

# User Manual

AI-ducation

2025

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## **1.0 General Information**

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### **1.1 System Overview**

AI-ducation is a web app which can be accessed through laptop, tablet and mobile. It applies AI algorithms to analyze students' reading behaviors, detect comprehension gaps and recommend targeted reading content. Teachers can monitor student progress from one central dashboard while students enjoy interactive reading activities and gamified rewards.

The platform is built to scale, secure data and access points for individual else institutional development at the same time.

### **1.2 Project References**

The following references were used in the preparation of this document:

1. *AI-ducation: An AI Learning Platform Focused on Reading Comprehension* – Final Research Proposal, 2025.

### **1.3 Authorized User Permission**

AI-ducation is intended for authorized use only by registered students, teachers, and parents. Unauthorized use, duplication, or distribution of the platform, its data, software, reports, or documentation is strictly prohibited.

#### **1.4 Points of Contact**

For technical assistance or inquiries, contact:

- Jerome Carag  
San Beda College Alabang  
Email: jeromeccarag@gmail.com  
Number: 09454769624
- Drei Navato  
San Beda College Alabang  
Email: dreinavato@gmail.com  
Number: 09173724687

#### **1.5 Acronyms and Abbreviations**

AI - Artificial Intelligence

NLP - Natural Language Processing

GUI - Graphical User Interface

ID - Identification

## **2.0 System Summary**



## **2.0 System Summary**

### **2.1 Hardware and Software Specifications**

#### **A. Server/Hosting Requirements**

To ensure smooth performance of AI-ducation, the following server specifications are recommended:

- VPS/Cloud Server Configuration:
  - 4 virtual CPUs
  - 4–8 GB RAM
  - 80 GB SSD Storage
  - Ubuntu LTS or equivalent open-source operating system
- Hosting Options: AWS (EC2, RDS, S3 + CloudFront) or Google Cloud SQL
- Backup & Security: Automated backup and AES encryption for stored data

#### **B. End-User Requirements**

Students, teachers, and administrators must have access to devices and connectivity that meet at least the following specifications:

- Laptops/Desktops:
  - Minimum: Intel i5 processor, 8 GB RAM, SSD storage
  - Recommended: i7 processor for faster performance
- Mobile Devices:
  - iPhone 13 or higher
  - Android devices with Snapdragon 7 series or higher, 8 GB RAM, and 128 GB storage
- Operating Systems: Windows 10/11, macOS, Android 12+, iOS 15+
- Browsers Supported: Google Chrome, Mozilla Firefox, Safari, Microsoft Edge (latest versions)
- Internet Connection: Stable broadband, minimum 5 Mbps (higher speed recommended for real-time features like assessments and analytics)

## **2.2 User Access Levels**

AI-ducation has three main user roles, each with different access privileges:

- Student: Can log in, take quizzes, join group exams, and track their progress.
- Teacher: Can create quizzes, launch group exams, monitor participation, and check student records.
- Parent: Can manage their child's account, create student profiles, and view exam history.

## **2.3 Contingencies**

To ensure the privacy of your data and the system reliability, the following procedures are in place:

**Data Security:** The database securely stores all user information and exam results to avoid unauthorized access.

**Technical Concerns:** If you counter any bugs or access concerns, please inform the developers via the Points of Contact provided in Section 1.4.

## **3.0 Getting Started**

## 3.0 Getting Started

### 3.1 Logging In

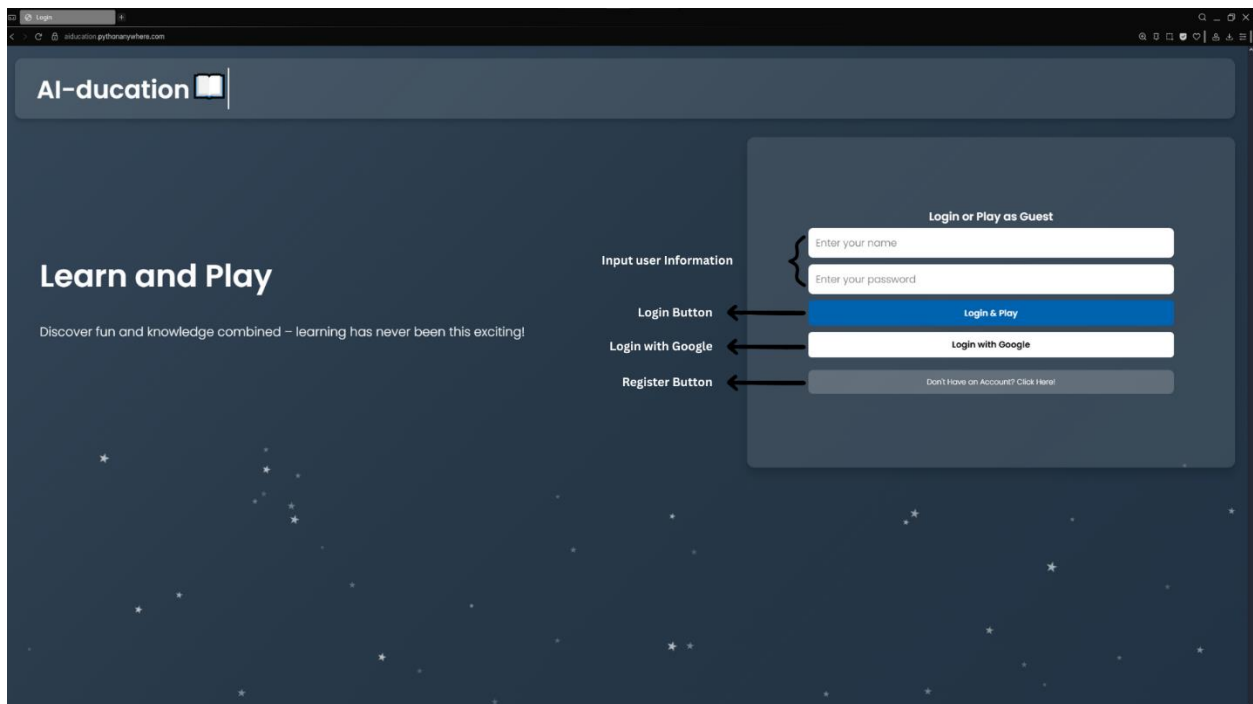
Login page

- This serves as the primary entry point for students, teachers, and parents to securely access AI-ducation. It verifies user credentials to ensure only authorized users can enter the system.

Button & Links

- Login (Button) – Authenticates user credentials (username and password) and grants access to the platform.
- Login with Google (Button) – Allows users to quickly sign in using their Google account credentials.
- Register (Link) – Redirects new users to the Registration Page to create a new account.

*Figure 3.1: Login Page*

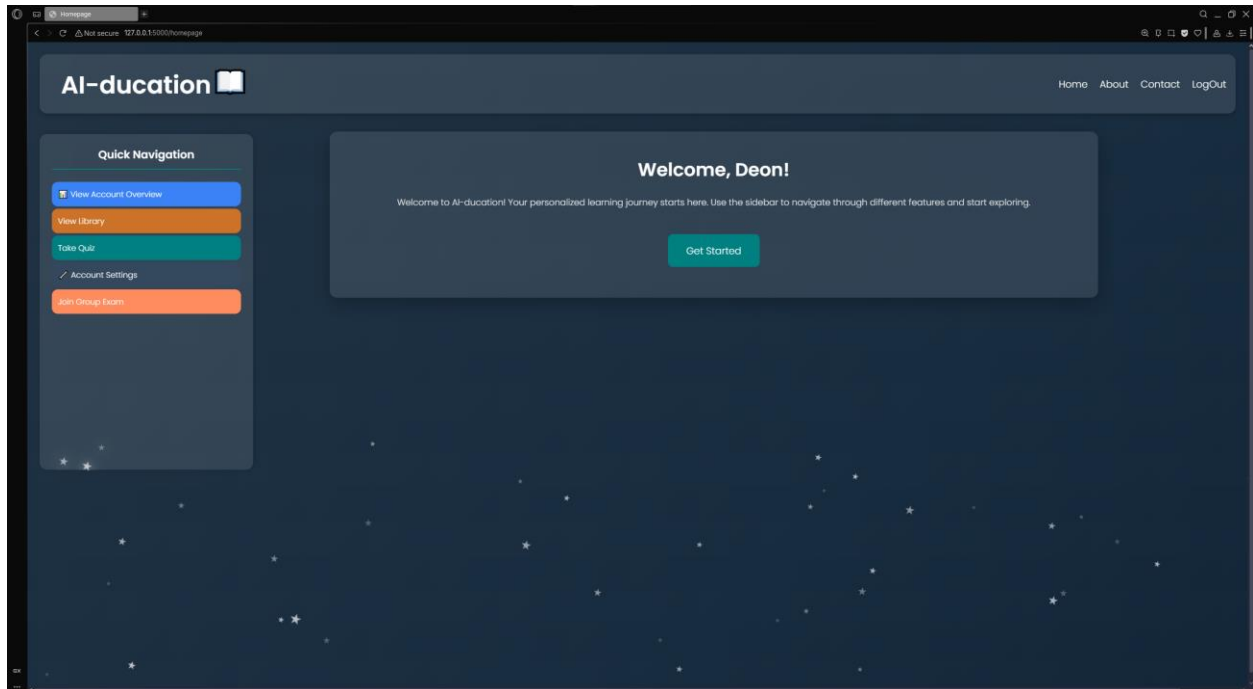


## 3.2 System Menu

After logging in, the users are directed to their respective Homepages depending on their role:

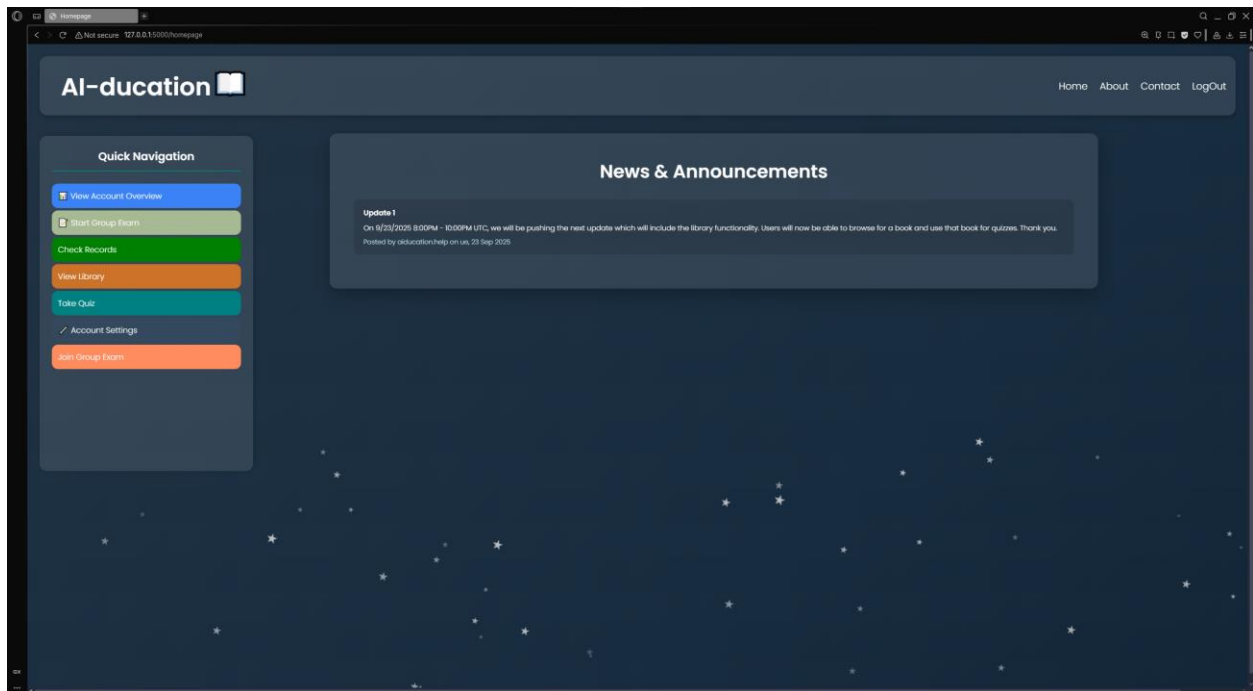
### Student Homepage:

