



CEBU INSTITUTE OF TECHNOLOGY
UNIVERSITY

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COLLEGE OF COMPUTER STUDIES

HaponGO: Japanese Language Learning App

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Change History

Table of Contents

Change History	2
Table of Contents	3
1. Introduction	4
1.1. Purpose	4
1.2. Scope.....	4
1.3. Definitions, Acronyms and Abbreviations.....	4
1.4. References	4
2. Overall Description	5
2.1. Product perspective	5
2.2. User characteristics	5
2.4. Constraints	5
2.5. Assumptions and dependencies	6
3. Specific Requirements	7
3.1. External interface requirements.....	7
3.1.1. <i>Hardware interfaces</i>	7
3.1.2. <i>Software interfaces</i>	7
3.1.3. <i>Communications interfaces</i>	7
3.2. Functional requirements	7
Module 1.....	7
Module 2.....	8
3.4. Non-functional requirements.....	11
Performance	12
Security.....	12
Reliability	12

1. Introduction

1.1. Purpose

- *Describe the purpose of the SRS;*
- *Specify the intended audience for the SRS.*

1.2. Scope

- *Identify the software product(s) to be produced by name (e.g., Host DBMS, Report Generator, etc.);*
- *Explain what the software product(s) will, and, if necessary, will not do;*
- *Describe the application of the software being specified, including relevant benefits, objectives, and goals;*
- *Be consistent with similar statements in higher-level specifications (e.g., the system requirements specification), if they exist.*

1.3. Definitions, Acronyms and Abbreviations

- *provide the definitions of all terms, acronyms, and abbreviations required to properly interpret the SRS*

1.4. References

- *Provide a complete list of all documents referenced elsewhere in the SRS;*
- *Identify each document by title, report number (if applicable), date, and publishing organization;*
- *Specify the sources from which the references can be obtained.*

2. Overall Description

2.1. Product perspective

- *Put software product into perspective with other related products. If the product is independent and totally self-contained, it should be so stated here. If the SRS defines a product that is a component of a larger system, as frequently occurs, then this subsection should relate the requirements of that larger system to functionality of the software and should identify interfaces between that system and the software.*
- *A block diagram showing the major components of the larger system, interconnections, and external inter- faces can be helpful.*
- *Describe the modular decomposition of the components using the format below:*
 - Module 1*
 - Transaction 1.1*
 - Transaction 1.2*
 - Module 2*
 - Transaction 2.1*
 - Transaction 2.2*
 - ...*

2.2. User characteristics

- *Describe all user types and their roles and privileges in the system*

2.4. Constraints

- *Provide a general description of any other items that will limit the developer's options.*
- *Regulatory policies;*
- *Hardware limitations (e.g., signal timing requirements);*
- *Interfaces to other applications;*
- *Parallel operation;*
- *Audit functions;*
- *Control functions;*
- *Reliability requirements;*
- *Criticality of the application;*
- *Safety and security considerations.*

2.5. Assumptions and dependencies

This subsection of the SRS should list each of the factors that affect the requirements stated in the SRS. These factors are not design constraints on the software but are, rather, any changes to them that can affect the requirements in the SRS. For example, an assumption may be that a specific operating system will be available on the hardware designated for the software product. If, in fact, the operating system is not available, the SRS would then have to change accordingly.

3. Specific Requirements

3.1. External interface requirements

3.1.1. Hardware interfaces

This should specify the logical characteristics of each interface between the software product and the hardware components of the system. This includes configuration characteristics (number of ports, instruction sets, etc.). It also covers such matters as what devices are to be supported, how they are to be supported, and protocols. For example, terminal support may specify full-screen support as opposed to line-by-line support.

3.1.2. Software interfaces

This should specify the use of other required software products (e.g., a data management system, an operating system, or a mathematical package), and interfaces with other application systems (e.g., the linkage between an accounts receivable system and a general ledger system).

3.1.3. Communications interfaces

This should specify the various interfaces to communications such as local network protocols, etc.

