Labyrinth

Software Design Document

Prepared for:

#Developer Team#

Document date:

Contents

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Glossary

Term	Description

1 Introduction

#enter GSF introduction here#

1.1 Document Information

Proposal Name			
Document Reference Number:		Document Version No:	1.a
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1.2 Purpose

This software document describes the architecture and system design of Blind Labyrinth. The intended audience of the document are all the people involved in the design process of the application. The purpose of the document is to keep everyone informed of the status of the project.

1.3 Scope

The software is a labyrinth application in which the player has varying amount of visibility of the labyrinth. The goal is for the player to find a way from the beginning of the labyrinth to the end. This is done by memorizing the route, tilting the tablet and listening to the audio feedback from the moving ball. The game challenges the player's visual spatial memory and motoric skills.

1.4 Application Benefits

Development of the player's non-verbal intelligence, problem solving skills and visual spatial memory.

1.5 References

2 Requirement Summary

The system should be android 4.0 compatible.Resolution is compatible with different devices (800x480px (?) and up). Functional with single core process.

- Feedback:
  - audio queues
    - reacts to:
      - speed
      - collision with walls
      - reach end/goal

- Rewards:
  - different balls
  - difficulty levels
    - fully visible
    - ball leaves trace -> show labyrinth in the end
    - glowing -> show labyrinth in the end
    - dark -> show labyrinth at the end
  - more valuable tokens from more difficult routes

- Continuity:
  - tokens to keep the player hooked

3 System Overview

#Give a general description of the functionality, context and design of your project. Provide any background information if necessary#

4 System Architecture

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4.1 Architectural Design

#Develop a modular program structure and explain the relationships between the modules to achieve the complete functionality of the system. This is a high level overview of how Software Design Document & responsibilities of the system were partitioned and then assigned to subsystems. Identify each high level subsystem and the roles or responsibilities assigned to it. Describe how these subsystems collaborate with each other in order to achieve the desired functionality. Don't go into too much detail about the individual subsystems. The main purpose is to gain a general understanding of how and why the system was decomposed, and how the individual parts work together. Provide a diagram showing the major subsystems.#

4.2 Decomposition Description

#Provide a decomposition of the subsystems in the architectural design. Supplement with text as needed. You may choose to give a functional description or an object oriented description. For a functional description, put top level data flow diagram (DFD) and structural decomposition diagrams. For an OO description, put subsystem model, object diagrams, generalisation hierarchy diagram(s) (if any), aggregation hierarchy diagram(s) (if any),interface specifications, and sequence diagrams here.#

4.3 Design Rationale

Discuss the rationale for selecting the architecture described in 3.1 including critical issues and trade/offs that were considered. You may discuss other architectures that were considered, provided that you explain why you didn't choose them#

5 Data Design

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5.1 Data Description

Explain how the information domain of your system is transformed into data structures. Describe how the major data or system entities are stored, processed and organized. List any databases or data storage items#

5.2 Data Dictionary

#Alphabetically list the system entities or major data along with their types and descriptions. If you provided a functional description in Section 3.2, list all the functions and function parameters. If you provided#

6 Component Design

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#If you gave a functional description in section 3.2, provide a summary of your algorithm for each function listed in 3.2 in procedural description language (PDL) or pseudocode. If you gave an OO description, summarize each object member function for all the objects listed in 3.2 in PDLor pseudocode. Describe any local data when necessary#

