CS 101 Course Project – Stage 1

Software Requirement Specification(Modified)

Lab Batch – 251 (Tuesday)

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“ SPOT AND HIT “

Introduction :

The name of the project is “ Spot And Hit “ and it is made using EzWindows.

“Spot And Hit “ is a game where a player hits(clicks) an object that appears on the screen at a random location. For each successful hit, the player receives some stipulated points which will be added to his score. However , for every “bad” click the user will be penalized and points will be deducted from the total score earned by the user. The objects that appear on the screen are timed and remain visible on the screen only for a pre-specified period of time. The player has to hit the object before it disappears. Every hit made by the player can be characterised as a “good” hit or a “bad” hit. There are a few objects which may fetch some points by clicking on them but there are other objects which will result in the deduction of points when clicked on. The game gets trickier as the player keeps earning points i.e the speed at which the objects appear and disappear increases as the game progresses. The game ends when the user reaches a negative score or when he exceeds the time limit. This game designed to test the speed, accuracy, hand-eye coordination and memory(to some extent) of the player.

Design Of the Game(Functional Specifications) :

The game begins with the launch of the main window that comprises of mainly of 3 buttons(Bitmap images) namely “Start” , “Instructions” , “Quit”.

When the player clicks “Start” a message is displayed ,alerting the user to get ready for the game and a new window is launched where the game is to be played. The game now begins and the user plays this game with the mouse(through mouse clicks). As the score of the player increases, the speed at which the images appear also increases. The player should also be careful that for every click on any place other than balls, there will be a -1 being rewarded.

With the help of the” SetMouseClickCallBack” option available on EzWindows the following actions are achieved -

When the “Instructions” option is clicked, a new window launches which displays the instructions of the game.

When the “Quit” option is selected, the main window is closed with a “Goodbye” message.

Also, the player may quit any time during the game. If he hits the “Quit” button on the main window, the current windows are shut and the game comes to an abrupt halt.

Thus for every mouse click, a pre-defined function is invoked which carries out the operation appropriately.

In the main function of the program (ApiMain() ), a function is invoked and this in turn calls upon another function and this process goes on. All the functions used in the program are declared globally and are invoked in a logical way.

On the whole , this game has a total of 3 windows which are the main window, game window and the instruction window. The latter 2 of these windows are opened through mouse clicks on the main window.

Software Interface Requirements :

The program has been written basically in C++ language. In order to introduce graphics into the game, EzWindows API has been used in designing the game. In order to successfully run the program, the following are the minimum requirements ::

(a)Ubuntu (32-Bit)(version 11.1 is preferred).

(b)EzWindows installed with necessary(mentioned in the appendix) library files.(X11 library files have to updated and installed through the Synaptic Packet Manager on Ubuntu v11.1).

User Interface Requirements :

This game is played only with the mouse i.e through mouse clicks. Starting from the launch of the game till the end, the user interacts solely with the help of mouse. The game is played only on mouse clicks and it is only these clicks that is responsible for the functionality of the game.