Dumb Dino, Inc.

Cuadrado
Software Requirements Specifications

Version <1.0>

Revision History

Date	Version	Description	Author
<02/10/22>	<1.0>	First Version	Nikhil, Riley

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Software Requirements Specifications

1. Introduction

1.1 Purpose

The purpose of this document is to describe the software requirements for a game of Cuadrado executable that will be used by the software developing team.

The intended audience of this document includes the prospective developers of the tool and the technical savvy people interested in the development of the game.

1.2 Scope

The software executable (game) to be produced is a two player game called Cuadrado which will help alleviate the boredom of various people looking for a fun and quick activity, such as during parties, outings, and even backyard barbecues.Cuadrado is a game that can be enjoyed by everyone.

Cuadrado will also be light and portable and would run on a large variety of devices so that everyone can have the opportunity to test out the game. The objective that the app aims to fulfill is entertainment which depends on the users need of wanting to play the game. The players use Cuadrado and take turns to compete against each other to see who can get the fastest time to reach the end goal of the game. The professionals can also use the app to compete against each other for small prize pools in tournaments of the game.

1.3 Definitions, Acronyms, and Abbreviations

FTP: File Transfer Protocol
PC: Personal Computer
TCP/IP: Transmission Control Protocol/Internet Protocol
DDoS: Distributed Denial-of-Service
PM: Player Module
SM: Server Module

1.4 References
Square Off | Board Game | BoardGameGeek

1.5 Overview

The rest of this document contains an overall description of the Cuadrado game (section 2), and the specific requirements for the system (section 3).
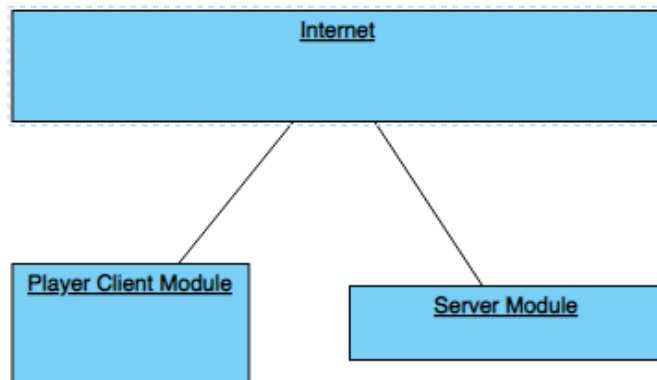
2. Overall Description

2.1 Product perspective

There's a huge market for the puzzle, strategy game that is Square Off, except it is limited by people's access to the actual board game. Hence bringing it to the internet and the computer application space will allow the organization to sell more copies and make a huge profit for those who want to try out or play the game but cannot due to production limitations.

2.1.1 System Interfaces

Cuadrado is a stand alone game that is integrated with the windows environment on PC to be playable anywhere.
It consists of 2 major components. A Server Module, and a Player Client Module (diagram 1)

The player client module interacts with the server module through the internet. The server module accepts connections from the player client module to facilitate the transfer of the game executable so that the game can be downloaded to the client's (Player's) PC.
All components must execute on Windows 10.

2.1.2 User Interfaces

The Server Module does not have a user interface other than a command to download the host file..
The Player Client Module provides the user with an interface that lets them use custom configurable keys to control how they play the game.

2.1.3 Hardware Interfaces

All components must be able to execute on a personal computer.

2.1.4 Software Interfaces

Python was used to create Cuadrado.

2.1.5 Communication Interfaces

The Player Client Modules must communicate with the server over a TCP/IP connection. The Server Module must use the FTP to transfer the files.

2.1.6 Memory Constraints

The Player Client Modules and TCP/IP must be able to perform on a Windows 10 or better.

2.1.7 Site adaptation requirements

No specific site adaptation should be required.

2.2 Product functions

The main function of Cuadrado is to help develop practical skills while serving as a form of exercise for the mind. The purpose is the players' entertainment, which were found to be positively associated with cognitive functions.

Players enjoy cognitive activities. The various cognitive activities composed the game that are defined from the software engineering processes. As the design is meant to challenge the player to think new and creative ways of completing the goal, the aspect of competition helps make it unique everytime.

The software allows the player to select the activities that are most representative of what they want to do with their free time and how they would like to challenge themselves while also having fun.

2.3 User characteristics

Users are players who understand what a puzzle game involves, and can read the instructions on how to operate the game. Users are knowledgeable of the software downloading process and know how to run applications on their computer.

2.4 Constraints

The system needs to enforce secure download verification and disallow DDoS attacks on the website.

2.5 Assumptions and dependencies

No specific assumption or dependencies.

3. Specific Requirements

3.1 Player Module

3.1.1   The user shall be able to download the Cuadrado executable within Netscape
3.1.2   The user gets the latest update for the game without restarting download
3.1.2.1   Should allow [Play Use Case] - provide functionality to play the game through interaction with the system
3.1.2.2   Should allow [Setting Use Case] - provide functionality to change the game settings

3.2 Server Module

3.2.1   The SM shall be the only intermediate between the two client modules and the database.
3.2.2   The SM shall receive all the requests and format the pages.
3.2.3   The SM shall validate and execute all requests coming from the player client modules.
3.2.4   Upon download request from the PM the SM shall produce the executable Cuadrado
3.2.5   The SM shall display the Cuadrado update status
3.2.6   Any error of execution, communication, validation or else shall be identified and appropriate comment display.
3.2.7   The SM shall try to recovery from most common errors.
3.2.8   The SM shall fulfil the requirements of supplemental specification to provide reliability and security..

4. Classification of Functional Requirements

Functionality	Type
4.1.1 The user shall be able to download the Cuadrado executable within Netscape	Essential
4.1.2 The user gets the latest update for the game without restarting download	Desirable
4.1.3 The SM shall be the only intermediate between the two client modules and the database	Essential
4.1.4 The SM shall receive all the requests and format the pages.	Essential
4.1.5 The SM shall validate and execute all requests coming from the player client modules.	Essential
4.1.6 Upon download request from the PM the SM shall produce the executable Cuadrado	Essential
4.1.7 The SM shall display the Cuadrado update status	Essential
4.1.7.1 [Play Use Case] (Refer to other document)	Essential
4.1.7.2 [Setting Use Case] (Refer to linked document)	Essential
4.1.8 Any error of execution, communication, validation or else shall be identified and appropriate comment display.	Desirable
4.1.9 The SM shall try to recovery from most common errors	Desirable