BACHELOR OF COMPUTER SCIENCE SOFTWARE ENGINEERING
FACULTY OF COMPUTER SCIENCE
BINA NUSANTARA UNIVERSITY
JAKARTA

ASSESSMENT FORM

Course: COSC6049001- Framework Layer Architecture

Method of Assessment: Project

Semester/Academic Year : 5/2024-2025

Name of Lecturer : ……

Date : ……

Class : ……

Topic : Basic Design Pattern Concept; Using UML with Design Patterns; Creational Design Patterns: Factory Method Design Pattern; Creational Design Patterns: Prototype Design Pattern; Structural Design Pattern: Adapter Pattern; Structural Design Pattern: Decorator Pattern; Behavioral Design Patterns: Template Method Pattern; Behavioral Design Patterns: The State Design Pattern; Proxy Pattern for Connector Database

Group Members :	1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____ 8_____

Student Outcomes:

(SO 7) Mampu menghasilkan aplikasi piranti lunak yang dapat memecahkan permasalahan yang terjadi dalam bidang informatika;
Able to produce software applications which can solve the problems in informatics.

LObj: (LObj 7.3) Mampu menghasilkan aplikasi piranti lunak untuk memecahkan masalah yang terjadi dalam bidang informatika dengan menerapkan metode pembangunan piranti lunak.
Able to produce software applications for solving problems in informatics by applying software development method.

- LO 1: Describe Use of design pattern in Java
- LO 2: Design Object oriented in design pattern
- LO 3: Apply Design pattern in Java

No	Related LO - LOBJ - SO	Assessment criteria	Weight	Excellent (85 - 100)	Good (75-84)	Average (65-74)	Poor (0 - 64)	Score
1	LO1 - SO7 - LObj 7.3	Able to describe use of design pattern in Java technology with detail and appropriate example	**25%**	Able to describe use of design pattern in Java technology with detail and appropriate example	Able to describe use of design pattern in Java technology but not detail and appropriate example	Able to describe use of design pattern in Java technology but not detail and appropriate example	Able to describe use of design pattern in Java technology but not detail and appropriate example	
2	LO2 - SO7 - LObj 7.3	Able to design object oriented in design pattern with detail and appropriate example	**25%**	Able to design object oriented in design pattern with detail and appropriate example	Able to design object oriented in design pattern with less detail and appropriate example	Able to design object oriented in design pattern with less detail and not appropriate example	Not able to design object oriented in design pattern with detail and appropriate example	
3	LO3 - SO7 - LObj 7.3	Able to apply design pattern in Java technology with correct detail construct and appropriate example	**25%**	Able to apply design pattern in Java technology with correct detail construct and appropriate example	Able to apply design pattern in Java technology with less correct detail construct and appropriate example	Able to apply design pattern in Java technology with less correct detail construct and not appropriate example	Not able to apply design pattern in Java technology with correct detail construct and appropriate example	
4	LO3 - SO7 - LObj 7.3	Ability to breakdown and apply solution in design pattern technology with large domain to sub domain with correct detail construct and appropriate example	**25%**	ability to breakdown and apply solution in design pattern technology with large domain to sub domain with detail correct construct and appropriate example	ability to breakdown and apply solution in design pattern technology with large domain to sub domain with less correct construct and appropriate example	ability to breakdown and apply solution in design pattern technology with large domain to sub domain with less correct construct and not appropriate example	Lack of ability to breakdown and apply solution in design pattern technology with large domain to sub domain with correct construct and appropriate example	

No	Related LO - LOBJ - SO	Assessment criteria	Weight	Excellent (85 - 100)	Good (75-84)	Average (65-74)	Poor (0 - 64)	Score
		Total Score: ∑(Score x Weight)						

Remarks:

ASSESSMENT METHOD

Instructions

1. Students will be grouped into teams of 3-4 members during the first session. Groups are self-selected.
2. Each group is required to choose a specific case or problem to serve as the basis for implementing solutions using design patterns.
3. Conduct an analysis of the software requirements for the selected case.
4. Select at least two design patterns that are suitable for addressing the problem or improving the existing software design.
5. Discuss and draft a solution design using the chosen design patterns for each layer: Data Access Layer, Business Logic Layer, and Presentation Layer.
6. Groups are required to submit a project, a final report (documentation), and deliver a presentation on program design.
7. Write the final report in Bahasa Indonesia or English that contain:
    a) Case study title: Provide a clear and concise title that represents the chosen case or problem.
    b) Introduction: Introduce the chosen case or problem and its significance. Briefly explain the objectives of the project.
    c) Methodology: Outline the approach taken to analyze software requirements and identify the problem. Describe the process followed for selecting design patterns.
    d) Formulated solution design patterns:
        - Present a detailed explanation of the selected design patterns.
        - Describe how each design pattern addresses specific aspects of the problem.
        - Include diagrams or visual aids to enhance clarity.
    e) Implementation in Java / Web / Android Mobile:
        - Specify the technologies used (Java, Web, Android Mobile).
        - Provide a step-by-step description of the implementation process for each layer (Data Access Layer, Business Logic Layer, and Presentation Layer).
        - Include code snippets, algorithms, or relevant details.

f) Conclusion:
   - Summarize the key findings and insights from the project.
   - Reflect on the effectiveness of the chosen design patterns in addressing the problem.

g) References: Cite all the sources, references, and materials used during the project. Follow a consistent citation style (e.g., APA, etc)

8. Submit the report in Word/PDF format. All group members must actively participate in the project.
9. Save the output in .zip format, including:
   - Final report (in Word/PDF)
   - Application of the project

Note for Lecturers:

Kindly communicate details about the assessment to students in Week 1 and issue reminders during the 2nd and 8th weeks. Ensure that students submit their assessments no later than Week 12.