PROJECT SETION REPORT SECTIONS:1-4

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Cyber Security: Fundamental Business Risk

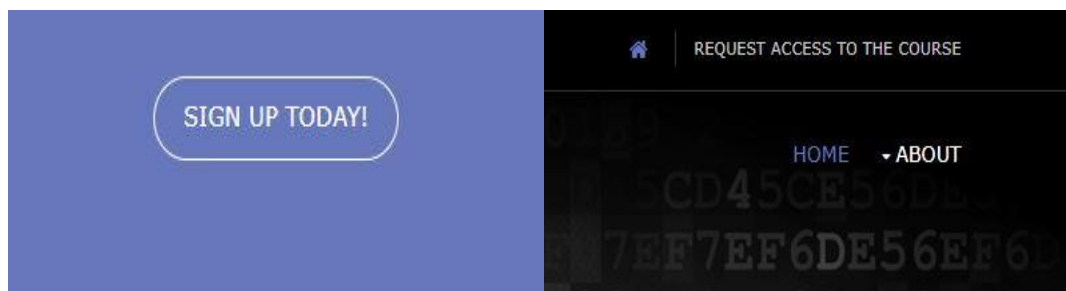Senior Project Section Y01 Fall 2018 CO

Section 1: General Description of your working environment (Experiential Learning Environment):

The service I am designing is a Massive Online Open Course (MOOC) covering the topic of Cyber Security as an essential function of business.

The Economist ran an interesting Special Report in 2017 explaining why lifelong learning is becoming an economic imperative. When deciding on what kind of product/service I wanted to work on for my senior project, I selected a MOOC because I felt I could create something that would address a concerning need in society today: a need for lower priced alternatives to high education.

In addition to addressing the need for lower priced alternatives, I also wanted to address the need to educate people on topics that are in high demand today. Dr. Hayden Wimmer recommended doing a course covering Cyber Security and I broke it down into the more specific topic of cyber security being a fundamental business risk.

The course is offered free of charge to use (this includes course resources like the textbook). First, interested parties are required to register for the course. There are two area where they can do that (see images below).

After selecting one of those two areas, those wanting to use the course will be directed to a page asking them to enter their first and last name, plus their email. After they hit submit an email will be sent to the linked account and, I (the site/MOOC) manager will send them back a course access code.

The features/functions of the course consist of reading assignments, quizzes, unit writing assessments, a midterm, a final, and a cap stone project. Users will be required to complete all assignments with a passing score of at least 70 to complete the course. If they want proof of completion, users can purchase a "verified certificate" for $10. All course work provided is original and designed by me.

Education, like the healthcare industry is complex and fragmented, accessing its annual sales volume is hard to scale at this moment. However, I can provide some oversight into how the company will function daily. I am its only employee. The course work will be shared with any Professor who wants to implement it into their own course work – Dr. Wimmer has suggested he may use it in the future. **(Note: Dr. Wimmer is**

also a stakeholder. During the beginning phase of this project, I decided to design the course around feedback from him because he might use it in the future.)

The main competition is all higher education. The aim of the service is to provide a quality of education that can rival universities and colleges for a much lower price. $10 for this course is much lower than the price of a traditional semester course.

Section 2: Identify the objective(s) / problem you are, will be, working on:

Existing Functions

Currently, the system is meeting all its goals expect for having a completed cap stone project, payment link for verified certificate, and course banner. The next phase that needs to be completed is the test readiness review. After that phases -- System Specification Review and Implementation Readiness Review -- must be completed.

