
UNIVAQ

**Alphabet Tiles
Vision**

Version <1.0>

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| Alphabet Tiles | Version: <1.0> |
| Vision | Date: <05/01/2024> |
| V1.0 | |

Revision History

| Date | Version | Description | Author |
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| <05/Jan/2024> | <1.0> | <First draft of Vision document> | <Batoul Haidar> |
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Vision

1. Introduction

This document aims to outline the vision of “Alphabet Tiles” project. "Alphabet Tiles" is an innovative and engaging board game designed to blend entertainment with educational value. It involves players forming words using individual lettered tiles on a grid game board.

1.1 Purpose

The purpose of this document is to collect, analyze, and define high-level needs and features of the **Alphabet Tiles**. It focuses on the capabilities needed by the stakeholders and the target users, and **why** these needs exist. The details of how the **Alphabet Tiles** fulfills these needs are detailed in the use-case and supplementary specifications. This document will serve as a guide for the development process. It aims, motivates and inspires the people working on the project.

1.2 Scope

The scope of this Vision document is to provide a clear outline for the development of the 'Alphabet Tiles' game, which will be developed by Batoul Haidar. It serves as a strategic guide outlining the core concept, design, and educational objectives of the game. The document details the key features of 'Alphabet Tiles,' such as the 15x15 grid board, the strategic placement of lettered tiles for word creation, and the scoring system that encourages both vocabulary development and strategic thinking. It also emphasizes the design's commitment to iterative improvements and continuous development, ensuring that the game evolves to enhance educational value and player engagement.

1.3 Definitions, Acronyms, and Abbreviations

Grid Board: A 15x15 square grid that forms the playing surface of the "Alphabet Tiles" game. Each square can accommodate a single lettered tile.

Tile: A small, flat piece marked with a letter from the alphabet, used in the game to form words on the grid board.

Word Formation: The process of creating words by placing lettered tiles adjacently on the grid board, either left-to-right in rows or top-to-bottom in columns.

Other definitions, acronyms, and abbreviations relevant to understanding the documents will be listed in the glossary document

1.4 References

- Glossary Document.
- Supplementary Specifications Document.
- Use Cases Document.

1.5 Overview

The Vision document for "Alphabet Tiles" presents a comprehensive blueprint for the game’s development. It begins with an introduction that outlines the unique educational and entertainment aspects of the game. The document then defines the project’s purpose, scope, and identifies the intended audience. A dedicated section is included to clarify important terms, acronyms, and abbreviations, ensuring consistent understanding. The business context section discusses the market potential and educational impact of "Alphabet Tiles". The document thoroughly describes the game, focusing on its design features, gameplay elements, and educational benefits. It also covers the technical specifications of the game's production and the overall project plan. Risks and challenges are identified, along with strategies for their mitigation. The document concludes with appendices, providing in-depth analyses and supplementary information to support the comprehensive development of this innovative board game.

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2. Positioning

2.1 Business Opportunity

The "Alphabet Tiles" project presents a unique business opportunity by fulfilling a growing demand for educational and engaging language-learning tools in a digital format. This innovative software game addresses the needs of a diverse audience, from children enhancing their language skills to adults seeking intellectually stimulating pastimes. By combining the educational aspects of language learning with the interactive and engaging nature of a digital game, "Alphabet Tiles" stands out in the crowded edutainment market. Its adaptability to different age groups and learning levels, coupled with the potential for global reach and scalability for future internationalization by including other languages in upcoming versions, positions it well for success. This project aligns with current trends in reducing passive screen time, offering a valuable and engaging alternative in the educational app sector.

