

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Value Added Course On Spring Boot
21.02.2022 to 26.02.2022

SPRING BOOT

42Hrs

Course Objective:

- To learn basic concepts of Java Programming.
- To learn advanced Java programming concepts like inheritance, interface
- To understand the concepts of packages
- Demonstrate socket programming, remote objects, and servlet and JSP Technology
- To understand the concepts of spring boot
- Practice in DB Connection using JPA

Unit-1

UNIT I INTRODUCTION TO OOP AND JAVA FUNDAMENTALS (7)

Object Oriented Programming — Abstraction — objects and classes — Encapsulation- Inheritance — Polymorphism- OOP in Java — Characteristics of Java — The Java Environment — Java Source File -Structure — Compilation. Fundamental Programming Structures in Java — Defining classes in Java — constructors, methods -access specifiers

UNIT II INHERITANCE AND INTERFACES (7)

Inheritance — Super classes- sub classes –Protected members — constructors in sub classes- the Object class — abstract classes and methods- final methods and classes — Interfaces — defining an interface, implementing interface, differences between classes and interfaces and extending interfaces

UNIT III PACKAGES AND PRACTICALS (7)

Creating a Package – importing – the directory structure of packages – built-in packages and User-defined packages – Example programs

UNIT IV SERVLETS AND SOCKET PROGRAMMING (7)

Introduction to Java Servlets – Generic Servlets – HTTP Servlets - Introduction to JSP – Life Cycle of JSP – Life Cycle of a servlet – Servlets in Eclipse

UNIT V INTRODUCTION TO SPRING BOOT (7)

Need of Spring Boot – Spring Boot Annotations – starter Data JPA – Spring Boot Dev Tools - Packaging

UNIT VI WEB APPLICATION USING SPRING BOOT (7)

Building Spring Boot Application – Database concepts-Spring JDBC-Database to CSV-Practice in DB connection

Course Outcome

At the end of the course the students will be able

- To understand the basic concepts of Java
- To make simple java programs
- To understand the interface, packages and Inheritance concepts
- To develop simple servlet programs
- To develop simple web applications
- To create simple projects using JPA