- The web shell prototype is up, and functioning. (See here.)
  - The web shell includes course information, syllabus, and course sign up form.
- Receive course access code needed to view the assignments via Google Classroom.
- Google Classroom Breakdown
  - Start Here
  - Unit 1
    - Overview
    - Quiz 1
    - Expand your learning
    - Quiz 2
    - Expand your learning
    - Quiz 3
    - Expand your learning
  - Unit 2
    - Overview
    - Quiz 4
    - Expand your learning
    - Quiz 5
    - Expand your learning
    - Quiz 6
    - Expand your learning
    - Quiz 7
    - Expand your learning

- o Midterm (Discussion board assignment)
  - Discussion board assignment
- o Unit 3
  - Overview
  - Quiz 8
  - Expand your learning
  - Quiz 9
  - Expand your learning
  - Quiz 10
  - Expand your learning
- o Unit 4
  - Overview
  - Quiz 11
  - Expand your learning
  - Quiz 12
  - Expand your learning
  - Quiz 13
  - Expand your learning
  - Quiz 14
  - Expand your learning
- o Final
- o Cap Stone Project
- o Certificate (Optional)
- System Documentation

Identification of Function and Features of requirements

Feature: Access to free online resources.

Function: Free link for accessing course context sent via email after course registration. Free hosted downloaded content found in course modules.

Feature: Discussion Boards.

Function: document whether student has shown an ability to succeed in a collaborative learning environment.

Feature: Final Project with web shell.

Function: Students upload context for their cap stone project into a zip file containing organized folders.

Feature: Modules

Function: organizes and hosts in-depth information, assignments, and additional resources for learning about the course subject matter.

Feature: Mid-term exam

Function: Assessment management system provided by Google classroom – discussion board writing assignment.

Feature: Final Exam

Function: Assessment management system provided by Google classroom – discussion board writing assignment.

Feature: Technical Documentation

Function: to prepare and guide students toward successful completion on the course.

Feature: Certificate of Completion w/ PayPal link.

Function: link asking for payment for verification of course completion. Students will be contact via email after completion of requirements for attaining a certificate.

Feature: Course Banner

Function: differentiate this course from other MOOCs

Discrepancy between an existing and desired.

Cap Stone Assignment Not Completed

No course banners

No payment link for verified certificate

System Manual

Learning Objectives

Learning Objective 1: Demonstrate proficiency in the foundation areas of Information Technology

To meet this goal, I will design, develop, implement, and management a information system (a MOOC).

Learning Objective 2: Gain an overview of the cybersecurity landscape.

To demonstrate an understanding of the principals of information security (cyber), I will create a course that explains to users why cyber security is an essential function of business.

Learning Objective 3: Communicate about technical or specialized topics.

To meet this goal a system manual will be produced to explain how users must interact with system to achieve their goal of understand why cyber security a fundamental business risk is. Additionally, technical documentation will be provided in the form of quizzes, unit assessments, and other essential course documents.

Learning Objective 4: Develop a project management plan based measurable objectives.

To meet this objective a WBS and Gantt Chart will be provided.

Learning Objective 5: Validate an understanding of the impact of eCommerce on my course business model and strategy.

To meet this objective, I will implement a PayPal link into my system design.

Learning Objective 6: Explore all the different steps that go into planning and building an online course.

To meet this objective, I will focus on the core of system development. Providing documentation, I will show the system approach, the system model, and the system view.

Section 3: Identify decision criteria important to resolving the problem/objective:

Learning Objective 1 Criteria:

MOOC with full coursework covering the topic of cyber security as a fundamental business function. (10)

Learning Objective 2 Criteria:

Coursework (10)

Learning Objective 3 Criteria:

System manual and course documentation. (3)

Learning Objective 4 Criteria:

Preliminary Design Review (10)

Learning Objective 5 Criteria:

Payment System (3)

Learning Objective 6 Criteria:

System Specification Review (10)

Critical Design Review (10)

Test Readiness Review (10)

System Specification Review (10)

Implementation Readiness Review (10)

Section 4: Developing alternatives:

Alternative 1

Instead of using Google Classroom, develop the course using other course building platforms.

Alternative platforms include: Open MOOC, Miriada, Future Learn, and LearnDash.

Alternative 2

Instead using the PayPal, use another online payment system. Alternatives include: Google

Wallet, Dwolla, ClickBank, or Braintree.

Alternative 3

Instead of designing all original coursework, use course content provided by companies like

Cengage. This alternative would have allowed me to create multiple courses. I still would have

had to set up the classroom and load the premade content into Google forms.

Alternative 4

Used another approach to system development. For instance, I could have used the Object

oriented analysis and design (OOAD) approach.