

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 type="checkbox"/> Bekasi <input type="checkbox"/> Senayan <input type="checkbox"/> Bandung <input type="checkbox"/> Malang	Academic Year : 2020 / 2021
Faculty / Dept. : School of Computer Science	Deadline Day / Date : Friday / Apr 30 th , 2021 Time : 17:00
Code - Course : COMP6107 – Agile Software Development	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 students able to describe the Agile principles in general, especially the using of Scrum Methodologies to develop the software systems for business applications

LO 2: Create - The students able to create an holistic activities planning in accordance to the software development based on the using Scrum methodologies

LO 3: Use - The students able to use the development tools in modeling through implementation phases within the software development processes using Scrum

I. ESSAY (40 points)

1. **(LO 1, 10 points)** Explain in your own words the 5 differences between SCRUM and plan-driven development!
2. **(LO 1, LO 2, 10 points)** Explain in your own words about SCRUM framework, support your answer with picture!
3. **(LO 1, LO 2, 5 points)** What should be done at grooming stage! Who is(are) involved at this stage!
4. **(LO 1, LO 3, 5 points)** Explain about velocity in SCRUM! What should be done if there is an abnormal termination!
5. **(LO 1, LO 3, 5 points)** Please explain why technical debt occur in SCRUM!
6. **(LO 1, LO 2, 5 points)** Please mention and explain about roles in SCRUM, support your answer with the characteristic of each!

II. CASE(60 points)

Mrs. Alvina Aulia is the owner of Sekolah Tinggi Maju Mundur Cantik (STMMC) that focuses at information technology. STMMC does not have learning management system. So Mrs. Alvina asked you and your team to build this information system.

The details of the application that is expected by Mrs. Alvina are as follows:

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1. There are 3 groups of user, namely : Admin, Lecturer and Student. These group must login with email and password to access the application. Each of group have different menu privilege.
2. Admin can access and use all menus in the application.
3. Lecturers and students can view the schedule and access lecture material.
4. Admin manage point 3's data.
5. Lecturers upload score of each student, for mid test, final test, quiz. The application calculate the score to generate grade.
6. Student can view the grade with its detail scores.
7. Communication between students and lecturers can be supported by the application. This feature is discussion forum, each post can be replied to by students and lecturers. Each post will be grouped into course, class, topic, and date.
8. Students and lecturers can view the exam schedule and location for each subject every semester. Lecturers can view and download students answer through the application.

Mrs. Alvina already learn about SCRUM so she asked you and your team to use SCRUM to develop the application.

Based on the case above, answer the following questions:

1. **(LO 1, LO 2, 5 points)** Create an organizational structure (complete with names) to describe the parties involved along the sprint, both internal and external! Also explain the duties and responsibilities of each!
2. **(LO 1, LO 2, 5 points)** Generate minimum 3 user stories with complete 'satisfaction condition'!
3. **(LO 1, LO 3, 10 points)** Do the PBI definition and of course conduct the first grooming!
4. **(LO 1, LO 2, 10 points)** Choose 3 product backlogs, conduct sprint planning for the three product backlogs!
5. **(LO 1, LO 2, 10 points)** According to point 3, describe what was done in the sprint execution stage for the three product backlogs!
6. **(LO 1, LO 2, 10 points)** Explain what your team did during the sprint review and sprint retrospective stages! Also explain the result differences at the two stages!
7. **(LO 1, LO 2, 10 points)** If Mrs. Alvina wants to make changes to 'grading' feature and she already communicate it during the sprint review. What steps should you and your team take? Describe in detail: the steps that can be selected and the possibilities that may be encountered!

You and your team are free to build assumptions to detail the features that have been determined. As long as these assumptions do not deviate from the topic of the case study.

--Good Luck--

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