Faculty of Engineering and Applied Science
SOFE 3490U - Software Project Management

Lab#2 – Software Project Management:

Topic: e-Learning Platform

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Lab Section 003 Group 12

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e-Learning Platform

Introduction

The chosen project revolves around the development of a shareable e-learning platform using cloud computing infrastructure. The primary motivation stems from the increasing demand for flexible and accessible online education, coupled with the need for seamless sharing of learning content across various Learning Management Systems (LMS). The project addresses the challenges of interoperability among different e-learning standards and aims to create an environment where learning modules and content can be easily shared, reused, and accessed online. By leveraging cloud computing, the platform intends to attract a diverse user base, promote innovation, and offer a cost-effective solution for widespread educational access. The three-layer architecture, with its indexing and metadata transformation modules, plays a crucial role in facilitating efficient exchange and utilization of learning objects.

Objective

We hope to give our users the greatest possible learning experience by developing an e-learning platform, and we'll be doing so by pursuing the following goals:

- Empowerment through technology: Our e-learning platform will add cutting-edge technology such as video content and asynchronous learning so that our user’s learning experiences are more dynamic and interactive.
- Offering a varied selection of courses: Due to each student's unique skills that change throughout time, we will tend to provide courses in many different subjects and fields paired with our highly graded professors.
- Working with experts: We intend to hold our promise by providing high quality content to our users, therefore we will collaborate with professionals that can help and provide an engaging and interactive experience for our students.
- Personalized learning experience: Due to our promise with an engaging atmosphere for our students will incorporate and utilize algorithms to monitor each student's progress and guide them to the proper learning path. This ensures that our students will get the best learning experience,

- Collaboration Tools: to make our platform more engaging, we will allow students to communicate with their professors, by offering chat rooms and discussion forums where students may exchange questions and ideas in real time.

Measuring of Success

Our e-Learning platform will only be successful when it allows:

- Personalized Learning Opportunities: The normalized approach to learning does no longer work in this day and age due students' unique talents and their imperfections. This tends to allow students to use our platform to search for content such as courses and professors that can help their needs. Our platform will be considered a success if it allows students to learn and develop skills from the courses our professors teach.
- Meeting students' shifting needs: Due to the progression of technology, our platform allows students to learn whenever and wherever they are able to. Our platform will be considered a success when it allows students to learn and develop skills from the comfort of their homes.
- Reduce barriers to faculty-student interaction: In a normal lecture/class the teachers don't tend to have time to give everyone individual attention, our platform allows an one-on-one approach, which helps students learn with more attention given to them. This allows students to learn what is being taught at a better efficiency.
- Multimodal approach: By adding audio recording, videos and infographics, our platform becomes an interactive experience for the students that wish to learn.
- Mobile Compatibility: Nowadays, where everyone in the world owns a smartphone regardless of their social status, our platform will allow easy access to learning.

Infrastructure

The infrastructure we will use for our e-learning platform:

- Cloud server to store user data and course content: Due to cloud servers flexibility and their storage sizes, we will be able to use this approach for our platform as it allows us to store large amounts of data without worrying about space. This also is a cheaper method of storing data due to their pricing models.

- Web development stack to create and run the platform: Web development has become increasingly popular during the recent years. Due to web development programming, this allows us a smaller business to create a website/app for a cheaper budget. Web development also allows us to integrate alot tools such as quizzes, analysis and video conferencing making it ideal for our immersive experience for our students.
- Phones for testing: Using phones to allow testing for our mobile app.
- Domain registrar to get url for website: In order to get our website up and running we will need to invest in a domain that allows us to communicate our service with the world.
- Laptops for development and testing: This will allow us to use our technology to create and test our service before releasing it.
- Improvements in Internet Connection: This allows us to broadcast high quality meetings and videos to our website.

Github link:

https://github.com/SoftwareProjectManagementUOIT/lab-2-Muji90.git