**Preliminary Requirements**

**Team: Code Slayer**

**Elvis Jimenez – Team Lead**

**Luis Oropeza – SQA Representative**

**Nah Nguyen – SQA Representative**

**Akshay Patel – Secretary**

**Stephanie Reyes – Secretary**

**Table of Contents**

Modification History

[Domain Knowledge](#_gjdgxs)

[Glossary](#_30j0zll)

[Interview with Client/Questioner](#_1fob9te)

[Functional Requirements](#_3znysh7)

[Use Cases](#_2et92p0)

Use Case 1

Use Case 2

Use Case 3

...

[Non-Functional Requirements](#_tyjcwt)

[Cost Constraints](#_3dy6vkm)

[Reliability](#_1t3h5sf)

Time Constraints

# Modification History

9/9/16 The product design layout has been developed.

9/16/16 The product design layout has been improved with features.

9/23/16 The coding has begun and a 5X5 board has been created

9/30/16 The product has the single or multiplayer feature

# Domain Knowledge

## Glossary

|  |  |
| --- | --- |
| **Term** | **Definition** |
| 5x5 Tic Tac Toe | A game can be played with two players using X and O signs. The player who succeeds in placing four of their marks in a horizontal, vertical, or diagonal row wins the game. |
| GUI(Graphical User Interface) | Two people can operate it using keyboard and mouse |
| Platform | OS based on the which software the game is running |
| SDL | Extensive library for C++ |
| Visual Studio | Integrated development environment for implementing the code |
| One Player | A player play against the computer |
| Multi Player | More than one player can play with each other. |
| Difficulty Level | In one player, player can play in easy, medium and hard levels. |

|  |  |
| --- | --- |
| **Acronym** | **Meaning** |
| GUI | Graphical User Interface |
| SQA | Software Quality Assurance |
| AI | Artificial Intelligence |

## Interview with Client/Questionnaire/…

**Location: UHD Academic building room 705**

**Date: 10/ 13/ 2016**

**Time: 1:15 - 1:45**

**Attendees: Shengli Yuan and Elvis Jimenez**

**Description:**

*Question 1*: What does it mean by 5X5X4?

*Response*: 5x5 means the board size and the 4 is how many have to be connected.

*Question 2*: Does the project have to use a server to communicate with all the other teams project?

*Response:* No, for the tournament two computer will be set side by side and mirrored.

*Question 3*: If so what language will that need to be programed in?

*Response:* N/A

*Question 4*: Either than the requirement in the syllabus is there anything extra that needs to be done?

*Response:* No everything else is up to the teams.

*Question 4*: For displaying user scores do you want it to only be set at the beginning and end of the game or be displayed at any time?

*Response:* That is up to the team to decided only thing is that the program must be able to display that content

**Functional Requirements**

## Use Cases

### Use Case 1

|  |  |
| --- | --- |
| Goals of actor | Play Tic Tac Toe |
| Tasks | First player starts a game then program creates the grid so player can play against the game or other people |
| Preconditions | Empty grid, other hand is a start new game |
| Exceptions | Error shows, if a game is in progress. |
| Variation of action interactions | N/A |
| System change/production | N/A |

### Step-by-Step Descriptions:

### Use Case 2

|  |  |
| --- | --- |
| Goals of actor | Register a User name |
| Tasks | Register a user-name and start a game. |
| Preconditions | The username must not register. |
| Exceptions | Gives error for already registered or duplicated username. |
| Variation of action interactions | N/A |
| System change/production | N/A |

### 

**Use Case 3**

### 

|  |  |
| --- | --- |
| Goals of actor | Create New Game |
| Tasks | Start a new a game after the previous game has done |
| Preconditions | Previous game must be canceled or ended to create a new game. |
| Exceptions | After the software is opened then the new game is loaded or the current game has ended |
| Variation of action interactions | N/A |
| System change/production | N/A |

### Use Case 4

### 

|  |  |
| --- | --- |
| Goals of actor | Single Player Mode |
| Tasks | A single player plays a game with a computer. |
| Preconditions | This mode can only be used, when a single player playing against computer. |
| Exceptions | In this game a single player plays a game only with computer. |
| Variation of action interactions | N/A |
| System change/production | N/A |

### 

**Use Case 5**

### 

|  |  |
| --- | --- |
| Goals of actor | Difficulty Level |
| Tasks | Pick level of difficulty, before you start a new game. |
| Preconditions | Player must choose one of the easy, medium and hard difficulty level in order to play a game. |
| Exceptions | This can be used only against another player or computer. |
| Variation of action interactions | N/A |
| System change/production | N/A |

### 

…

**Use Case 6**

|  |  |
| --- | --- |
| Goals of actor | Score Display |
| Tasks | Display number of winner and loser of player |
| Preconditions | Game has to ended so the score can be display on the screen |
| Exceptions | The score won’t be available unless a game has been played |
| Variation of action interactions | N/A |
| System change/production | N/A |

### 

**Use Case 7**

|  |  |
| --- | --- |
| Goals of actor | Exit Game |
| Tasks | Exits The game being played |
| Preconditions | The current game running or the game just open must be finished in order to quit the game |
| Exceptions | If there is no game, can't quit the application |
| Variation of action interactions | N/A |
| System change/production | N/A |

### 

# Non-Functional Requirements

## Cost Constraints:

## The project has a budget of $0.00. No further maintenance costs will be required in the future.

## Reliability:

* 1. The update will be provided until it's required.

## Time Constraints:

* 1. The time constraints are finding time to accommodate everyone’s availability to meet. Also, we need to organize adequate allotted time to completing the project. The software will be available by December 2016.