Project 1

<Monster Story>

CSC-5 48101

Thomas, Jeffrey

11/11/16

**Introduction**

Title: Monster Story

“Tamagotchi” style game where the objective is to successfully raise a mysterious creature to adulthood by giving it proper care.

The game’s theme is trial and error. As you continue to play, you will learn what works and what does not work when it comes to raising your “pet”. The creature is fairly easy to kill (especially early in the game) so it’s imperative that the player takes a moment to think about their decisions.

The game focuses on time and resource management. You must find a balance in what you will spend your time doing in order to properly care for your creature while also anticipating any unknown obstacles.

**Summary**

Project Size: ~800 total (~650 without story text and comments)

Number of Variables: 18

**Regarding file I/O**

A save file with preloaded data has already been included to more easily test the load game functionality

Some important concepts Included:

Section Concept Line Number

|  |  |  |
| --- | --- | --- |
| 2.2 | Cout | 60 (and throughout) |
| 2.3 | #include | 9,10,11 |
| 2.6 | Int | 48 (and throughout) |
| 2.7 | Char | 39 (and throughout) |
| 2.8 | String | 46 (and throughout) |
| 2.10 | Bool | 30 (and throughout) |
| 2.12 | Variable Assignment | 39 (and throughout) |
| 2.14 | Arithmetic Operators | 200 (and throughout) |
| 2.15 | Comments | 1 (and throughout) |
| 2.16 | Constants | 18 (and throughout) |
|  |  |  |
| 3.1 | Cin | 85 (and throughout) |
| 3.2 | Mathematical Expressions | 200 (and throughout) |
| 3.7 | Formatting output | 562 |
|  |  |  |
| 4.1 | Relational operators | 89 (and throughout) |
| 4.2 | If Statement | 132 (and throughout) |
| 4.4 | If/else statement | 371-377 |
| 4.8 | Logical operators | 132 (and throughout) |
| 4.10 | Menus | 79 (and throughout) |
| 4.11 | Input Validation | 89 (and throughout) |
| 4.13 | Conditional Operator | 89 (and throughout) |
| 4.14 | Switch Statement | 101 (and throughout) |
|  |  |  |
| 5.1 | Increment/Decrement | 250 (and throughout) |
| 5.2 | While Loop | 89 (and throughout) |
| 5.4 | Counters | 250 (and throughout) |
| 5.6 | For loop | 389 (and throughout) |
| 5.10 | Nested Loops | 163,243 |
| 5.11 | Files for data storage | 240 (and throughout) |

**Pseudocode**

Declare constants

Define functions

Initialize

Generate random number seed

Declare Variables

Output title screen

Output Start Menu

Input Choice

While choice is out of bounds

Ask for input again

Case 1

New Game

Case 2

Load Game

Check if counter is 1

Output Exposition Story

Check if counter is 1

Initialize Variables

While stomach, happiness, and warmth are more than zero. While counter is less than 15

Output options menu

Input Choice

While choice is out of bounds

Ask for input again

Case 1

Increase money

Decrease Warmth

Case 2

Increase stomach

Decrease Warmth

Case 3

Increase happiness

Decrease Warmth

Case 4

Increase warmth

Case 5

Go shopping

Check if player has enough money

If True

Shop

If false

Leave store

Case 6

Save and exit game

Increase counter by 1

If variables are more than 0

Output progression text

While stomach, happiness, and warmth are more than zero. While counter is less than 40

Output options menu

Input Choice

While choice is out of bounds

Ask for input again

Case 1

Increase money

Random Event

Decrease stomach

Decrease happiness

Decrease warmth

Case 2

Increase stomach

Random Event

Decrease happiness

Decrease warmth

Case 3

Increase happiness

Random Event

Decrease stomach

Decrease warmth

Case 4

Increase warmth

Random Event

Decrease stomach

Decrease happiness

Case 5

Go shopping

Check if player has enough money

If True

Shop

If false

Leave store

Case 6

Save and exit game

Increase counter by 1

If variables are more than 0

Output progression text

While stomach, happiness, and warmth are more than zero. While counter is less than 100

Output options menu

Input Choice

While choice is out of bounds

Ask for input again

Case 1

Increase money

Random Event

Decrease stomach

Decrease happiness

Decrease warmth

Case 2

Increase stomach

Random Event

Decrease happiness

Decrease warmth

Case 3

Increase happiness

Random Event

Decrease stomach

Decrease warmth

Case 4

Increase warmth

Random Event

Decrease stomach

Decrease happiness

Case 5

Go shopping

Check if player has enough money

If True

Shop

If false

Leave store

Case 6

Save and exit game

Increase counter by 1

If variables are more than 0

Output Victory Text

If variables are less than 0

Output GAME OVER text

Return 0