

KRISHNASAMY

College of

ENGINEERING & TECHNOLOGY

DEPARTMENT OF MCA

16.02.2024

CIRCULAR

Ref.: KCET/MCA/VAC/CIRCULAR/2023-24/02.

The following Value Added Course will be conducted during the academic year 2023-2024. The course will be conducted in two phases from 19.02.2024 to 23.02.2024 and from 04.03.2024 to 05.03.2024. Students are instructed to register their names in the course allotted to them.

Note: Students are instructed to attend the program without fail.

S. No.	Course Code	Name of the Course	Year/Sem	No. of Period	Course Coordinator
1	MCA -VAC23043-91	Programming with Java	I/II	36	Mr.S.Barath, Asst.Prof.

HoD/MCA

Vice-Principal

COLLEGE OF CALL COLLEGE OF CUDDALORE OF 109 &

Principal



KRISHNASAMY

College of ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University

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DEPARTMENT OF MCA

Subject Code: MCA-VAC2301

Subject Name: PROGRAMMING WITH JAVA

Duration: 36 Periods

OBJECTIVES:

- To provide an overview of working principles of internet and web related functionalities
- To understand and apply the fundamentals about core java, packages and database connectivity for computing
- To enhance the knowledge of server-side programming.
- To understand the OOPS concepts& how to apply in programming.

MODULE- I JAVA FUNDAMENTALS

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Java features – Java Platform – Java Fundamentals – Expressions, Operators, and Control Structures – Classes, Methods – Inheritance - Packages and Interfaces – Exception Handling.

MODULE- II COLLECTIONS AND ADVANCE FEATURES

7

Utility Packages- Introduction to collection –Hierarchy of Collection framework – Generics, Array list, LL, HashSet, Treeset, HashMap – Comparators – Java annotations

MODULE- III ADVANCED JAVAPROGRAMMING

7

Input Output Packages – Inner Classes – Java Database Connectivity - Introduction JDBC Drivers - JDBC connectivity with MySQL/Oracle – JDBC Stored procedures invocation – Servlets - RMI – Swing Fundamentals

MODULE-IV

OVERVIEW OF DATA RETRIEVAL & ENTERPRISE APPLICATION DEVELOPMENT

7

Tiered Application development - JavaServers, containers - Web Container - Creating Web Application using JSP/Servlets - Web Frameworks Introduction to Spring/ Play Framework - ORM Layer - Introduction to Hibernate.

MODULE- V JAVA INTERNALS AND NETWORKING

8

Java jar Files-Introspection – Garbage collection – Architecture and design –Networking Basics TCP/IP Client Sockets – URL –URL Connection – TCP/IP Server Sockets — Datagrams.

TOTAL: 36 PERIODS

OUTCOMES:

- Implement Java programs.
- Make use of hierarchy of Java classes to provide a solution to a given set of requirements found in Java API
- Use the frameworks JSP, Hibernate, Spring
- Design and implement server side programs using Servlets and JSP.

REFERENCES:

- 1. Amritendu De, "Spring 4 and Hibernate 4: Agile Java Design and Development", McGraw-Hill Education, 2015
- 2. Herbert Schildt, The Complete Reference Java 2, Nineth Edition, Tata McGraw Hill, 2014



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