PARVATHANENI BRAHMAYYA
SIDDHARTHA COLLEGE OF ARTS & SCIENCE
Autonomous
Siddhartha Nagar, Vijayawada–520010
Re-accredited at 'A+' by the NAAC

Course Code	23CGMAP233				
Title of the Course	Object Oriented Programming in Java Lab				
Offered to: (Programme/s)	B. Sc. Hons (CSCS)				
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Year of Introduction:	2024-25	Semester:			3
Course Category:	Major Practical	Course Relates to:	Global / National / Regional / Local		
Year of Revision:		Percentage:			
Type of the Course:	Skill Development				
Crosscutting Issues of the Course :					
Pre-requisites, if any	Knowledge in Java Concepts and Syntax				

Course Description:
The objective of course is to provide students with practical experience in Object Oriented Programming in Java.

Course Aims and Objectives:

S.NO	COURSE OBJECTIVES
1	Undestanding fundamental concepts in java
2	Understanding fundamentals of programming such as variables, conditional and iterative execution, statements, etc
3	Understanding arrays, inheritance, packages and multi-threading
4	Understanding Exception handling mechanisms and Applet Programming.
5	Understand the Files concept in java

Course Outcomes
At the end of the course, the student will be able to…

CO NO	COURSE OUTCOME	BTL	PO	PSO
CO1	Creating java programs that covers fundamental concepts	K6	6,7	1,2
CO2	Creating control statements in java.	K6	6,7	1,2
CO3	Creating different types of inheritance and interfaces, arrays, multithreading and packages in java	K6	5,6,7	1,2
CO4	Creating different types of exception handling mechanisms and applets in Java.	K6	5,6,7	1,2
CO5	Creating files in Java program.	K6	5,6,7	1,2

CO-PO MATRIX									
CO NO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1						3	2	2	1
CO2						3	2	2	1
CO3					2	3	2	2	1
CO4					3	3	2	2	1
CO5					3	3	2	2	1

Use the codes 3, 2, 1 for High, Moderate and Low correlation Between CO-PO-PSO respectively

Course Structure

This lab list covers the key areas of Object Oriented Programming in Java Lab course, providing hands-on practice

LAB LIST

Unit – I: Introduction to Java Programming
Lab 1
1. Design a java program to print Hello World.
2. Develop a java program on Variables.

Lab 2
3. Develop a java program to use various Data types.
4. Construct java program on Operators

Lab 3
5. Develop a java program to display Fibonacci series.
6. Create a java program to find out the given number is palindrome or not.

Unit – II: Control statements, Classes, Objects and Methods
Lab 4
7. Develop a java program to implement main method inside and outside of a class.
8. Construct a java program on Decision making.

Lab 5
9. Construct a java program on Looping.
10. Design a java program on Statements.

Unit – III: Inheritance, Arrays, Strings and Interfaces
Lab 6
11. Construct a java program on single and Multi-dimensional array.
12. Write a java program on Strings.

Lab 7
13. Develop a java program on interface.
14. Develop java programs on various types of Inheritance.

Unit – IV: Multi-Threading, Exception Handling and Packages

Lab 8
15. Design java programs on Packages.
16. Construct a java program on Multi-Threading.

Lab 9
17. Write java programs on various types Exceptions.
18. Design a program to demonstrate Catch Blocks.

Unit – V: Applets, Streams and Files
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Lab 10
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19. Construct an Applet program to draw a Line, Rectangle, Circle, Ellipse, Arcs and a Polygon.

20. Develop a java program to perform writing Data in a file and reading data from a file.

Reference: https://www.atnyla.com/overview-of-java-language/0/2

Web Resources:

 Prof.Debasis Samanta, Dept of Computer science, IIT Kharagpur."Basic Concepts of Java Programming", 2018.

https://www.youtube.com/watch?v=OjdT2l-EZJA&list=PLfn3cNtmZdPOe3R_wO_h540QNfMkCQ0ho&index=1

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22CGMAP233 : **Object Oriented Programming using Java Lab**
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Offered to: B. Sc. Hons (CSCS)   **Semester: V**

Max. Marks : 50 (CIA: 15 + SEE: 35)   **Hrs/Week: 2**

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Model Paper : Practicals
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Time: 3 Hrs.   **Max. Marks: 35**

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Section – A
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1. Experiment-1   15 M

2. Experiment-2   10 M

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Section – B
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Viva Voce   10 M

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