

LINGUALEARN

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An Object Oriented Programming Project

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I. Introduction

The Lingua Learn is one of the e-learning advances in teaching Chinese Mandarin and Nihongo or Japanese. In today globalized world, being able to speak numerous languages has become extremely important, especially for students taking tourism-related courses or for anyone in need of assistance in any of those languages. For them, a project like this would be enjoyable and productive. This application will provide a comprehensive and enjoyable experience and facilitating, Lingua Learn teaches languages and situates students in the cultural environments that shape them because it is interactive and culturally relevant. The user interface (UI) has been designed successfully, and the project has advanced significantly thus far. Prioritizing usability and accessibility to ensure that learners of all ages can traverse the platform with ease, this user-friendly design offers a solid foundation for additional functions.

II. Objectives

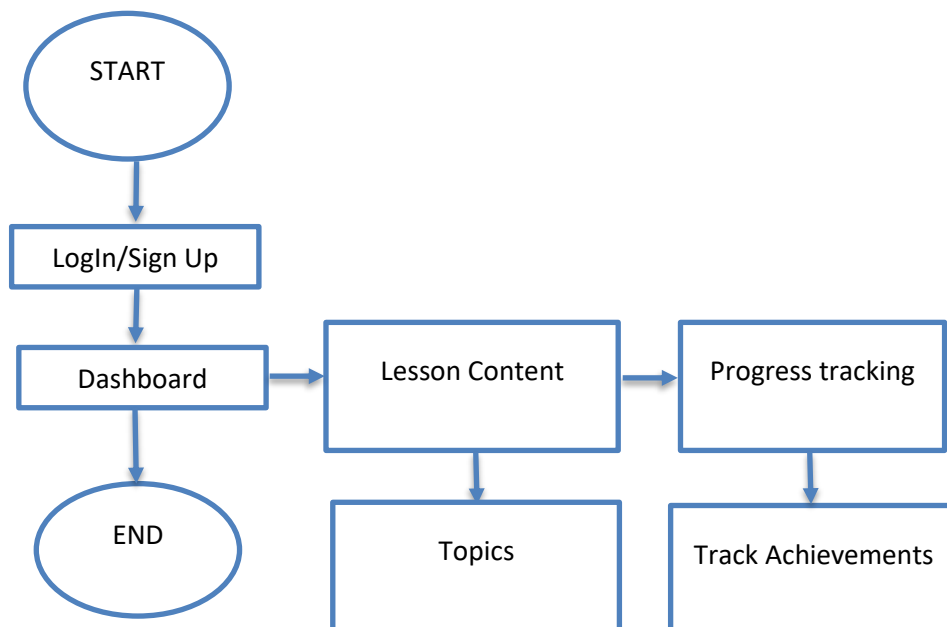
To develop an interactive, user-friendly e-learning platform for learning Chinese Mandarin and Nihongo, addressing the needs of students and professionals in tourism and related fields.

- To provide basics lessons to the users.
- To create a simple and intuitive interface for users of varying skill levels.
- To enable learners to monitor their progress through progress tracking.
- To ensure the system is accessible to diverse learners.

III. Scope and Delimitation of the Study

The platform is designed to teach Chinese Mandarin and Nihongo (Japanese), targeting students in tourism-related courses and individuals seeking to learn these languages. It will operate as a desktop-based application, with no mobile or web versions available in this phase. The system will focus exclusively on these two languages, with no support for additional languages in the initial release. Core features include a home screen providing a Chinese and Japanese lessons, lesson content, and progress tracking. Quizzes will assess learner progress through basic text-based formats using multiple-choice, but will not include multimedia, interactive, or gamified question types. Advanced AI-driven features such as speech recognition, peer interaction, or adaptive learning algorithms will not be implemented. Additionally, the platform will require an active internet connection to access lessons, quizzes, and content, as offline access is not supported.

IV. Flowchart



1. **Start**

This is the entry point where users begin their interaction with the application. It signals the beginning of the process.

2. **Login/Signup**

Users are required to authenticate or create an account to access the platform. Returning users log in with their credentials, while new users sign up by providing the necessary information.

3. **Dashboard**

The central hub of the platform where users can navigate to different sections, such as lesson content, progress tracking, and topics. It serves as the main control center for the user.

4. **Lesson Content**

This section provides access to educational materials and resources. Users can engage with lessons designed to improve their knowledge and skills in specific areas.

5. **Topics**

Lessons are categorized into specific topics to make learning organized and focused. Users can select topics of interest to study in detail and track their progress.

6. **Progress Tracking**

This feature allows users to monitor their performance and learning progress. It provides insights, such as lesson completion rates, time spent, and areas for improvement.

7. **Track Achievements**

Users can view badges, certificates, or milestones earned as they complete lessons and topics. It motivates learners by showcasing their accomplishments.