2.2 Problem Statement

[Provide a statement summarizing the problem being solved by this project. The following format may be used:]

| | |
|--------------------------------|---|
| The problem of | Reliance on traditional, non-interactive methods for vocabulary building and language learning |
| affects | Broad spectrum of individuals, including young students, adult language learners, educators, and families seeking educational engagement outside of conventional classrooms. |
| the impact of which is | A noticeable lack of enthusiasm and engagement in language learning, leading to slower vocabulary acquisition and reduced effectiveness in language education, particularly in a world increasingly oriented towards interactive digital solutions. |
| a successful solution would be | A game like "Alphabet Tiles" that enhances learning through interactive play, improving engagement and vocabulary skills, with the potential for multi-language support in future versions. |

2.3 Product Position Statement

[Provide an overall statement summarizing, at the highest level, the unique position the product intends to fill in the marketplace. The following format may be used:]

| | |
|--------------------|---|
| For | language learners and educators, as well as families looking for quality educational activities |
| Who | require an engaging, interactive, and effective way to enhance vocabulary and language skills |
| The Alphabet Tiles | is a digital educational game application |
| That | offers a unique blend of fun, strategy, and learning, enhancing vocabulary through interactive gameplay |
| Unlike | traditional language learning apps and passive educational methods |
| Our product | integrates the excitement of gaming with practical language learning, offering adaptability to various age groups and potential for multi-language expansion in future versions |

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3. Stakeholder and User Descriptions

The "Alphabet Tiles" project targets a diverse array of stakeholders and users. Educators and language teachers are seeking interactive digital tools to enhance classroom learning. Parents and families desire educational resources that are engaging for their children, offering a productive alternative to passive screen time. Language learners of all ages require effective, interactive methods for improving their vocabulary and language skills. The software developer aims to create a user-friendly and educationally valuable tool that meets these varied needs. This range of stakeholders underscores the demand for an engaging, versatile language learning application in the digital space.

3.1 Market Demographics

"Alphabet Tiles" is positioned in a dynamic market where educational technology meets language learning needs. The key demographic includes educational institutions and families with school-age children, highlighting a demand for interactive, engaging educational tools. Additionally, the product appeals to adult language learners who seek self-improvement or professional development tools. The market for educational apps, particularly in language learning, is on an upward trajectory, fueled by a trend towards digital learning platforms and a growing emphasis on quality screen time over quantity. In this landscape, "Alphabet Tiles" aims to establish a strong presence, leveraging the project's innovative approach to create an engaging, effective language learning experience. This aligns with the project's reputation as an innovation in educational resources. "Alphabet Tiles" supports these goals by transforming language learning into an interactive, accessible, and enjoyable process, positioning the project to expand its impact in the global education market.

3.2 Stakeholder Summary

[There are a number of stakeholders with an interest in the development and not all of them are end users. Present a summary list of these non-user stakeholders. (The users are summarized in section 3.3.)]

| Name | Description | Responsibilities |
|------------------------------|--|---|
| Software Developer | As the primary creator of "Alphabet Tiles", responsible for the overall design, development, and implementation of the software. | <ul style="list-style-type: none"> - Develop, test, and maintain the software, ensuring functionality, usability, and alignment with educational goals. - Address technical bugs and ensure ongoing system optimization - Ensure that features are built for long-term maintainability |
| Marketing & Sales Specialist | Responsible for marketing "Alphabet Tiles" within a small project scope. | <ul style="list-style-type: none"> - Identify market demands. - Ensure the product reaches the target audience. - Create materials to showcase the project's benefits and features. |
| Quality Assurance Specialist | Responsible for ensuring the software's functionality and user experience meet high standards. | <ul style="list-style-type: none"> - Test the game for bugs and usability issues. - Provide feedback for improvements - Ensure the final product is user-friendly and reliable. |
| Customer Service Specialist | Responsible for handling user feedback, queries, and support related to "Alphabet Tiles". | <ul style="list-style-type: none"> - Address user inquiries and feedback. - Provide support and solutions to user issues. - Collect user insights for future improvements.. |

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3.3 User Summary

[Present a summary list of all identified users.]

| Name | Description | Responsibilities | Stakeholder |
|-------------------------|--|---|------------------|
| Educators | Teachers and instructors utilizing the app as an educational tool. | Implement the app in teaching environments to supplement traditional language learning methods. | Customer Service |
| Students | Young learners using the app to enhance their language skills. | Engage with interactive exercises to improve vocabulary and language comprehension. | Customer Service |
| Parents | Guardians facilitating their children's learning with the app | Oversee and support their children's use of the app for at-home language learning. | Customer Service |
| Adult Language Learners | Individuals using the app for personal or professional | Use the app for self-directed language learning and improvement. | Customer Service |

3.4 User Environment

Number of People Involved: The game is designed for individual use, but it also accommodates multiple players in certain modes, allowing for group interactions, especially in educational or family settings.

