Game Programming 1

420-141-VA, Section 00003 & 00004

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**Bomb-Man Project (GDD)**

# Executive Summary

This game is very similar to Pac-Man which is a very popular old game as it was inspired by it. In this game, You are playing as the main character which is a **bomb** in a world full of enemies. The enemies are **ghosts** (Similar to Pac-Man) which are trying to stop you from reaching your goal. The **main goal** of the character is to collect **all of the matches** without getting caught by the ghosts or without running out of time. Here is how the **timer** works: For all **3 levels**, there will be a limit of 5 minutes (may change). The user must complete it during this time period. For the **first level**, a small number of ghosts and matches in a cyber world. For the **second level**, An increased number of ghosts and matches, the speed of the ghosts increases, in a grassy location. For the **third level**, A much more increased number of ghosts and matches, the ghost speed has been increased even more, in a desert area,

**Win and lose condition**

To win, the user must collect all of the matches in all three levels before the timer ends and without getting caught. To lose, the user fails to collect the matches in the time period or gets caught by one of the ghosts.

**Main character**

* A bomb

**Enemies or obstacles**

* The ghosts which are roaming around the map

**Allies**

* The user has no allies

**Goals of the character**

* Collect all of the matches around the map in all three levels.
* Do not let the timer run out
* Do not get caught by any ghosts roaming around the map

**Point system**

* Matches (Points), increases the amount of points when touched
* Lives: The user will currently hold at least 3 lives (may increase or decrease)

Losing lives: The user will lose a life when they touch a ghost. The user will automatically lose all of their lives if the timer runs out.

# Controls

Arrows: Up, down, left, and right

* Up: User moves up
* Down: User moves down
* Left: User moves left
* Right: User moves right

# Developer Roles

* Darel: Project Leader, Developer (Win Conditions), Main Game Artist, Sounds
* Kofi: Developer, Lose Conditions, Game Artist (Can change if needed)
* Rana: Developer, Main Game Mechanics (Character and Ghosts), Levels
* Tammam: Developer, Timer mechanics, game mechanics, Levels
* All: Helping each other and sharing tasks

# Schedule Of Releases

11 / 20: Prototype

* Adding main ideas to the game (Includes main mechanics of the game)
* Creating the main menu
* Focusing on the first level

11 / 25: First Playable

* Focusing on the last two levels
* Finishing the main mechanics (also win and lose conditions)
* Special touch to the game

11 / 30: Pre-Alpha

* Improving the game as much as possible and fixing bugs
* Updating the game to add more things to it

12 / 06: Alpha

* Last bug fixes
* Checking if the game functions properly in the end

12 /10: Gold Master

* Fully developed game

# Game requirements

**Menu**

Game name, authors, course, semester, and teacher. Instructions, credits and start the game.

**Instructions**

Will include the following: How to play (Mechanics of the game). The win and lose condition. Mentions the timer and how much minutes they will have to win the game.

**Credits**

Team member roles and license of the game. Images, etc.

**Starting Configurations**

**Levels**

3 level designs:

* Cyber
* Grassy
* Desert

**Random Motion**

Ghosts are moving in random motion

**Conditionals**

The win and lose condition will contain conditionals

**Repetition**

Loop: The timer may be a loop if not the score will be inside of a while loop

**Scoreboard**

Will contain: Lives and Points

**Sound**

Point collect sound, death sound and win sound. Walking sound (Not confirmed)

**Animation**

The bomb will have an animation, or the ghosts (could be both)

**Disappearing**

The matches will disappear on touch

**Appearing**

When a number of points has been reached in a level, an additional ghost will randomly appear on the map

**Constructors**

Will have to check with the team