Requirements Document

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SE 2XA3

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1 Project Drivers

1.1 The purpose of the Project

The purpose of the project is to design and develop a Texas Hold-Em game that a person can play for enjoyment and improvement of their skills by getting the user acquainted with the rules of the game through gameplay, and by facing a challenging computer opponent. There are too many people who do not know the basics of the game and the goal is to help those who need a way to learn the game before entering their first professional Texas Hold'em game, for example at a casino.

1.2 The Client, the Customer, and Other Stakeholders

Client Spencer Smith
   The Customer

- Windows, Macintosh OS X, and/or Linux users

   Other Stakeholders

- Supervisors

- Designers and Developers

- Testers

- End Users

1.3 Users of the Product

The users are beginner Texas Hold-em players who wish to learn how to play the game. It is assumed they have no prior knowledge of the game. Users of any operating systems are accepted whether it is Windows, Macintosh OS X, or Linux users.

2 Project Constraints

2.1 Mandated Constraints

The current project constraint states that the product must be completed within the span of three months. The product shall be implemented in a GUI for simple navigation. The final product shall be self contained and be able to run on any major operating system (Windows, Macintosh, Linux). The product shall be marketed toward gamers, and/or poker players. The source code shall be written entirely in Java, and uses the awt and swing libraries from Java.

2.2 Naming Conventions and Definitions

2.3 Relevant Facts and Assumptions

Relevant Facts
   Assumptions

- The users are assumed to be beginners, as our version of the game will not cater to professional players

- Most users are assumed to be familiar with the operating system of their choosing for the usage of the product

- Most users are assumed to have the minimum memory and specifications in order to run the game on their personal computing device

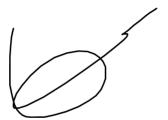# 3 Functional Requirements

3.1 The Scope of the Work

Current Situation

Figure 1: UML Diagram

3.2 Business Data Model & Data Dictionary

3.3 The Scope of the Product

3.4 Functional Requirements

The system shall:

- have a help page that explains the rules of the game

- have a graphical user interface

- have a computer program that can play Texas Hold-Em against the user

- start a game, distribute cards, and monitor chip counts

- pit the player against a computer opponent in a match of heads up no limit Texas Hold-Em

- allow users to set the amount of chips to play with

- end the game when either player or computer loses all their chips

4 Non-Functional Requirements

4.1 Look and Feel Requirements

Appearance Requirements

- The interface should be intuitive for beginners and the look should feel familiar to users of any operating system

- The overall look should be clean and uncluttered

  Style Requirements

- The user interface of the game should be appealing enough for the user to continuously want to play the game

4.2 Usability and Humanity Requirements

Ease of Use Requirements

- The interface should be easy for a beginner player to start playing immediately after reading the rules section of the program

- The interface shall be intuitive and easy to navigate

Ease of Learning Requirements

- The rules section should be clear and concise so that someone with no prior knowledge can understand

- The user interface should contain objects in an organized and uncluttered manner for ease of gameplay.

4.3 Performance Requirements

Speed requirements

- The game should load within 3 seconds after execution

- The computer player should respond within 2 second

- Button action(s) should be performed immediately

- The game graphic should refresh every 1 seconds (1Hz)

Safety and Critical requirements

- N/A

Precision Requirements

- The computer player should calculate probabilities accurate to 4 decimal places

- The deck shuffling should be as random as possible

Reliability and Availability Requirements

- Should be available on any operating systems (Windows, OS X, Linux)

- Should be available until program closes

Capacity Requirement

- The program shall be played by a single user on a single machine

4.4 Operational and Environmental Requirements

Expected physical environment

- The program shall be used by a single user in any environment the user wishes

Expected Technological environment

- The program shall run on any machine that has java

- The program is an offline application and needs no Internet connection to run

Partner Applications

- N/A

4.5 Maintainability and Support Requirements

Ease of Maintainability

- The program does not need to be maintained once development has been completed

Portability requirements

- The product is expected to run under the Windows, Apple and LINUX operating systems.

- The product should not be resource intensive

4.6 Security Requirements

- N/A

4.7 Cultural Requirements

- The program shall not use icons that could be considered offensive in any of our market countries.

4.8 Legal Requirements

- The program shall deal with only virtual currency

- The program will have a disclaimer stating that it does not advocate illegal gambling and should not be used as a tool to do so

5 Project Issues

5.1 Open Issue

5.2 Off-the-Shelf Solutions

5.3 New Problems

5.4 Tasks

- Revise requirements document

- Create a Test Plan Revision 0

- Demonstration for Proof of Concept

- Design Document Revision 0

- Demonstration of product Revision 0

- Document a Users Guide

- Generate Test Report

- Demonstration of final product

- Revise the documentation

5.5 Migration to the New Product

5.6 Risks

5.7 Costs

There are no monetary costs involved with this projects, but about 12 weeks of development time be required.

5.8 User Documentation and Training

Users will be prompted for game rules when the game begins, if Yes is selected, a dialog box will open to provide the user with information from rules to guidelines to the game. Alternatively, there will be a Help option in the program which links to the same dialog box along with other details regarding the usage of the game. Users who are already familiar with their operating system should not require further training to understand the game.

5.9 Waiting Room

Currently there are no plans for future release of the product. In the case that a new release is planned, features such as online capabilities and allowing more players or computer opponents to play in a single game.

5.10   Ideas for Solutions

Development of the game and GUI will be done in Eclipse.

6   Revision History