1-ch 9;pg 558-569	BB/PPT/ Hands On

Content beyond syllabus covered (if any):

* Session duration: 50 mins



Sub. Code / Sub. Name: IT22612/ Natural Language Processing and Understanding Laboratory

	Prepared by	Approved by
Signature		
Name	Dr.P.Sharon Femi	Dr.V.Vidhya
Designation	Associate Professor	Professor & Head
Date	20-01-2025	02-01-2024
Remarks* :		
Remarks* :		

* If the same lab plan is followed in the subsequent semester/year it should be mentioned and signed by the Faculty and the HOD