Task Cycle Duration: User engagement can vary widely. For educational purposes, sessions might be structured (e.g., 30-60 minutes), while at home or for personal use, durations could be more flexible, ranging from quick 10-minute sessions to longer, immersive experiences.

Environmental Constraints: As a digital application developed in Java, 'Alphabet Tiles' is currently best suited for indoor environments like homes, schools, or libraries where users have access to computers. The interface design accommodates various settings, from quiet, focused areas such as classrooms to more dynamic home environments. Looking ahead, there are plans to adapt 'Alphabet Tiles' for mobile use, enhancing its versatility for on-the-go learning and making it accessible in a wider range of environments.

Systems Platforms in Use: The initial version of 'Alphabet Tiles' is optimized for computer use, developed in Java to be compatible with various operating systems like Windows, macOS, and Linux. This ensures broad accessibility for users on different computer platforms. Future developments include extending the application to mobile and tablet platforms, aiming to provide a consistent and engaging user experience across diverse devices, including smartphones and tablets. This expansion will broaden the game's reach, catering to the growing trend of mobile device usage in education.

Integration with Other Applications: "Alphabet Tiles" currently stands as a self-contained application, functioning independently without the need for integration into larger systems. Designed for ease of use across different environments, it focuses on providing an interactive language learning experience. While it's fully operational on its own, future updates may explore integration possibilities with educational platforms or productivity tools to enhance its utility and appeal, especially in educational settings.

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3.5 Stakeholder Profiles

In the development of "Alphabet Tiles," a range of stakeholders play pivotal roles. Each stakeholder brings unique expertise and perspective, crucial for the successful development and implementation of the project. This section outlines the profiles of key stakeholders involved in "Alphabet Tiles," detailing their roles, responsibilities, and contributions. Understanding these stakeholders helps in aligning the project goals with their expectations and requirements, ensuring a cohesive and effective development process.

3.5.1 <Software Developer>

| | |
|--------------------------|---|
| Representative | Batoul Haidar |
| Description | Primary creator and developer of "Alphabet Tiles" |
| Type | Technical Expert |
| Responsibilities | <ul style="list-style-type: none"> - Develop, test, and maintain the software, ensuring functionality, usability, and alignment with educational goals. - Address technical bugs and ensure ongoing system optimization - Ensure that features are built for long-term maintainability |
| Success Criteria | Functional and user-friendly software, alignment with educational goals. |
| Involvement | Developer, Tester, System Architect. |
| Deliverables | Completed software, technical documentation, update logs. |
| Comments / Issues | Balancing development time with other project demands. |

3.5.2 <Quality Assurance Specialist>

| | |
|--------------------------|--|
| Representative | Batoul Haidar |
| Description | Ensures the software meets high standards of quality and usability |
| Type | Quality Assurance Expert or Technical Expert |
| Responsibilities | <ul style="list-style-type: none"> - Test the game for bugs and usability issues. - Provide feedback for improvements - Ensure the final product is user-friendly and reliable. |
| Success Criteria | A bug-free and reliable product, positive feedback from users. |
| Involvement | Tester, user experience reviewer. |
| Deliverables | Test reports, quality assurance documentation |
| Comments / Issues | - |

