

```
1  //////////////////////////////////////
2  // Headers
3  //////////////////////////////////////
4  // #include <SFML/Audio.hpp>
5  #include <SFML/Graphics.hpp>
6  #include <SFML/Window.hpp>
7  #include <Windows.h>
8  #include <iostream>
9  #include <string>
10 #include <list>
11 #include <fstream>
12 #include <cstdlib>
13 #include <ctime>
14
15
16
17
18 //this seems to be getting the sprites and then returning the sprite
19
20 sf::Sprite displayImage(std::string input, sf::Texture &texture)
21 {
22
23
24     if (!texture.loadFromFile( input + ".bmp"))
25     {
26         std::cout << "Image " << input << ".bmp failed to load\n";
27
28
29         texture.loadFromFile("error.bmp");
30
31
32
33
34     }
35
36
37     sf::Sprite sprite;
38     sprite.setTexture(texture);
39
40     return sprite;
41
42
43
44
45
46 }
47
48 void Listmaker(std::list <std::string> &flags)
49 {
```

```
50
51
52
53     std::string filename = "country_names.txt"; //gonna have to change to ktp
54
55
56     std::string line;
57     std::ifstream file(filename);
58
59     if (file.is_open())
60     {
61
62         while (std::getline(file, line))
63         {
64
65             flags.push_back(line);
66
67
68         }
69     }
70
71     else
72     {
73
74         std::cout << "error unable to read\n";
75
76     }
77
78
79     file.close();
80
81
82     /*for (auto i : flags)
83         std::cout << i << std::endl;*/
84
85
86
87
88
89 }
90
91 void textSetter(std::string input, sf::Text& text, sf::Font& font, int textposXChoice, sf::Color color)
92 {
93
94
95
96
```

```
97     // select the font
98     text.setFont(font); // font is a sf::Font
99
100    // set the string to display
101    text.setString(input);
102
103    // set the character size
104    text.setCharacterSize(24); // in pixels, not points!
105
106    // set the color
107    text.setFillColor(sf::Color::Red);
108
109    // set the text style
110    text.setStyle(sf::Text::Bold | sf::Text::Underlined);
111
112
113
114    if (textposXChoice == 1)
115    {
116
117        text.setPosition(20.f, 200.f);
118
119
120    }
121    else if (textposXChoice == 2)
122    {
123
124
125        text.setPosition(20.f, 300.f);
126
127
128    }
129    else if (textposXChoice == 3)
130    {
131
132        text.setPosition(20.f, 400.f);
133
134
135    }
136    else if (textposXChoice == 4)
137    {
138
139
140        text.setPosition(20.f, 500.f);
141
142
143    }
144    }
145    else
```

```
146     {
147
148         // set the string to display
149         text.setString("error");
150
151         // set the character size
152         text.setCharacterSize(24); // in pixels, not points!
153
154         // set the color
155         text.setFillColor(sf::Color::Yellow);
156
157         // set the text style
158         text.setStyle(sf::Text::Bold | sf::Text::Underlined);
159
160         text.setPosition(20.f, 200.f);
161
162
163     }
164
165
166
167
168
169
170 }
171
172
173
174
175
176 void wrongAnswers(std::string input, sf::Text& text, sf::Font& font,
177     int textposXChoice, std::list<std::string> flags,
178     std::list<std::string> correctanswers, int& wrongtextpos1, int& wrongtextpos2, int& wrongtextpos3)
179 {
180
181
182
183     while (wrongtextpos1 == textposXChoice)
184     {
185         wrongtextpos1 = rand() % 4 + 1;
186
187         if (wrongtextpos1 != textposXChoice)
188         {
189
190             break;
191
192         }
193
194     }
```

```
194     }
195
196     while (wrongtextpos2 == textposXChoice || wrongtextpos2 == wrongtextpos1)
197     {
198         wrongtextpos2 = rand() % 4 + 1;
199
200         if (wrongtextpos2 != textposXChoice && wrongtextpos2 != wrongtextpos1)
201         {
202
203             break;
204
205         }
206     }
207
208
209     while (wrongtextpos3 == textposXChoice || wrongtextpos3 == wrongtextpos1 || wrongtextpos3 == wrongtextpos2)
210     {
211         wrongtextpos3 = rand() % 4 + 1;
212
213         if (wrongtextpos3 != textposXChoice && wrongtextpos3 != wrongtextpos1 && wrongtextpos3 != wrongtextpos2)
214         {
215
216             break;
217
218         }
219     }
220
221
222
223
224
225 }
226
227
228
229
230
231
232
233
234
235
236
237 int main()
238 {
```

```
239
240     std::string input = "test2";
241     sf::Texture texture;
