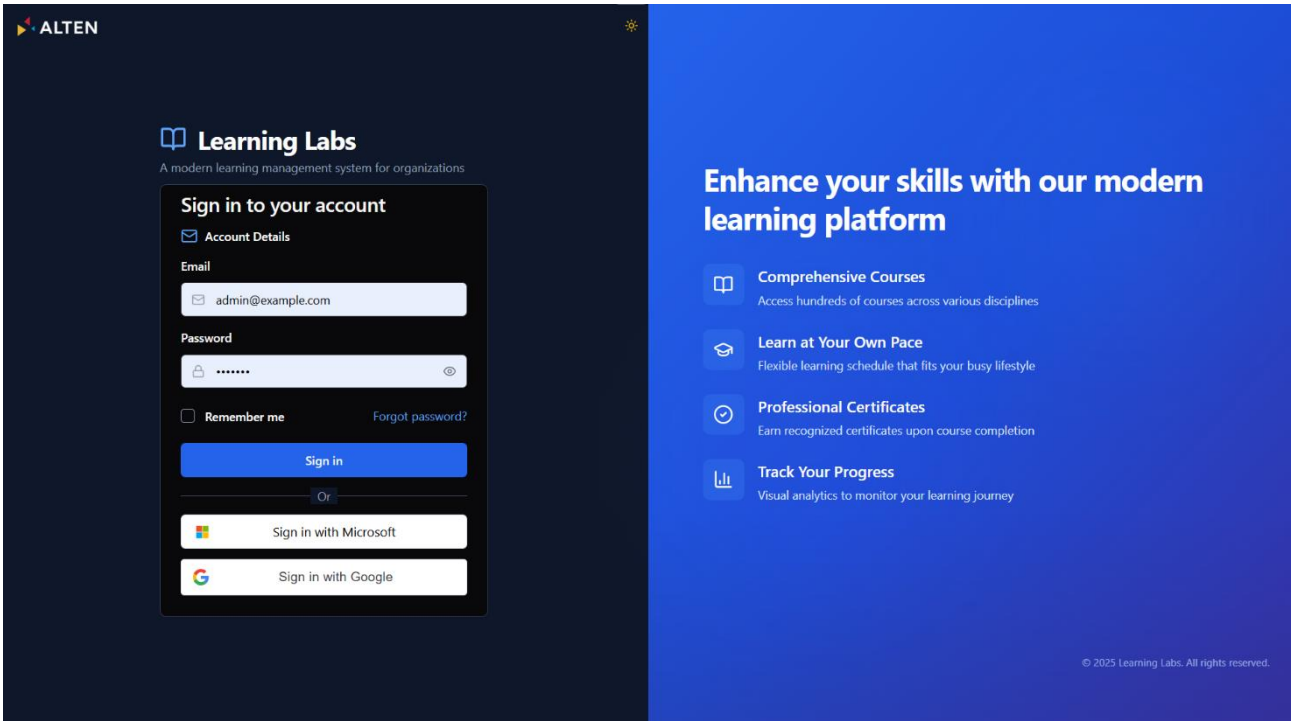
User Guide

Learning Labs



CONTACT INFORMATION

Alten Global Technologies Pvt. Ltd
No.72 & 73, 1st Floor, Krishna Reddy Colony, Domlur layout,
Bangalore 560071, INDIA

LIST OF ABBREVIATIONS

Abbreviation	Meaning
AI	Artificial Intelligence
ALTEN GT	Alten Global Technologies Private Limited
IP	Internet Protocol
Js	Java-Script (Programming Language)
LLM	Large Language Model
LMS	Learning Management System
MCQ	Multiple Choice Questions
ML	Machine Learning
SSO	Single Sign-on
URL	Uniform Resource Locator

1 INTRODUCTION 5
1.1 Purpose of the User Guide 5
1.2 Overview of Learning Labs LMS 5
1.3 Key Features 5
1.4 Target Audience 5
2 SCOPE 6
2.1 What This Guide Covers 6
2.2 What This Guide Does Not Cover 6
3 GETTING STARTED 7
3.1 System Requirements 7
3.2 Accessing the LMS 7
3.3 Creating an Account 7
3.4 Signing In and Out 8
4 ROLE-BASED USER MANAGEMENT 10
4.1 Overview of User Roles 10
4.2 Learner/User Role 10
4.2.1 Accessing Assigned Courses 10
4.2.2 Tracking Course Progress 10
4.2.3 Completing Modules and Exams 11
4.2.4 Viewing and Downloading Certificates 11
5 AI FEATURES 13
5.1 Transcript Extraction and Summarization 13
5.2 LLM-Based MCQ Generation 13
5.3 Video Auto-Captioning 14
5.4 Intelligent Chatbot for Doubt Resolution 15
6 COMMUNICATION AND NOTIFICATIONS 17
6.1 In-App Notifications 17
6.2 Email Alerts 17
6.3 Admin-to-User Messaging 18
7 PROFILE MANAGEMENT 20
7.1 Overview 20
7.2 Viewing Profile Information 20
7.3 Managing Settings 20
8 APPENDIX 22
8.1 Change Log 22
8.2 Acknowledgements 22
8.3 Contacting Support 22

LIST OF FIGURES

FIGURE 1: LOGIN PAGE 8
FIGURE 2: SIGN OUT PAGE 9
FIGURE 3: ASSIGNED COURSES PAGE 10
FIGURE 4: COURSE PROGRESS TRACKER PAGE 11
FIGURE 5: LEARNING PROGRESS PAGE 11
FIGURE 6: CERTIFICATE DASHBOARD PAGE 12
FIGURE 7: CERTIFICATE PAGE 12
FIGURE 8: TRANSCRIPT EXTRACTION & SUMMARY PAGE 13
FIGURE 9: AUTOMATED MCQ CREATION PAGE 14
FIGURE 10: AUTO CAPTIONING PAGE 15
FIGURE 11: CHABOT 16
FIGURE 12: NOTIFICATIONS PAGE 17
FIGURE 13: EMAIL ALERT PAGE 18
FIGURE 14: EMAIL-NOTIFICATION PAGE 18
FIGURE 15: DASHBOARD PAGE 19
FIGURE 16: PROFILE INFORMATION PAGE 20
FIGURE 17: RESET PASSWORD PAGE 21

LIST OF TABLES

TABLE 1: SOFTWARE CHANGE LOG 22

1 Introduction

1.1 Purpose of the User Guide

This user guide is intended to help learners to understand and efficiently use the **Learning Labs' Learning Management System (LMS)**. It provides step-by-step instructions about the system's features, including AI-powered enhancements, to ensure smooth and productive user experience.

