Exercise\_2\_solution

#include <iostream>

#include <cctype>

using namespace std;

bool isvowel(char c)

{

if (c == 'a' || c == 'A') return true;

else if (c == 'e' || c == 'E') return true;

else if (c == 'i' || c == 'I') return true;

else if (c == 'o' || c == 'O') return true;

else if (c == 'u' || c == 'U') return true;

else return false;

}

/\*

There is another build-in function you can use to instead a lot of if statement

The function is "switch"

here is the example to use switch to create the same function "isvowel"

bool isvowel(char c)

{

switch (c)

{

case 'a': return true; break;

case 'A': return true; break;

case 'e': return true; break;

case 'E': return true; break;

case 'i': return true; break;

case 'I': return true; break;

case 'o': return true; break;

case 'O': return true; break;

case 'u': return true; break;

case 'U': return true; break;

default: return false; break;

}

}

This will do the same thing of all the if statement, but notice that switch functon can only work for

integer, char or enum value. If you want to check other type of value like float or double, you must

have to use if statement.

In addition you can use the function "toupper" or "tolower" to convert a char into upper case or lower

case. so you may just need to check once for each vowel letter. toupper() is in <cctype> library

for example:

bool isvowel(char c)

{

c = toupper(c);

switch (c)

{

case 'A': return true; break;

case 'E': return true; break;

case 'I': return true; break;

case 'O': return true; break;

case 'U': return true; break;

default: return false; break;

}

}

\*/

int main()

{

char single\_char;

int vowel\_count = 0;

cout << "Enter any sentence: ";

cin.get(single\_char);

while (single\_char != '\n')

{

if (isvowel(single\_char) == true) vowel\_count++;

cin.get(single\_char);

}

cout << "There are " << vowel\_count << " vowel in this sentence ~" << endl;

system("pause");

return 0;

}