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3.5.3 < Marketing & Sales Specialist >

| | |
|--------------------------|--|
| Representative | Batoul Haidar |
| Description | Tasked with handling the marketing and promotional aspects of "Alphabet Tiles" within the scope of a small-scale project. |
| Type | Novice Business and Marketing Enthusiast. |
| Responsibilities | <ul style="list-style-type: none"> - Identify market demands. - Ensure the product reaches the target audience. - Create materials to showcase the project's benefits and features. |
| Success Criteria | Gaining interest and positive feedback from the immediate target audience. |
| Involvement | Engage in fundamental market analysis and develop simple marketing strategies suitable for a small project. |
| Deliverables | A basic marketing plan tailored for a small project, including simple promotional materials (like posters, digital content, and presentations), and collating feedback for further development. |
| Comments / Issues | - |

3.5.4 < Customer Services Specialist >

| | |
|--------------------------|--|
| Representative | Batoul Haidar |
| Description | Manages user interactions, addressing inquiries, feedback, and support related to "Alphabet Tiles". |
| Type | Customer Service or User Support Specialist. |
| Responsibilities | <ul style="list-style-type: none"> - Address user inquiries and feedback. - Provide support and solutions to user issues. - Collect user insights for future improvements.. |
| Success Criteria | High user satisfaction, effective resolution of user issues, positive feedback on user support. |
| Involvement | Communication Coordinator, User Support Provider. |
| Deliverables | User feedback reports, support interaction logs, customer satisfaction summaries. |
| Comments / Issues | - |

3.6 User Profiles

In the "Alphabet Tiles" project, understanding the diverse range of users is essential for tailoring the application to meet their specific needs. This section profiles each user type, considering their varying levels of expertise, technical background, and interaction with the system. From educators who require a tool that integrates seamlessly into their teaching methods to students and adult learners who seek a user-friendly and effective way to enhance their language skills, each profile will highlight their unique requirements and usage patterns. These insights are crucial for developing an application that is not only functional but also aligns with the expectations and preferences of its users, ensuring a satisfactory and enriching experience for all.

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3.6.1 < Educator >

| | |
|--------------------------|---|
| Representative | Stakeholder: Customer Service. |
| Description | Teachers and instructors utilizing the app in educational settings. |
| Type | Educated User, familiar with teaching methodologies and classroom technology. |
| Responsibilities | Implement the app in teaching environments to supplement traditional language learning methods. |
| Success Criteria | Enhanced language skills in students, successful integration into the curriculum. |
| Involvement | Feedback provider, curriculum integrator. |
| Deliverables | Lesson plans incorporating the app, feedback on app usability in educational settings. |
| Comments / Issues | - |

3.6.2 <Student>

| | |
|--------------------------|---|
| Representative | Stakeholder: Customer Service. |
| Description | Young learners engaging with the app to improve language skills. |
| Type | Novice to Intermediate Users, primarily focused on learning. |
| Responsibilities | Engage with interactive exercises to improve vocabulary and language comprehension. |
| Success Criteria | Improvement in language comprehension and vocabulary. |
| Involvement | Active users, feedback providers |
| Deliverables | None directly, but their usage data could be valuable for app improvements. |
| Comments / Issues | — |

3.6.3 <Parents>

| | |
|--------------------------|--|
| Representative | Stakeholder: Customer Service. |
| Description | Guardians using the app to facilitate their children's language learning at home. |
| Type | Casual Users, focused on facilitating learning. |
| Responsibilities | Oversee and support their children's use of the app for at-home language learning. |
| Success Criteria | Effective learning tool for their children, safe and trustworthy app environment. |
| Involvement | Supervisors, feedback providers. |
| Deliverables | Feedback on app's effectiveness and user-friendliness for children. |
| Comments / Issues | — |

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3.6.4 < Adult Language Learners >

| | |
|--------------------------|---|
| Representative | Stakeholder: Customer Service. |
| Description | Individuals using the app for personal language development or professional needs. |
| Type | Casual to Expert Users, depending on their familiarity with language learning apps. |
| Responsibilities | Use the app for self-directed language learning and improvement. |
| Success Criteria | Personal improvement in language skills, usability, and application relevance. |
| Involvement | Active users, potentially feedback providers. |
| Deliverables | None directly, though feedback and usage patterns are valuable for app refinement. |
| Comments / Issues | – |

3.7 Alternatives and Competition

In this section, we'll explore the competitive landscape of digital language learning to understand how "Alphabet Tiles" fits into the market. We'll examine key competitors, analyzing their strengths and weaknesses to identify opportunities for "Alphabet Tiles" to stand out and meet user needs more effectively. Understanding these competitors is essential for positioning "Alphabet Tiles" strategically and ensuring it offers unique value to its users.