1.2 Overview of Learning Labs LMS

Learning Labs is a modern, web-based LMS designed to streamline online learning through intelligent content management, personalized learning paths, and AI-powered automation. The platform allows administrators to manage users and courses, content creators to upload engaging course material, and learners to complete modules, take assessments, and receive certifications. Integrated with powerful AI/ML modules, Learning Labs enhance learning outcomes by automating tasks like video captioning, question generation, and summarization.

1.3 Key Features

- **Role-Based Access** for Admins, Content Creators, and Learners
  - **As a learner, you will not have access to features present for Admin and Content Creator roles**
- **Course Approval Workflow** and Group-Based Assignments
  - **As a learner, you will not have access to features present for Admin and Content Creator roles**
- **AI-Assisted Course Uploads** including thumbnail generation, transcript extraction, summarization, and MCQ creation
- **Auto-Captioning** of video content for accessibility
- **LLM-Based Chatbot** for real-time learner support
- **Progress Tracking** and **Certificate Generation**
- **User-Friendly Interface** built with React for responsive and intuitive navigation

1.4 Target Audience

This guide is designed for **Learners**, who take assigned courses, complete modules, and earn certifications

2 Scope

2.1 What This Guide Covers

This user guide covers the end-to-end usage of the **Learning Labs LMS** platform from the **Learner**. It provides detailed instructions on how to:

- Access and navigate the LMS
- Utilize AI-powered features such as automatic thumbnail generation, transcript summarization, MCQ creation, and video captioning
- Engage with the intelligent chatbot for learner support
- Track course progress and download certificates

This guide also includes troubleshooting tips, frequently asked questions, and a glossary of terms for easy reference.

2.2 What This Guide Does Not Cover

This guide does **not** include:

- Features present for Admin and Content creators
- Technical implementation details or source code of the LMS
- Backend system setup or deployment instructions
- React frontend development or customization instructions
- External third-party integration setups (e.g., SSO, analytics tools)

3 Getting Started

3.1 System Requirements

To use the Learning Management System (LMS), ensure the following requirements are met:

- **Operating System:**
  - The LMS supports both **Windows** and **Linux** operating systems.
- **Web Browser:**
  - Compatible with any modern browser, including:
    - **Google Chrome**
    - **Mozilla Firefox**
    - **Microsoft Edge**
- **Network Access:**
  - The LMS can be accessed depending on where it's hosted:
    - If hosted **locally** on a specific machine system:
      - Access it via: `http://localhost:5000`
    - If hosted on a system within a **local network**:
      - Access it via: **Error! Hyperlink reference not valid.**

Note: Replace `<system_ip>` with the actual IP address of the system running the LMS.

3.2 Accessing the LMS

- On first-time startup with an empty PostgreSQL database, the system automatically creates a default admin user.
- The default admin credentials are:
  - Email: `admin@example.com`
  - Password: `admin123`
- Use this account to log in for the first time.
- After logging in, the admin can proceed to create and manage other user accounts in the system.

3.3 Creating an Account

There are two methods to create a user account in the LMS:

- **Admin-Created Account:**
  When an account is created by the administrator:
  - The employee receives an email once the account is ready.
  - The account is set with the **Employee** role.
  - The employee can log in using the given credentials.
- **Self-Registration by Users:**
  Users can also create their accounts through the LMS interface by following these steps:
  - Visit the LMS URL: `http://<ip>:5000` (will be shared by the admin).
  - Choose one of the available login options:
    - Sign in with Google – Ideal for external/public users.
    - Sign in with Microsoft – Ideal for corporate environments (if enabled).
  - Upon first-time login, the system automatically creates the user account with the **Employee** role.
  - A notification will be displayed: *"Sign-up successful. You will receive an email after approval."*
  - The user must wait for the admin to approve their account before gaining access.

3.4 Signing In and Out

Signing In

Users can log in using one of the following methods:

1. **Admin provided Credentials –** Employees can use the login credentials provided by the administrator via email when the account is created.
2. **Sign in with Google** – For external or public users.
3. **Sign in with Microsoft** – If supported in the corporate environment.

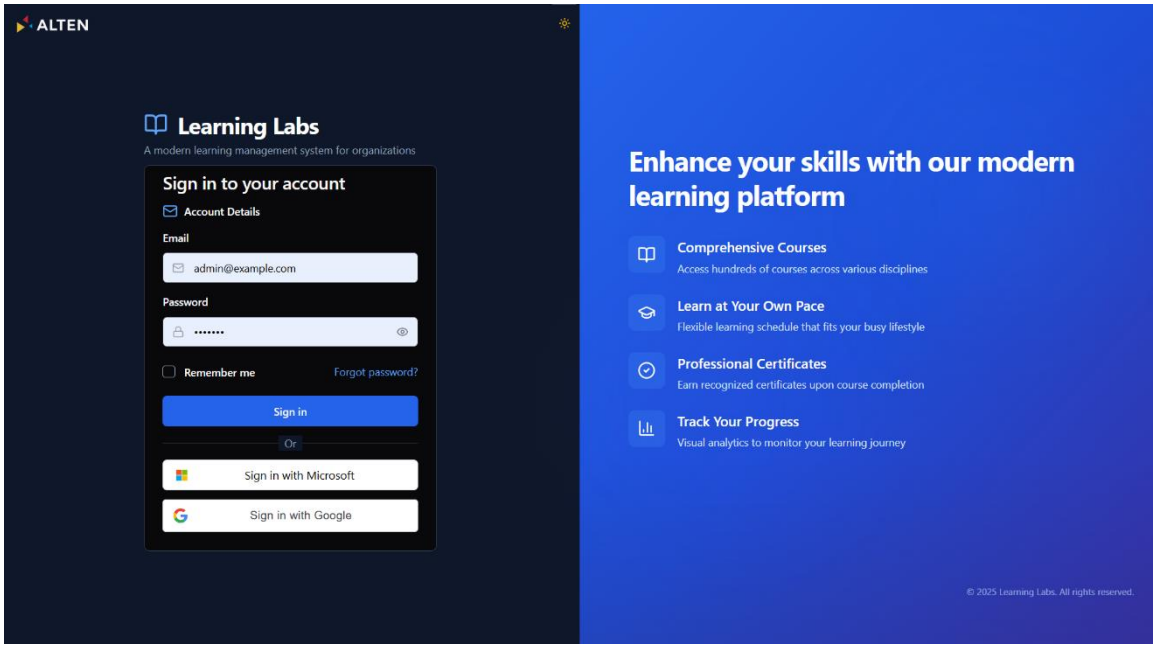


Figure 1: Login Page

Signing Out

Users can securely log out from the application by clicking the **Sign Out** button located in the bottom – left corner.

