

devil.cpp

```
1  #include <iostream>
2  #include <string>
3  // #include <cstdlib> // For system("cls")
4  #include <chrono>
5
6  using namespace std;
7  using namespace std::chrono;
8
9  char Guess;
10 int Total = 0;
11 string name;
12 int roll;
13
14 class Question {
15     private:
16         string Question_Text;
17         string option_1;
18         string option_2;
19         string option_3;
20         string option_4;
21
22         char correct_Answer;
23         int Question_score;
24
25     public:
26
27         void set_values(string, string, string, string, string, char, int);
28         void ask_question();
29
30 };
31
32 void Question :: set_values(string q, string op1, string op2, string op3, string op4, char
ca, int qs) {
33     Question_Text = q;
34     option_1 = op1;
35     option_2 = op2;
36     option_3 = op3;
37     option_4 = op4;
38     correct_Answer = ca;
39     Question_score = qs;
40 }
41
42 void Question :: ask_question() {
43     cout << endl;
44     cout << Question_Text << endl;
45     cout << "\t\t\t a." << option_1 << endl;
46     cout << "\t\t\t b. " << option_2 << endl;
47     cout << "\t\t\t c. " << option_3 << endl;
48     cout << "\t\t\t d. " << option_4 << endl;
49     cout << endl;
50
51     cout << "\t\t\t Choose your Option" << endl;
52     cout << " \t\t\t";
```

localhost:58994/c9800bd3-ec4b-496f-ab67-a7e76a4dc902/

```
109     cout << "3. Hard" << endl;
110     cout << "Enter your choice (1/2/3): ";
111     cin >> choice;
112
113     if (choice < 1 || choice > 3) {
114         cout << "invalid" << endl;
115         return 1;
116     }
117
118     Question q1, q2, q3, q4, q5, q6, q7, q8, q9, q10, q11, q12, q13;
119
120     if (choice == 1) {
121
122         cout<<"Each question carry 20 Marks"<<endl;
123         cout<<"Total marks : 100" <<endl;
124
125         q1.set_values("\t\t\tQ.NO.1:What does the endl manipulator do in C++?",
126             "Ends the program",
127             "Ends the current line and moves to the next",
128             "Ends the loop",
129             "Ends the function", 'b', 20);        //b-correct option    10-marks
130
131         q2.set_values("\t\t\tQ.NO.2: What is the difference between == and = in C++?",
132             "Both are used for comparison",
133             "== is assignment, = is equality comparison",
134             "== is equality comparison, = is assignment",
135             "There is no difference",'c',20);
136
137         q3.set_values("\t\t\tQ.NO.3: Which of the following is not a valid C++ variable
138             name?",
139             "myVariable",
140             "123variable",
141             "_variable123",
142             "Variable123", 'c', 20);
143         //contain spaces or special character ! @ # $ % EXCEPT (__) being RESERVED KEYWORD;
144
145         q4.set_values("\t\t\tQ.NO.4: Which keyword is used to perform memory deallocation in
146             C++?",
147             "delete",
148             "free",
149             "dealloc",
150             "erase",'a', 20);
151
152         q5.set_values("\t\t\tQ.NO.5: What is the purpose of the const keyword in C++?",
153             "Declares a variable that cannot be modified",
154             "Declares a constant function",
155             "Specifies that a function will not modify the object it is called on",
156             "All of the above", 'd', 20);
157
158         q1.ask_question();
159         q2.ask_question();
160         q3.ask_question();
161         q4.ask_question();
162         q5.ask_question();
163     }
```

```
164     }
165
166     else if (choice == 2) {
167
168         cout<<"Each question carry 20 Marks"<<endl;
169         cout<<"Total marks : 100" <<endl;
170
171         q6.set_values("\t\t\tQ.NO.6: What is the difference between ++i and i++ in C++?",
172             "No difference",
173             "++i increments the value of i after the expression, i++ increments before",
174             "++i increments the value of i before the expression, i++ increments after",
175             "++i and i++ are not valid in C++", 'c', 20);
176
177         q7.set_values("\t\t\tQ.NO.7:What does the sizeof operator return in C++?",
178             "Size of the variable in bytes",
179             "Size of the variable in bits",
180             "Size of the variable's datatype in bytes",
181             "Number of elements in an array", 'c', 20);
182
183         q8.set_values("\t\t\tQ.NO.8: What is the correct syntax to declare a pointer in C++?"
184             ,
185             "int ptr;",
186             "ptr int;",
187             "int *ptr;",
188             "*int ptr;", 'c', 10);
189
190         q9.set_values("\t\t\tQ.NO.9:What is the purpose of the virtual keyword in C++?",
191             "Declares a member function as virtual, allowing for runtime polymorphism",
192             "Allocates memory for a variable",
193             "Declares a member variable as virtual",
194             "Deletes memory of a variable", 'a', 20);
195
196         q10.set_values("\t\t\tQ.NO.10:What is the purpose of the nullptr keyword in C++?",
197             "Represents a null pointer",
198             "Represents a null reference",
199             "Represents a null character",
200             "Represents a null value", 'a', 20);
201
202         q6.ask_question();
203         q7.ask_question();
204         q8.ask_question();
205         q9.ask_question();
206         q10.ask_question();
207
208     }
209
210     else{
211
212         q11.set_values("\t\t\tQ.NO.11: Which of the following is the correct way to pass
213 arguments to a function by reference in C++? [30M]",
214             "Pass by value",
215             "Pass by pointer",
216             "Pass by reference",
217             "Pass by address", 'c', 30);
```

```
218     q12.set_values("\t\tQ.NO.12: What is the purpose of the new operator in C++?    [30M]"
219     ,
220         "Allocates memory for a variable",
221         "Deletes memory of a variable",
222         "Initializes memory of a variable",
223         "None of the above", 'a', 30);
224
225     q13.set_values("\t\tQ.NO.13: What is the correct way to declare and define a
function named add that adds two integers in C++?    [40M]",
226     "int add(int a, int b) { return a + b; }",
227     "add(int a, int b) { return a + b; }",
228     "function add(int a, int b) { return a + b; }",
229     "void add(int a, int b) { return a + b; }", 'a', 40);
230
231     /*No, in the provided example, the return type of the add function is int,
not void.
232     This means that the function returns an integer value representing the sum of
two integers passed as parameters.
233     If the function were intended to not return any value, then void would be
used as the return type.*/
234
235
236     q11.ask_question();
237     q12.ask_question();
238     q13.ask_question();
239
240 }
241
242 auto stop = high_resolution_clock::now(); // Stop the timer
243 auto totalTime = duration_cast<milliseconds>(stop - start); // Calculate the total time
244
245 cout<<endl;
246 cout<<endl;
247
248 cout << "Total time taken: " << totalTime.count() / 1000.0 << " seconds" << endl;
249
250 cout <<endl<< "\t\t\t Total Score = " << Total << endl;
251
252
253 if (Total >= 30) {
254     cout <<endl<< "\t\t\t Congrats   "<<name<<" :) You WON.." << endl;
255 }
256 else {
257     cout <<endl<< "\t\t\t You Failed :(";
258     cout <<endl<< "\n\t\t\t Oops! Try Again.." << endl;
259 }
260
261
262     cout<<endl;
263
264
265     return 0;
266 }
```