3.7.1 <Duolingo>

Description: A widely-used language learning app offering lessons in multiple languages through a gamified interface.

Strengths:

- Extensive range of languages.
- User-friendly, gamified learning approach.
- Strong community and social features.

Weaknesses:

- May lack depth in grammar and advanced language concepts.
- Repetitive format in lessons & teaching style.

3.7.2 <Rosetta Stone>

Description: An established language learning platform known for its immersive method, focusing on learning through context rather than translation.

Strengths:

- Immersive learning experience.
- Focuses on language proficiency and fluency.
- Offers in-depth content for a variety of languages.

Weaknesses:

- Higher cost compared to other apps.
- Less gamified, which might not appeal to all users.

4. Product Overview

This section provides a high level view of the “Alphabet Tiles” product capabilities, interfaces to other applications, and system configurations.

4.1 Product Perspective

"Alphabet Tiles" is a self-contained language learning application, designed to function independently without reliance on larger systems. It offers a unique, interactive experience in language learning, suitable for various user environments, with potential for future integration with other educational tools..

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4.2 Summary of Capabilities

The following table outlines the major benefits and features that "Alphabet Tiles" will provide. These capabilities are designed to enhance the user experience and offer effective language learning opportunities.

Table 4-1 Customer Support System

| Customer Benefit | Supporting Features |
|------------------------------------|---|
| Interactive Vocabulary Enhancement | Engaging gameplay focused on forming words, enhancing vocabulary skills in a fun and interactive manner. |
| Accessibility for Diverse Users | Suitable for different age groups, including children and adults. |
| Customizable Difficulty Levels | Adjustable difficulty settings to cater to different skill levels, ensuring a challenging and rewarding experience for each user. |

4.3 Assumptions and Dependencies

1. Game Language: "Alphabet Tiles" will be entirely in English, assuming that users are proficient enough in English to engage with the game effectively.
2. System Requirements: Development of "Alphabet Tiles" are based on some system requirements. It is assumed that users have access to devices that meet these requirements to ensure smooth operation of the game. (Detailed system requirements are outlined in the supplementary specifications document).
3. Independent Learning Tool: "Alphabet Tiles" is designed as a self-contained tool for learning vocabulary, assuming users will utilize it independently, without the need for integration with other educational systems or platforms.
4. Educational Content: The vocabulary used in the game is assumed to be relevant and appropriate for the target learning levels. This includes an assumption about the educational standards and language proficiency levels of the users.

4.4 Cost and Pricing

The "Alphabet Tiles" project is primarily focused on educational and developmental objectives, setting it apart from the usual commercial product approach. In this context, the primary objective is educational enrichment rather than financial gain. As such, typical concerns like development costs, distribution fees, and pricing strategies take a backseat to the project's educational value. This shift in focus means the project's success is not measured in financial terms but by its impact on learning and skill development.

4.5 Licensing and Installation

In the development of "Alphabet Tiles," considerations for licensing and installation are integral to the project's framework and have a direct impact on its execution:

Licensing: Given that "Alphabet Tiles" is focused on educational objectives, complex licensing mechanisms typically seen in commercial software, like serializing or network licensing, are not a primary concern. The project may utilize open-source or educational licenses for any third-party tools or libraries, ensuring compliance with these terms. The simplicity of the licensing approach aligns with the educational nature of the project.

Installation: The installation process for "Alphabet Tiles" is designed to be straightforward and user-friendly, in keeping with its educational use. As a Java-based application, it may involve a simple setup executable or a Java Archive (JAR) file that users can easily run on their computers. This approach minimizes the need for complex installation procedures or separate installation software, reducing potential barriers for users, particularly those with limited technical expertise..]