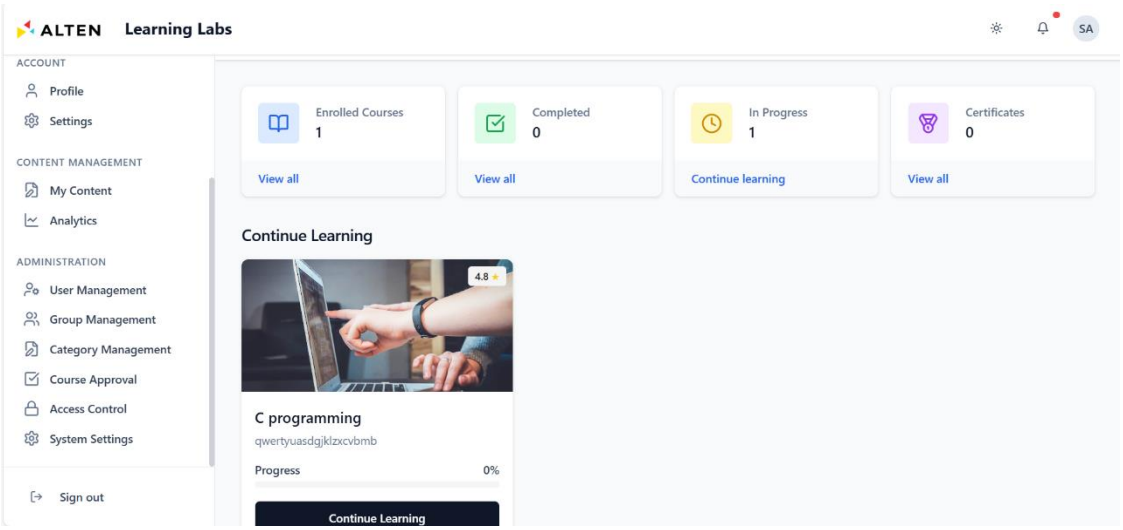


Figure 2: Sign out Page

4 Role-Based User Management

4.1 Overview of User Roles

There are Three unique roles supported by the system. (a) Admin Role (b) Content Creator Role (c) Learner/User role. This user guide is targeted to learner/employees. Hence, privileges related Admin and Content Creator are not described in this user guide.

4.2 Learner/User Role

4.2.1 Accessing Assigned Courses

- Users can view courses they are enrolled in from their dashboard.
- The dashboard will display the user's name, date, and options to explore courses.
- Clicking on "Explore Courses" will redirect the user to the course catalog.
- If users haven't enrolled in a course, they can click "Start Learning" to begin the course, automatically enrolling them in that course.
- The system will track which courses are "In Progress" and which are "Completed."

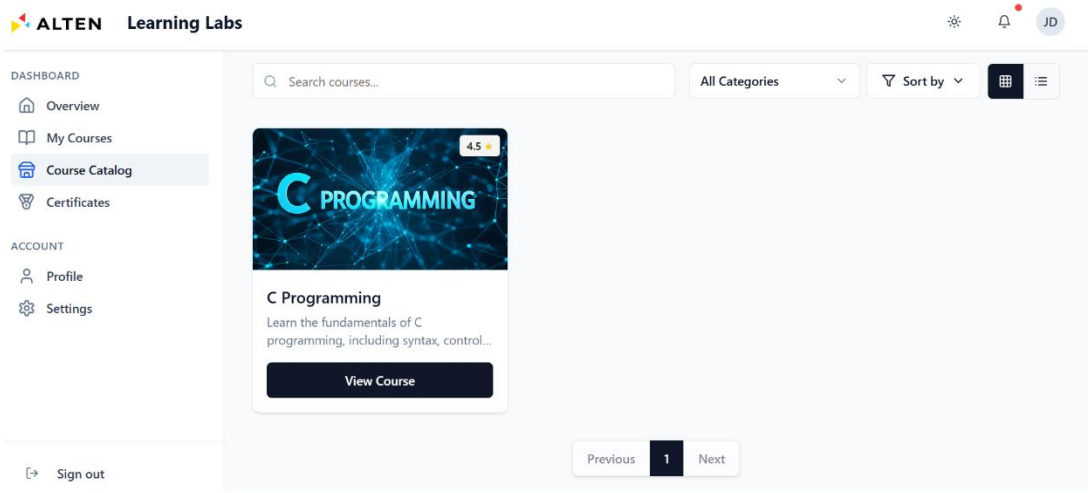


Figure 3: Assigned Courses Page

4.2.2 Tracking Course Progress

- Users can continue learning from where they left off in the course by clicking "Continue Learning" (or "Start Learning" if they haven't started yet).
- The course progress will be saved for each user and can be resumed at any point.
- If the user is watching a video, they can mark it as complete when finished.
- A live Bot powered by an LLM model allows the user to ask any questions related to the course while watching the video.
- Once the video is marked as complete, users can proceed to assessments, which can only be accessed after completing the video.