7 Human Interface Design

7.1 Overview of User Interface

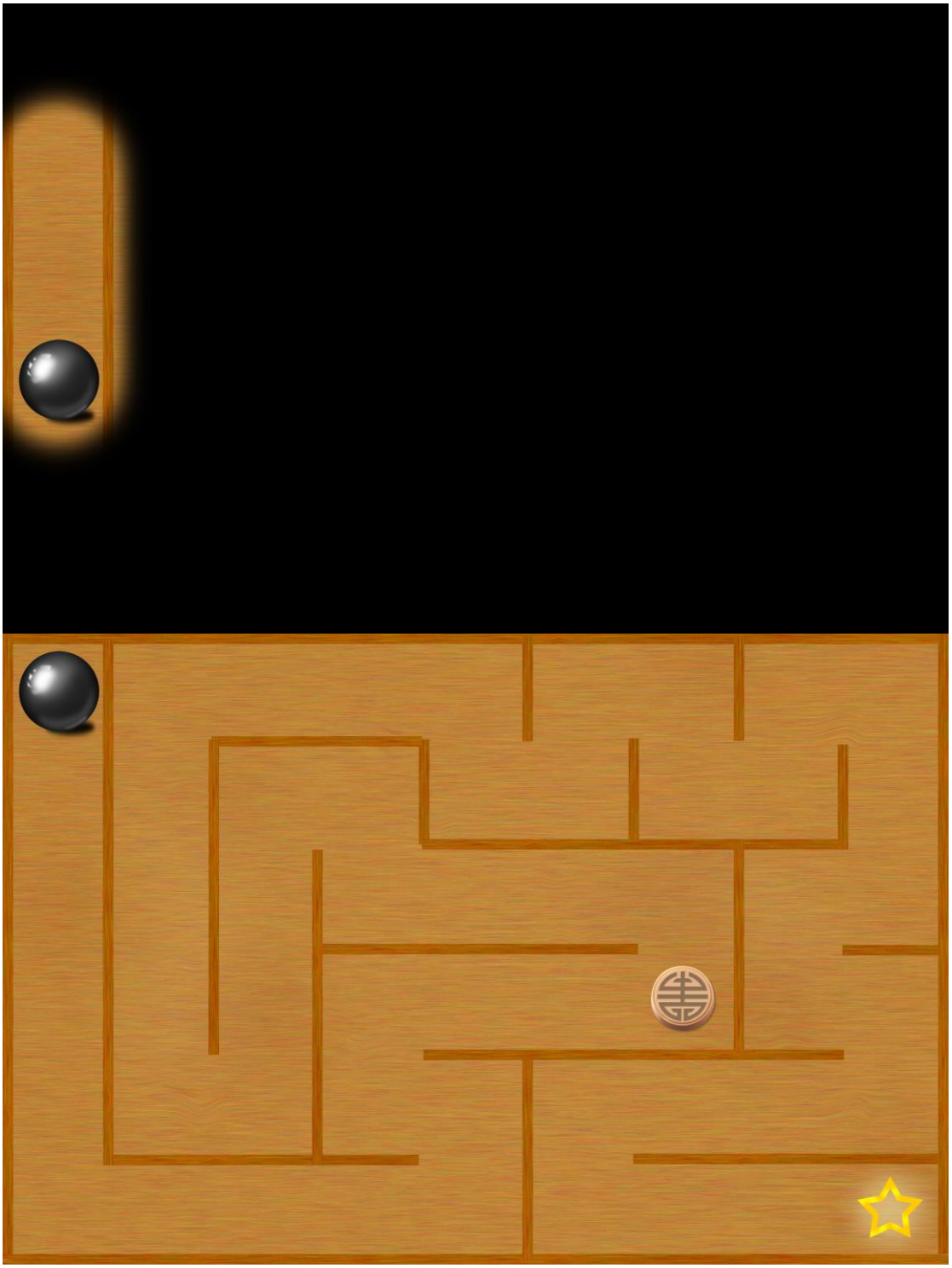
The application is a blind labyrinth used on tablets. The aim of the game is for the player to navigate a ball through the labyrinth without seeing the labyrinth. In the game the user first sees the labyrinth for a few seconds. The picture is then covered and the user has to navigate through it only based on his/her memory of the labyrinth and on the sound from the ball touching the walls. Once the player reaches the goal the device will give an audio feedback.

To think about:

- Time?
- Being able to choose labyrinth vs. the game choosing it for the player once a labyrinth has successfully been accomplished
- Time that the labyrinth is visible
- Being able to take a look at the labyrinth while playing (if player has forgotten the route)
- Labyrinth or maze (with branches)
- All 3(?) labyrinths in one game?

#Describe the functionality of the system from the user's perspective. Explain how the user will be able to use your system to complete all the expected features and the feedback information that will be displayed for the user#

7.2



7.3 Screen Objects and Actions

#A discussion of screen objects and actions associated with those objects#

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Appendix

#space for any additional information, NB must be referred to in document text eg See Appendix#