

Title: Youdemi App

The software requirement document for a course management platform.

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1. Introduction

1.1 Purpose

The Youdemi App aims to provide a platform where Users from across the world can come to learn a course. This Web Application will offer a flexible and smooth medium for Youdemi Instructors to interact with their Students.

1.2 Scope

The Youdemi Application will contain a range of features ranging from how Users sign up for an account to different roles the User can perform. There will be different roles in the application that a User can perform, ranging from User role, Admin role, Instructor, Students.

1.3 Definitions, Acronyms and Abbreviations.

- **Web Application/Web App/Website/Application:** This is going to be the application that will be used to carry out various activities related to a course platform.
- **User:** This is an account owner on the web application. Everyone who creates an account on the application immediately becomes a User. But along the line, a User can be promoted to newer roles.
- **User Roles:** This explains the activities a **User** can perform on the application.
- **Authentication:** This is the process of verifying the identity of a person or a device. On this app, Authentication will be carried out by entering the username/email address and a password.
- **Username:** This is a unique identifier for user's account on a computer system.
- **Password:** This is a string of characters that performs part of user authentication on a computer system, along with a **Username**.
- **Login:** A registered User can enter their username/email and password.
- **Client:** An application that sends a request.
- **Server:** Another application that listens for requests and sends the required responses.
- **REST (Representational State Transfer):** A way in which APIs, API endpoints can be written, other examples include; gRPC, SOAP.
- **TDD (Test Driven Development):** This is an approach to building softwares. In TDD, the application is broken down into multiple specifications, tests will be written for each spec and the **RGR** workflow would be used in implementing each step. This TDD will be used for both Unit Testing and Integration Testing.

1.4 Technologies:

1. Front End: Html, CSS, JavaScript.
2. Backend: NodeJS
3. Database: PostgreSQL
4. ORM: Prisma

5. Authentication and Authorization: JWT (Json-Web-Tokens)
6. Docker for containerization
7. Testing: Jest
8. API Documentation: SwaggerUI
9. Development Tools: Visual Studio Code, Git for source control, GitHub

1.5 References

- Software Design Tutorial; **From Tech With Tim on Youtube.**

2. Overall Description

2.1 Product Perspective

Youдеми App is a Web Application where Users can come to take a course.

2.2 Product Features

- **User must be able to create an account**
- **User must be able to login to an account.**
- **User can either login with username or email address**
- **User must be able to view all courses**
- **User must be able to view a specific course**
- **User must be able to buy a course**
- **Admin must be able to edit a course**
- **Admin must be able to delete a course**
- **Admin must be able to assign more roles to user**

2.3 Stages for verifying a User Account:

To become a fully verified User on our web application, each individual must pass the following stages of verification:

- i. **KYC Tier 1:** The following are the details needed from the User to pass this stage: username, email, password.
- ii. **KYC Tier 2:** The following are the details needed from the User to pass this stage: dateOfBirth, country
- iii. **KYC Tier 3:** The following are the details needed from the User to pass this stage: User's Bank Details (card number, cvv, card type, e.g., Verve, Master, Visa).

After an individual completes all of the stages above, then such individual can be called a **fully verified User**.

2.4 Classes, Models, Fields

User

- Id: int
- Email: string
- Username: string
- Password: string
- Course: Course[]

Course

- Id: int
- Course Name: string
- Completed: boolean
- UserId: int
- User: user