242     sf::Color color = sf::Color::Red;
243
244     sf::RenderWindow window(sf::VideoMode(1000, 1000), "FlagGuesser");
245
246     int prevtextpos = 0;
247
248     int points = 100;
249
250     while (window.isOpen())
251     {
252         sf::Event event;
253         while (window.pollEvent(event))
254         {
255             if (event.type == sf::Event::Closed)
256                 window.close();
257         }
258
259         window.clear();
260
261
262
263
264
265         std::list<std::string> flags;
266         std::list<std::string> correctanswers;
267
268         Listmaker(flags);
269
270
271
272         srand(time(0));
273
274         //auto jk = rand() % flags.size() + 1;
275
276         std::list<std::string>::iterator iter = flags.begin();
277         std::string correctanswerholder;
278
279
280
281         for (int uppy = 0; uppy < 20; uppy++)
282         {
283
284             if (uppy == 20)
285             {
286
287                 window.close();
```

```
288         break;
289
290     }
291
292     auto jk = rand() % flags.size();
293
294
295
296
297
298
299     advance(iter, jk);
300
301
302     window.clear();
303
304     window.draw(displayImage(*iter, texture));
305
306     correctanswers.push_back(*iter); //loads the correct answer onto separate list
307
308
309
310     sf::Font font;
311     if (!font.loadFromFile("arial.ttf"))
312     {
313         std::cout << "font error\n";
314     }
315
316     sf::Text text;
317     sf::Text wrong1, wrong2, wrong3;
318
319
320
321     int textposXChoice = rand() % 4 + 1; //between 1 and 4 inclusive
322
323     while (prevtextpos != textposXChoice)
324     {
325
326         int textposXChoice = rand() % 4 + 1; //between 1 and 4 inclusive
327
328         if (prevtextpos != textposXChoice)
329         {
330             break;
331
332         }
333
```

```
334
335     }
336
337
338
339
340     textSetter(*iter, text, font, textposXChoice, color);
341
342     window.draw(text);
343
344     correctanswerholder = *iter;
345
346
347     //wrong answers don't trust iter after this line till end of for loop
348
349     int wrongtextpos1 = 1;
350     int wrongtextpos2 = 1;
351     int wrongtextpos3 = 1;
352
353
354
355
356
357
358
359
360     wrongAnswers(*iter, text, font, textposXChoice, flags,
361                 correctanswers, wrongtextpos1, wrongtextpos2,
362                 wrongtextpos3);
363
364
365     color = sf::Color::Green;
366     iter = flags.begin();
367     jk = rand() % flags.size();
368     advance(iter, jk);
369     textSetter(*iter, text, font, wrongtextpos1, color);
370     window.draw(text);
371
372
373     color = sf::Color::Blue;
374     iter = flags.begin();
375     jk = rand() % flags.size();
376     advance(iter, jk);
377     textSetter(*iter, text, font, wrongtextpos2, color);
378     window.draw(text);
379
380
381     color = sf::Color::Magenta;
```



```
381         iter = flags.begin();
382         jk = rand() % flags.size();
383         advance(iter, jk);
384         textSetter(*iter, text, font, wrongtextpos3, color);
385         window.draw(text);
386
387
388
389
390
391
392
393
394
395         iter = flags.begin();
396         prevtextpos = textposXChoice; //stores previous
397         textposXChoice = 0;
398
399
400
401
402     }
403
404     window.display();
405
406     std::string repuesta;
407
408
409     std::cout << "What country do you think this is? \n";
410     getline(std::cin, repuesta);
411
412     std::cout << "\n the correct answer was: " << correctanswerholder <<
        << std::endl;
413
414
415     if (repuesta == correctanswerholder)
416     {
417
418         std::cout << "\n YOU WON FIFTEEN POINTS! \n";
419
420         points += 15;
421         std::cout << "\n Your score: " << points << std::endl;
422
423
424
425
426     }
427     else
428     {
```

```
429
430         std::cout << "\n You lost 10 points! \n";
431
432         points -= 10;
433         std::cout << "\n Your score: " << points << std::endl;
434
435
436
437
438     }
439
440
441     std::cout << "\n ----- \n";
442
443
444     if (points < 0)
445     {
446
447         std::cout << "\n You have ran out of points! Thank's for playing! \n";
448         exit(0);
449
450     }
451
452
453
454
455
456
457
458
459     Sleep(4000);
460
461
462 }
463
464
465
466 return 0;
467
468
469 }
```