8. **END**

This marks the completion of the user's journey or session on the platform, providing a clear stopping point.

V. Gantt Chart

TASK	AUG. 25- SEP. 10, 2024	SEP. 11- OCT. 27, 2024	OCT. 28- NOV. 15, 2024	NOV. 16- DEC. 1, 2024	DEC. 2- DEC. 16, 2024
Planning					
Conduct Research					
UI Development and Testing					
Software Testing and Debugging					
Data Entry and Finalization					
Converting of System					

1. Planning

This phase involves outlining the project's scope, setting objectives, creating a timeline, and identifying the resources required. Tasks include brainstorming, defining system requirements, and assigning responsibilities to team members.

2. Conduct Research

A thorough investigation is carried out to identify effective methodologies and tools for the project. This includes studying user needs, analyzing relevant technologies, and gathering data to ensure the project meets its goals.

3. **UI Development and Testing**

This task involves designing the system's User Interface (UI) for an optimal user experience. The team will develop test usability, improve navigation, and refine the design based on feedback from initial tests.

4. **Software Testing and Debugging**

During this phase, the team identifies, analyzes, and fixes software errors or bugs to ensure the system runs smoothly. Both manual and automated testing methods may be used to validate system performance, functionality, and reliability.

5. **Data Entry and Finalization**

This task focuses on inputting all necessary data into the system and verifying its accuracy. The team finalizes configurations, ensures data integrity, and prepares the system for deployment.

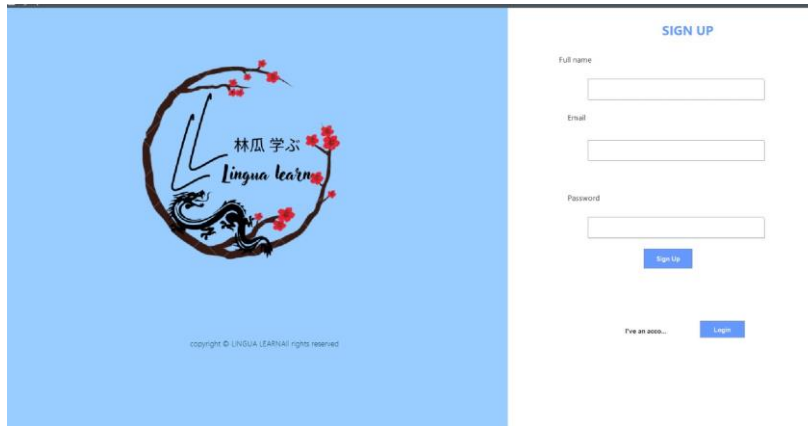
6. **Converting of System**

The final phase involves converting the system into its fully functional form. This includes system integration, migrating data if needed, and ensuring compatibility across different environments before the official deployment.

VI. System Design

Figure 1 SIGNUP

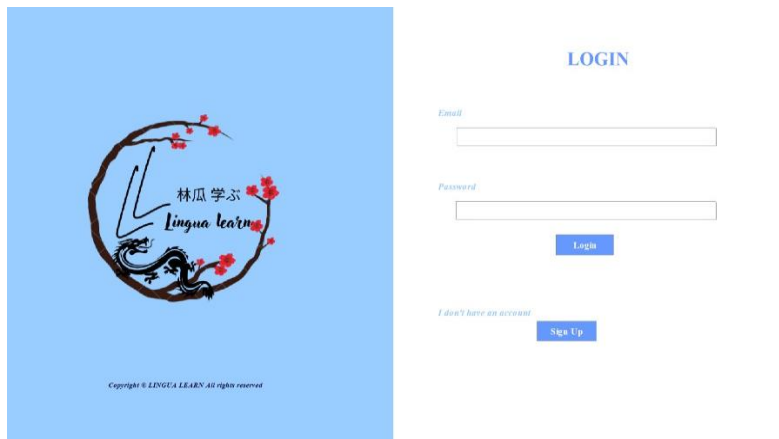
This figure shows the sign up panel that users need to fill up.



The Sign Up panel features a light blue background. On the left, there is a circular logo with a dragon and the text "Lingua learn" and "林瓜学ふ". Below the logo, it says "copyright © LINGUA LEARN All rights reserved". On the right, the "SIGN UP" form includes fields for "Full name", "Email", and "Password". There is a "Sign Up" button and a "Forgot your password?" link with a "Login" button.

