

Continuous Assessment for Enterprise .NET I (2016)

Background Scenario

J-Learn is a training institution. The institution teaches many courses. And most of the courses are taught in a traditional approach where learning happens didactically. As a result, some students have shown symptoms of spurning on the traditional approach, i.e. short attention span, disinterested and set their focus on other matters during lessons.

J-Learn 's directors have decided to invest and focus on enhancing its courses to make it more engaging and interactive to the students. This is to increase the interest of the students on the courses. At the same time, making learning more interesting, engaging and interactive through the use of technology. This is aligned with the nation's initiative to bring about active learning.

The curriculum development team has come up with an idea to advocate active learning to the use of technology. The team has discussed and decided to initiate an IT project titled – Active Blended Study. The team are tasked to form one or more teams to do a feasibility study through creating an Active Blended Learning System to be demonstrated to the directors in a month's time.

The curriculum development team have proposed to come out with some basic features as listed:

- Live Forum
- Live Quiz
- Self-Directed Learning through the use of videos and slides

As the project is on a tight deadline and details of what needs to be done is not clearly defined, the curriculum development team have clearly instructed that your team to proactively carry out the necessary requirements clarification and design soonest possible, so that you can start working and come up with a working prototype soon.

J-Learn management and curriculum development team has approached your team to propose, design and implement a possible solution with simple, user friendly and easy to use interface that will be able to demonstrate to the directors for their decision on the direction of the project.

Deliverables

The deliverables for this continuous assessment are:

- Deployed and working application running online in Microsoft Azure. Vouchers will be given to each of you in due time.
- URL to the Git repository of the source code of the project. Private repository can be obtained using BitBucket or GitLab
- Zip file containing the latest source code uploaded to your project workbin
- Brief documentation on installation and the structure of the application
- Presentation and the presentation slide

Timeline

The presentation will be held on the 5th week of the elective which is 30 April 2016 for part timers and 3 May 2016 for full timers. More detailed schedule will be posted closer to the dates.

As a guideline, this is the recommended minimum progress you should aim at the end of every week.

Week 1: confirmed list of use cases, database and domain object design and implementation of the database layer

Week 2: implementation of the business logic methods needed to support the use cases

Week 3: design and implementation of the screens for the main use cases (non-admin/CRUD) pages

Week 4: integration with security, implementation of the CRUD pages, final polishing for presentation

Week 5: presentation

Marking Scheme

The maximum marks that can be awarded to this CA is 30 marks which covers the following areas:

Database and Model Design

- How well the database and object model is designed that follows good object oriented and database principles
- How well is Entity Framework and Repository pattern is being implemented in this project

Layered Architecture

- Namespace design
- How the solution is organized into projects
- Interaction between different layers of the application

Presentation Layer Code

- The use of ASP.NET MVC to template-ize the CRUD pages
- Appropriate use of client-side and server-side processing

Usability

- How well designed is the user interface of the application
- Harmonious and appropriate visual design of the application

Development Practice

- Use of source control – we will check the history of the repository for contribution. Don't worry about mistakes in using the source control but make sure that everyone contribute to the repository using their own respective ID
- Deployment of the application
- Unit tests and test driven development

Presentation

- Time management
- Quality of demonstration
- Design choices justification

Presentation Guideline

- Presentation should contains:
 - Short list of features
 - Database design, domain model design
 - One sequence diagram to show the end to end flow
 - Some design choices that you want to highlight
 - Application demonstration
 - Code walkthrough
- The presentation should not exceed 15 slides
- Each team will have a maximum of 30 minutes of presentation and 15 minutes of Q&A.

Good luck in working for your assignment.