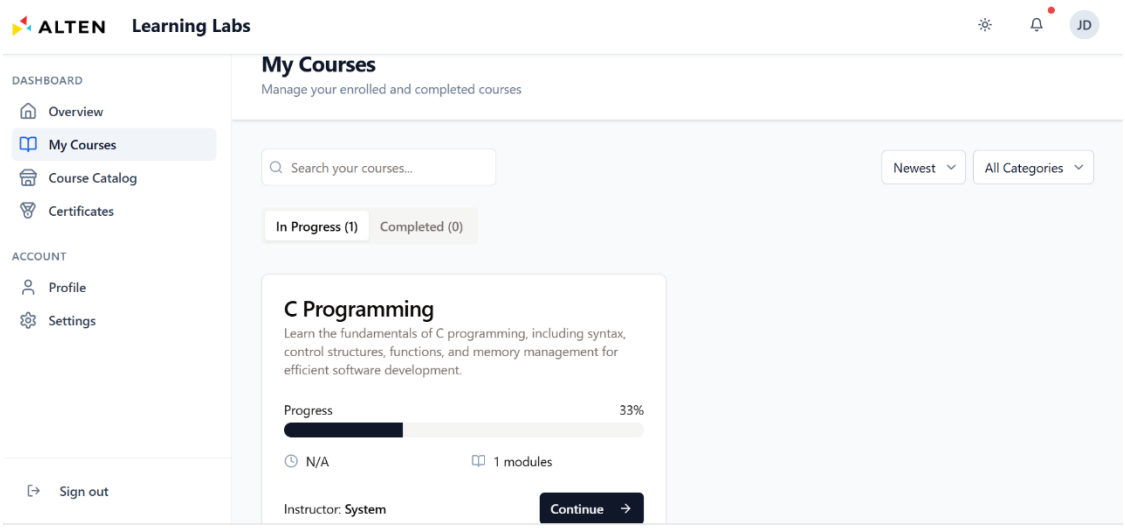


Figure 4: Course Progress Tracker Page

4.2.3 Completing Modules and Exams

- After marking a video as complete, users can take the assessment for that video or module.
- The user will see their score after completing the assessment.
- To earn a certificate, users need to score at least 80%. If they don't, they need to retake the assessment.

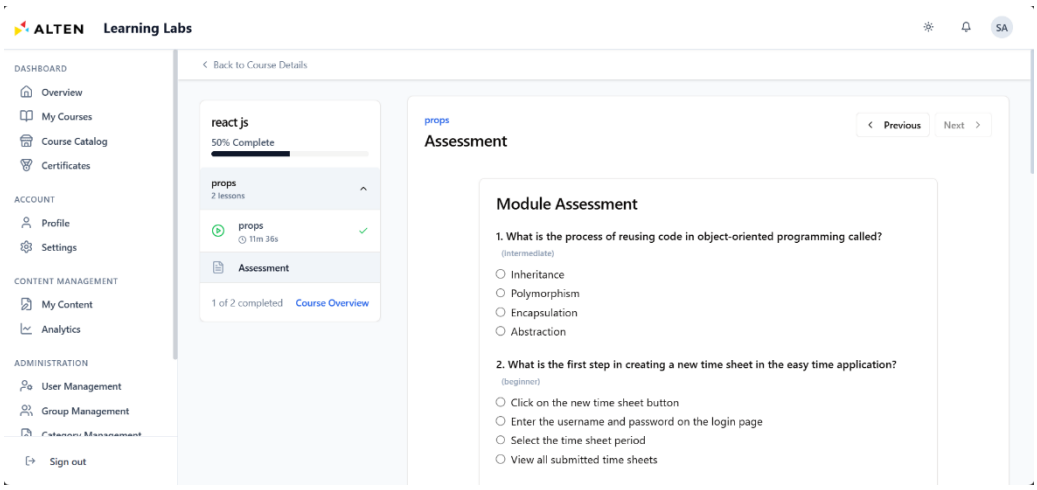


Figure 5: Learning Progress Page

4.2.4 Viewing and Downloading Certificates

- After passing the assessment, users can view and download their certificate.
- The certificate includes a **Unique ID** that can be validated by visiting a public URL (ensuring the certificate's authenticity).
- Users can track their certificate status after completing each assessment.