*Figure 3.2: Student Homepage*



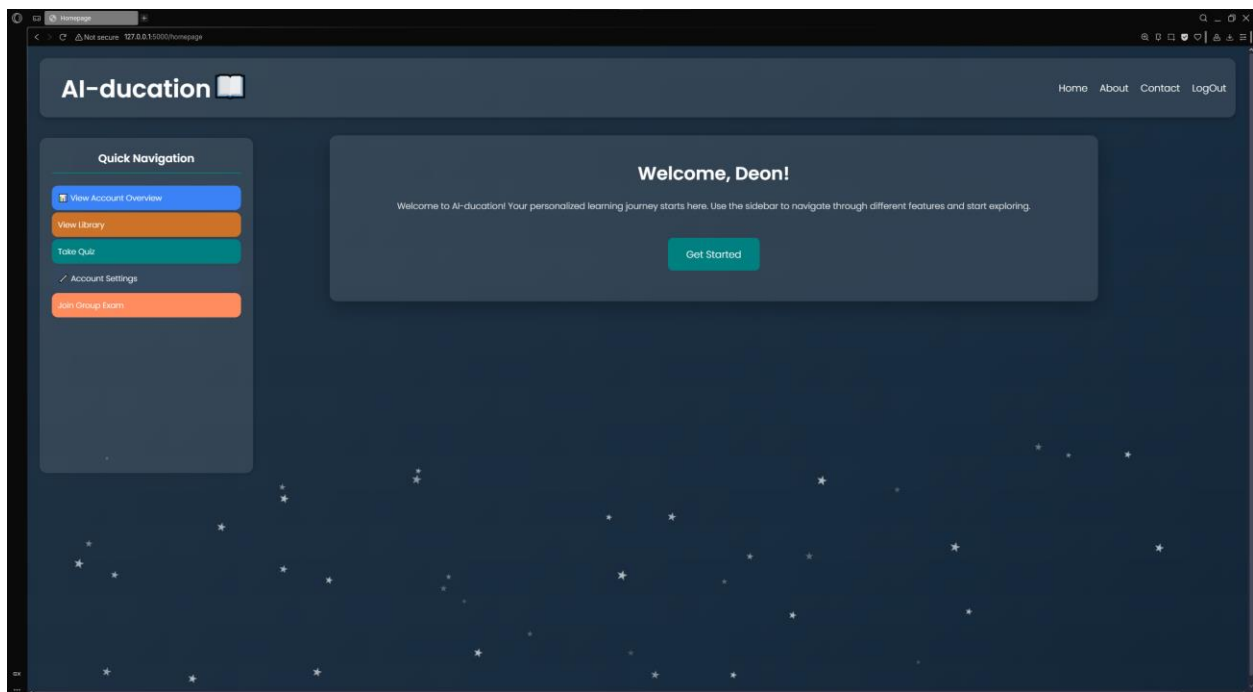
## Teacher Homepage:

Figure 3.3: Teacher Homepage



## Parent Homepage:

Figure 3.4: Parent Homepage



### 3.3 Changing Username and Password

#### Student and Teacher Account Settings

- The Account Settings page allows students and teachers to update their login details and personal information. This ensures their account remains secure and accurate.

#### Fields

- New Username – Enter a new username to replace the current one.
- New Email – Update the registered email address.
- New Password – Set a new password for secure login.

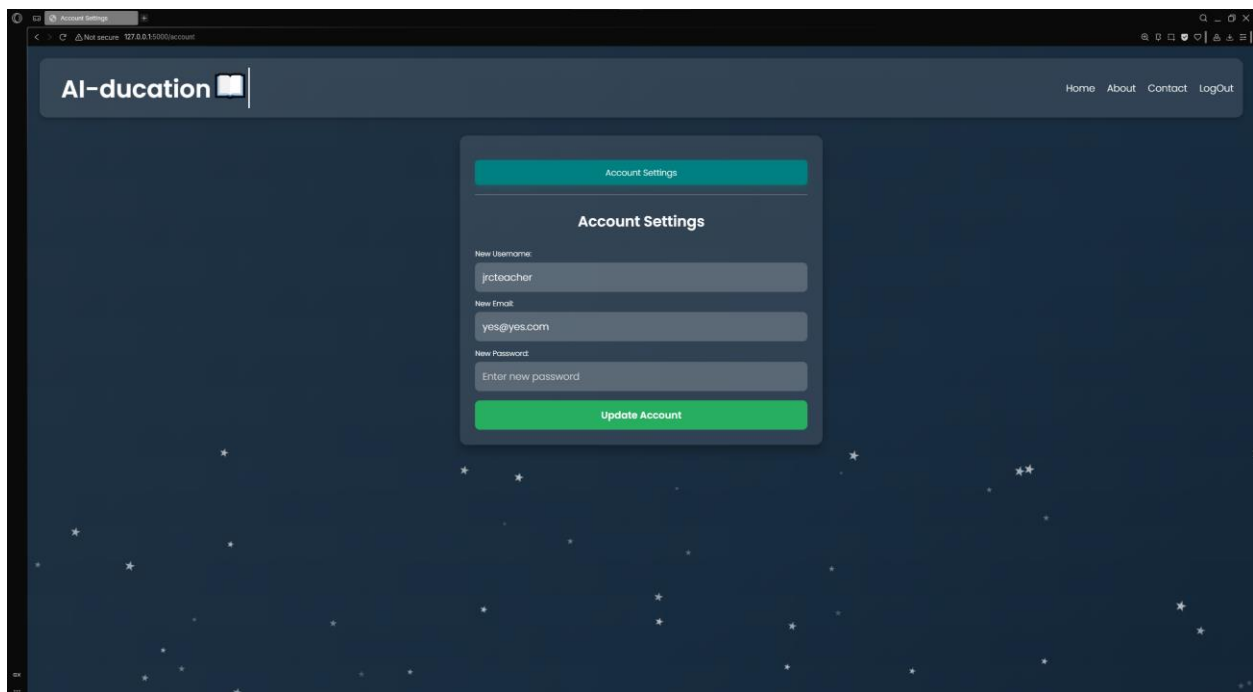
#### Button

- Update Account – Saves all changes and applies the updated information to the student's profile.

#### Additional Note

- Once updated, the new login details must be used the next time the user signs in.

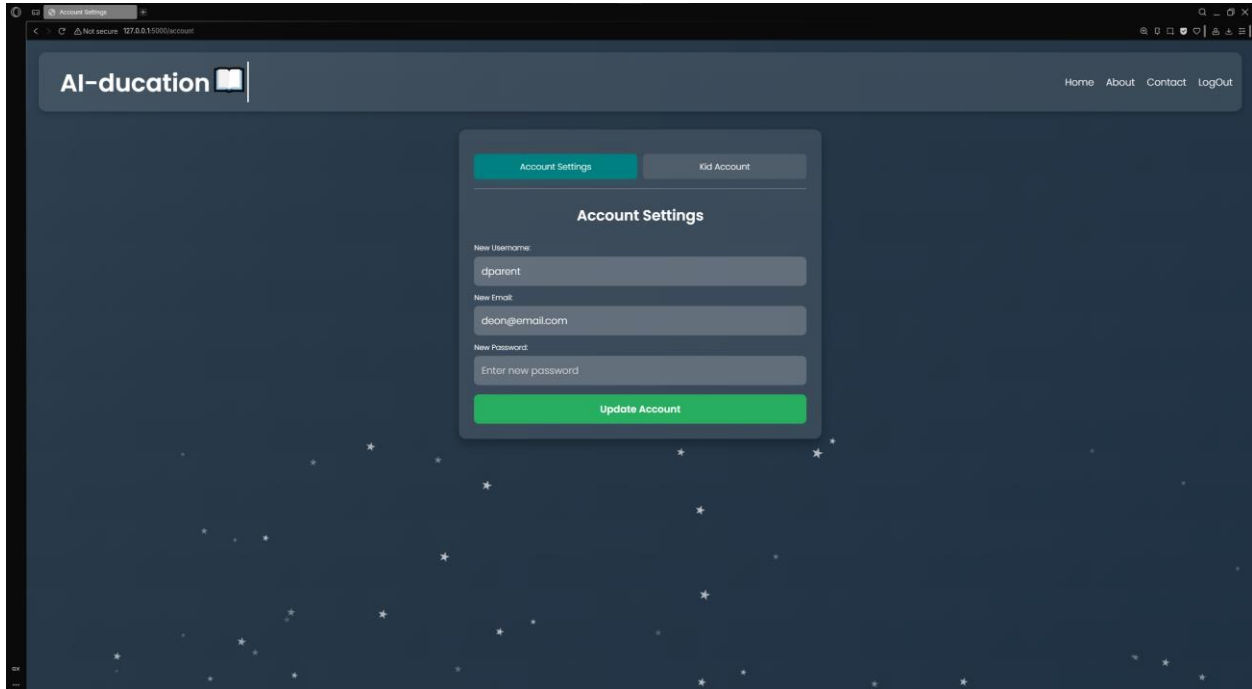
*Figure 3.5: Student and Teacher Account Settings*



## Parent Account Settings

- The Account Settings page for parents allows them to manage their own account information and create a student account for their child.

*Figure 3.6: Parent Account Settings*



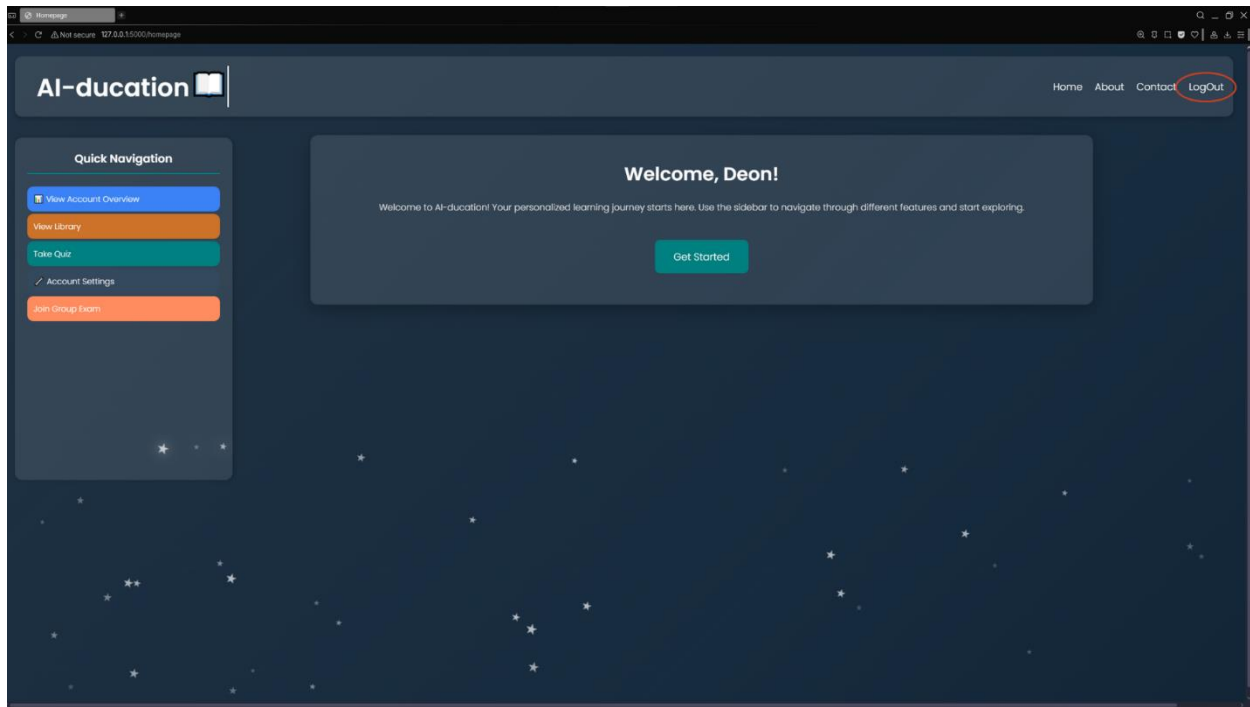
The screenshot shows a web browser window with the URL "127.0.0.1:5000/account". The page has a dark blue background with a starry pattern. At the top, there is a header bar with the "AI-ducation" logo on the left and navigation links "Home", "About", "Contact", and "LogOut" on the right. In the center, there is a modal window titled "Account Settings" with two tabs: "Account Settings" (active) and "Kid Account". The "Account Settings" tab contains three input fields: "New Username" with the value "dparent", "New Email" with the value "dparent@email.com", and "New Password" with the placeholder text "Enter new password". Below these fields is a green button labeled "Update Account".



