National University of Singapore
School of Computing

IT5004 Enterprise Systems Architecture Fundamentals
Final Assessment

A. Learning Objectives

This final assessment is meant to be an open-ended study to assess your analytical and design skills in enterprise system development. It aims to simulate the real-world requirement gathering, analysis, and design process. You will take on the role of a business analyst to come up with the necessary documentation which will lead to the development of a real-world information system.

As the time given for this assessment is very short compared to a real-life requirement gathering, you will just focus on a few important documentations rather than everything about the system.

B. Openin

NUS has been ramp re are many courses offered by different t centralizes all these executive education t

The platform would to allow the faculties to manage the runni T5004 and decided to engage you to analyz

C. Syster

The idea is still in its translate into actual system implementati ely:

1. Faculty Adm
2. Learners
3. NUS Admin

Faculty Admin Staf nline and allow them to manage the ru s are subjected to subsidies/governmen ing body, the faculty would often have to ensure that the learners satisfy a certain percentage of attendance and pass the assessments (so that the learners can do the claims on the platform later).

Learners: You can assume that the learners are mainly adult learners who are using this platform to apply for executive education courses rather than full-time degree programs (such as bachelor's and master's). The rationale for having a separate registration/enrollment platform is that these courses are often funded by the government to some extent (e.g. by SkillsFuture) rather than fully self-funded by the learners. While only certain individuals (such as Singapore Citizens (SCs) and Permanent Residents (PRs)) qualify for these funding support, a large percentage of the participants are eligible. Thus, it is a good idea to simplify the process by requiring even other individuals (who are not eligible for these funding) to still use this platform to register and pay for these courses through the platform.

[1] This includes collecting payment, attendance taking, getting the student list, etc. However, you can assume that this system will not be used by the course instructors. I.e. The instructors and students will be using another Learning Management System (LMS) such as Canvas to download teaching materials, submit assignment, etc. This platform should mainly focus on the administrative aspects of running the courses.

NUS Admin Staff: The NUS admin staff team would be managing every aspect of the site such as adding faculty admin staff user accounts, moderating the course description, etc.

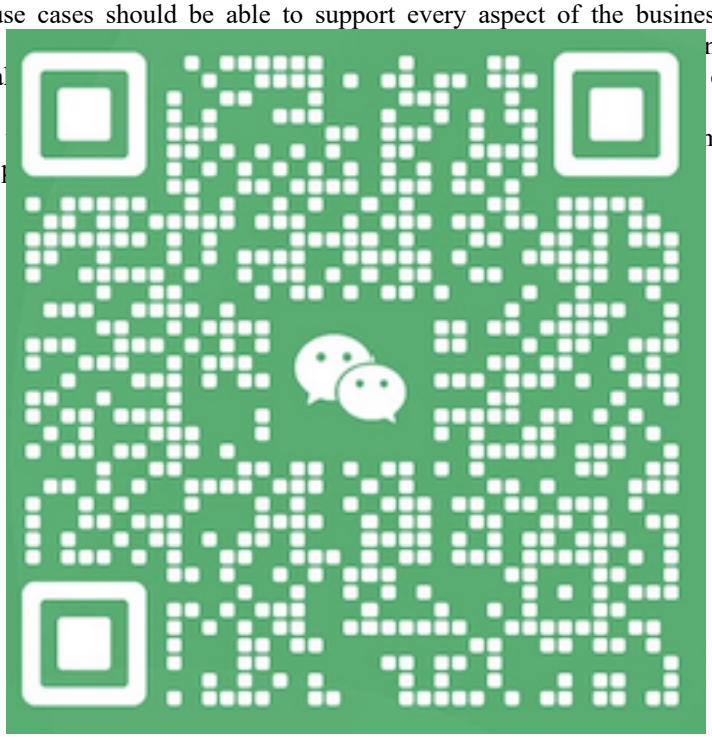
To help you in the process of gathering and analyzing the requirements, the site should be similar to https://www.myskillsfuture.gov.sg/content/portal/en/index.html. However, unlike the MySkillsFuture portal, this portal would only be used by NUS. It should also provide other features beyond just providing a catalog of courses such as allowing learners to register and pay for courses, allowing faculty to specify the enrollment quota, etc.

For this project, your task is to research online and come up with the requirements of this portal. You are not expected to (and should not) interview stakeholders to come up with the requirements. The specific deliverables are shown on the next page but before that, you should have a clear idea of the concept of this platform.

Apart from the high-level objectives discussed above, NUS does not have the exact list of requirements for such a portal, and you are free to design it according to how you deem appropriate.

In terms of grading for this final assessment, more emphasis will be given to the completeness of the analysis rather than the innovativeness of the solution. For example, you are not expected to have a very big scope but the use cases should be able to support every aspect of the business processes. Ideally providing all the use ng learners decide on which course(s) to ta courses.

As explained above, m (LMS) like Canvas so you should avoid



D. Tasks

For this final assessment, you are to **create a single document (pdf format) with the documentation of 3 major tasks.** When coming up with the design of the system, you should incorporate the following:

- **Exhaustive** (do not miss out on any features)
- Try to incorporate **innovative** features and/or **innovative** workflow
- **Feasible**. The idea and system design should be something that can be translated into an actual system.
- **Flexible**. Think about different edge situations and try to address them.

This final assessment contributes 50% to the final course grade. The total mark for this assessment is 50 marks.

D.1. Use Case Diagrams

Task 1 (15 marks): Come up with a **use case diagram** that contains **all** the use cases and actors. You should choose use case names that are indicative of the feature that you are envisioning. For features which might not be clearly expressed through the use case name, you should consider drawing one or more activity diagrams to c assumptions, you can note them down toge

D.2. Wiref

Task 2 (15 marks): describe the system design and business p d add descriptions to describe how one wo nation to make things clearer (e.g. what is t

D.3. Doma

Task 3 (20 marks): the entities and their associations that are ny assumptions, you can note them down t or section.

E. Submi

Create a single PDF re highly encouraged to use software to ge . However, you must ensure that the diagrams exported are of high quality. Diagrams that cannot be read clearly will be ignored in the marking. Please upload the softcopy of your document:

Deadline: **30 Apr 11:59 pm**
Canvas Assignment: **Final Assessment**

The folder will auto-close by the deadline. If you are unable to complete your solutions before the deadline, you should submit what you have. We will NOT accept any submissions after the deadline.

The University takes a serious view of plagiarism or any other form of academic dishonesty. This includes seeking assistance from third parties outside this module (e.g., classmates, friends, or industry practitioners). You should also refrain from using AI generation tools such as (but not limited to) ChatGPT as this would likely result in similar solutions. Students who are caught cheating, copying work done by someone else, or engaging third parties (including AI-generation tools) to participate in any aspects of the assessment will be severely dealt with. You can be certain that you will be given a FAIL grade for this module. Please take this warning seriously.