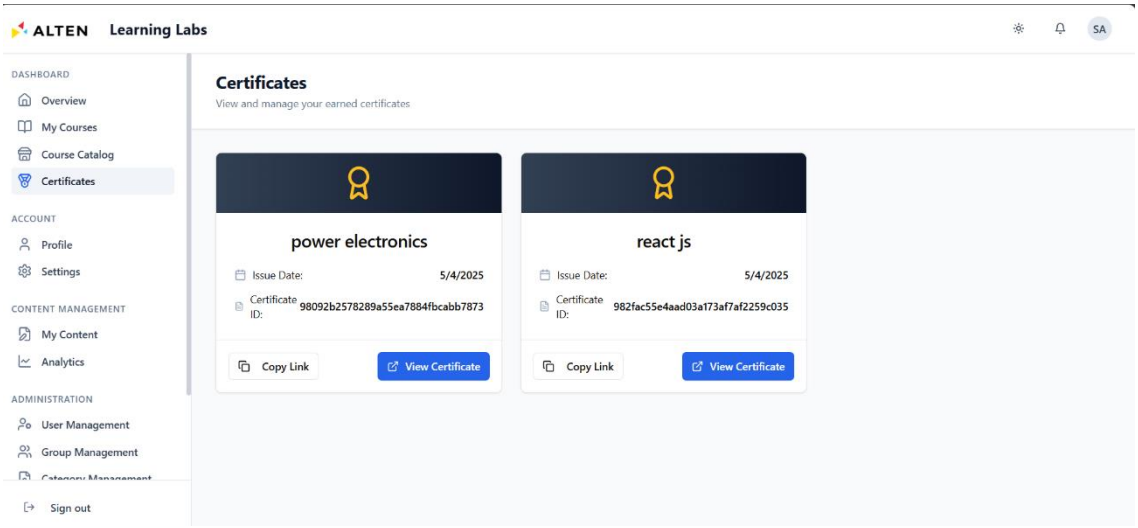


Figure 6: Certificate Dashboard page

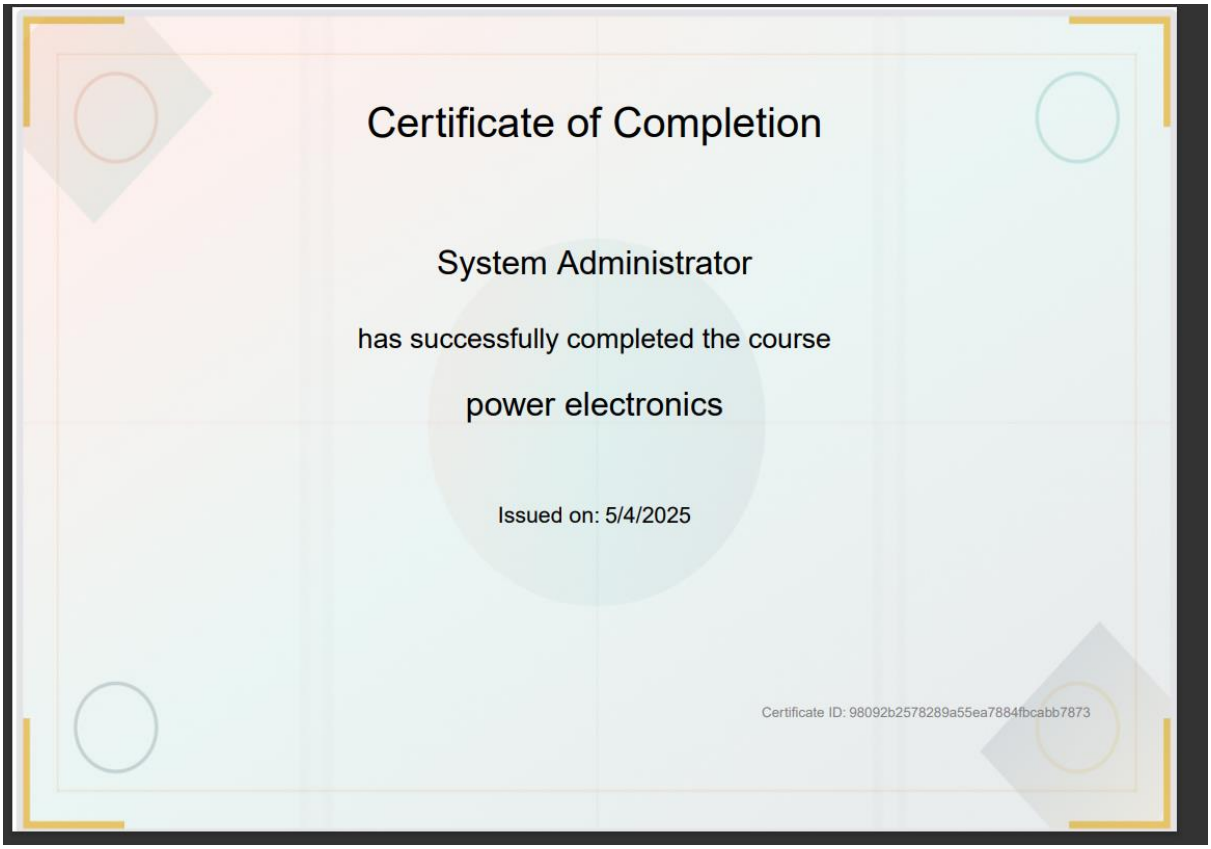


Figure 7: Certificate page

5 AI Features

Our Learning Management System (LMS) is enhanced with cutting-edge AI technologies to improve user engagement, content delivery, and learning outcomes. Below are the key AI features and their functionalities:

5.1 Transcript Extraction and Summarization

Uses speech-to-text and NLP techniques to extract the full transcript from video lectures and summarize it into concise, readable content.

How it helps:

- Enables quick review of lengthy video content.
- Improves accessibility for hearing-impaired users.
- Supports note taking and study material generation.

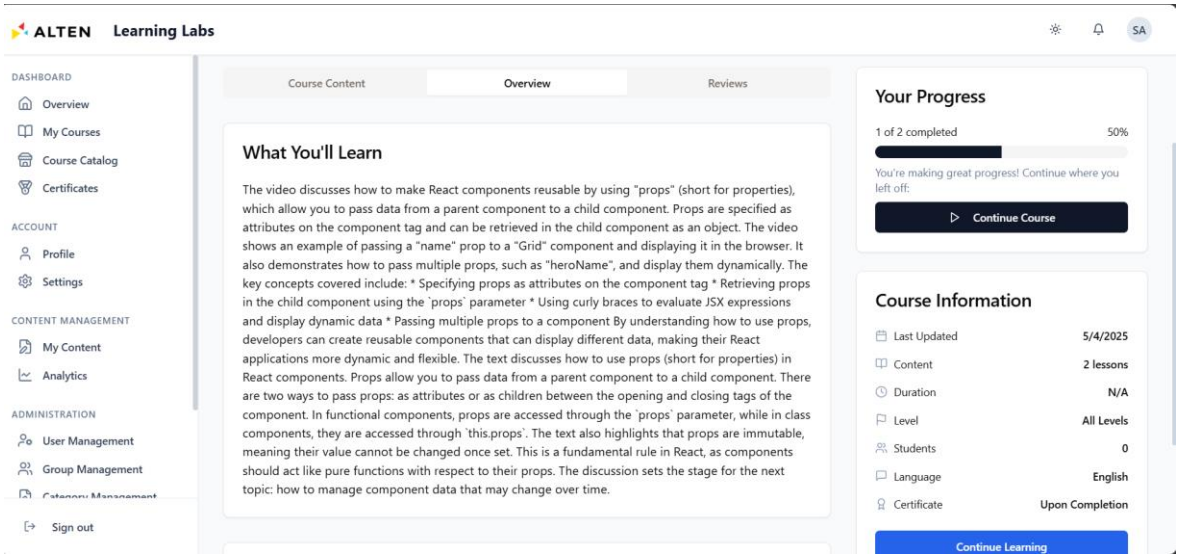


Figure 8: Transcript Extraction & Summary Page

5.2 LLM-Based MCQ Generation

Leverages Large Language Models (LLMs) to automatically generate Multiple Choice Questions (MCQs) from lecture content, transcripts, or uploaded documents.

How it helps:

- Helps instructors create quizzes effortlessly.
- Enhances student practice and assessment opportunities.
- Customizable difficulty levels and topics.

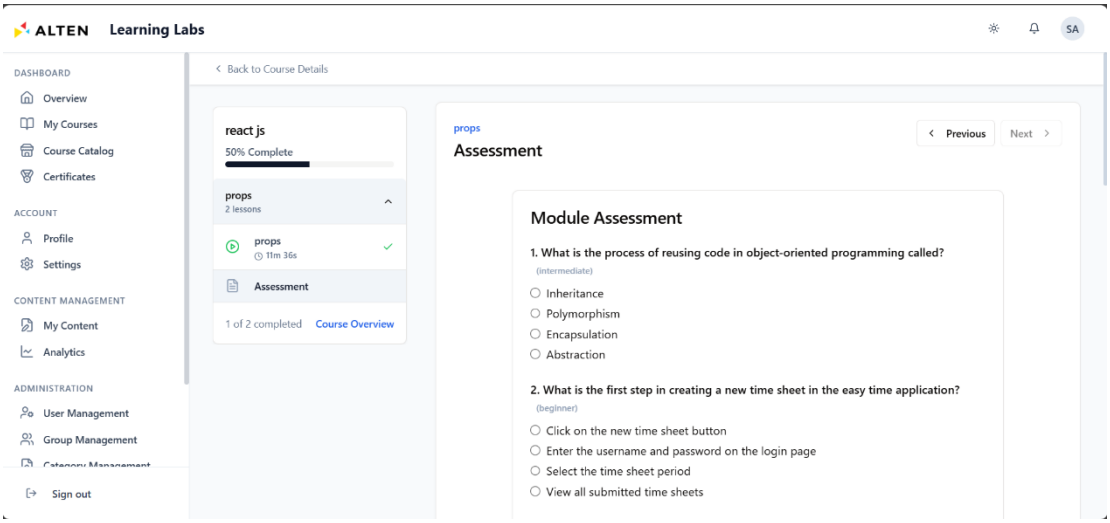


Figure 9: Automated MCQ Creation page

5.3 Video Auto-Captioning

Automatically generates captions for video content in real-time or post-upload using AI-based speech recognition.