### 3.4 Exit System

Users can exit AI-ducation by clicking the Logout Button on the upper right of their homepage. This will securely end the session and return the user to the Login Page.

*Figure 3.7: Logout Button (circled)*



## **4.0 Using the System**

## 4.0 Using the System

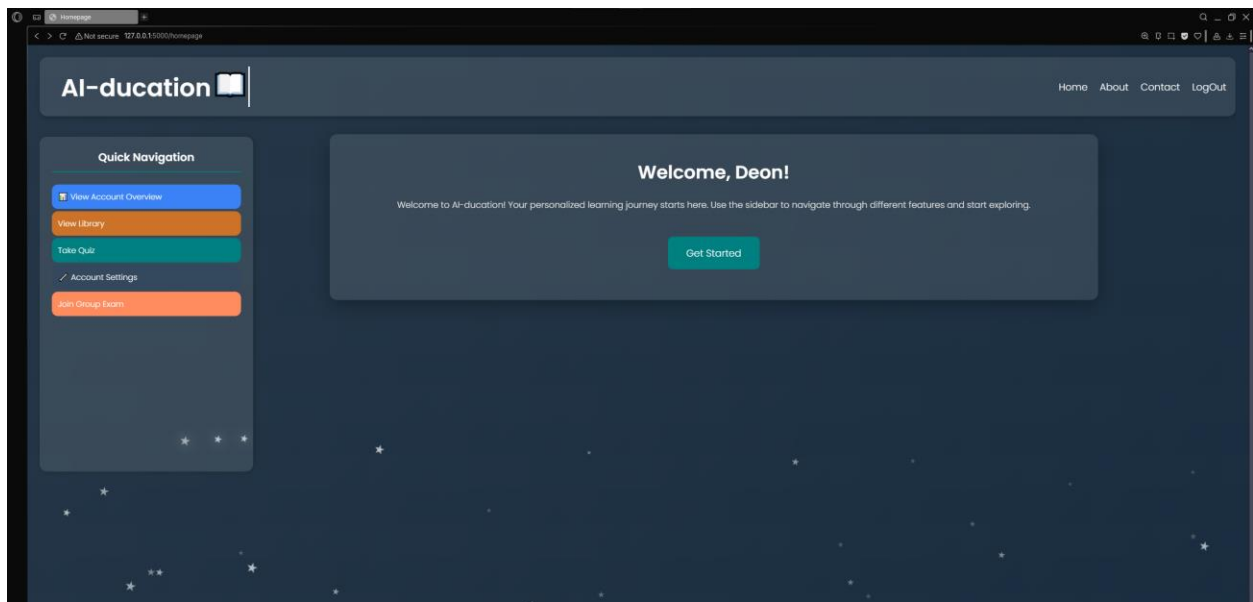
### 4.1 Student Homepage

The students are directed to the Student Homepage, which serves as their main dashboard. From here, they can manage their accounts, access the library, participate in exams or quizzes, and view their progress and past results.

#### Buttons & Links

- View Account Overview – Redirects students to their main dashboard, where they can monitor their quiz and exam results.
- View Library – Provides access to the book library, where students can search for books by title, author, or subject.
- Take Quiz – Allows the student to start and complete individual quizzes. Results are automatically recorded.
- Account Settings – Allows students to update personal information such as name, email, or password.
- Join Group Exams – Enables students to enter ongoing group exams with their class or peers.

*Figure 4.1: Student Homepage*



### 4.1.1 View Account Overview

The View Account Overview page provides students with a summary of their performance and exam history. It contains the following sections:

- Your Progress – Displays the number of quizzes completed and the overall average score.
- Your Past Exams – Shows a list of completed quizzes and group exams in a table format with the following details:
  - Quiz ID – The system-generated identifier for each quiz.
  - Format – The type of quiz taken (Prompted, File Upload, or Library Book).
  - Date – The date the quiz was completed.
  - Questions – Displays the number of questions included in the quiz. Under this column is a View Questions button that allows the student to review the quiz, including the questions and the correct answers.

*Figure 4.1.1: Student View Account Overview – Progress and Exam History*

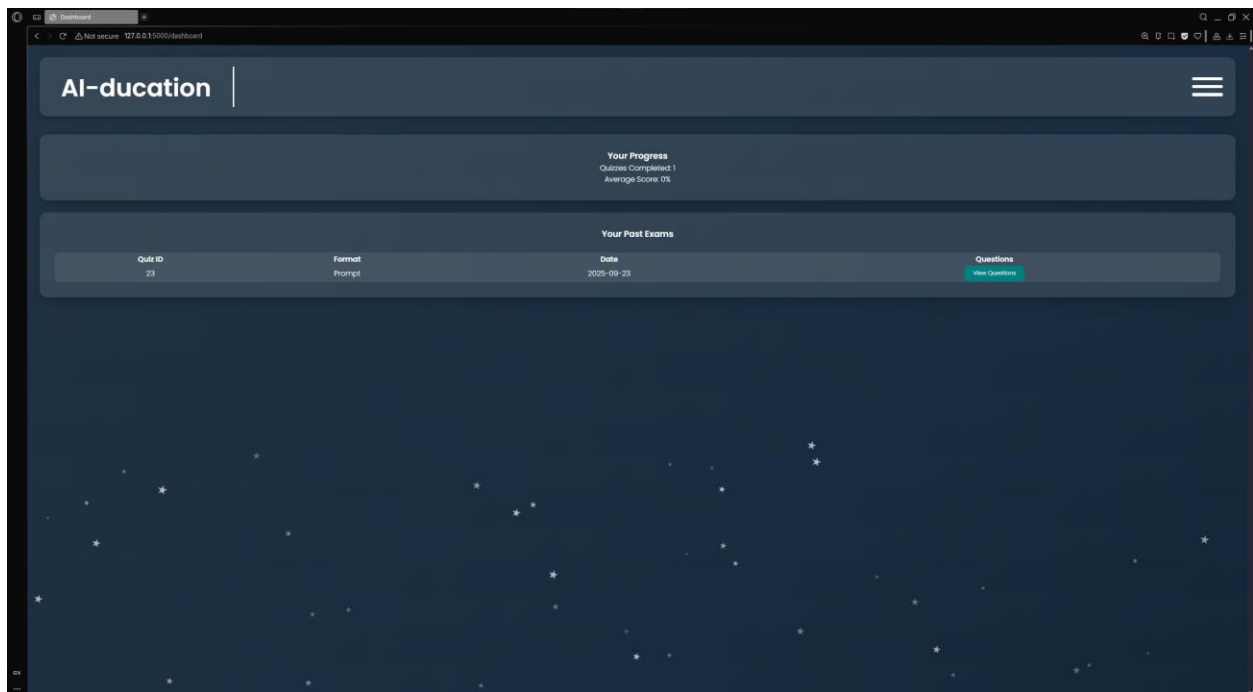
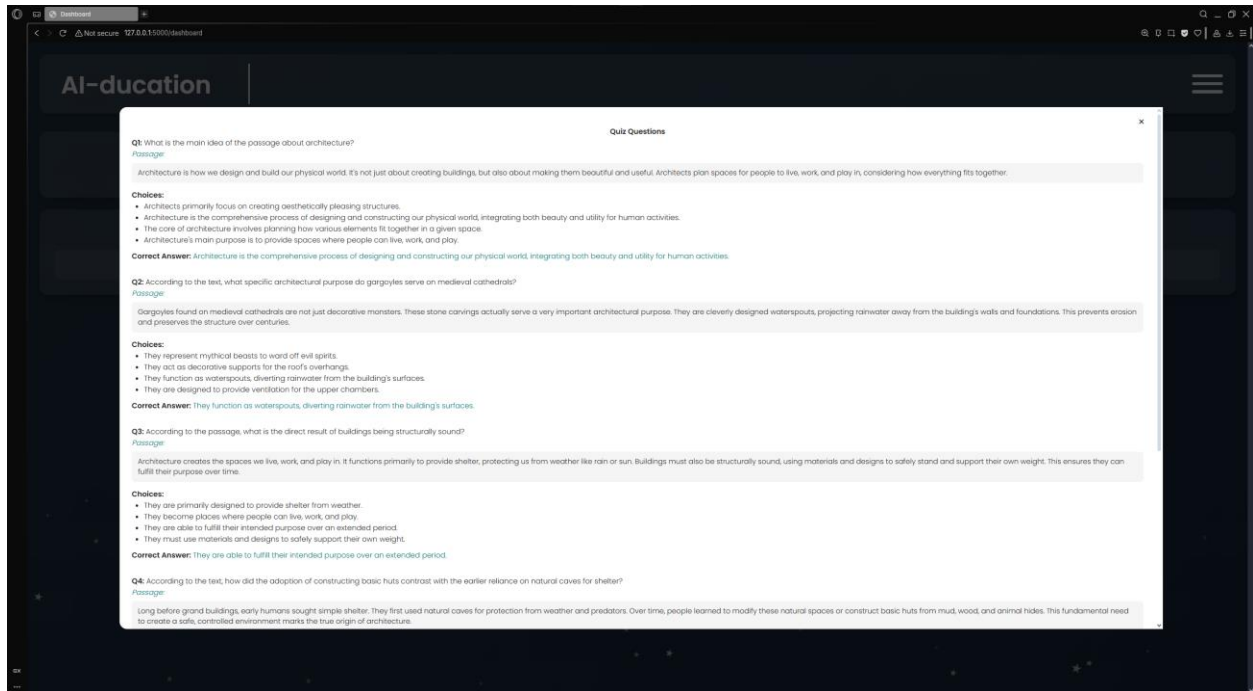


Figure 4.1.1.1: Student View Account Overview – View Questions and Correct Answers



