Ref No: CUIET/CSE/ACAD/2025/395   Date: 22nd August, 2025

NOTICE

This is to inform students of the BE CSE Batch 2023 that project guidelines for the course **Advanced Programming Concepts (23CS007)** will be as follows:

- **Evaluation and Marks:** The project consists of 50% weightage in ST2 and ETE evaluation. It contributes 20 marks to your ST2 grade and 30 marks to your ETE.
- **Team Size:** The project must be completed in a team of 3 to 4 students.
- **Project Titles:** The project titles will be provided by the subject expert.
- **Core Concepts:** You must use core topics mentioned in the course handout and basic front-end concepts while developing your project.
- **Evaluation Criteria:** Your project will be evaluated based on the evaluation weightage as mentioned below.
- **Viva Voce:** Be prepared for a viva to demonstrate your project's functionality and explain coding.
- **Evaluation Parameters:** Evaluation parameters are mentioned below.
- **Continuous Evaluation Timeline:** ST2 – 8th September 2025 to 12th September 2025
  ETE – 29th September 2025 to 3rd October 2025

Contents	Evaluation Weightage (%)
Java Essentials- Exception Handling, Lambda Expressions, Annotations, Modules, Optionals, Dependency Injection, I/O Operations and File Operations, Java Collection- Array vs ArrayList, Set Map, Queue, Stack, Dequeue, Iterator, Collections, Concurrency-volatile keyword, Java Memory Model, Threads and Virtual Threads, Synchronization, Build Tools- Maven	10%
Functional Programming- High Order Functions, Database Access-JDBC	20%
Front End Concepts	10%

Spring Core- Introduction - Terminology and Architecture, Configuration, Dependency Injection, Spring IOC, Spring AOP and MVC, Spring Bean Scope, Hibernate- Transactions, Relationships, Entity Lifecycle, Spring Boot- Spring Boot Starters, Autoconfiguration, Actuators, Embedded Server, Spring Security- Authentication and Authorization, OAuth2, JWT Authentications, Spring Data- Spring Data JPA, Spring Data MongoDB, Spring Data JDBC, Microservices- Spring Cloud Gateway, Cloud Config, Spring Cloud Circuit Breaker, Spring Cloud OpenFeign	40%
Spring MVC- Servlet, JSP Files, Architecture, Components	10%
Testing- Junit, JMeter	10%

Evaluation Parameters	ST2	ETE
Project Showcase	5 Marks	5 Marks
Individual Contribution to the Project	5 Marks	5 Marks
Viva	10 Marks	10 Marks
Report	NA	5 Marks
Presentation (PPT)	NA	5 Marks

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