How it helps:

- Increases accessibility for all learners.
- Supports multilingual learning environments.
- Allows for better understanding of lectures in noisy environments.

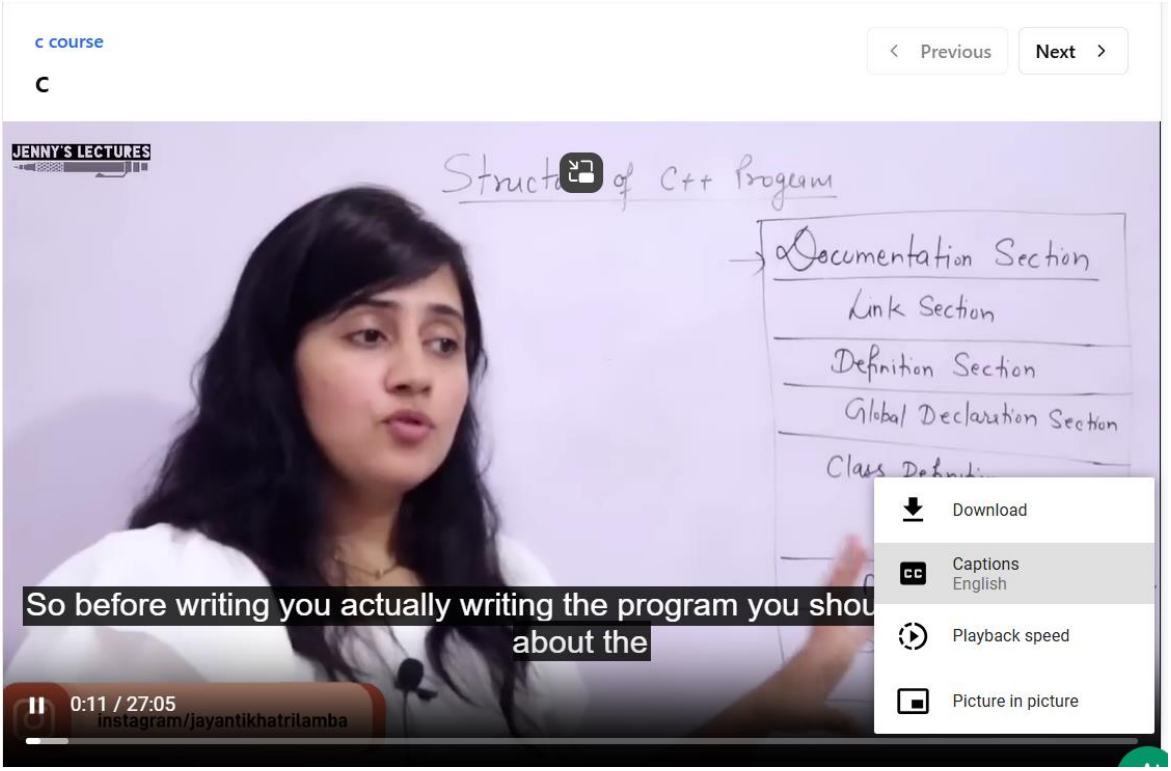


Figure 10: Auto Captioning page

5.4 Intelligent Chatbot for Doubt Resolution

An always-available AI assistant that answers student queries related to course content, schedules, , or general doubts using contextual understanding.

How it helps:

- Provides instant responses to students.
- Reduces instructor workload.
- Improves student satisfaction and retention.

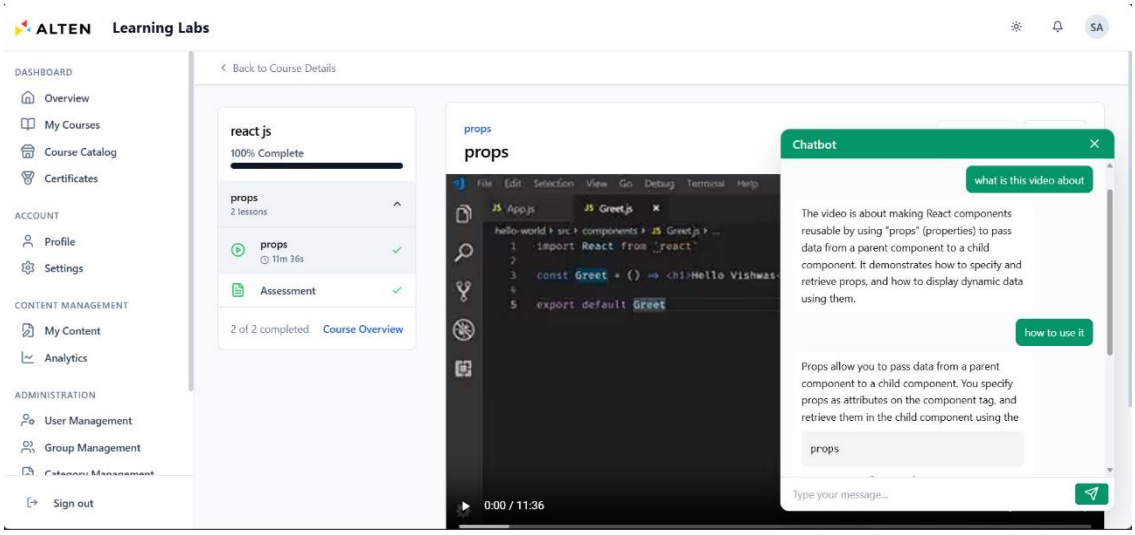


Figure 11: Chabot

6 Communication and Notifications

The Learning Management System (LMS) uses both **in-app notifications** and **emails** to keep users informed about important events, access rights, and system updates.

6.1 In-App Notifications

When a user logs in to the LMS, they may see notifications in their dashboard. These notifications typically cover:

- **New course access granted**
- **Password reset alerts**
- **User accepted into the application**

These notifications are designed to alert users about actions that affect their learning or contribution activities directly within the platform.

