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1  /*
2     Zach Hofmeister      2/11/19
3     Lab 2: Functions
4     A quiz making application that asks the user for questions and answers and
        generates a quiz.
5  */
6
7  #include "pch.h"
8  #include <iostream>
9  #include <string>
10
11 using namespace std;
12
13 void addQuestion(string[5][2], int); //Adds a question to the array at an index
        defined by an int
14 void displayQuiz(string[5][2], int); //Displays a quiz array of certain length
        defined by an int
15
16 int main() {
17     string questions[5][2];
18     char choice = 'a'; //keeps track of user input into the menu system
19     int count = 0; //keeps track of question index
20
21     cout << "Welcome to QuizMaker 5000" << endl;
22     cout << "Make a quiz up to 5 questions long!" << endl;
23
24     do {
25         cout << endl << "What would you like to do?" << endl;
26         cout << "a. Create a question" << endl;
27         cout << "b. Quit" << endl;
28         cout << "Choice: ";
29         cin >> choice;
30         choice = tolower(choice); //handles upper-case input equally
31
32         if (choice == 'a' && count < 5) { //if user can enter more questions
            and user wants to
33             addQuestion(questions, count);
34             count++;
35         } else if (choice != 'a' && choice != 'b') { //invalid character input
36             cout << endl << "Invalid option" << endl;
37         }
38     } while (choice != 'b' && count < 5); //loop breaks if user quits or user
        inputs max questions
39
40     displayQuiz(questions, count); //displays the entered questions and answers
41
42     return 0;
43 }
44
```

```
45 void addQuestion(string questions[5][2], int index) { //Adds a question to the
    array at an index defined by an int
46     string question, answer;
47     cout << endl;
48     cout << "Please enter your question: ";
49     cin.ignore(); //Need to clear buffer since there is an escape character
        inside
50     getline(cin, question); //Get a string
51     cout << "Please enter the answer: ";
52     getline(cin, answer); //Get a string
53     questions[index][0] = question;
54     questions[index][1] = answer;
55     cout << "Question " << index + 1 << " added!" << endl;
56 }
57
58 void displayQuiz(string questions[5][2], int count) { //Displays a quiz array
    of certain length defined by an int
59     cout << endl << "Thank you for using QuizMaker 5000" << endl;
60     cout << endl << "Created Quiz" << endl;
61     for (int i = 0; i < count; i++) {
62         cout << "Q" << i + 1 << ": " << questions[i][0] << endl;
63         cout << "A: " << questions[i][1] << endl;
64         cout << endl;
65     }
66 }
67
68 /*
69 SAMPLE OUTPUT:
70 Welcome to QuizMaker 5000
71 Make a quiz up to 5 questions long!
72
73 What would you like to do?
74 a. Create a question
75 b. Quit
76 Choice: a
77
78 Please enter your question: 1
79 Please enter the answer: 2
80 Question 1 added!
81
82 What would you like to do?
83 a. Create a question
84 b. Quit
85 Choice: a
86
87 Please enter your question: 3
88 Please enter the answer: 4
89 Question 2 added!
90
```

```
91 What would you like to do?
92 a. Create a question
93 b. Quit
94 Choice: a
95
96 Please enter your question: 5
97 Please enter the answer: 6
98 Question 3 added!
99
100 What would you like to do?
101 a. Create a question
102 b. Quit
103 Choice: a
104
105 Please enter your question: 7
106 Please enter the answer: 8
107 Question 4 added!
108
109 What would you like to do?
110 a. Create a question
111 b. Quit
112 Choice: a
113
114 Please enter your question: 9
115 Please enter the answer: 10
116 Question 5 added!
117
118 Thank you for using QuizMaker 5000
119
120 Created Quiz
121 Q1: 1
122 A: 2
123
124 Q2: 3
125 A: 4
126
127 Q3: 5
128 A: 6
129
130 Q4: 7
131 A: 8
132
133 Q5: 9
134 A: 10
135
136 Press any key to close this window . . .
137
138 =====
139 SAMPLE 2
```

```
140 =====
141
142 Welcome to QuizMaker 5000
143 Make a quiz up to 5 questions long!
144
145 What would you like to do?
146 a. Create a question
147 b. Quit
148 Choice: a
149
150 Please enter your question: 1
151 Please enter the answer: 2
152 Question 1 added!
153
154 What would you like to do?
155 a. Create a question
156 b. Quit
157 Choice: a
158
159 Please enter your question: 3
160 Please enter the answer: 4
161 Question 2 added!
162
163 What would you like to do?
164 a. Create a question
165 b. Quit
166 Choice: a
167
168 Please enter your question: 5
169 Please enter the answer: 6
170 Question 3 added!
171
172 What would you like to do?
173 a. Create a question
174 b. Quit
175 Choice: b
176
177 Thank you for using QuizMaker 5000
178
179 Created Quiz
180 Q1: 1
181 A: 2
182
183 Q2: 3
184 A: 4
185
186 Q3: 5
187 A: 6
188
```

```
189 Press any key to close this window . . .  
190 */
```