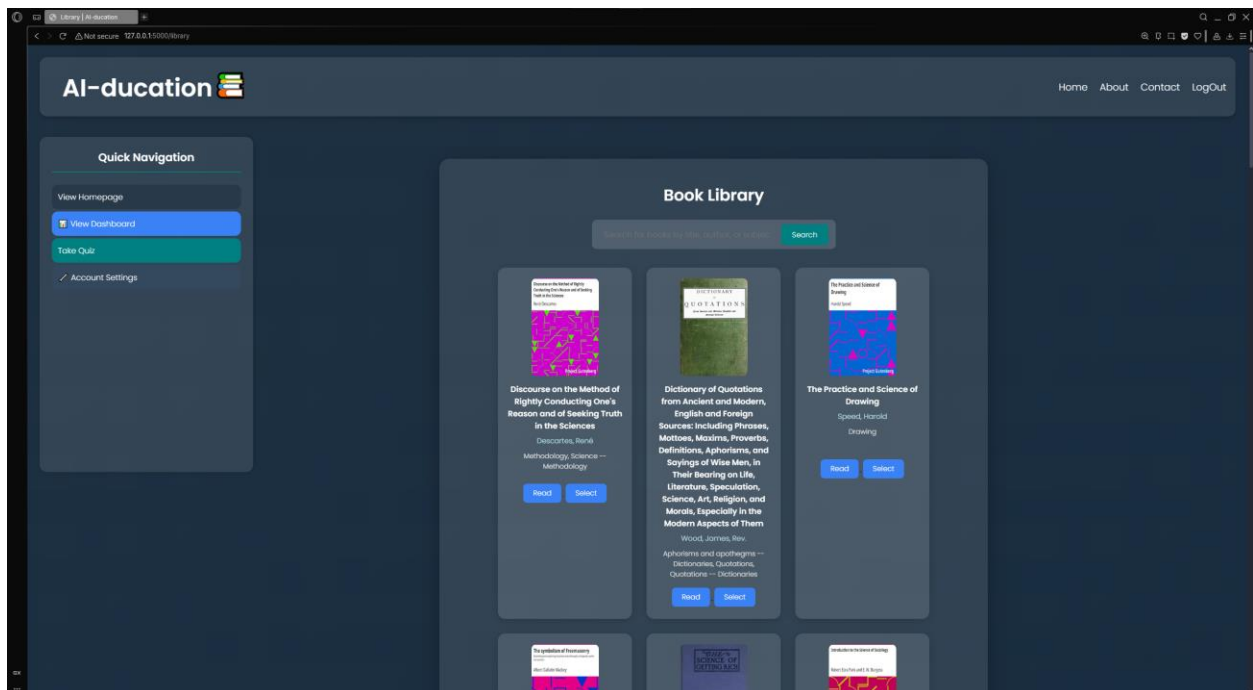
### 4.1.2 View Library

The View Library page provides access to reading materials and resources available in the system.

A search bar is provided to help students find books efficiently.

- Book Library – Displays the list of available books.
- Search Function – Students can search for books by title, author, or subject.

*Figure 4.1.2: Student View Library*



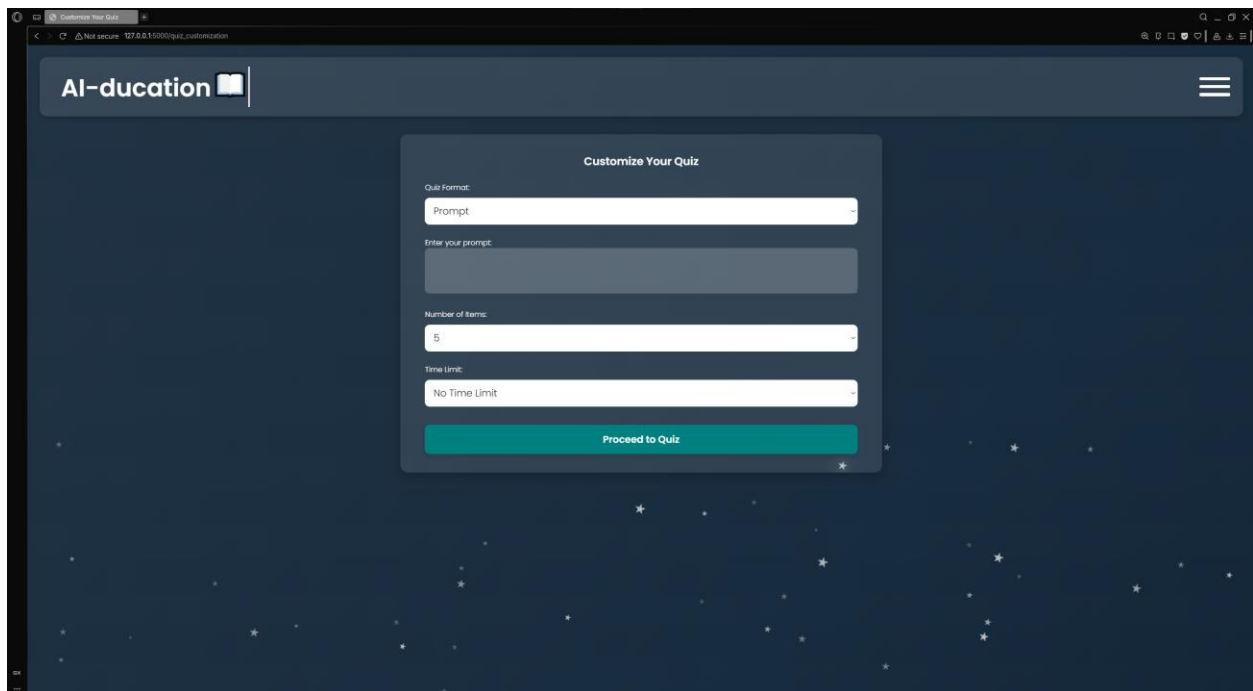
### 4.1.3 Take Quiz

The Take Quiz feature allows students to start a customized reading comprehension quiz. This function is designed to adapt to different learning needs by letting students or teachers adjust quiz settings.

#### Quiz Customization Options

- Quiz Format – Students can choose between:
  - Prompted Quiz – The system generates questions automatically.
  - File Upload – Students can upload a file (e.g., a text or notes), and the system will generate comprehension questions based on the content.
  - Library Book – Students can select from their **saved books in the library**, and the quiz will be generated based on the chosen book.
- Number of Items – Students can select the number of questions, ranging from 5 to 10 items.
- Time Limit – Users may set a timer for their quiz attempt, ensuring time-based practice and assessment.

Figure 4.1.3: Take Quiz



The screenshot shows a web browser window with the URL `127.0.0.1:5000/quiz_customization`. The page has a dark blue header with the 'AI-ducation' logo and a hamburger menu icon. The main content area features a 'Customize Your Quiz' form with the following fields:

- Quiz Format:** A dropdown menu currently set to 'Prompt'.
- Enter your prompt:** A large text input area.
- Number of Items:** A dropdown menu currently set to '5'.
- Time Limit:** A dropdown menu currently set to 'No Time Limit'.
- Proceed to Quiz:** A green button at the bottom of the form.

The background of the page is a dark blue space with white stars.

#### 4.1.3.1 Answering the Quiz

Once the quiz begins, the passage and questions are displayed on-screen. Students must read the passage carefully and select the best answer from the given choices.

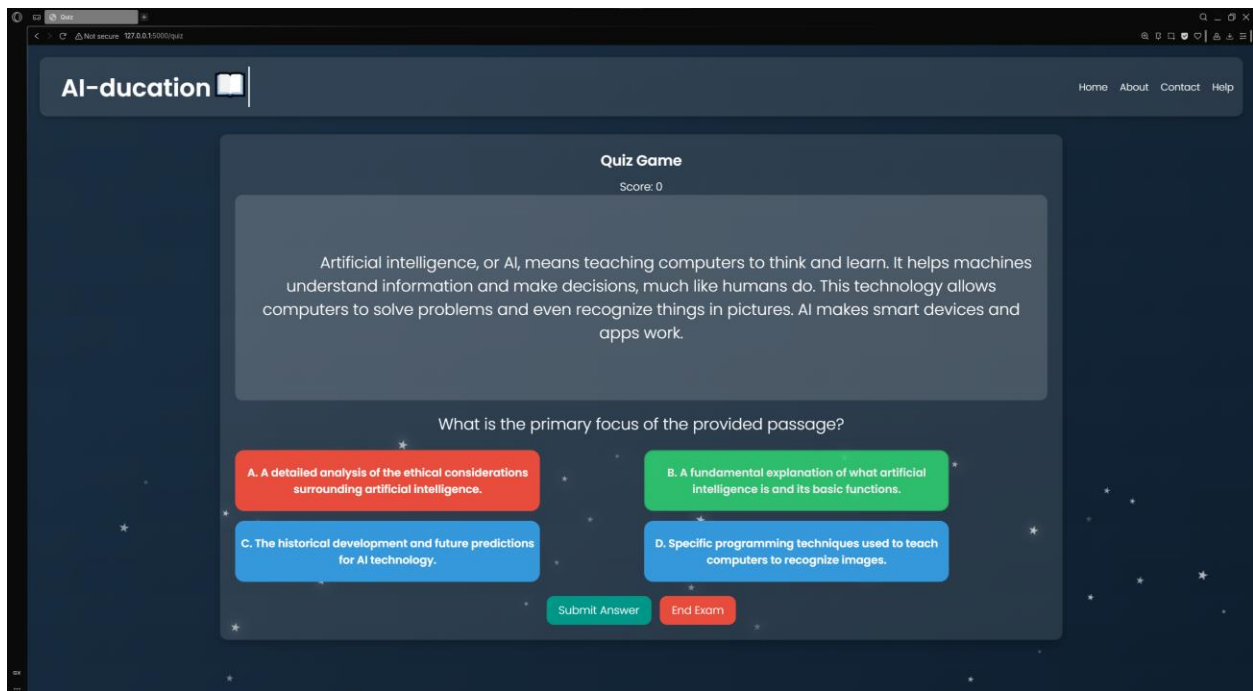
##### Features During the Quiz

- **Passage Display** – The reading passage appears at the top for reference.
- **Question Section** – Below the passage, the comprehension question is shown.
- **Answer Choices** – Four multiple-choice options (A, B, C, D) are displayed in colored buttons for easy selection.
- **Score Display** – The current score is shown at the top of the quiz screen.
- **Submit Answer Button** – Used to lock in the selected answer for the current question.
- **End Exam Button** – Allows students to finish the quiz early and submit all progress.

##### After Submission

- Once the quiz is finished, the system records the score and provides feedback. Results are saved automatically in the student's progress report.

*Figure 4.1.3.1: Answering the Quiz*





## 4.2 Teacher Homepage

After logging in as a teacher, the system directs you to the Teacher Homepage. From here, teachers can manage class assessments, review student results, and adjust their account settings.

