**Word Search Project Documentation**

**Person**

Parameters

**PRIVATE**

*string name*

*int score*

*string file\_name*

Constructors

**PUBLIC**

*Person(string name)*

*Person(string name, string file\_name)*

*Person(string name, int score)*

*Person(string name, int score, string file\_name)*

Functions

**PUBLIC**

*string& get\_name()*

Returns a reference to the name of a Person

*void increment()*

Increments score by 1

*int& get\_score()*

Returns a reference to the score

*string& get\_file\_name()*

Returns a reference to the image path

**Init\_window**

Parameters

**PRIVATE**

*In\_box name\_box*

*In\_box image\_box*

*Menu dimensions*

*Button quit\_button*

*Button play\_button*

*int board\_size*

Constructor

**PUBLIC**

*Init\_window(Point xy, int dx, int dy, const string& title)*

Functions

**PRIVATE**

*void create\_file()*

Creates the output data file player\_data.txt

*void play()*

Hides the current window, calls create\_file, and creates an instance of a Play\_window

*void quit()*

Hides the current window

*void three\_pressed()*

Sets board\_size equal to 3 and shows the Play button

*void four\_pressed()*

Sets board\_size equal to 4 and shows the Play button

*void five\_pressed()*

Sets board\_size equal to 5 and shows the Play button

*static void cb\_3(Address, Address)*

Callback for the 3x3 button which calls three\_pressed

*static void cb\_4(Address, Address)*

Callback for the 4x4 button which calls four\_pressed

*static void cb\_5(Address, Address)*

Callback for the 5x5 button which calls five\_pressed

*static void cb\_quit(Address, Address)*

Callback for the Quit button which calls quit

*static void cb\_play(Address, Address)*

Callback for the Play button which calls play

**Dictionary**

Functions

*vector<string> read\_dictionary()*

Reads words from WordsEn.txt into a vector of strings

*bool is\_word(string& word, vector<string>& dictionary)*

Checks to see whether a word is contained with a vector of strings

**End\_window**

Parameters

*string image\_name*

*string winner\_name*

*int high\_score*

*vector<Person> players*

*Vector\_ref<Text> scoreboard*

*stringstream winstream*

**PRIVATE**

*Button play\_again\_button;*

*Button quit\_button;*

*Text players\_label;*

*Text scores\_label;*

*Text winner\_label;*

Constructor

**PUBLIC**

*End\_window(Point xy, int w, int h, const string& title)*

Functions

**PRIVATE**

*void play\_again()*

Hides the current window and creates an instance of Init\_window

*void quit()*

Hides the current window

void input\_data(vector<Person>& players)

Inputs data from the file, player\_data.txt, into vector of Persons

*static void cb\_quit(Address, Address)*

Callback for the Quit button which calls quit

*static void cb\_play\_again(Address, Address)*

Callback for the Play Again button which calls play\_again