Game Design Document

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Table of Contents

1 OVERVIEW

1.1 Title

SNAKE GAME

1.2 Genre

Snake

1.3 Perspective

Third Person

1.4 Game Modes

Single Player Survival Mode

1.5 Target Audience

Anyone who can use a computer keyboard

2 BACKGROUND STORY AND FLOW

2.1 Main Playable Characters

"Mario", "Luigi", "Wario" the playable characters.

2.2 Non Playable Characters

"Goomba" or enemy, "1 up mushroom" or food, border

2.3 Background story on the creation of the project

A student received a project that needs to be done by February 10, 2016, which was to create a snake game. During the span of the start date and the deadline, the student was frustrated that no specifications nor a lecture on the game loop, which is needed to create the game, was given.

The student attending the GAMEDEV class for 5 weeks, expecting to know how to create a game was disappointed. The student was then annoyed that a basic lecture on 3D, Bezier curve, etc. was given on the 4th week, the student was like why would a lecture on 3d be given, the students does not even know the concepts of a 2-dimension game.

Realizing that the deadline was getting nearer and nearer, the student had to self-study everything in order to meet the deadline. The student finally decided the mechanics to be the same as the well-known normal snake game with no modifications where the snake will eat the food to increase its score, and dies whenever he collides with the border or itself.

As he finished the game, he realizes that there is still the GDD (Game Design Document) and the TDD (Technical Design Document) which he knows nothing about. Luckily the professor uploaded some examples of GDD and TDD, but no two documents had the same format, which frustrated the student even further. The student then resolved to follow the document that had the easiest format in order to finish the documents needed.

Up until this moment, the student still does not fully understand on how to create a game, even though he has created a snake game.

3 GAMEPLAY

3.1 Player goals and objectives
- Main goals
  - collect food in order to increase the score accumulated.

3.2 Challenges
- Avoid colliding with the parts of the snake or the walls

3.3 Game logic
- Players must collect food in order to increase the score accumulated.
- Players must avoid colliding with the parts of the snake or the walls.

3.4 Rules and mechanics

3.4.1 Player rules
- Players start with a score of zero.
- Player can only move up, left, down, right using the computer keyboard arrow or WASD keys.
- Player must collide with food in order to increase the score accumulated, specifically the player's character must go to the position of the food.
- Once the playable character collides with an enemy or the border they die, not specifically go the position of the enemy or the border but the next movement of the player is going to the position of the enemy or the border.
- If the player dies, they must start again from a score of zero.

3.4.2 Food rules
- Food only increases the player's score by one point.

3.4.3 Navigation and view
- Players can move in the following directions:
  - Up
  - Left
  - Down
  - Right
- The camera viewpoint is the whole map a god's eye view.

3.4.4 Environment
- Players can only move to terrain that has no enemy or border.

3.7 Resources

3.7.1 Scoring system
- The player is rewarded with one point for colliding with a food.

3.8 Replay value
- The player can replay to beat his / her previous score; may it be high or low.

4 ELEMENTS

4.1 Environment

The setting is a 480 px by 480 px grid panel, with each grid sizing about 30 px by 30 px.

4.2 Playable Characters

Play starts with "Mario", "Luigi", and "Wario", character changes to the next character when the player dies respectively in that order.

4.3 Non Playable Characters

- "Goomba" the enemy.
- "1 up mushroom" the food.
- Border.

5 I/O CONTROLS AND GUI INTERFACES

5.1 Control system

Key Control	Action
W or Up arrow	Up direction
A or Left arrow	Left direction
S or Down arrow	Down direction
D or Right arrow	Right direction

5.2 Interfaces

Main Menu	Description
Start Game	Load a new game.
Exit	Exit the game.

6 VISUAL AND AUDIO FEATURES

6.1 Visual and audio style

- Sprites used in game:

	"Mario" head		"1 up mushroom" or food
	"Luigi" head		"Goomba or enemy
	"Wario" head		

- Background image (actual size 540 px by 600 px)
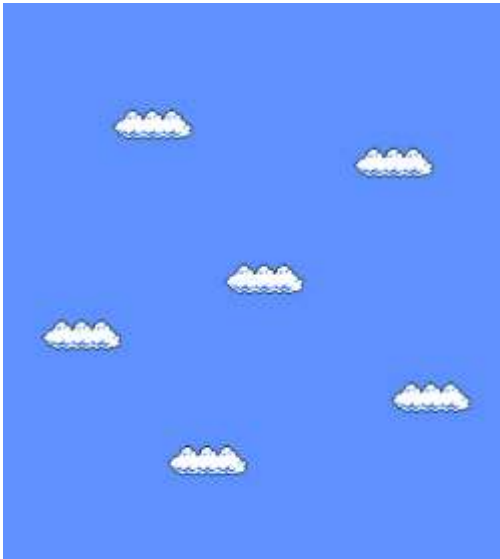
- Gameplay Image (actual size 540 px by 600 px) (HUD Top Left – Current Score)

6.2 Sound Effects

- Character voice on starting a new game.
- Character voice on colliding with food.
- Character voice dying.

7 SYSTEM PARAMETERS AND REQUIREMENTS

7.1 System requirements

The following are system requirements to play the game:
- Windows 7 or higher.
- 500MB hard drive space.

8 Important Notice

No copyright infringement intended. Solely for the purpose of the project, because the project has a grade for fancy GUI and sound effects.

8.1 References

- Mario, Luigi, Wario : http://ashryanbeats.com/talks-and-demos/howlerjs/images/mario-jump.png
- Sound Effects : http://themushroomkingdom.net/wav.shtml
- Background Image : http://i.stack.imgur.com/WHu9Z.png
- Font : http://www.fontspace.com/jackster-productions/super-plumber-brothers