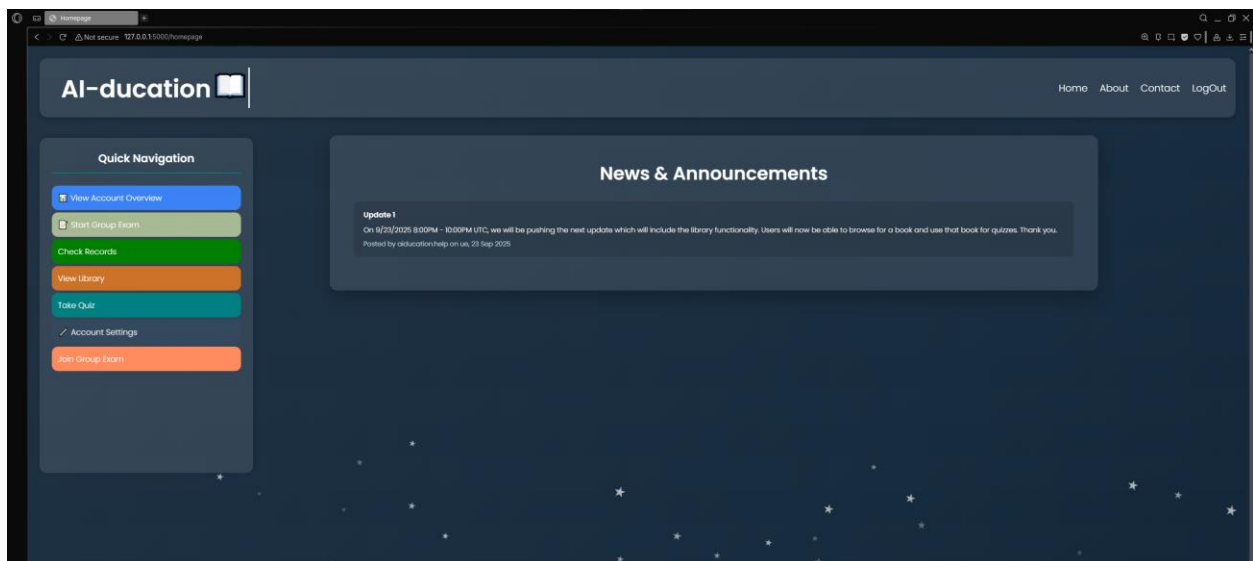
### Buttons & Links

- View Account Overview – Displays the teacher’s progress (quizzes completed, average score) and past exam history.
- Start Group Exam Button – Allows the teacher to create and launch a group exam for students.
- Check Records Button – Displays past exam results, quizzes, and student performance data.
- View Library – Gives access to the Book Library, where teachers can search for books by title, author, or subject.
- Take Quiz – Allows the teacher to try out individual quizzes.
- Account Settings Button – Lets teachers update their login details (username, email, or password).
- Join Group Exam Button – Provides access for teachers to participate in or oversee a scheduled group exam.

### Main Section

Shows a **News & Announcements** section at the center of the page, where important system notices and updates are posted.

Figure 4.2: Teacher Homepage

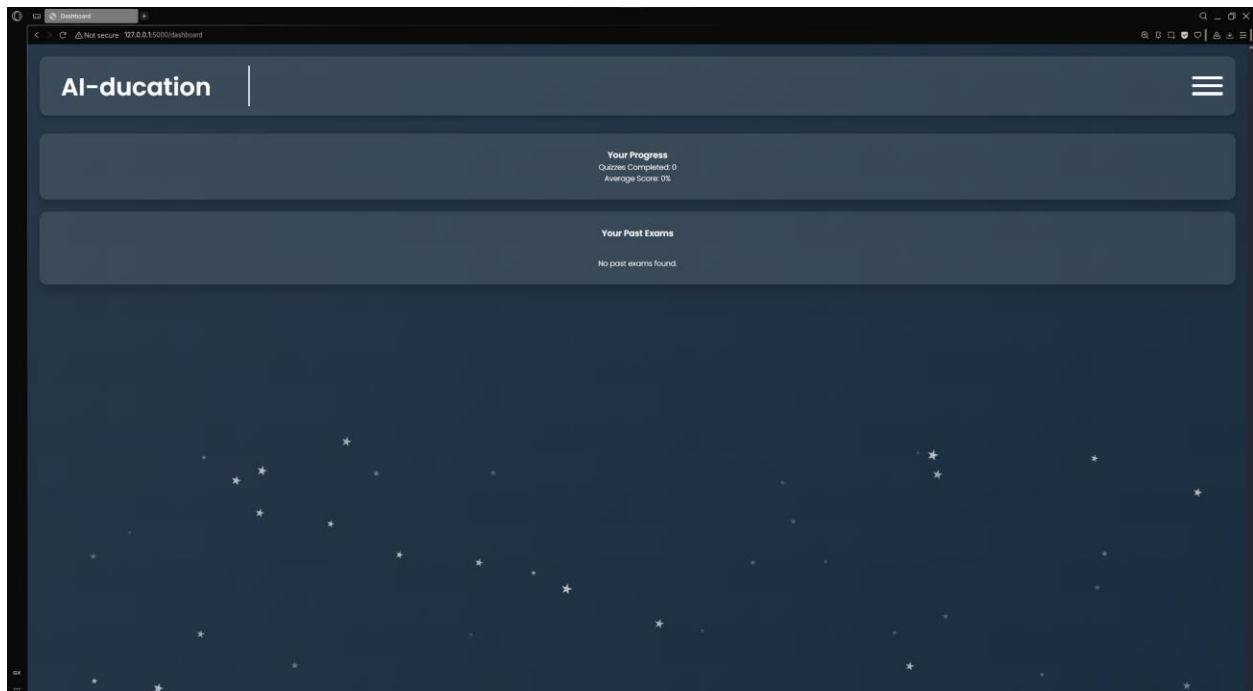


### 4.2.1 View Account Overview

The View Account Overview page provides teachers with a summary of their performance and past exams. It contains the following sections:

- Your Progress – Displays the number of quizzes completed and the overall average score.
- Your Past Exams – Shows a list of completed group exams in a table format with the following details:
  - Quiz ID – The system-generated identifier for each quiz.
  - Format – The type of quiz taken (Prompted, File Upload, or Library Book).
  - Date – The date the quiz was completed.
  - Questions – Displays the number of questions included in the quiz. Under this column is a View Questions button that allows the teacher to review the quiz, including the questions and the correct answers.

*Figure 4.2.1: Teacher View Account Overview*



### 4.2.2 Start Group Exam

The Start Group Exam feature allows teachers to create and launch an exam that multiple students can join at the same time. It works like the quiz setup but with additional group exam controls.

#### Exam Customization Options

- Quiz Format – Choose between:
  - Prompted Quiz – The system generates questions automatically.
  - File Upload – Upload a passage or file, and the system creates questions from it.
- Number of Items – Set between 5–10 questions.
- Time Limit – Define a timer for the group exam.
- Group ID – A unique code is generated automatically for students to join the group exam.
  - Teachers can click Regenerate Group ID to create a new code if needed.

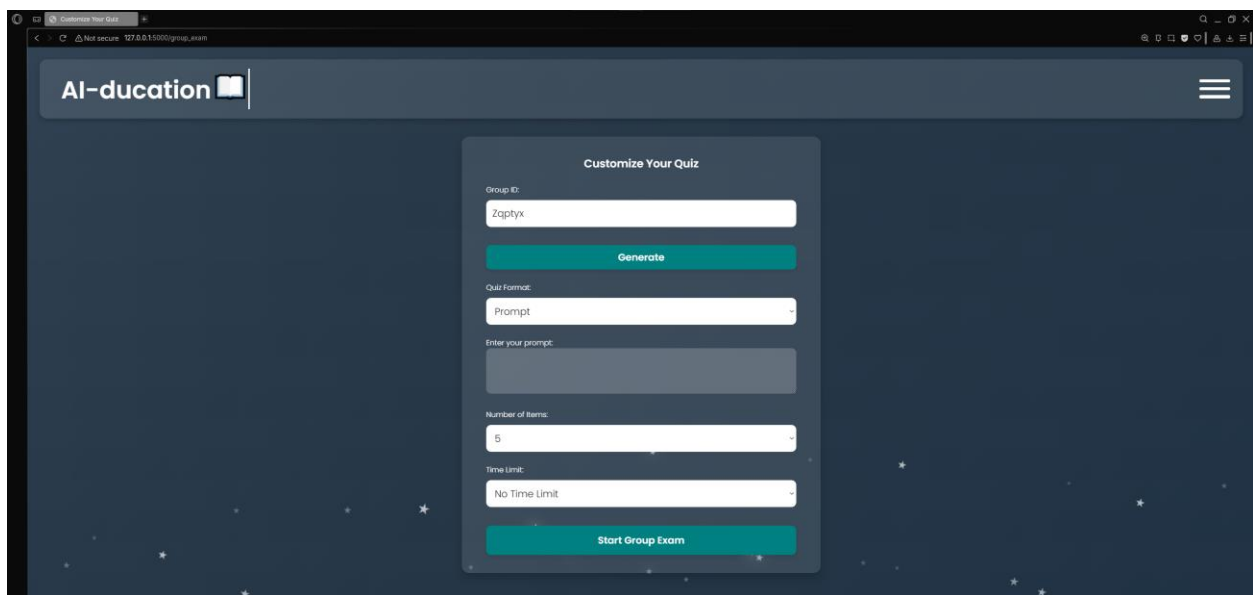
#### Button

- Start Exam Button – Launches the group exam with the chosen settings.

#### During the Exam

- Students use the Group ID to join the exam from their accounts.
- The teacher can oversee participation and ensure all students are connected before starting the test.

*Figure 4.2.2: Start Group Exam*



The screenshot shows a web browser window with the URL "127.0.0.1:5000/group\_exam". The page has a dark blue header with the "AI-ducation" logo and a hamburger menu icon. The main content area features a "Customize Your Quiz" form with the following fields and options:

- Group ID:** A text input field containing "Zqptyx". Below it is a teal "Generate" button.
- Quiz Format:** A dropdown menu currently set to "Prompt".
- Enter your prompt:** A large, empty text area.
- Number of Items:** A dropdown menu currently set to "5".
- Time Limit:** A dropdown menu currently set to "No Time Limit".
- Start Group Exam:** A large teal button at the bottom of the form.

The background of the page is dark blue with a subtle pattern of white stars.

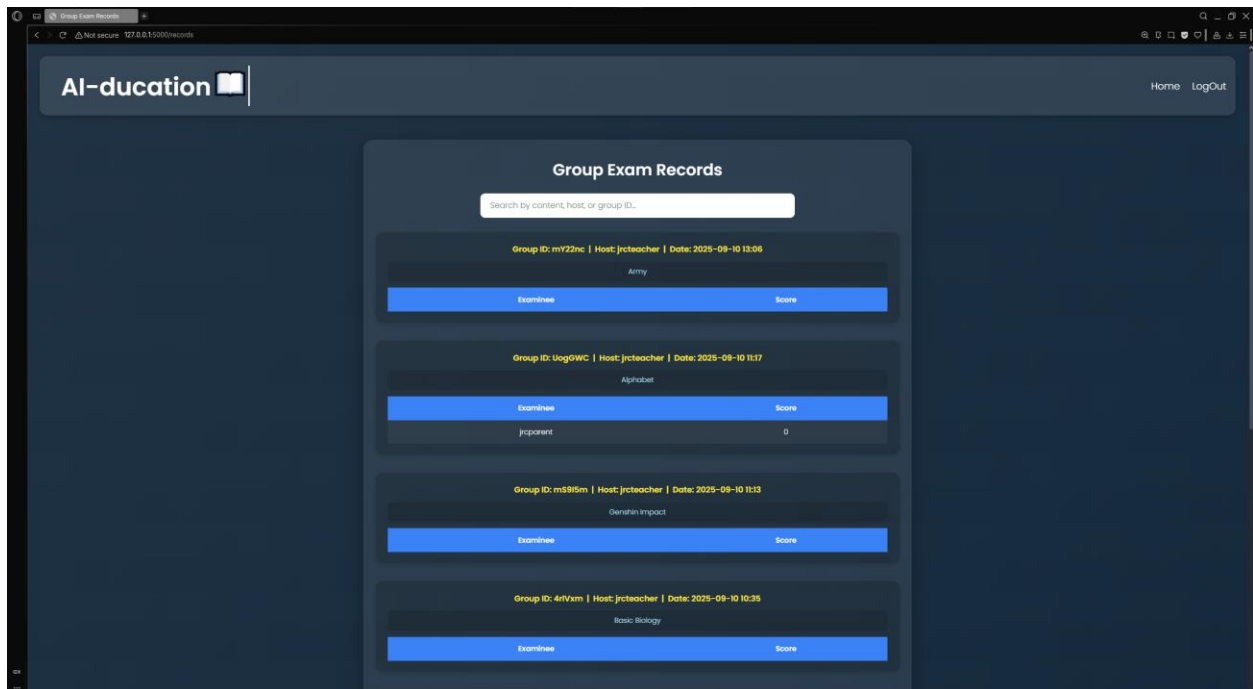
### 4.2.3 Check Records

The Check Records feature allows teachers to review the results of past group exams. This helps with monitoring student performance and verifying exam activity.

