**Iteration 1#**

## Requirements Statement

1. Create a Single Page Application (SPA) using Vuejs and JavaScript ES2018.
2. Write a program to play a number guessing game. The program shall generate a random number between 0 and 99. The USER inputs his/her guess, and the program shall response with "Try higher", "Try lower" or "You got it in n trials" if the guess is correct.

## Iteration Plan

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Milestone | Planned Start Date | Actual Start Date | Planned End Date | Actual End Date | Task |
| Iteration |  |  |  |  |  |
| Planning | 11/8/2019 | 11/8/2019 | 11/8/2019 | 11/8/2019 | 1.Write a programming, which can play Number Guess Game with computer.  2.Finish the first part of the game, let the computer generate a random number between 0 and 99,User guess the number, and computer shall response with "Try higher", "Try lower" or "You got it in n trials" if the guess is correct. |
| Analysis | 12/8/2019 | 12/8/2019 | 12/8/2019 | 12/8/2019 | Analyze project requirements. List the required functionality for the project. |
| Design | 13/8/2019 | 13/8/2019 | 13/8/2019 | 13/8/2019 | 1.Design the Single Page Application’s website Layout.  2.Use Pseudocode for the programming. |
| Coding | 14/8/2019 | 14/8/2019 | 17/8/2019 | 17/8/2019 | Coding for the first literation. |
| Testing | 18/8/2019 | 18/8/2019 | 19/8/2019 | 19/8/2019 | Make a testing plan and do the test.  Record the result of the test. |

## Task Summary

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Time in Phase (hr.)** | **Plan** | **Actual** | **Start** | **Stop** | **To Date** | **To Date %** |
| Planning | 0.5hr | 0.5hr | 7:30 | 8:00 | 11/8/2019 | 10% |
| Analysis | 0.5hr | 0.5hr | 11:30 | 12:00 | 12/8/2019 | 10% |
| Design | 1hr | 1hr | 9:00 | 10:00 | 13/8/2019 | 22% |
| Coding | 1hr | 1hr | 20:00 | 21:00 | 16/8/2019 | 22% |
| Test | 1hr | 1hr | 22:00 | 23:00 | 18/8/2019 | 22% |
| Postmortem | 0.5hr | 0.5hr | 18:00 | 18:30 | 20/8/2019 | 10% |
| Total | 4.5hr | 4.5hr |  |  |  | 100% |

## Class Diagram

App:Vue

result: string

count:int

correctNumber:int

guessNumber:int

Index.html

**1 1**

init():void;

guess():void;

## Plan for how feature works

Pseudocode

Requirement 1: Write a program to play a number guessing game. The program shall generate a random number between 0 and 99. The USER inputs his/her guess, and the program shall response with "Try higher", "Try lower" or "You got it in n trials" if the guess is correct.

Pseudocode:

1. Set a range of random number (0~99);
2. Set variable trialsCounter = 0;
3. Let the computer generates a random number in the range, call “correctNumber”;
4. Ask user to input a number in the range, call “guessNumber”.
5. if (guessNumber != correctNumber){

trialsCounter ++

If (guessNumber < correctNumber) {

Return "Try higher";

}

Else if (guessNumber > correctNumber) {

Return "Try lower";

}

Else {Return "You got it in ‘trialsCounter’ trials"; (guessNumber == correctNumber)}

}

## Test Plans:

|  |  |  |
| --- | --- | --- |
|  | Test Plans | Expected Results |
| 1 | Test the function of button “Play”. | When the user clicks the button “play”, the game counter clears to zero, and the computer automatically generates an integer of 0-99, and the web page appears a string "Please guess a number, enter it, and press Guess." |
| 2 | Use max value to test the “Guess” function. | Enter 99, the program output “Try lower” |
| 3 | Use min value to test the “Guess” function. | Enter 0, the program output “Try higher” |
| 4 | Test the counter. | Play the game and record the number of guesses. Compare with the final output. |

## Test Report Template

|  |  |
| --- | --- |
| Test Name/Number | 1 |
| Test Objective | Test the function of button “Play”. |
| Test Description | Execute NumberGuessGameV3.html on browser. Enter F12, press button “play”, input vm. count; |
|  | Execute NumberGuessGameV3.html on browser. Enter F12, press button “play”, input vm. correctNumber; |
|  | Execute NumberGuessGameV3.html on browser. |
| Test Conditions | No options are given, default options apply. |
| Expected Results | vm. Count is 0; |
|  | vm. correctNumbe’s value in the range of 0 to 99; |
|  | "Please guess a number, enter it, and press Guess." appear. |
| Actual Results | vm. Count is 0; |
|  | vm. correctNumbe’s value in the range of 0 to 99; |
|  | "Please guess a number, enter it, and press Guess." appear. |
| Test Name/Number | 2 |
| Test Objective | Use max value to test the “Guess” function. |
| Test Description | Execute NumberGuessGameV3.html on browser. Play the game and enter number 99. |
| Test Conditions | No options are given, default options apply. |
| Expected Results | Output “Try lower”. |
| Actual Results | Output “Try lower”. |
| Test Name/Number | 3 |
| Test Objective | Use min value to test the “Guess” function. |
| Test Description | Execute NumberGuessGameV3.html on browser. Play the game and enter number 0. |
| Test Conditions | No options are given, default options apply. |
| Expected Results | Output “Try lower”. |
| Actual Results | Output “Try lower”. |
| Test Name/Number | 4 |
| Test Objective | Test the counter. |
| Test Description | Play the game and record the number of guesses. Compare with the final output. |
| Test Conditions | No options are given, default options apply. |
| Expected Results | The record number is equal to final output. |
| Actual Results | The record number is equal to final output. |

## Error Logs

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **No.** | **Type** | **Inject** | **Remove** | **Fix Time** | **Fix Ref** | **Description** |
| **13/8/2019** | 1 |  | design | Vue put in put in a wrong place in html. | 1 | 1 | VUE introduction failure |
| **16/8/2019** | 2 | 20 | code | Initialize the variable | 2 | 2 | {{result}} cannot output. |
| **16/8/2019** | 3 | 20 | code | Add counter++ | 1 | 3 | Counter not working. |
| **16/8/2019** | 4 | 20 | code | Clear the counter when finish the game. | 1 | 4 | Counter cannot clear when game finish. |
| **16/8/2019** | 5 | 20 | code | not fix yet | 1 | 5 | Parsing error: Unexpected token : (null) |

## PSP Process Improvement Proposal (PIP)

|  |
| --- |
| Problem Description |
| Briefly describe the problems that you encountered. |
| Vue not work. |
| Guess counter do not work. |
| Guess counter cannot clear. |
| Use enter Key cannot clear the input number. |
| Proposal Description |
| Briefly describe the process improvements that you propose. |
| Download the video tutorial to learn how to use Vue. |
| Test the code and finally fix it. |
| Google and found a method to fix it. (use v-on:submit.prevent="guess") |
| Other Notes and Comments |
| Note any other comments or observations that describe your experiences or improvement ideas. |
| 1. Next literation Page design should be improved |
| 1. Need to get used to documenting my work. |
| 1. Use another way to design my program. |