

# Tugas-UAS-[Individu]- System Development and Implementation

## Instruction :

- Before answering, rewrite the question item and the question number. (If not written, it will be given a value of ZERO.)
  - Give the appropriate number to the question. [Do not create different numbers.]
  - Written answers and links are saved in PDF documents uploaded to the classroom no later than UAS/EAS, according to the schedule
  - These questions are MANDATORY based on the module you have worked on
1. Give an overview (aka BRIEF) regarding the project as a whole and the part of the project that is **part of your responsibility** (use case or use case description).
    - a. Show the division of tasks/work of each group member. Explain the part you are working on.
    - b. Explain the background of this project, the problems that need to be resolved, objectives, etc. The results of previous work or assignments can be attached at the end of this report.
    - c. Show the mapping from requirements to use cases for which you are responsible.
  2. Based on **your own use case description**, develop an architecture for SOA.
    - a. Show and explain the final architecture of the SOA you designed. What is the function of each layer? Are the services on the right layer?
    - b. Show in tabular form the services to be created and how to access the services provided. Explain how to get the parameters sent to these services.

Method	Path	Description	Input Parameters	Return Values

    - c. Show and explain how to implement the services related to NodeJS, database, other components, etc. Give a picture/figure to show the relationship.
    - d. How do you manage input parameters and return values? Also, explain how to communicate with the client-side if a SUCCESS/FAIL scenario occurs.
    - e. Show and explain the flowchart related to the orchestration with underlying services. Give highlights to the underlying services in the flowchart.
  3. Explain in paragraphs and make a video tutorial (20 – 30 minutes) that explores **server-side** how you implement one of the services that is your responsibility using NodeJS. (Note: The face must be visible when explaining; otherwise, the score will be ZERO. :) )
    - a. Explain one of the services that will be created (usability, flowchart, design).
    - b. Explain how to implement it with NodeJS. How are input parameters obtained? How will the return value be communicated to a client-side script?
    - c. Give an example of a SUCCESS test scenario and a FAILED scenario for the service. Explain each test scenario. Example test case:

Test Case	Input Data	Expected Result
Item not available	- CustomerID: 12345	- Response Code: 400 Bad Request
	- Items: [{"id": "999", "quantity": 1}]	- Response Body: { "error": "Item not available" }
	- PaymentMethod: Credit Card	

- d. Then, show the testing with Postman (or a similar application). Don't forget to include a screenshot.
4. Explain in paragraphs and make a video tutorial that discusses how you use the service on a **client-side** basis using a web application or a mobile phone. Choose one according to your programming skills. (Note: The face must be visible when explaining; otherwise, the score will be ZERO. :) )
- Explain the scenario that will be used for the demo. Provide at least two scenarios, for example, a SUCCESS and a FAILED scenario.
  - Show and explain the application coding that will be demonstrated
  - Show that the scenario is as expected.
5. Attachment.

No	Description	Link
a.	Video tutorial on YouTube (compulsory)	<a href="https://youtube.com/abc/">https://youtube.com/abc/</a> (Do not forget to make it <b>public</b> )
b.	Source code on GitHub (compulsory)	.....
c.	Web hosting (optional)	.....
d.	Another attachment (optional)	.....

*Note:*

- PDF file submitted via classroom, due date Sunday, 22 Juni 2025
- If you want to include details of previous assignments, put them in the attachments section.
- Make sure the link provided is accessible.
- It would be even better to add a table of contents at the beginning.