Displayed Information

- Date and Time – Shows when the group exam was conducted.
- Topic – Displays the reading passage or subject covered in the exam.
- List of Examinees – Shows the names of all students who participated in the group exam.
- Examinee Scores – Displays each student's score alongside their name for easy comparison.

Figure 4.2.3: Check Records

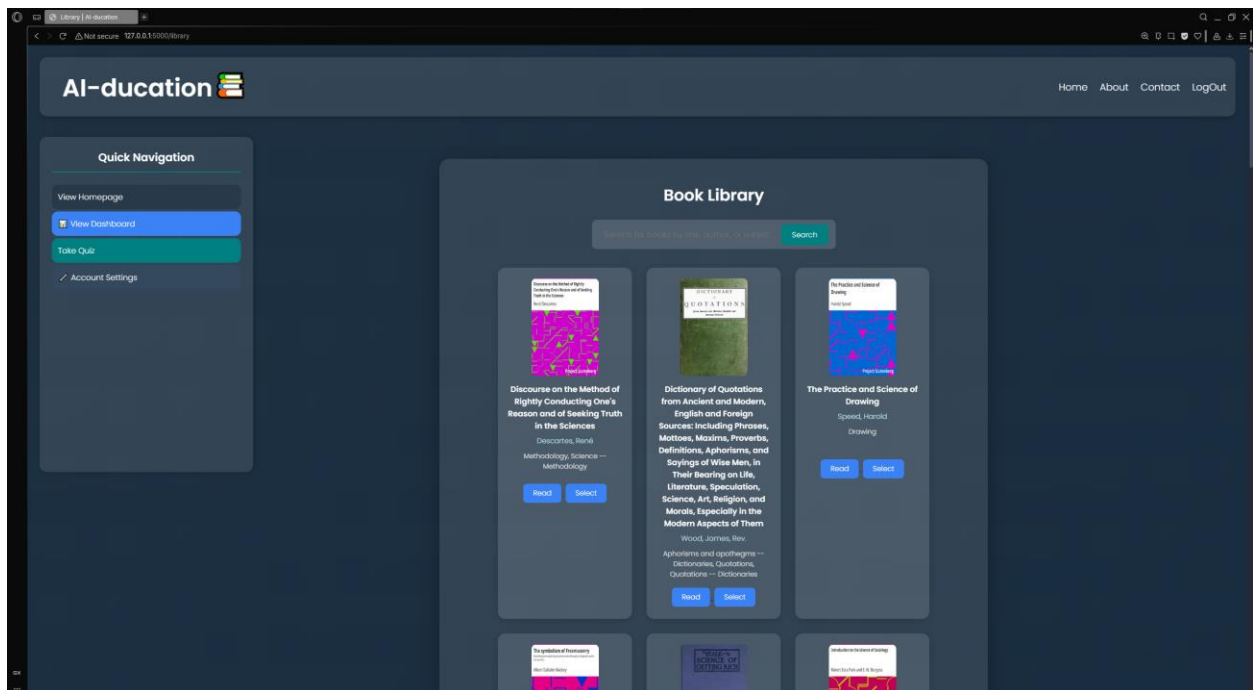


#### 4.2.4 View Library

The View Library page provides teachers with access to reading materials and resources available in the system. A search bar is provided to help teachers find books efficiently.

- Book Library – Displays the list of available books.
- Search Function – Teachers can search for books by title, author, or subject.

Figure 4.2.4: Teacher View Library



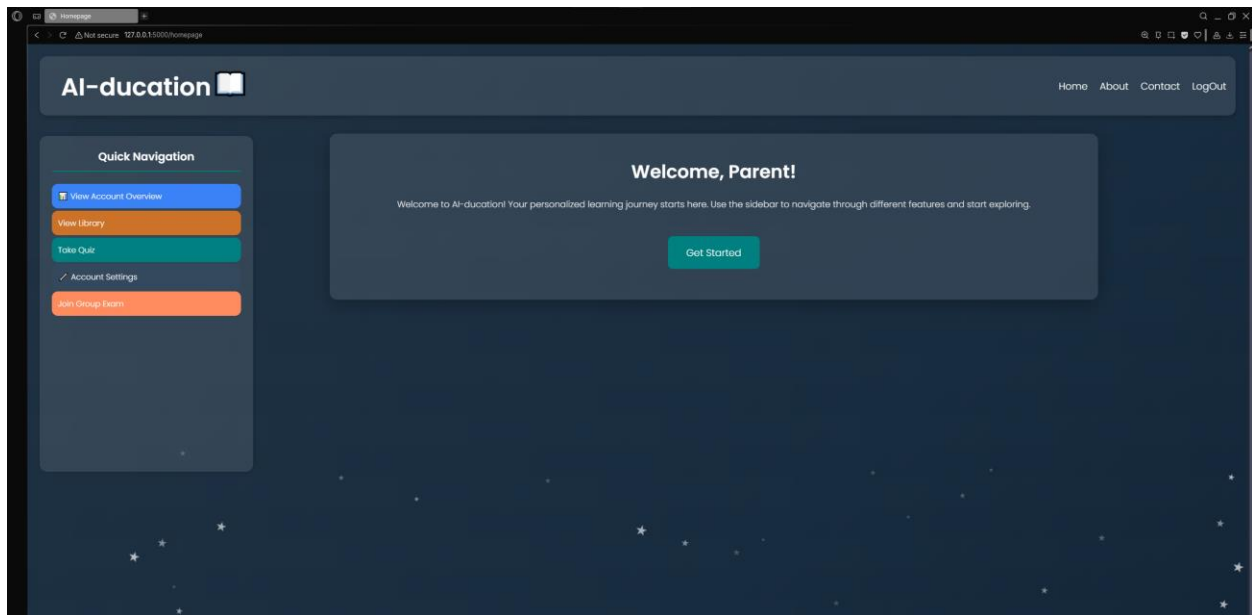
### 4.3 Parent Homepage

After logging in as a parent, the system directs you to the **Parent Homepage**. This page looks similar to the student's homepage, but its primary purpose is to allow parents to manage their accounts and monitor their child's progress.

#### Buttons & Links

1. View Account Overview – Displays the child's progress (quizzes completed, average score) and past exam history.
2. View Library – Provides access to the Book Library, where parents and students can search for books by title, author, or subject.
3. Take Quiz – Allows the child to take individual quizzes under the supervision of the parent. Results are recorded under the child's account.
4. Account Settings Button – Opens account management where parents can:
  - Update their username, email, and password.
  - Access the Create Kid's Account Button, which allows registering a new student account for their child.
5. Join Group Exam Button – Provides access to enter a group exam session if needed for support or supervision.

*Figure 4.3: Parent Homepage*



### 4.3.1 View Account Overview

The View Account Overview page for parents is similar to the Student and Teacher accounts. It provides a summary of the child's performance and exam history, including:

- Your Progress – Shows the number of quizzes completed and the overall average score.
- Your Past Exams – Lists completed quizzes and group exams with details such as Quiz ID, Format, Date, and Questions. A View Questions button is also available, allowing parents (and students under supervision) to review the quiz questions and correct answers.

*Figure 4.3.1: Parent View Account Overview – Progress and Past Exams*

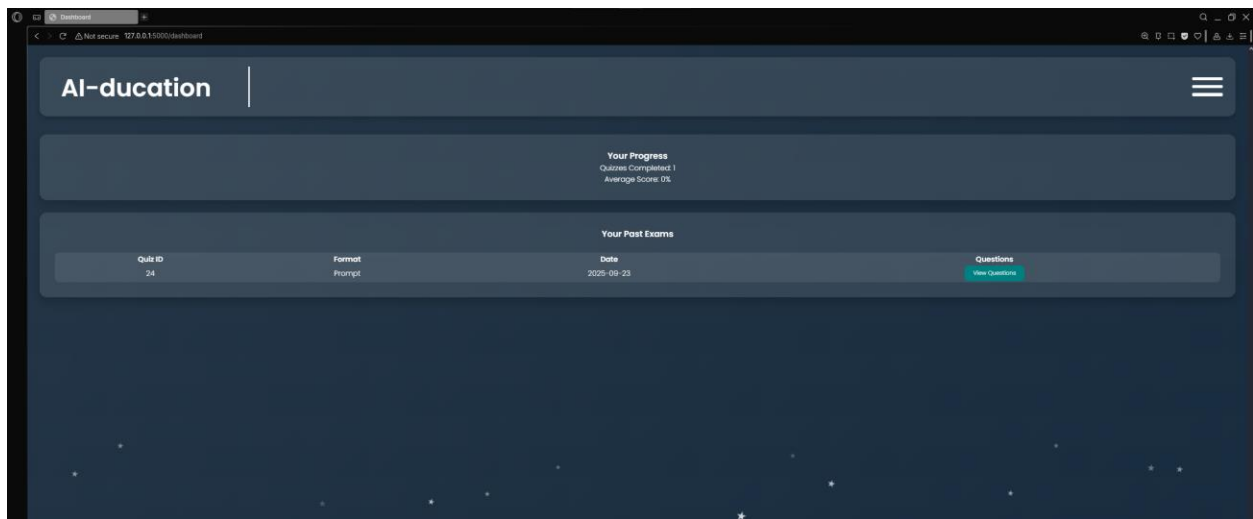
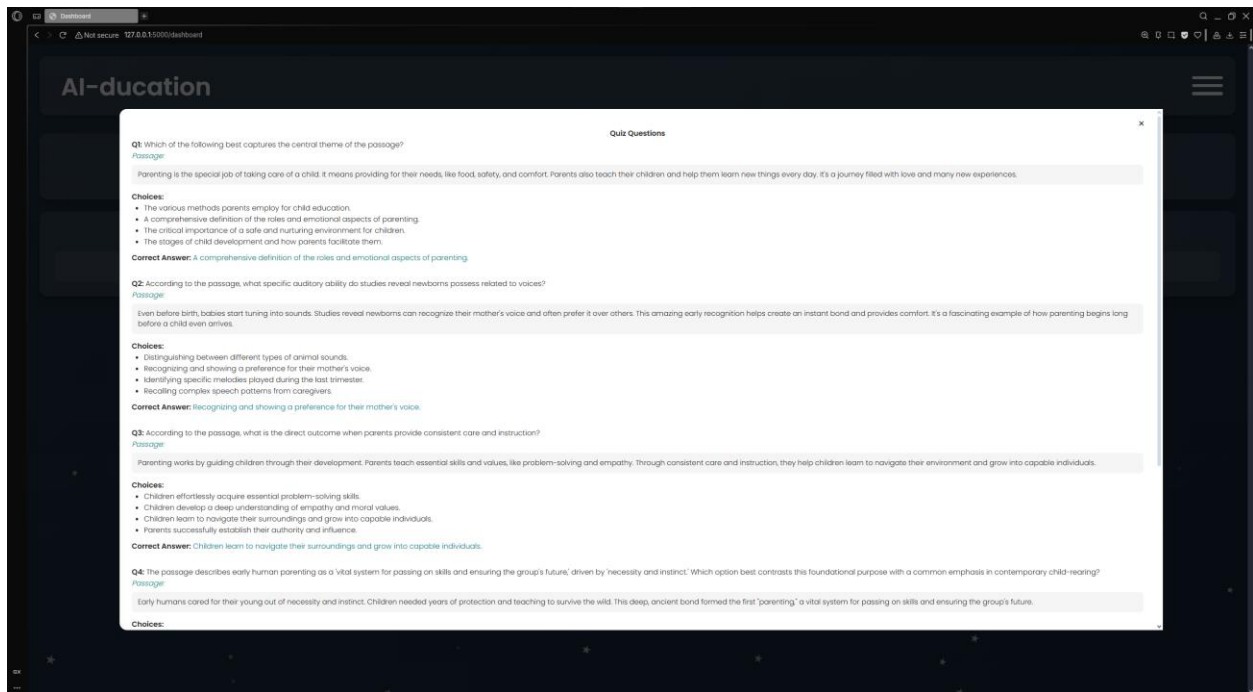


