Bahria University
Discovering Knowledge
Department of Software Engineering

SEN-221-SOFTWARE DESIGN & ARCHITECTURE SPRING 2022

COURSE INSTRUCTOR
ENGR. MAJID KALEEM

Assignment No.	01
Assignment Title	Description of various Architectural Styles
Course Learning Outcome	CLO-02 *"Describe various architectural and design styles and patterns suitable for a given scenario."*
Full Name	
Semester	BSE 4 B
Submission Deadline	03rd April 2022

☞ INSTRUCTIONS:

- ☐ USE ONLY TIMES NEW ROMAN SIZE 12 FONT.
- ☐ EACH HEADING (UNDERLINED, BOLD AND IN CAPITAL LETTERS) AND EXAMPLE MUST START FROM A NEW LINE.
- ☐ UPLOAD SOFTCOPY ON LMS AS A PDF FILE.
- ☐ DO NOT EDIT (THIS) ASSIGNMENT FILE GIVEN AS A PDF FILE.
- ☐ LAST PAGE OF YOUR ASSIGNMENT MUST CONTAIN SOURCES/REFERENCES (USE IEEE REFERENCING STYLE).
- ☐ NO MAKEUP ASSIGNMENTS WILL BE GIVEN & DATE WILL NOT BE EXTENDED.
- ☐ VIOLATION OF ANY OF THE INSTRUCTIONS MENTIONED HERE WILL RESULT IN MARKS DEDUCTION.

Class: **BSE-4B**   Submission Deadline: **03rd April 22**

Course Instructor: **ENGR. MAJID KALEEM**   Max Marks: **05**

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1. Suppose you have to design & develop an online LMS System. You may consider various architectural and design style to address this situation. Keep LMS in mind, describe (separately) each of the architectural styles given below with respect to the following questions:

    1. *What* are they?
    2. *Where* are they used?
    3. *Why* are they used?
    4. *How* are they used / implemented?

    a) Client/Server Architecture
    b) Component-Based Architecture
    c) MVC Architecture
    d) Cloud Application Architecture

Follow the format/sample as mentioned below to answer this question:

CLIENT/SERVER ARCHITECTURE

WHAT?
………
………

WHERE?
………
………

WHY?
………
………

HOW?
………
………

Follow the above-mentioned format to answer a, b, c, & d. While describing/answering each of the above, you may use relevant diagrams and examples to support your answer.

G☺☹d Luck!