Figure 2 LOGIN

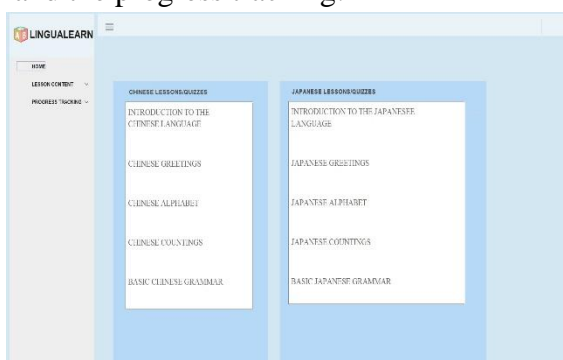
After the sign up the log in panel will show up and fill up the email and password.



The Login panel features a light blue background. On the left, there is a circular logo with a dragon and the text "Lingua learn" and "林瓜学ふ". Below the logo, it says "Copyright © LINGUA LEARN All rights reserved". On the right, the "LOGIN" form includes fields for "Email" and "Password". There is a "Login" button and a "Sign Up" button with the text "I don't have an account" above it.

FIGURE 3 DASHBOARD

This UI show the possible lesson of Chinese and Japanese along with lesson content of and the progress tracking.



The Dashboard shows a sidebar with "HOME", "LESSON CONTENT", and "PROGRESS TRACKING". The main content area is divided into two columns: "CHINESE LESSONS/QUIZZES" and "JAPANESE LESSONS/QUIZZES". Each column lists topics like "INTRODUCTION TO THE CHINESE/JAPANESE LANGUAGE", "CHINESE/JAPANESE GREETINGS", "CHINESE/JAPANESE ALPHABET", "CHINESE/JAPANESE COUNTING", and "BASIC CHINESE/JAPANESE GRAMMAR".

Figure 4 lesson content

In this UI show the topics of Chinese and Japanese along with the quiz.

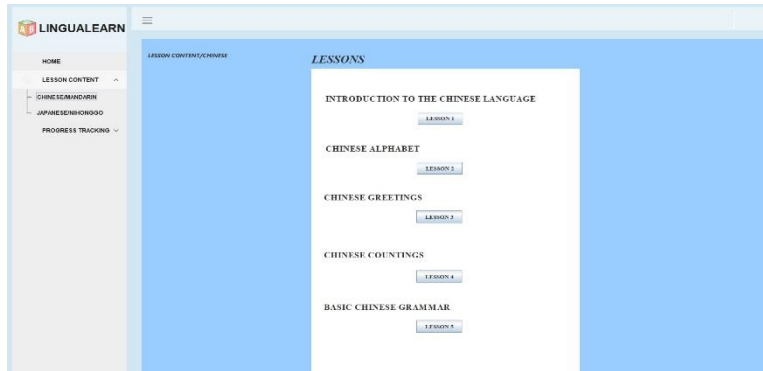
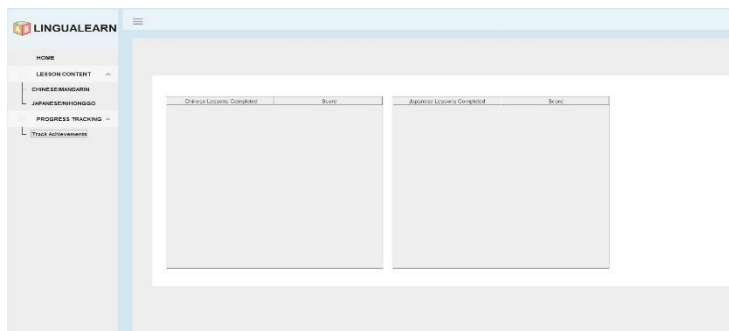


Figure 5 PROGRESS TRACKING

It shows the users achievement in learning.



VII. Conclusion

The LinguaLearn project demonstrates a significant stride in e-learning innovation, focusing on teaching Chinese Mandarin and Nihongo to a targeted audience of students and professionals in the tourism industry. With its user-friendly interface. Although limited in scope to two languages and basic functionality, LinguaLearn provides a basic foundation for interactive and engaging language education. The progress made thus far underscores the project's potential to contribute to the educational landscape and meet the specific needs of its intended users. As development continues, the incorporation of additional features and improvements will further enhance the platform's value and impact.

VII. Recommendations

To enhance LinguaLearn's future iterations, it is recommended to develop mobile and web versions will improve accessibility, while integrating multimedia elements like videos, audio pronunciations, and interactive exercises can boost learner engagement. Adding features such as speech recognition for pronunciation practice and gamified elements like badges and rewards could make the learning process more interactive and enjoyable. Offline access should be considered to accommodate users with limited internet connectivity, and AI-driven tools, such as adaptive learning systems and virtual tutors, could personalize the learning experience. Further, introducing cultural immersion activities, such as virtual tours and role-playing scenarios, would deepen learners' understanding of the languages' cultural contexts. These enhancements will position LinguaLearn as a comprehensive, innovative, and scalable e-learning solution.