Figure 4.3.1.1: Parent View Account Overview – View Questions and Correct Answers

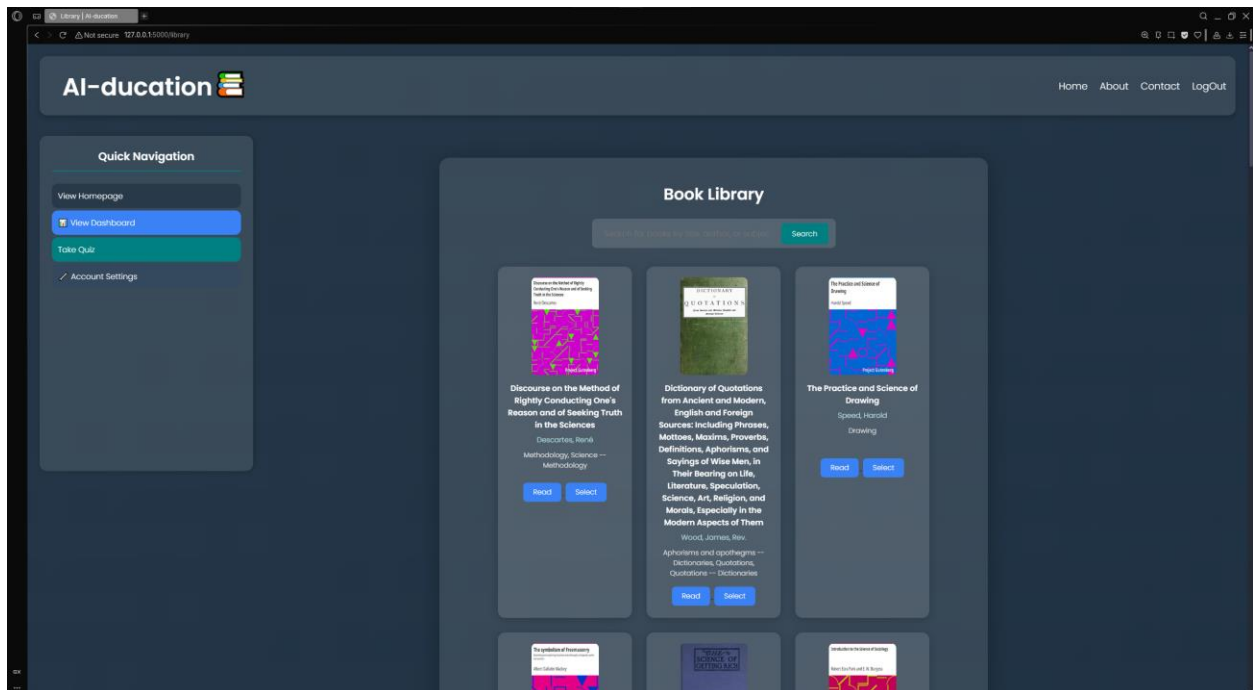




### 4.3.2 View Library

The **View Library** feature in the Parent account works the same as in the Student and Teacher accounts. It provides access to the Book Library and allows searching for books by **title, author, or subject**.

*Figure 4.3.2: Parent View Library – Book Search*



### 4.3.3 Kid Account Management

Kid Account Button – Opens the form for creating a child’s student account. Parents must provide the following information:

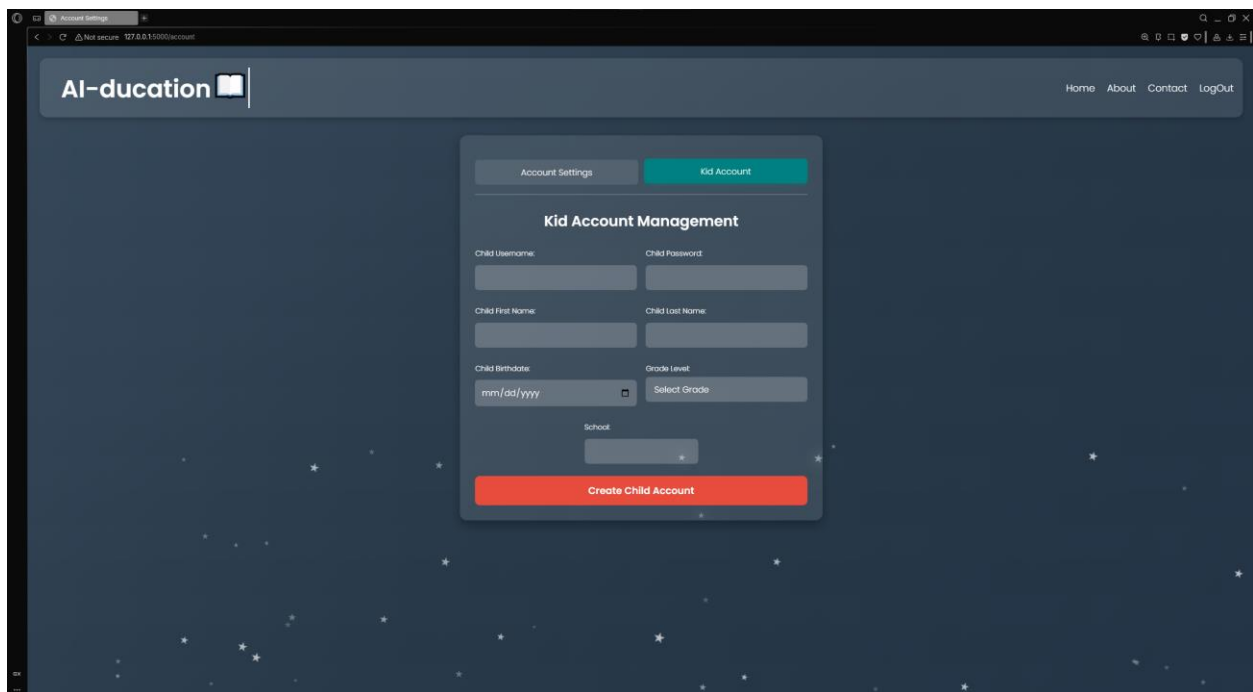
- Child Username
- Child Password
- Child First Name
- Child Last Name
- Child Birthdate
- Grade Level
- School

Create Kid Account Button – Saves the new child account and links it to the parent’s profile.

Additional Note

- Once created, the child can log in using their own username and password to access the student homepage.

*Figure 4.3.3: Kid Account Management*

The screenshot shows a web browser window with the URL "127.0.0.1:5000/account". The page has a dark blue header with the "AI-ducation" logo and navigation links for "Home", "About", "Contact", and "LogOut". Below the header, there are two tabs: "Account Settings" and "Kid Account", with the latter being active. The main content area is titled "Kid Account Management" and contains a form with the following fields: "Child Username", "Child Password", "Child First Name", "Child Last Name", "Child Birthdate" (with a date picker showing "mm/dd/yyyy"), "Grade Level" (with a "Select Grade" dropdown), and "School" (with a search bar). At the bottom of the form is a prominent red button labeled "Create Child Account". The background of the page features a subtle pattern of white stars.

## **5.0 Querying**

## 5.0 Querying

This section describes the query and retrieval capabilities of the AI-ducation system. Querying is done through the graphical interface, where users can view or search stored information such as quizzes, exams, and performance results.

### 5.1 Query Capabilities

AI-ducation provides the following query features depending on their user role:

1. Student – Can view their own results through the Account Overview page, which shows:
  - a. Quizzes Completed and Average Score.
  - b. Past Exams with details such as Quiz ID, Format, Date, and Questions.
  - c. A View Questions button to review completed quizzes and see the correct answers.
2. Teacher – Can review their own progress in the Account Overview and also access Check Records to retrieve Group Exam results. Results can be filtered by Group ID or exam session.
3. Parent – Similar to the Student view, parents can use Account Overview to see their child's progress and exam history (Quiz ID, Format, Date, Questions, and View Questions option).

### 5.2 Query Procedures

The following procedures describe how queries are performed in the system:

1. For Students
  - Log in and navigate to View Account Overview from the homepage.
  - The system automatically displays progress (quizzes completed, average score).
  - Under Your Past Exams, review the list of completed exams and quizzes.
  - Select the View Questions button to open a completed quiz and view correct answers.
2. For Teachers
  - Log in and navigate to View Account Overview to review personal progress.
  - To access Group Exam records, click Check Records from the homepage.
  - Filter results by entering a Group ID or selecting the appropriate exam session.
  - The system displays a list of students and their scores for that group exam.

### 3. For Parents

- Log in and navigate to View Account Overview from the homepage.
- The system displays the child's progress (quizzes completed, average score).
- Under Your Past Exams, review exam and quiz results with full details.
- Use the View Questions button to see quiz questions with correct answers for reference.

