Lab II – MCE Product Specification Outline

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1 Introduction

This document will create a general understanding of the Monarch Course Explorer program, a platform designed to reform the way course information is accessed and managed at Old Dominion University. With higher education always changing and evolving, students and faculty face the challenge of navigating diverse courses and syllabi. Recognizing this challenge, the Monarch Course Explorer aims to simplify these processes. This introduction provides an overview of the purpose, scope, and key components of the Monarch Course Explorer.

1.1 Purpose

The purpose of this document is to present a detailed description of the software requirements specification for the Monarch Course Explorer program. This SRS will the describe the objectives and features of Monarch Course Explorer's system, expected behaviors, and required inputs and outputs. This document is intended for the developers of the system and others.

1.2 Scope

The intention of this program is to accumulate professor's syllabi into one centralized repository and to also provide an exchange of valuable feedback that can further support the engagement of students and faculty. In essence, Monarch Course Explorer will serve as a valuable aid in achieving a successful learning experience. The primary objectives include enhancing the accessibility of course information and syllabi, facilitating student feedback, and improving the overall learning experience.

1.3 Definitions, acronyms, and abbreviations

Beautiful Soup: A Python library for parsing structured data.

Django: A free and open-source, Python-based web framework that follows the model–template–views architectural pattern.

HTML: Hypertext Markup Language, standard markup language for documents designed to be displayed in a web browser.

MIDAS: Monarch Identification and Authorization System, Old Dominion University's log-in and password management system.

NLP: A subfield of computer science and artificial intelligence (AI) that focuses on the interaction between computers and humans in natural language.

PostgreSQL: A free and open-source relational database management system emphasizing extensibility and SQL compliance.

RWP: Real World Product that will be developed and used.

spaCy: An open-source software library for advanced natural language processing, written in the programming languages Python and Cython.

1.4 References

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1.5 Overview

The remaining sections of this product specification will provide the hardware and software configurations, external interfaces, capabilities, and features of Monarch Course Explorer's prototype. These sections will also provide a concise overview of the project's key components and objectives.

2 Overall Description

The Monarch Course Explorer system operates as an integral part of Old Dominion University's academic framework. It is designed as a standalone system that interfaces with existing processes such as course registration, curriculum management, and academic advising. Although it functions independently, the Monarch Course Explorer actively collaborates with other university systems to achieve a seamless integration.

2.1 Product Perspective

The Monarch Course Explorer (MCE) system is designed to operate within the context of Old Dominion University (ODU) and is intended to complement existing processes related to course registration, curriculum management, and academic advising. While MCE is a self-contained platform, it interfaces with other various systems and entities as part of its broader product perspective.

2.2 Product Functions

Monarch Course Explorer system encompasses a range of essential functions and capabilities to address the specific needs of students, faculty, and advisors at ODU. These functions include:

- User Authentication: MCE ensures security, integrity, and privacy by granting access only to users with verified ODU email addresses. A two-step verification process using the Monarch Identification and Authorization System (MIDAS) is employed.
- Syllabi Access: Students can view detailed course syllabi, including course descriptions, instructor information, grading policies, and learning mediums, both online and on-campus.
- Feedback Mechanism: The platform enables users to provide constructive feedback on courses and instructors. Instructors can view, respond to feedback, and filter feedback, promoting transparency and continuous improvement.
- Syllabi Comparison: MCE allows users to compare syllabi, providing students with more information to make informed decisions about their course selections.
- Student Recommendations: The system generates customized course recommendations based on user preferences, offering students a designed approach to course selection.

2.3 User Characteristics

The users are considered to be the students at Old Dominion University. As well as the advisors, curriculum committee members, and faculty that are also a part of Old Dominion University. All users are expected to have prior knowledge on how to navigate a web browser in order to utilize the platform.

2.4 Constraints

N/A

2.5 Assumptions and Dependencies

N/A