

# Project Progress

SOFE 3650U

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|                |           |
|----------------|-----------|
| Nathan Hacault | 100778576 |
| Zainab Nomani  | 100784761 |
| Evidence Okeke | 100755328 |

## 1. Review Inputs

| Use Case                                 | Description  |
|--|--|
| UC-1 Managing Dynamic Course Information | Lecturer can post messages and manage who can see archived items |
| UC-2 Managing Static Course Information  | The administrator updates the lectures and modules of the course |

| ID   | Quality Attributes | Description   |
|------|--------------------|---|
| QA-1 | Usability          | Lecturers are able to modify course content, grades, and messages.    |
| QA-2 | Modifiability      | Administrators and lecturers are able to recreate and modify courses. |

| ID    | Description  |
|-------|--|
| CON-1 | The system must be accessed through a web browser (Chrome, Firefox, etc) |

## 2. Establish Iteration Goals by Selecting Drivers

This is the first iteration in the design of a greenfield system, so the iteration goal is to achieve the overall architecture of the system keeping in mind:

- QA-1: Usability
- QA-2: Modifiability
- CON-1: The system must be accessed through a web browser

## 3. Choose One or More Elements of the System to Refine

We want to refine the entire Course Management System (CMS)

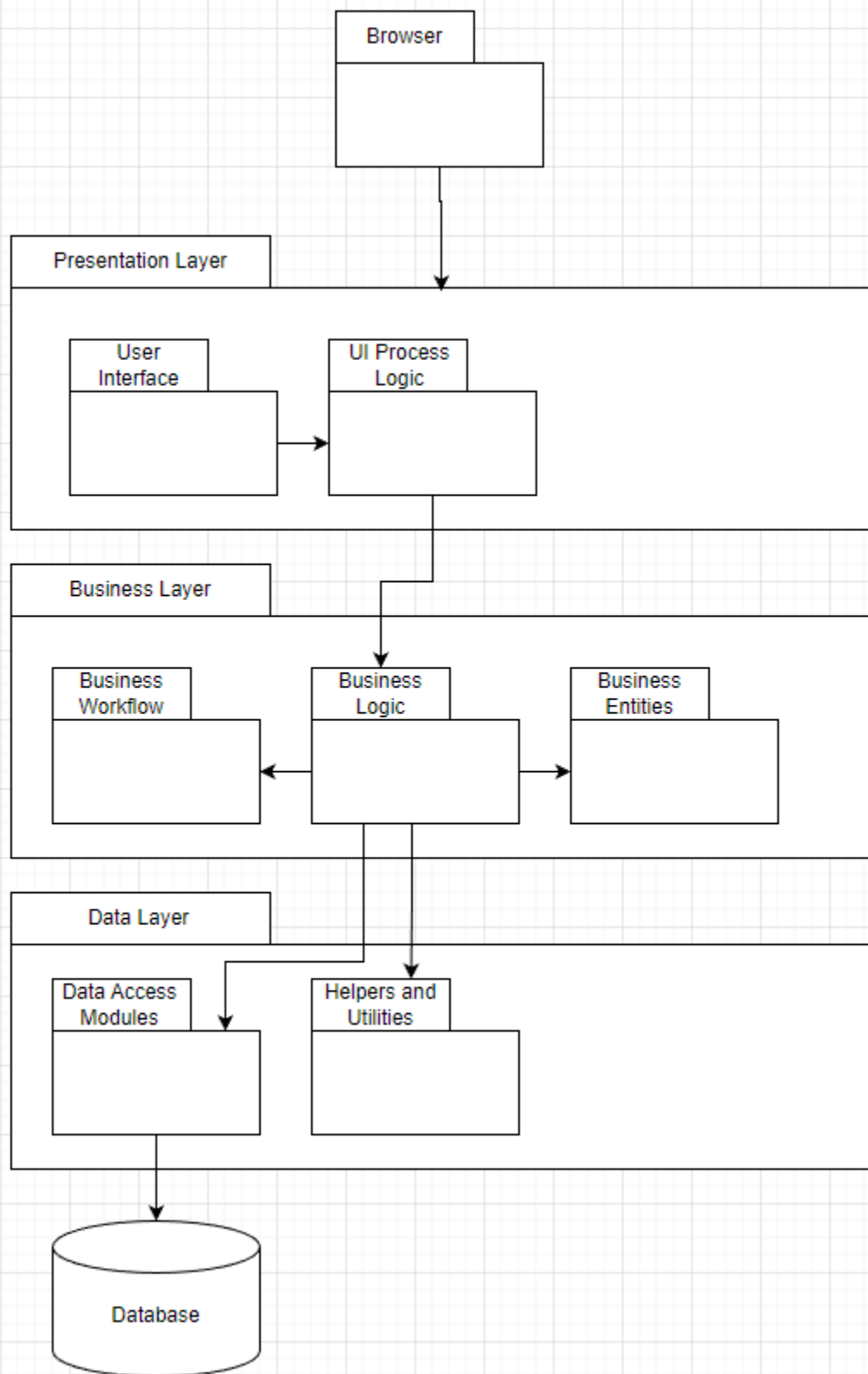
#### 4. Choose One or More Design Concepts That Satisfy the Selected Drivers