3.2. Functional requirements

Requirement Type	Requirement	Justification
Functional	The system shall allow users to register a new account or log in to an existing account.	This defines as a function of the system that allows user account and progress to be saved in the systems database.
Functional	The system shall provide a user dashboard displaying personal progress, completed courses/lessons, and practice activities.	This allows users to track their learning and achievements.
Functional	The system shall provide an English-Japanese dictionary for users to look up translations and meanings.	This feature helps users quickly find translations and understand the meanings of Japanese words.
Functional	The system shall provide	This helps users improve

	structured reading lessons aimed at improving users' reading comprehension skills in Japanese.	their reading skills in Japanese.
<i>Functional</i>	The system shall allow users to practice traditional Japanese calligraphy through an interactive swipe feature on mobile devices.	This offers hands-on practice of Japanese calligraphy on mobile devices.
<i>Functional</i>	The system shall send push notifications to remind users about upcoming lessons.	Notifications remind users to stay engaged and motivated.
<i>Functional</i>	The system shall provide a pronunciation guide with audio examples, phonetic breakdowns, and articulation tips to aid users in mastering Japanese pronunciation.	This helps users improve their Japanese pronunciation.
<i>Functional</i>	The system shall incorporate gamified elements, such as achievements and interactive challenges, into the learning process to enhance user engagement.	Gamification makes learning more fun and encourages users to keep progressing.
<i>Functional</i>	The system shall maintain a leaderboard ranking users based on points earned from completing courses, lessons, practices, and mini games.	The leaderboard motivates users to continue learning and compete.
<i>Functional</i>	The system shall provide a payment module for users to subscribe to premium features, such as exclusive courses and practices.	The payment module allows monetization and provides users with access to additional resources.

User Registration and Login

This section is where users can create or login to their existing account.

1.1 Progress Tracker

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- *Wireframe*

User Dashboard

This section is where users can get information about their personal progress and track finished courses/lessons and practices.

2.1 User Management

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- *Wireframe*

Language Reading Course

This module features structured reading lessons aimed at improving users' reading comprehension skills in Japanese.

3.1 Japanese Reading Lessons

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- *Wireframe*

Japanese Language Dictionary

This section contains an English-Japanese Dictionary allowing users to look up translations and meanings.

4.1 English – Japanese Dictionary

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- *Wireframe*

Calligraphy Practice

This feature is exclusively available on mobile devices, utilizing swipe functionality to provide an immersive and interactive experience. Users can practice traditional Japanese calligraphy by mimicking brush strokes with their fingers or stylus.

5.1 Stroke Tutorial

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- *Wireframe*

5.2 Interactive Practice Canvas

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- *Wireframe*

Push Notification

This feature sends notifications to remind users about their upcoming lessons or inform them of their current ranking on the leaderboard.

6.1 Lesson Reminders

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- *Wireframe*

6.2 Announcements

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- Wireframe*

Pronunciation Guide

This feature offers a resource for mastering Japanese pronunciation. It includes audio examples, phonetic breakdowns, and tips for proper articulation to help users sound more natural.

7.1 Audio Samples

- *Use Case Diagram*
- *Use Case Description*
- *Activity Diagram*
- Wireframe*

Course Gamification

This module incorporates gamified elements into the learning process such as achievements, interactive challenges, making lessons more fun and engaging.

8.1 Achievement Badges

- Use Case Diagram
- Use Case Description
- Activity Diagram
- Wireframe

8.2 Daily Challenge

- Use Case Diagram
- Use Case Description
- Activity Diagram
- Wireframe

Leaderboard System

This section contains the ranking of players depending on the points gathered from completing courses, practices, and playing minigames.

9.1 Global Ranking.

- Use Case Diagram
- Use Case Description
- Activity Diagram
- Wireframe

Payment Module

This module involves payment processing for users subscribing to the app's premium features (exclusive courses, practices, etc.).

10.1 Transaction History

- Use Case Diagram
- Use Case Description
- Activity Diagram
- Wireframe

3.4 Non-functional requirements

Requirement Type	Requirement	Justification
Non-Functional	The system shall ensure that all pages load within 5 seconds.	Fast page loading ensures a smooth user experience and minimizes frustration.
Non-Functional	The system shall be accessible on Android devices.	Focusing on Android ensures compatibility with a larger user base while simplifying development.
Non-Functional	The system shall maintain 90%	High availability ensures the

	uptime.	app is reliable and always accessible to users.
<i>Non-Functional</i>	The system shall encrypt all user data during transmission.	Ensuring user data is securely transmitted protects privacy and builds trust.
<i>Non-Functional</i>	The system shall support at least 50 concurrent users.	The app should be able to handle several active users at the same time, ensuring a smooth experience.

Performance

[Details](#)

Security

[Details](#)

Reliability

[Details](#)