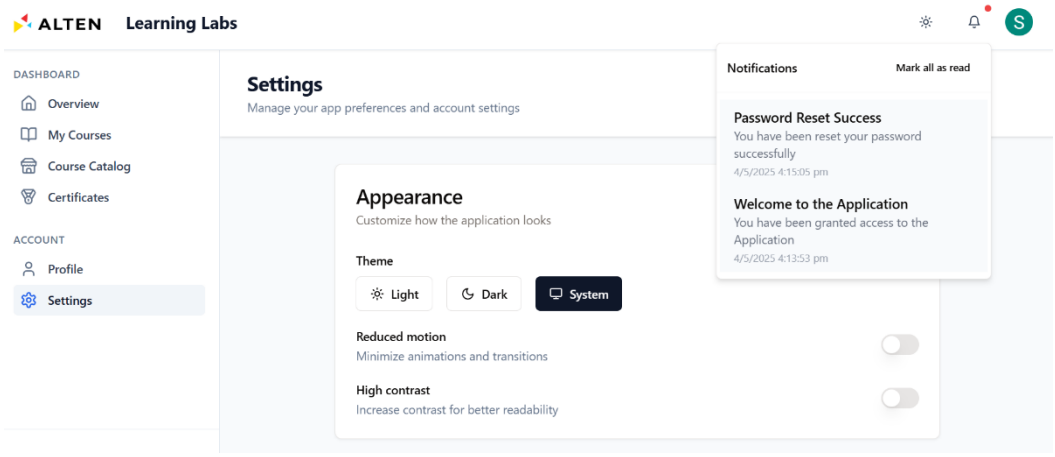


Figure 12: Notifications page

6.2 Email Alerts

Email communication works in parallel with the in-app notification system. Emails are triggered for the following events:

- **Login credentials shared**: When a user is added to the system, they receive an email with their **username and password**.
- **Successful login** confirmation.
- **Course access granted** emails.
- **Password reset instructions**.

All these emails ensure that users remain informed, even if they are not actively logged into the LMS.

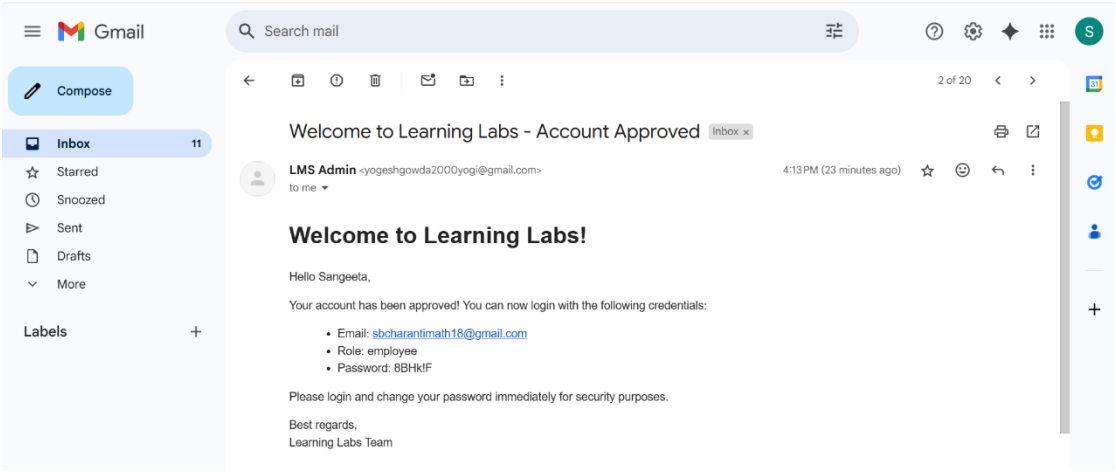


Figure 13: Email alert Page

6.3 Admin-to-User Messaging

Admins can:

- **Create groups** and assign users.
- Upon assignment, users will receive both:
  - **An email** stating they've been added to a group or granted course access.
  - **An in-app notification** for the same.

This feature supports streamlined communication between admins and learners or contributors, making sure no one misses important updates.

