University of Essex

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CAPSTONE PROJECT DISSERTATION

GoLearn - Learning Resource Management System

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Abstract

There are plenty of services and programs out there for allowing Teachers to upload resources and for their learners to access them. Most of these are not purpose designed for places of learning, such as school, colleges and universities. Those that exist for this specific use-case tend to be over-engineered and can be overly complicated (Moodle is a good example of this). The purpose of GoLearn is to provide a simple LRM experience for teachers and students to interact with the same resources without a large amount of overhead in setting up the system: it should work out of the box.

This report contains a look into methods of implementation for web applications in general, plus the choices in technology and design that were made for GoLearn.

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Introduction

CHAPTER 2

Background

2.1 Similar Services

There are various LRMS's available in the market, with some of the more popular one being:

Udemy Udemy is a free to access learning site that puts a paywall over all of the courses. Creators can sign up to the site and create a course very quickly. Learners can sign up to courses (paying whatever charge is applied) and have unlimited access to them. They can access these from their own 'Courses' dashboard.

Before putting together their first course, the creator must go through a short survey, which is likely to be used for internal statistic within the Udemy Business than for anything functional. It also serves top allow them to suggest some of their own resources to get the creator going based on their level of experiences in teaching, video creation and gaining an audience. Once this survey has been completed, the creator gains access to an instructor dashboard. Here they can see what courses they have, their status etc. It is also here that they start the creation of a new course (via an action button), and receive learning resource suggestions from Udemy.

The process of making a new Course is very simple. The user is led through a multi-step form that focuses on different aspects of the general makeup of the course, and provides a good UX to do so. Once that form has been filled in, there is a full CMS provided for the creator to put together the working components of their course, such as Learning Outcomes, Requirements etc. It also provides a space for each component in the course to be added. Once the course has been fleshed out with content, it is then submitted for an internal review by Udemy.

The way that the application UI and UX is designed is something that is going to inspire my own designs and application flow quite significantly. As the application that I am going to be making is not a SAAS product, and is going to be a working example of what can be provided to a teaching institution (such as the University of Essex), the separate parts of the app will only be accessible to those with related roles (Teacher/Student/Admin).

My research for this service has been done solely through interacting with the site myself. This was possible as all aspects of the creation service are free, and I own a number of courses myself.

Skillshare SkillShare offers a different business model to generate income from courses. Where Udemy uses a Course as a Product model, SkillShare provides a Subscription service to access all content that they provide. Teachers are then paid out based on their course metrics [1]. To summarise, they are paid out from a set teaching fund based on their engagement, total time spent on their content (with a minimum of 75 minutes across courses a month).

The student experience of SkillShare is very similar to that of Udemy, providing a simple and clean UI/UX for them to interact with the service and classes. The Teacher experience is somewhat different in terms of signing up, but the actual course creation is very similar. [2][3]

LearnDash

Moodle

2.2 Tech Stacks

A 'Tech Stack' is the term used to describe the combination of programming languages, frameworks, libraries, and tools that are used to build a software application. The choice of a tech stack is crucial as it can affect the performance, scalability, and maintainability of the application. The following are some of the popular tech stacks used in web development:

LAMP/LEMP Stacks

MEAN/MERN/MEVN Stacks

2.3 Databases and ORMs

what is a database. what is an ORM popular databases and ORMs

CHAPTER 3

Technical Specification

3.1 Framework

Which stack was chosen and why which framework was chosen within that stack and why

3.2 Database and ORM

Which database was chosen and why which ORM was chosen and why

CHAPTER 4

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Project Planning

CHAPTER 7

Conclusions

Bibliography

[1] SkillShare.com, "Earn from your teaching." https://help.skillshare.com/hc/en-us/articles/4415798406285, 1 2024.

[2] Heilo, "How to upload a class on skillshare as a teacher (2024 - full tutorial)." https://www.youtube.com/watch?v=a2ja4EfzCQ4, 3 2023.

[3] J. T. World, "I tried three weeks of skillshare classes: Skillshare review." https://www.youtube.com/watch?v=uPapW5o8nvk, 9 2020.

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