

Practical Exam Description – Page01

FPT University (FU) is one of the leading universities in software engineering training in Vietnam. The number of students enrolling has increased very rapidly in recent years. To improve the quality and efficiency of training activities, the FU's Board of Directors plans to apply new FU Examination system in FU. In order to do that FU need to develop a new web system called FU Next Examination system (FU-NextExam). The new system must provide the following capability for the lecturers, students, lecturer leaders.

- a) For Lecturers: The system needs to provide the ability for lecturers to import questions from Excel file, manage his/her questions and progress tests. Lecturers can import student lists from the FAP system or from Excel files, assign class to an exam. Lecturers can create an examination, start, stop an exam and change test time.
- b) For Students: The system also provides the ability for students to view a list of exam and join the exam. The student also can view test result after he/she finished the test
- c) For Lecturer Leaders: the system needs to provide functions that allow them to import lecturers' information and assign role for lecturers to a subject. They can also can review the questions of a subject and then put the questions to the questions bank.

In addition to the above requirements, the system needs to allow users to log in with the FU's email account on the Gmail platform, ensuring information security. The system needs to ensure high performance and reliability, require little training time to use. Users can use the system without having to attend official training courses.

The FU-NextExam is a new development system, so there may be many changes during the development process. With the experienced resources of the FU's IT department, the FU's leaders intend that the project will be undertaken by the IT department and the development team participating in the project will include 4-5 extensive experience and skills developers. Managers of other departments commit to sending employees to join the project team to support project completion with high quality.

FU leadership expects the first version of the system to be put into use within 3 months and the project needs to be completely completed within 8 months.

It is assumed that you are assigned to implement this project, you should read carefully the above description of the project then answer these questions:

1. Your manager tell you that the **Scrum** process should be used for the project. Do you agree or not agree with him/her? Base on the provided project characteristics (user, customer, team, requirements characteristics, time constraints and managers' expectation), please give your assessment to support for your answer (2 points).
2. What type and level/stage of testing would you suggest the team to do? Who will do test in each test level/stage? (1 point)
3. List four functional requirements and two non-functional requirements that have been discussed on the given description of this project. (1.5 points).
4. Write 3 functional test cases for the use-cases listed in question 3 that you expect the testing team to use when testing those functions of the product. (1.5 point).
5. Write 3 user stories based on your answers in question 3. (1.5 point)

6. Create a story map for “**Import Question List**” and “**Create a New Exam**” activities of the lecturer in the above description of the project. (2.5 points).

Lưu ý: Dưới đây là phần hướng dẫn cách viết Story Map trên phần mềm EOS.

Cấu trúc tổ chức khi trình bày Story Map chia làm 2 phần. Trong đó phần 1 (A) sẽ mô tả các activities và user tasks. Phần 2 (B) sẽ mô tả các user story cần thực hiện cho mỗi lần bàn giao. Các phần sẽ được trình bày như sau

A. Activities and User tasks

1. <Activity 1 name>

1.1 <User task 1 of activity 1>

2.2 <User task 2 of activity 1>

2. <Activity 2 name>

2.1 <User task 1 of activity 2>

2.2 <User task 2 of activity 2>

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B. Releases

Release 1-----

<Liệt kê các user story cho từng user task sẽ thực hiện trong lần bàn giao đầu tiên. Đánh chỉ mục cho các user story tương ứng với các user task ở phần trên>

1.1.1 User story 1 of user task 1 in activity 1

1.1.2 User story 2 of user task 1 in activity 1

2.1.1 User story 1 of user task 1 in activity 2

2.1.2 User story 2 of user task 1 in activity 2

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Release #-----

<Liệt kê các user story cho từng user task sẽ thực hiện trong lần bàn giao #>

1.1.3 User story 3 of user task 2 in activity 1

2.1.3 User story 3 of user task 2 in activity 2

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Ví dụ: Khi mô tả Story Map có cấu trúc biểu đồ sau trên EOS



Mô tả Story Map này trong EOS như dưới đây.

A. Activities and User Tasks

1. Organize email

1.1 Search email

1.2 File email

2. Manage email

2.1 Compose email

2.2 Read email

2.3 Delete email

3. Manage Calendar

3.1 View Calendar

3.2 Create Appt

3.3 Update Appt

3.4 View Appt

4. Manage contacts

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B. Releases

Release 1-----

- 1.1.1 Search email by key word
- 1.2.1 Move emails
- 1.2.2 Create subfolders
- 2.1.1 Create and send basic email
- 2.1.2 Send RTF email
- 2.2.1 Open basic email
- 2.2.2 Open RTF email

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Release 2 -----

- 1.1.2 Limit search to one field
- 1.1.3 Limit search to +one field
- 2.1.3 Send HTML email
- 2.1.4 Set email priority

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