*Figure 5.1: Student Account Overview – Sample Query Results*

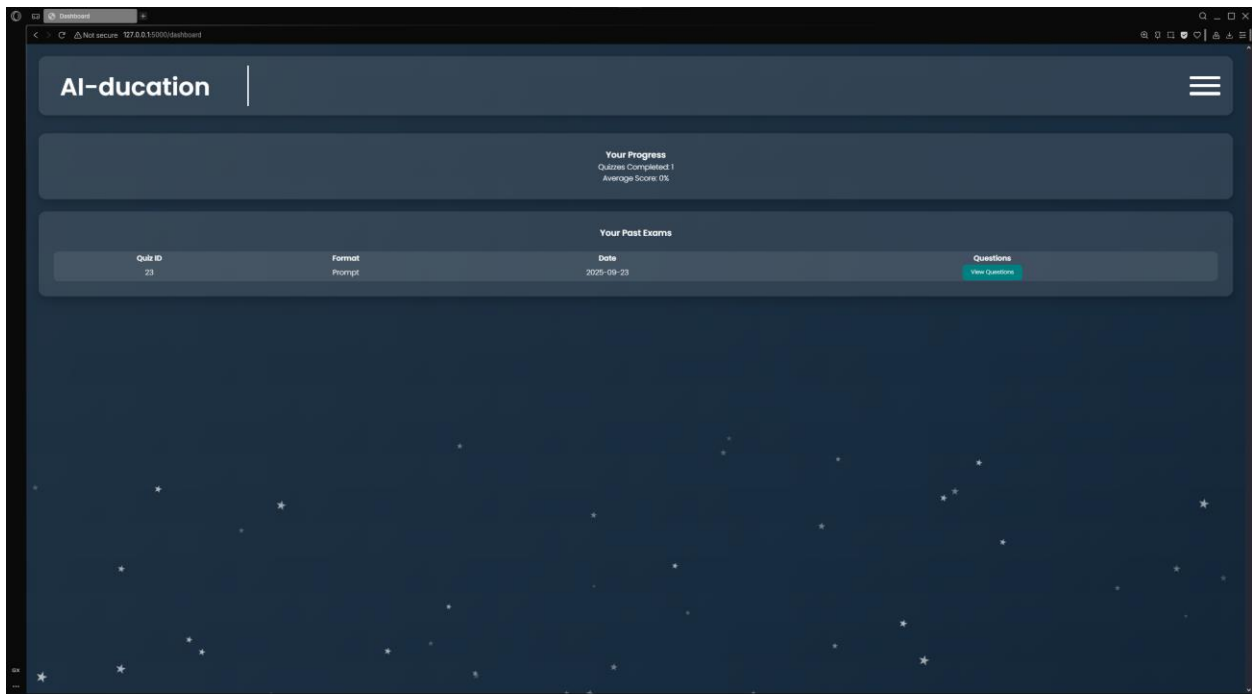


Figure 5.2: Teacher Check Records

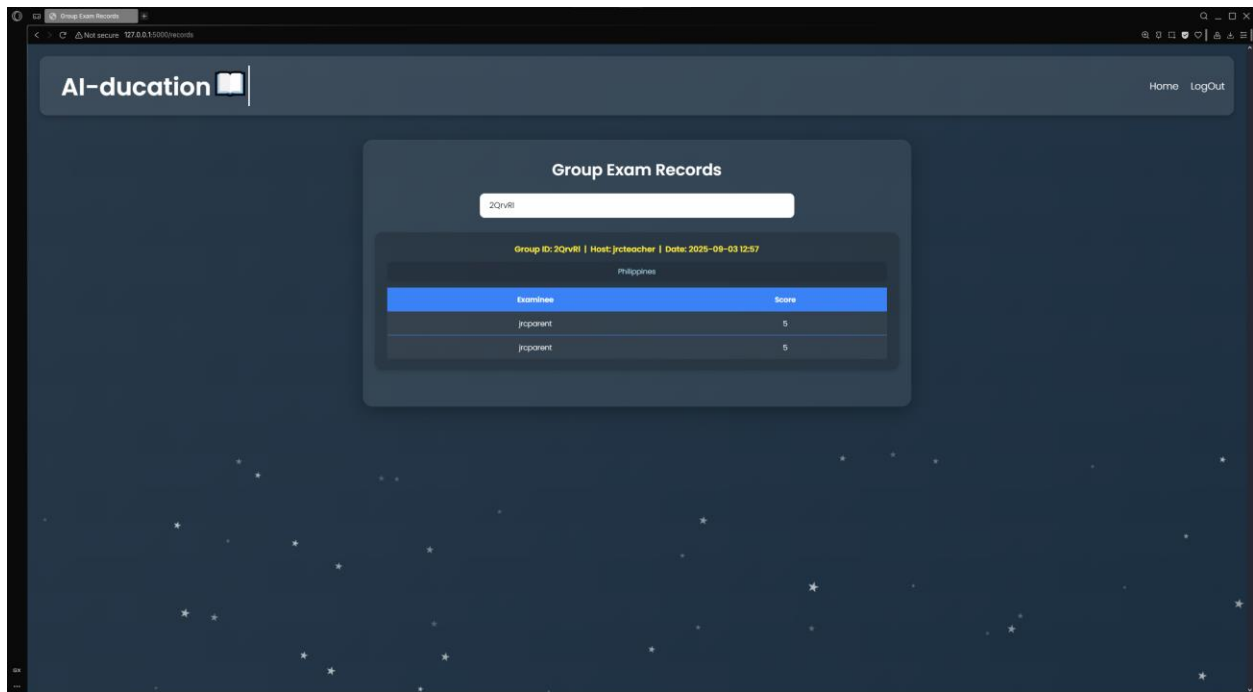
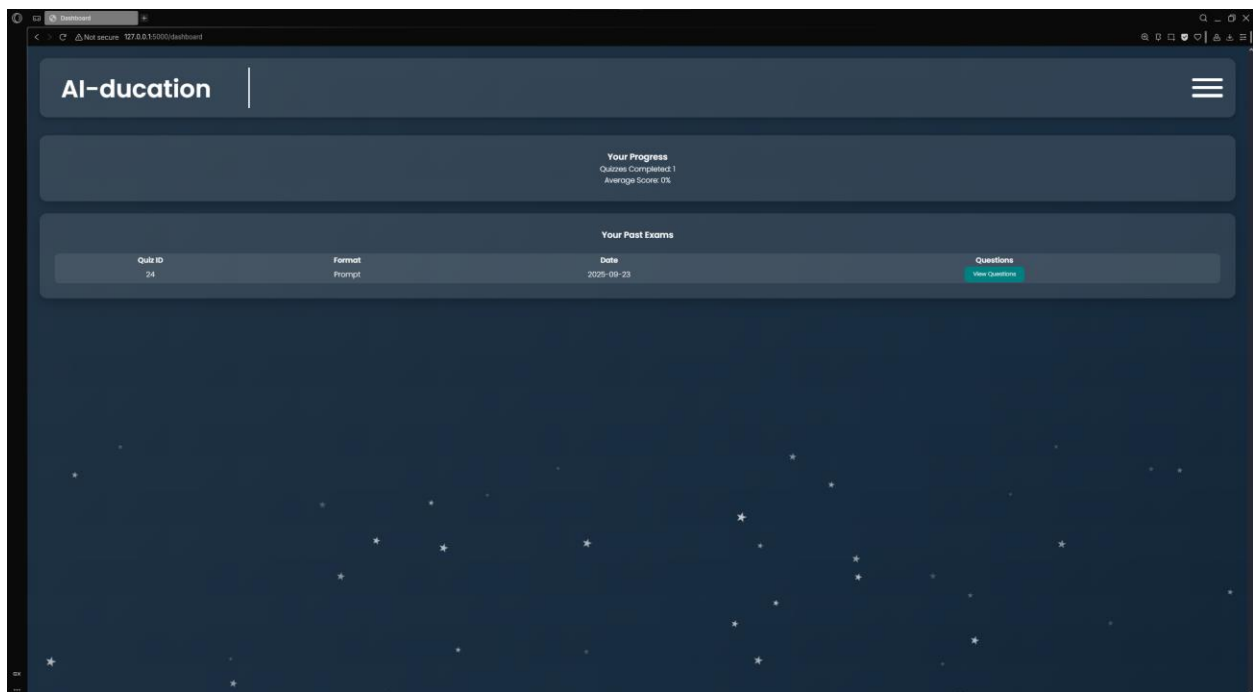


Figure 5.3: Parent Account Overview – Sample Query Results



## **6.0 Reporting**

## **6.0 Reporting**

This section explains the reporting functions of AI-ducation. Reporting refers to how the system organizes and displays performance data such as scores, averages, and exam history.

### **6.1 Report Capabilities**

AI-ducation generates reports depending on the user role:

- Student – Can view their progress in the Account Overview, which shows quizzes completed, overall average score, and past exam results.
- Teacher – Can view reports of student performance on the Check Records page, which displays the list of student names and their corresponding scores for a selected exam.
- Parent – Can view their child’s progress in the Account Overview (quizzes completed and average score) and exam history on the Parent Homepage (group exams and individual quizzes with dates and scores).

### **6.2 Report Procedure**

#### **Student Report**

1. From the homepage, navigate to View Account Overview.
2. The system displays overall progress, including completed quizzes, average score, and past exams.

#### **Teacher Report**

1. From the homepage, click Check Records.
2. Select the desired exam by filtering through the available options.
3. The system displays the list of students with their corresponding scores.

#### **Parent Report**

1. From the Parent Homepage, navigate to View Account Overview.
2. The system shows the child’s progress (completed quizzes and average score).
3. Exam history can also be viewed on the homepage, showing group exams and individual quizzes with dates and scores.



Figure 6.1: Student Report – Progress and Exam History

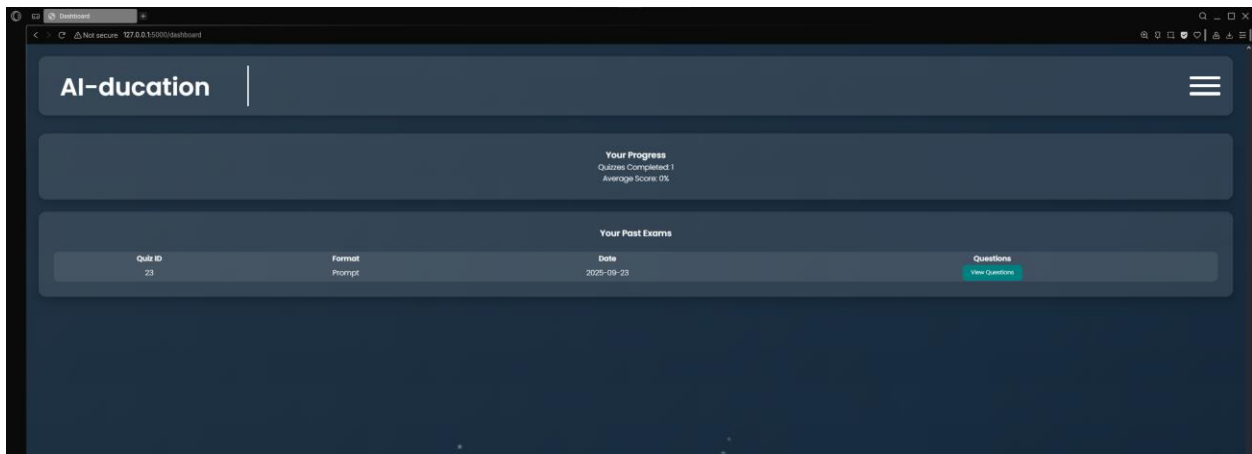


Figure 6.2: Teacher Report – Group Exam Results

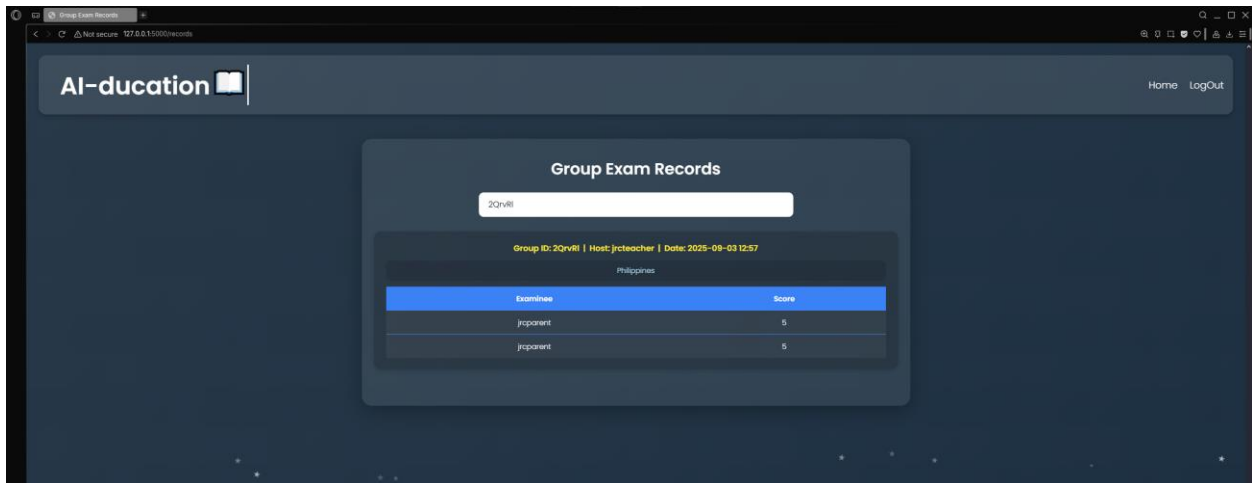


Figure 6.3: Parent Report – Progress and Exam History