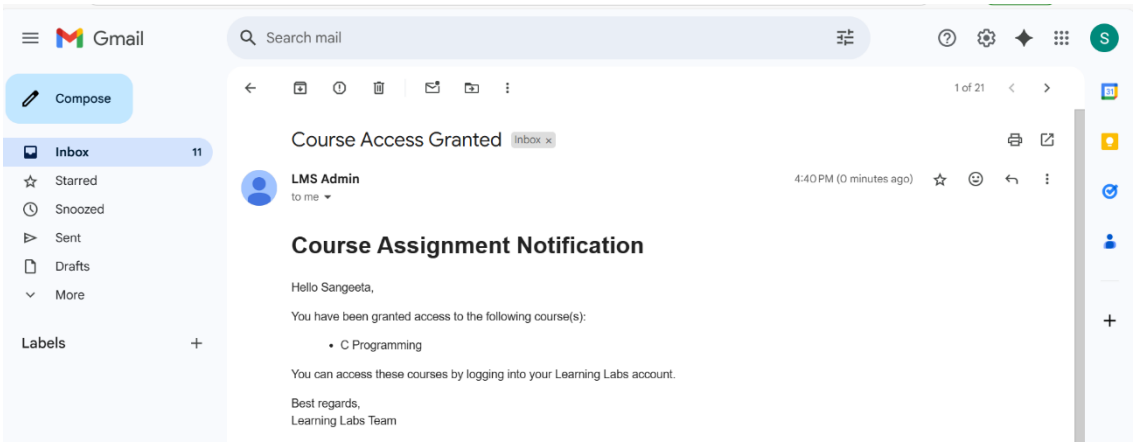


Figure 14: Email-notification page

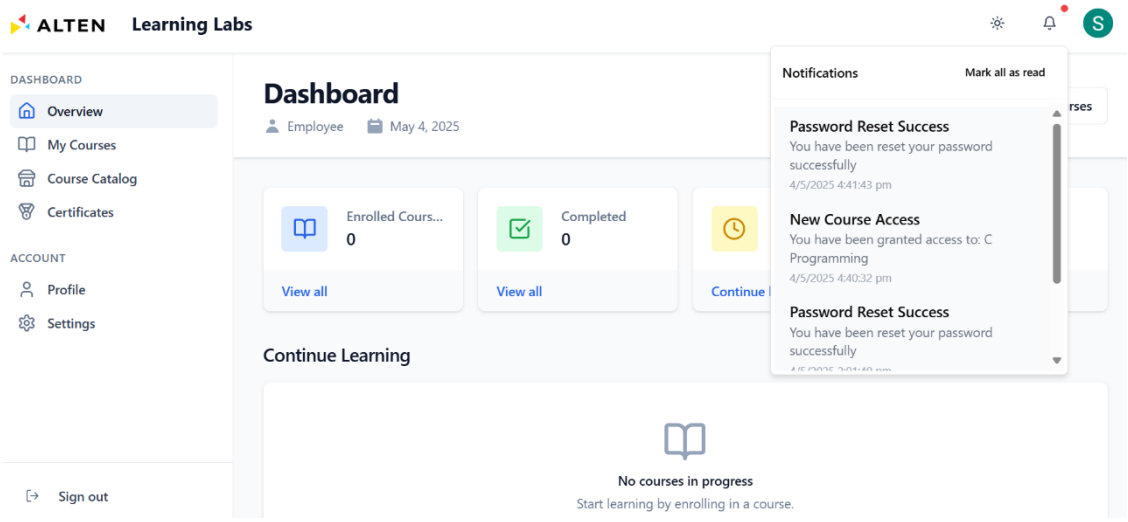


Figure 15: Dashboard page

7 Profile Management

The User Dashboard provides quick access to personal information, course progress, and key settings. It serves as the central hub for managing the user's learning journey.

7.1 Overview

Once logged in, users land on their dashboard, where they can:

- View enrolled courses
- Access learning modules
- Receive system notifications (e.g., course access, password resets)
- Navigate to profile and settings

7.2 Viewing Profile Information

Under the **Profile** or **Personal Info** tab, users can view and edit their personal details:

- Editable fields: **First Name**, **Last Name**, **Profile Picture**
- Non-editable fields: **Username**, **Email ID** (display-only for security purposes)

After making changes, clicking **Save Changes** updates the information in the database and reflects immediately in the profile view.

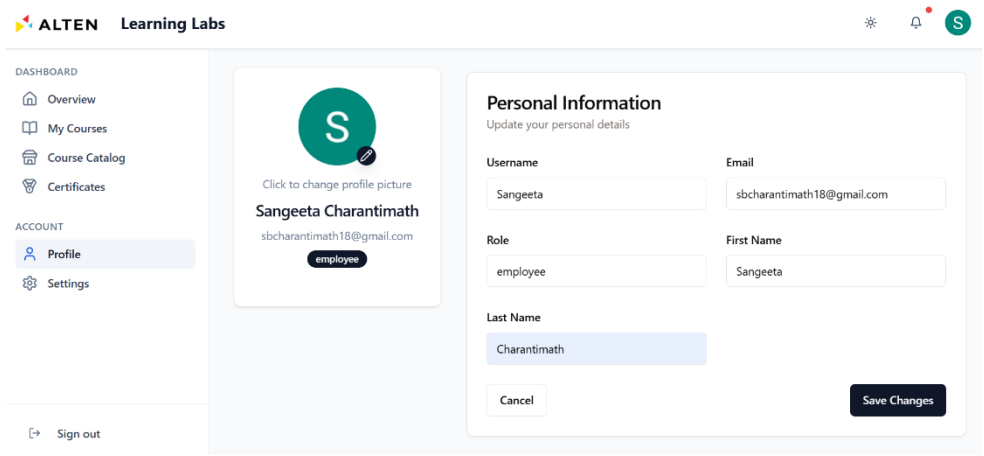


Figure 16: Profile information page

7.3 Managing Settings

Within the **Settings** section of the profile:

- Users can change their password by entering the current password and generating a new one.
- Forgot Password functionality is also available:
- Users enter their registered email address.
- They receive a reset password link via email.
- By using the new password, the user can log in successfully.

- A "Password Reset Successful" notification confirms the change.

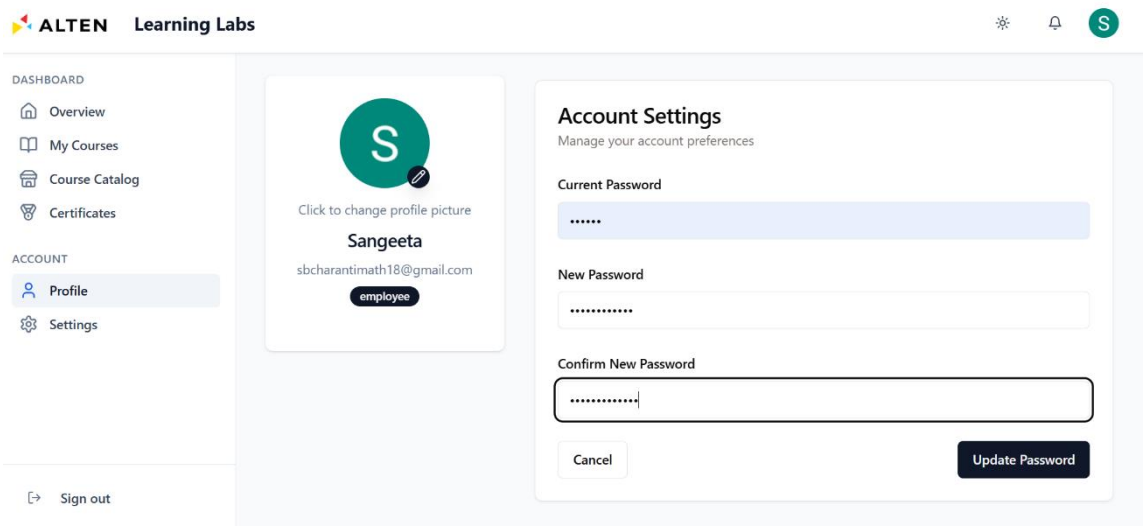


Figure 17: Reset password page

8 Appendix

8.1 Change Log

Table 1: Software change log

Version	Date	Change
1.1	05-May-2025	Released after team review
1.0	25-April-2025	Baser version

8.2 Acknowledgements

We thank **Replit** for supporting our web UI development, **Google AI Studio** for providing LLM-based image generation, and **AltenGT** for hosting our neural network models on their AI/ML server using OLLAMA.

8.3 Contacting Support

In case of any technical issues please contact us via:

Abishek Samuel	abishek.babu@alten.com
Ambika P	ambika.pudkaje@alten.com
Jothi L	jothi.laxmikanth@alten.com
Sangeeta Charantimath	sangeeta.charantimath@alten.com
Yogesha S R	yogesha.ravi@alten.com