| Design Decisions and Location  | Rationale  |
|--|--|
| Logically structure the system using the Web Application reference architecture  | The Web Application reference architecture supports the development of systems that are accessible over the internet through a web browser (CON-1). The system must support the capability of allowing a lecturer to post messages and manage who can see archived items (UC-1). Administrators must also be able to update the lectures and modules of a course (UC-2). |
| Include a edit feature for lecturers to modify their courses                     | Lecturers must be able to modify course content, grades, and messages (QA-1).  |
| Include a copy function to duplicate courses and an edit function to modify them | Administrators and lecturers must be able to recreate and modify courses (QA-2).   |
| Build the website using JavaScript and other web development tools.              | As this is a web browser application (CON-1) and the development team has expertise in JavaScript.   |

#### 5. Instantiate Architectural Element, Allocate Responsibilities, and Define Interfaces

| Design Decisions and Location | Rationale   |
|-------------------------------|---|
| Remove Application Facade     | Since the UI of the system will be simple and straightforward, no facade is needed.   |
| Remove Service Agents         | The system will not be communicating with any other systems. All content received from other Course Managements Systems will be done through export/import of CSV or other files. |

## 6. Sketch View and Record Design Decisions



| <b>Element</b>        | <b>Responsibility</b>   |
|-----------------------|---|
| Browser               | A web browser running on the client machine   |
| User Interface        | These components are responsible for receiving user interactions and presenting information to the users. They contain UI elements such as buttons and text fields.                     |
| UI Process Logic      | Responsible for managing the control flow of the application's use cases. Responsible for other aspects such as data validation and orchestrating interactions with the business logic. |
| Business Workflow     | Responsible for managing long running business processes.   |
| Business Logic        | Responsible for retrieving and processing application data and applying business rules on the data.   |
| Business Entities     | These components represent the entities from the business domain and their associated business logic.   |
| Data Access Modules   | Provide common operations used to retrieve and store information in the database.   |
| Helpers and Utilities | These components are responsible for the logic needed for data access tasks. Both helper and utility components can often be reused in other applications.                              |
| Database              | Hosted database which is responsible for storing all information (course, student, instructor, admin).  |

## 7. Perform Analysis of Current Design and Review Iteration Goal and Achievement of Design Purpose

| <b>Not Addressed</b> | <b>Partially Addressed</b> | <b>Completely Addressed</b> |
|----------------------|----------------------------|-----------------------------|
|                      | UC-1                       |                             |
|                      | UC-2                       |                             |
|                      | QA-1                       |                             |
|                      | QA-2                       |                             |
|                      | CON-1                      |                             |