BINUS University

Academic Career: ***Undergraduate / ~~Master / Doctoral~~ *)***			**Class Program:** ***~~International~~/Regular/~~Smart Program~~/Global Class*)***
☑ **Mid Exam** ☐ **Final Exam** ☐ **Short Term Exam** ☐ **Others Exam : _____**			**Term : ~~Odd~~/Even/~~Short~~ *)**
☑ **Kemanggisan** ☑ **Alam Sutera** ☐ **Bekasi** ☐ **Senayan** ☐ **Bandung** ☐ **Malang**			**Academic Year :** **2020 / 2021**
Faculty / Dept. : School of Computer Science	Deadline	Day / Date :	Wednesday / Apr 28th, 2021
		Time :	13:00
Code - Course : COMP6640 – Software Engineering	Class : All Classes		
Lecturer : Team	Exam Type : Online		
*) *Strikethrough the unnecessary items*			
The penalty for CHEATING is DROP OUT!!!			

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

I. Case (100 point)

During the COVID-19 pandemic situation, most of business processes are forced to shift the daily operation from onsite to online. Library in your university is facing the same challenge to provide best services for lecturer and student. In order to facilitate the implementation of online services, a web application will be developed with following main functions:

- Borrowing and returning book through delivery services or instant courier services.
- Online chat for consultation with Librarians.
- Fine payment through QRIS that is supported by most of e-wallet in Indonesia.
- Online reference services that cover any inquiries related to information literacy.
- Queuing system that allow user to request enter access to library (in limited number and at appointed time).

As a software developer, you need to analyze the system with following guidelines:

1. **(LO 1, 20 point)** Determine the best software development life cycle to develop the application. Choose between: waterfall, incremental, prototyping, or scrum. Explain the reason and add several assumptions to support your methodology.
2. **(LO 1, 20 point)** Based on the case study, create draft activities for each process in your methodology. The activity explaination is not only based on theory, but also the specific implementation (what will you do in that phase) according to the case study.
3. **(LO 2, 30 point)** Explain and give the result of requirement engineering based on the case study
   - Inception
   - Elicitation
   - Elaboration

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4. **(LO 2, 15 point)** Explain the difference between system description, analysis model and design model. Add example from the case study to support your answer.
5. **(LO 2, 15 point)** Make an interface design for the application by using story boards (choose 3 functions).

-- Good Luck --

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