**Whack-A-Mole**

**FUNCTIONAL REQUIREMENTS**

**GROUP 2**

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**Version 0.0.1**

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# INTRODUCTION

## 1.1 Purpose

To plan out and define the necessary requirements to provide code, version control, graphical design, and sound for our group “Whack-a-Mole” themed game term Project.

# Group requirements AND RECOMMENDATIONS overview

**2.1 General Group Responsibilities**

**Specs:**

* Track progress made by all teams and document it in these functional specifications sheet
* Collaborate with Backbone to determine general game setup and requirements
* Provide QA with all necessary documentation for version control
* Find and Discuss examples of “Whack-a-Mole” game implementations as a baseline for our game

**Graphics:**

* Find and or create the background image, along with the necessary digital assets to serve as the “holes” and “moles”
* Find and or create all necessary background and active game sound effects
* Create graphics for buttons, including play, pause, and more.

**Backbone:**

* Establish a basic mock-up (No graphical design necessary)

**QA:**

* Set up a repository for storage and updating of game files along with specifications through Version Control

**2.2 Assumptions and Constraints**

* Any recommendations and or suggestions regarding the general structure of game functions are welcome, this is merely a general guide for group functions regarding the project.

# functional requirements And Specifics

## 3.1 Objective

With members being both the developers and end-user, the game will be structured based on our collective creative insight and knowledge regarding what a “Whack-a-Mole” styled game is.

* The game is meant to be simple, accessible, and most importantly **entertaining**
* The game should run as smoothly as possible given our short development time

## 3.2 Logistical/Coding Requirements

**Gameplay Algorithms**

* Player will be provided with a “lives” system establishing a number of allowed misses before game termination
  + Suggested baseline of 5 lives (Subject to Change)
  + **When all lives lost:** Gameplay is terminated, A score is provided through a pop-up
* The game is time based
  + There Is an overall timer for how long the player can whack “moles”.
  + **The frequency of moles is tied to the timer**, as the session progresses “moles” pop up more frequently and stay up for shorter amounts of time
  + **When timer ends:** Gameplay is terminated, A score is provided through a pop-up
* A counter is necessary to keep track of points obtained per “mole” whacked.

**Miscellaneous Algorithms – Its up to the group to determine if we add these as they are mostly for fun/creativity**

* A Possible Boss Level
  + “Bosses” are moles which occasionally pop-up providing bonus points, yet **requires additional hits (2 to 4)**
* A Pause Button
  + All game functions will stop when paused including movement of “moles” background and visual animations as well as music

## 3.3 Supportability/Game Control Schematic Requirements

(Subject to Change based on opinion of the Group)

* Controls will be executed using a **combination of mouse clicks and key tabs**
  + Each “hole” is to be assigned a specific key letter (A-Z) prompting the player to press the key associated with that specific “hole”
  + Pressing the correct key invokes a whack on the given “mole”. Otherwise, is a miss

## 3.4 Security/Version Control Requirements

* Version control will be managed through our group **GitHub Repository**
  + Link for our repository can be found in the Group 2 Discord Channel
  + **ALL** changes to the schematics and or code for the project will be managed by the GitHub Repository, with **QA Team** ensuring that it works well and is organized

## 3.5 Interface/Graphical Requirements

* The game is to be set in a **school inspired** theme
  + The interface will be comprised of around **9 to 12** tables which will serve as the “holes”
* Background music and whacking or miss sound effects can be anything that the **Graphics Team** wishes, get creative and have fun with it as we are the end-users.
* The timer and score counters can be placed in the top left of the interface

## 3.6 Assumptions / Constraints

Detail all assumptions / constraints related to Functional Requirements and User Impacts.

# Completion requirements

## 4.1 Assumptions / Constraints

* Given the amount of time provided for this “Whack-a-Mole” project, it without a doubt will not be perfect
* The general requirement for completion is that the game is **STABLE not FLAWLESS**, if we, being both the developers and end users are confident in our work after substantial testing will the game be considered “complete”

**APPENDIX A: REFERENCES or HELPFUL LINKS**

Listed below are all Links referenced in this Functional Requirements document.