

BINUS University

Academic Career: <i>Undergraduate / Master / Doctoral *)</i>		Class Program: <i>International/Regular/Smart Program/Global Class*)</i>	
<input checked="" type="checkbox"/> Mid Exam <input type="checkbox"/> Final Exam <input type="checkbox"/> Short Term Exam <input type="checkbox"/> Others Exam : _____		Term : Odd /Even/ Short *)	
<input checked="" type="checkbox"/> Kemanggisan <input checked="" type="checkbox"/> Alam Sutera <input checked="" type="checkbox"/> Bekasi <input type="checkbox"/> Senayan <input type="checkbox"/> Bandung <input type="checkbox"/> Malang		Academic Year : 2021 / 2022	
Faculty / Dept. : School of Computer Science		Deadline	Day / Date : Monday / April 25 th 2022 Time : 17:00
Code – Course : COMP6640001 - Software Engineering COMP6640016 - Software Engineering COMP6640049 - Software Engineering		Class : All Classes	
Lecturer : Team		Exam Type : Online	
*) <i>Strikethrough the unnecessary items</i>			
<i>The penalty for CHEATING is DROP OUT!!!</i>			

Learning Outcomes:

LO 1 : Describe the concepts of software process models and the opportunity for potential business project

LO 2 : Explain the software engineering practices and business environment

LO 3 : Demonstrate the quality assurances and the potential showcase business project

I. Essay (50%)

1. **[LO 1, LO 2 & LO 3, 10 points]** Explain your business idea for the final project as detail yet compact as possible, along with your targeted customer segment. Make sure to not exceed 300 words for your explanation.
2. **[LO 1, LO 2 & LO 3, 10 points]** On requirement engineering process, the most common activities are inception, elicitation, elaboration, negotiation, specification, and validation. Explain what would happen if the specification process is ignored and give at least one example!
3. **[LO 1, LO 2 & LO 3, 10 points]** You have been appointed as project manager in an information system organization. Your job is to build an application similar to the others the team has developed before, but bigger and more complex. Requirement have been documented by the customer. What model of software development process did you choose and why?
4. **[LO 1, LO 2, LO 3, 10 points]** There are four modelling schemes in requirement modelling that can be chosen upon performing requirement analysis, which are: scenario-based models, class models, behavioral models, and flow models. Explain the justification for choosing each model, which one do you think is suitable for your final project.
5. **[LO 1, LO 2 & LO 3, 10 points]** Using the architecture of a house or a building as a metaphor, draw comparison with software architecture. How are the disciplines of classical architecture and the architecture similar? How do they differ?

Verified by,

[Kenny Jingga] (D6426) and sent to Program on Mar 31, 2022

II. Case (50%)

Amanda as a project manager got an online shop project from his client. The client only gave him six months to do the project started from 1st May 2019 until 31 October 2019. Amanda only has two developers. The client is very cooperative with Amanda, He will support any information that Amanda needed. Below are the requirements from the client:

1. The online shop will be based on website and mobile, but the first priority is the website based.
2. The online shop can display all products from the client. The products are all the baby's needs. It starts from the baby clothes, baby toys, baby diapers, also all the peripherals needed by the baby.
3. The application must have membership.
4. The online shop has features, which are: order, delivery until payment.

You as a software engineering consultant, help Amanda to arrange his project, so he can deliver the project with good quality.

Your tasks are:

- a. **[LO 1, LO 2 & LO 3, 10 points]** Define the process model to be used by Amanda, so he can deliver the project on time and with good quality. Explain your reasons why choosing the process model type!
- b. **[LO 1, LO 2 & LO 3, 10 points]** Build the analysis model from the user requirement. You only draw the scenario-based elements using Use Case Diagram.
- c. **[LO 1, LO 2 & LO 3, 10 points]** Design the user interface from this application that applying the golden rules of interface design (Three rules)! Only draw the membership form, explain the interface that meet the golden rules.
- d. **[LO 1, LO 2 & LO 3, 20 points]** According to business model environment, explain the four forces (Market forces, Industry forces, Key Trends, and Macroeconomics forces) that influence the business model in the online shop.

Notes: You can add your own assumption as you need.

-- Good Luck --

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