Software Requirements Specification

for

Shell Game

Version 1.0 approved

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Revision History

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| **Name** | **Date** | **Reason For Changes** | **Version** |
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# Introduction

## Purpose

Create a modifiable shell game to test participants. The results will be exported onto an excel sheet.

## Document Conventions

The content of the document is in Times New Roman at font size 12. The main titles are written in

bold Times New Roman at font size 18, and the subtitle follow the same format but are at font size

14. The left/right margins are .9” with top/bottom at 1”. 1.0 spacing is used between lines.

## Intended Audience and Reading Suggestions

Psychologists who are looking to test the cognitive abilities of an individual.

## Product Scope

At this point it is being used to test cognitive abilities of someone. Potential implementation of eye tracking technology to see whether a subject is lying about their answer.

## References

None right now.

# Overall Description

## Product Perspective

This will be used in a professional environment by psychologists.

## Product Functions

The test proctor will be allowed to modify the number of trials, number of cups per trial, number of swaps per trial, and speed of the swaps per trial. These test settings can be saved for later use. The person taking the test will receive a positive notification when the ball was correct. After the trials have been completed the test proctor will be given an excel spreadsheet displaying the results for each specific trial, along with each trials settings. A patient number will be associated with each chunk of data.

## User Classes and Characteristics

The program is designed to be proctored by a trained psychologist. The test itself is designed to be accomplished by any sighted person.

## Operating Environment

A professional environment for a psychologist to proctor it.

## Design and Implementation Constraints

This application requires a system to run it on and excel to produce results. However, if eye tracking software is implemented not having the external device will hinder that feature’s use.

## User Documentation

None right now.

## Assumptions and Dependencies

As of right now we can only foresee issues with this program operating on differing operating systems. This will rigorously be tested once code has been written.

# External Interface Requirements

## User Interfaces

Diagram

Description automatically generatedOn the main menu the proctor can enter in the details for the test. A patient ID number will be prompted in order to update the correct spreadsheet. The proctor can enter X number of trials, which will open up interfaces to modify the specifics for X number of trials. Each trial has different speeds, swaps, and cups. The stack of trials will allow saving presets and applying previous settings. The interface for the test taker will display the appropriate settings in the shell game environment.

## Hardware Interfaces

Ideally this should be working on all computer operating systems. Once we have a prototype, we will thoroughly test it so that consistency is maintained.

## Software Interfaces

This program interacts with excel when outputting the results. It doesn’t communicate with other components of the computer.

## Communications Interfaces

No databases will be used.

# System Features

This will allow multiple trials with varying settings to be tested on an individual.

## Main Menu

4.1.1 Description and Priority

This will be a medium priority. It would not have a cluttered design and will serve to enter in settings that will be used in the test.

4.1.2 Stimulus/Response Sequences

The user will type in the settings that they wish to use.

4.1.3 Functional Requirements

REQ-1: Clean design

REQ-2: Receives user input

REQ-3: Give the test the correct settings

REQ-4: Allow settings to be saved

## Shell Game

4.2.1 Description and Priority

This will be high priority since it is the focus of the project. It should be correctly customized with the settings provided by the proctor. The data will then be exported to excel when trials are finished.

4.2.2 Stimulus/Response Sequences

The player will be allowed to select a cup that they think correctly hides the ball. They will receive a notification if that choice was correct.

4.2.3 Function Requirements

REQ-1: Correctly uses applied settings

REQ-2: Clean animations

REQ-3: Notification sound for user on when they answer

REQ-4: Data exported to excel after trials

# Other Nonfunctional Requirements

## Performance Requirements

Excel is required to output the data.

## Safety Requirements

There are none.

## Security Requirements

Patient confidentiality with results.

## Software Quality Attributes

Excel is required to output the data.

## Business Rules

The person proctoring the test should not show the test settings to the person taking the test.