Lab 2: Access to Quality Education SRS

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1   Introduction

This section introduces basic information that will help to understand the Minnow product, as well as references for information found within this document.

1.1   Purpose

This document is intended to describe the form and function of a product called Minnow, a supplemental education platform.

1.2   Scope

Quality education's primary limitation is resources, whether financial through cost of acquiring things such as textbooks and online test questions, or through not having the resource of time to create learning tools. Additionally, standard education has not caught up with the advances in technology in our present day. Minnow aims to address both of these concerns by creating an available and affordable resource for teachers to personalize education to their students.

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1.3   Definitions, Acronyms, and Abbreviations

Accessibility Tools – Features such as text-to-speech, closed captioning, and visual aids that support diverse learners.

Gamification – The use of interactive lessons, quizzes, and rewards to enhance student engagement.

Multimodal Learning – An approach that integrates various forms of content delivery, including visual, auditory, and interactive methods.

Personalized Learning – Adaptive lesson plans that adjust based on a student's strengths and weaknesses.

Role-Based Access – A security feature that ensures users (students, teachers, parents) have appropriate permissions based on their role.

Secure Authentication – Measures to protect user privacy and maintain data security.

Virtual Tutoring – Online support resources designed to assist students outside of traditional classroom settings.

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1.5   Overview

Section 2 provides a short overview of Minnow.

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2 Overall Description

This section provides the basics on how the product will work, as well as user roles available within the product.

2.1 Product Perspective

Minnow is an adaptive learning platform designed to enhance education through personalized lesson plans and interactive engagement. It supports diverse learners with accessibility features and a collaborative dashboard for tracking progress. While Minnow supplements traditional education, it does not replace formal schooling, provide certifications, or guarantee academic improvement. Instead, it offers a flexible, curriculum-based resource accessible anytime with an internet connection.

2.2 Product Functions

Minnow will primarily function as a learning tool with gamified, personalized learning modules. Available on both computer and mobile devices, Minnow will offer multimodal tools such as games, activities, quizzes, and guided lessons that will be personalized to assist students where they are weakest and strongest. Minnow will have support for multiple languages outside of English and will have a library of resources for teachers to browse.

2.3 User Characteristics

Minnow has two main roles, Student and Teacher. Teachers will have the most access to content on the application, being able to create classes that students will be able to join. Once inside a class, teachers can assign modules that contain activities for students to use, as well as see a student's progress within a module and what scores or achievements within the module the student has acquired. Students, through modules assigned by their teachers, will have a series of gamified learning activities designed to teach and strengthen their skills in a certain subject designated by the teacher. Students will not be able to access content unless a teacher assigns it to them.

2.4 Design and Implementation Constraints

N/A

2.5 Assumptions and Dependencies

N/A