**CHAPTER 5**

**THE CODETEST - A WEB BASED RPG**

**System Overview**

The CodeTest - A Web Based RPG is an online role playing game which has the same mechanics and capabilities of Pokemon games. The game serves as a learning tool and at the same time, making gamers enjoy themselves fully to the game’s capabilities as such the game also includes Pokemon games popular combat system in which there will be NPC’s scattered all over the region or simply in each levels of the said region. For instance if the player is found by an NPC, both will enter the combat system. The player will be forced to complete the NPC’s task. The task consists of making the player fulfill the task given by the NPC in which he/she has to solve the problem of the NPC in a way of coding. The game has its embedded programming, in which the player can enter lines of codes so that the player can get pass through the NPC, or simply win the given task. Given that if the player failed to complete the task or shall we say, he/she does not have any idea how to code the given task, hints will be there but there will be a decrease of the total score after completing the task.

The game itself of course has a story so that the player won’t get bored by simply battling NPC’s, fulfilling their tasks. Of course every story has its antagonists or villains, or evil organizations that are hell bent on taking over the world.

**System Objectives**

The study aims to develop a web based game that will help the students or users learn programming while enjoying.

It specifically aims to:

1. Introduce the project to the students/users who are interested in programming and on how to play it
2. Lessen the chance of failing the major subject because the user already know the ways of programming
3. Lessen the burden of the users when learning programming by playing the proposed game
4. Establish communication to the internet to allow the users to save their progress throughout the game
5. Design a user-friendly interface that will be suitable for any people accessing it.

**System Scope and Limitations**

The CodeTest - A Web Based RPG mainly focuses on the students of College of Computer Studies, Engineering and Architecture in La Salle University - Ozamiz. To those who are IT/CS students who wants to improve their skills and learn more about programming. This game can be played by anyone as long as they have the knowledge to code.

**Architectural Design**

**Data Tree**

**User Hierarchy**

**Use Cases**

Done

**Sequence Diagrams**

Done

**Activity Diagrams**

Done

**System Function**

**Physical Environment and Resources**

These are the system specifications used by the proponents in developing the research:

**Developer Side System/Application**

**Hardware**

**Platforms to be used:**

**RAM**: 4.00 GB up to 16 GB

**Hard Disk Drive**: 1000 GB

**Processor**: Intel Core i5-7200U 2.5 GHz

**Software**

**Platforms to be used:**

**OS**: Windows 10 x64 bit

**Platform**: Unity, MySQL Workbench, Tiled, Tiled2Unity

**Language**: C#, Lua, SQL

**Deployment Specification**

**Recommended system requirements**

**Desktop Computer:**

**Computer OS:**

**Processor:**

**RAM:**

**Browser**: