

# *iq*uiZ game

MINI GAME GROUP PROJECT BY  
CONCEPTUALIZERS



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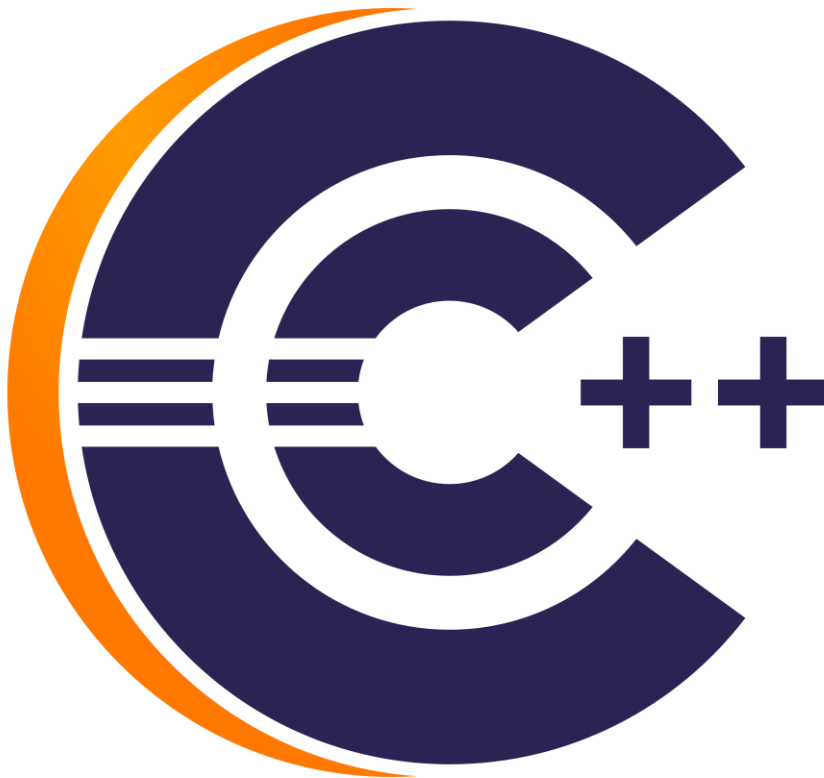
## Basic documentation

Using C++ coding knowledge, we designed a simple game. It is a quiz type game. Most of the games are made only for fun purpose but here we tried to give some value to the meaning of the “game.” In this game we checked IQ knowledge and general knowledge of the player.

For our demonstrating convenience, we used 4 levels, and each level has 5 questions. Those 5 questions are blended with IQ questions and general knowledge questions. If a player wants to continue the game, he or she should have a good general knowledge and IQ knowledge.

We could have created a quiz framed to a particular subject, but we used general knowledge and IQ questions to expand the players’ mind in a comprehensive context.

However, if someone wants to add subject oriented questions in this game it could have easily been done.



## Instructions

Before the game starts, the player should enter his/her name. After typing the name, he/she should press enter to find the instructions to play the game. That will be displayed as follows,

### **Instructions**

- \*There are four levels in this game with five questions per each level.
- \*Type the English letter of the answer you choose and hit enter to proceed in the game.
- \*Answering at least four questions correctly is required to move to the next level.
- \*If you failed, the same level will be repeated.
- \*You will win the game once you are done with the fourth level successfully.

```
D:\MIT\CPP\Quiz game final.exe
=====
QUIZ GAME by Conceptualizers
=====
Enter Your Name : Dinuka

  (-----Instructions-----)
  |
  | * There are four levels in this game with five questions
  |   per each level.
  | * Type the English letter of the answer you choose and
  |   hit enter to proceed in the game.
  | * Answering at least four questions correctly is required
  |   to move to the next level.
  | * If you are failed the same level will be repeated.
  | * You will win the game,Once you are done with the fourth
  |   level successfully.
  |
  (-----)

Hi Dinuka, Press any key to play the game..
=====
```

## Problems/challenges

The main challenge was limited knowledge about the C++ programming language in gaming context and no experience in developing games. However, we referred Google and YouTube to get an idea and we tested some online codes as well.

The second challenge was gathering all the team members to a one place. Almost all the members were busy with their academics and extra-curricular activities it was a challenge to gather all of them and focus to the purpose.

The third challenge was whether we add GUI to the game or not. We researched about GUI and understood that it is an entirely different coding method with different key words. After that, considering time constraint as well, we decided to do it in a simple way.

The fourth problem was, there were few possible ways for the player to go to the next question without hitting the enter button. When the player is playing, he/she must answer the question and hit the enter button for the next question. We felt that it is a burden for the player, but we could not figure out any method to fix this issue.



## What would we have done differently if we could do it again

If we could do it again, we would add

1. More difficulty levels and more practical questions.
2. GUI to beautify the game.
3. Attractive emojis and sounds.
4. A Timer to answer questions within an appropriate time frame.
5. A code to generate a certificate automatically after the game is over.



## Code

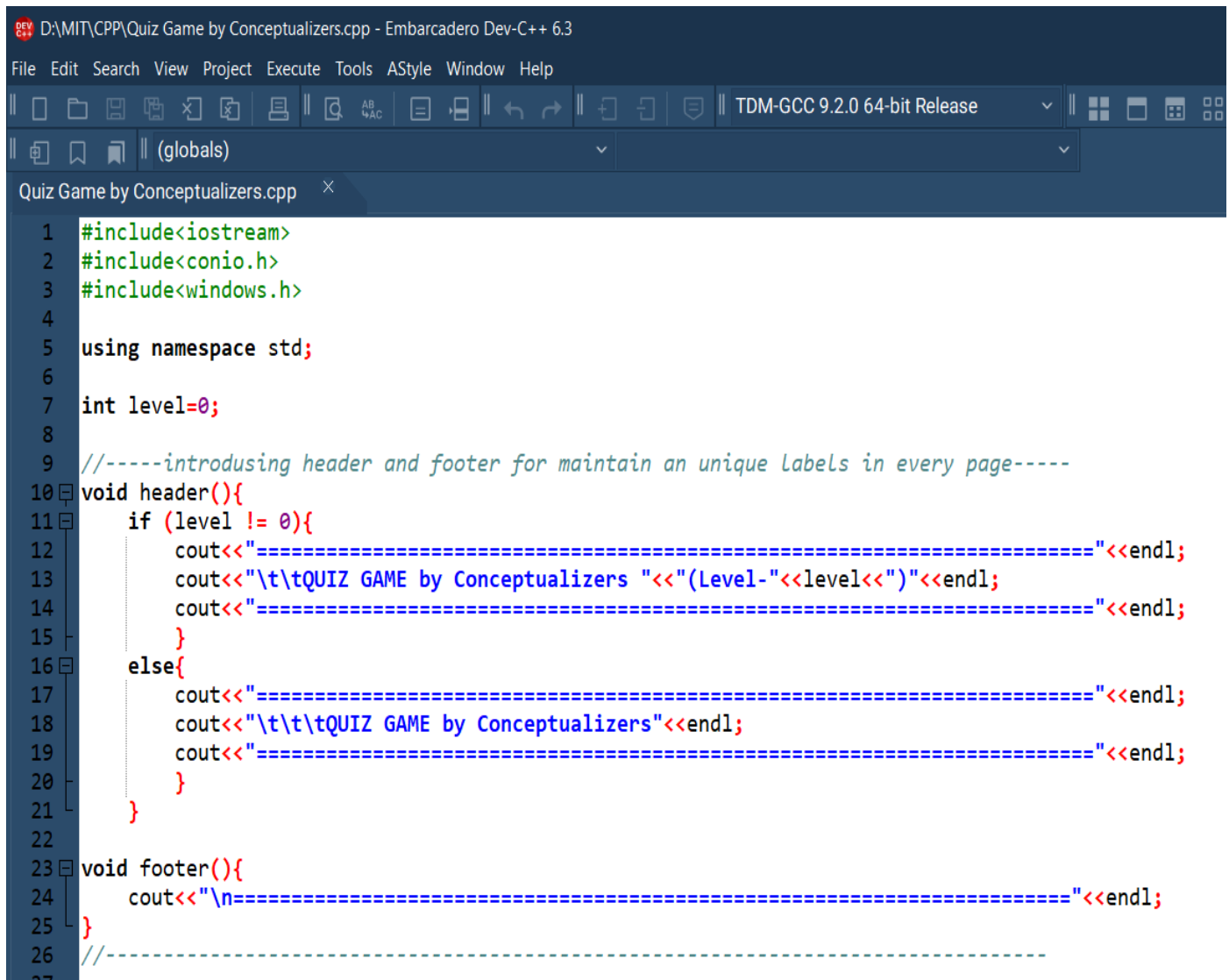
Libraries that we used to create the game.

- <iostream>
- <conio .h.>
- <windows. h>

Functions that we used to create the game.

- header();
- footer();
- sleep();
- system("CLS");
- getch();
- SetConsoleTextAttribute(h,11);

Here is the complete c++ code that we used to create the game.

A screenshot of a C++ code editor window titled "D:\MIT\CPP\Quiz Game by Conceptualizers.cpp - Embarcadero Dev-C++ 6.3". The editor shows the source code for a quiz game. The code includes headers for iostream, conio.h, and windows.h, and uses the std namespace. It defines a variable 'level' initialized to 0. A comment indicates the purpose of the header and footer functions. The 'header()' function checks if the level is not 0 and prints a title with the current level, surrounded by decorative lines. The 'footer()' function prints a decorative line. The code is as follows:

```
1  #include<iostream>
2  #include<conio.h>
3  #include<windows.h>
4
5  using namespace std;
6
7  int level=0;
8
9  //-----introducing header and footer for maintain an unique Labels in every page-----
10 void header(){
11     if (level != 0){
12         cout<<"===== " << endl;
13         cout<<"\t\tQUIZ GAME by Conceptualizers " << "(Level-" << level << ")" << endl;
14         cout<<"===== " << endl;
15     }
16     else{
17         cout<<"===== " << endl;
18         cout<<"\t\t\tQUIZ GAME by Conceptualizers" << endl;
19         cout<<"===== " << endl;
20     }
21 }
22
23 void footer(){
24     cout<<"\n===== " << endl;
25 }
26 //-----
27
```

```

27
28 int main(){
29
30     HANDLE h=GetStdHandle(STD_OUTPUT_HANDLE); // color changing code
31     char name[20];
32     int totScore;
33     string rslt[5][6]; // delcaring a 2D array for keeping whether the answer is correct or wrong
34
35     FILE *file;
36     file = fopen("Result_sheet.txt","w"); // creating result sheet file
37
38     header();
39     rslt[0][0] = "          ";
40     rslt[0][1] = "Q1";
41     rslt[0][2] = "Q2";
42     rslt[0][3] = "Q3";
43     rslt[0][4] = "Q4";
44     rslt[0][5] = "Q5";
45     rslt[1][0] = "Level-1";
46     rslt[2][0] = "Level-2";
47     rslt[3][0] = "Level-3";
48     rslt[4][0] = "Level-4";
49

```

```

50     cout << "\nEnter Your Name : ";
51     cin >> name;
52     cout << endl;
53     cout << endl;
54     SetConsoleTextAttribute(h,10);
55     cout << "  _ | _____ | _\n";
56     cout << " (  | _____Instructions_____ )\n";
57     cout << "  | | _____ |\n";
58     cout << "  | | * There are four levels in this game with five questions |\n";
59     cout << "  | |   per each level. |\n";
60     cout << "  | | * Type the English letter of the answer you choose and |\n";
61     cout << "  | |   hit enter to proceed in the game. |\n";
62     cout << "  | | * Answering at least four questions correctly is required |\n";
63     cout << "  | |   to move to the next level. |\n";
64     cout << "  | | * If you are failed the same level will be repeated. |\n";
65     cout << "  | | * You will win the game,Once you are done with the fourth |\n";
66     cout << "  | |   level successfully. |\n";
67     cout << "  | | _____ |\n";
68     cout << " (  | _____ )\n";
69     cout << "  | | _____ |\n";
70     cout << endl;
71     SetConsoleTextAttribute(h,15);
72     cout << "\nHi " << name << ", Press any key to play the game.." << endl;
73     footer();
74     getch(); //wait for press any key from user
75

```



```

77 //=====
78 //-----Level-1 starting-----
79 //=====
80 bool L1 = true; //this value is true until repeating the Level
81 while (L1){
82     //-----Level-1---Question-1-----
83     sleep(0.5); //pause the programme for 0.5 secs
84     system ("CLS"); //clear the console for continue to the next step
85     level = 1;
86     SetConsoleTextAttribute(h,11);
87     header();
88     int L1tot=0;
89     char q1a,q2a,q3a,q4a,q5a;
90
91     cout<<"\nQ1. How many overs are there in a one day cricket match? \n\n\t a. 10 \n\t b. 20 \n\t c. 50 \n\t d. 60 \n\nYour Answer : ";
92
93     cin>>q1a;
94     if(q1a=='c'){
95         L1tot=L1tot+1;
96         cout<<"\nGreat! Your answer is Correct!";
97         rslt[1][1] = "C";
98     }
99     else{
100         cout<<"\nSorry your answer is wrong!";
101         rslt[1][1] = "W";
102     }
103     footer();
104
105     //-----Level-1---Question-2-----
106     sleep(1);
107     system ("CLS");
108     header();

```

```

110     cout<<"\nQ2. How many districts are there in Sri Lanka? \n\n\t a. 22 \n\t b. 25 \n\t c. 26 \n\t d. 28 \n\nYour Answer : ";
111     cin>>q2a;
112     if(q2a=='b'){
113         L1tot=L1tot+1;
114         cout<<"\nGreat! Your answer is Correct!";
115         rslt[1][2] = "C";
116     }
117     else{
118         cout<<"\nSorry your answer is wrong!";
119         rslt[1][2] = "W";
120     }
121     footer();
122
123     //-----Level-1---Question-3-----
124     sleep(1);
125     system ("CLS");
126     header();
127
128     cout<<"\nQ3. What is the highest waterfall in Srilanka? \n\n\t a. Bambarakanda \n\t b. Dunhinda \n\t c. Bakers fall \n\t d. Stclairs \n\nYour Answer : ";
129     cin>>q3a;
130     if(q3a=='a'){
131         L1tot=L1tot+1;
132         cout<<"\nGreat! Your answer is Correct!";
133         rslt[1][3] = "C";
134     }
135     else{
136         cout<<"\nSorry your answer is wrong!";
137         rslt[1][3] = "W";
138     }
139     footer();
140

```

```

141 //-----Level-1---Question-4-----
142 sleep(1);
143 system ("CLS");
144 header();
145
146 cout<<"\nQ4. Who was the first person to discover 'Gravity'? \n\n\t a. Albert Ainstain \n\t b. Newton \n\t c. Stephn Howkings \n\t d. Maari curi \n\nYour Answ
147 cin>>q4a;
148 if(q4a=='b'){
149     Litot=Litot+1;
150     cout<<"\nGreat! Your answer is Correct!";
151     rslt[1][4] = "C";
152 }
153 else{
154     cout<<"\nSorry your answer is wrong!";
155     rslt[1][4] = "W";
156 }
157 footer();
158
159 //-----Level-1---Question-5-----
160 sleep(1);
161 system ("CLS");
162 header();
163
164 cout<<"\nQ5. How many centimeters ara there in a meter? \n\n\t a. 5 \n\t b. 10 \n\t c. 100 \n\t d. 1000 \n\nYour Answer : ";
165 cin>>q5a;
166 if(q5a=='c'){
167     Litot=Litot+1;
168     cout<<"\nGreat! Your answer is Correct!";
169     rslt[1][5] = "C";
170 }
171 else{
172     cout<<"\nSorry your answer is wrong!";
173     rslt[1][5] = "W";
174 }
175 footer();

```

```

177 //-----Level-1---Results-----
178 sleep(1);
179 system ("CLS");
180 header();
181 if (Litot>3){
182     cout << endl;
183     cout << " ***** \n";
184     cout << " ***** \n";
185     cout << " ***** \n";
186     cout << " ***** \n";
187     cout << " ***** \n";
188     cout << " ***** \n";
189     cout << " ***** \n";
190     cout << " ***** \n";
191     cout << endl;
192
193     cout << name << ", you have successfully completed Level 1";
194     cout << "\nYou scored " << Litot << " out of 5";
195     cout << "\n\nPress any key to continue to Level 2";
196     footer();
197     getch();
198     totScore += Litot;
199     L1 = false;
200 }
201 else{
202     cout << endl;
203     cout << " ***** \n";
204     cout << " ***** \n";
205     cout << " ***** \n";
206     cout << " ***** \n";
207     cout << " ***** \n";
208     cout << " ***** \n";
209     cout << " ***** \n";
210     cout << " ***** \n";
211     cout << endl;

```

```

212
213     cout << name << ", you have to play again" << endl;
214     cout << "You scored " << Litot << " out of 5" << endl;
215     cout << "you should attain at least 4 marks to enter the level 2";
216     cout<<"\n\nPress any key to play again..";
217     getch();
218 }
219 }

```

The rest of the levels here are coded in same way and the questions become more difficult from level to level.

[illegible]

```
//-----Level-2---Question-4-----
sleep(1);
system ("CLS");
header();
cout<<"\nQ4. What is the largest island in Sri Lanka? \n\n\t a. Delft \n\t b. Parawi \n\t c. Kayts \n\t d. Mannar \n\nYour Answer : ";
cin>>q4a;
if(q4a=='d'){
    L2tot=L2tot+1;
    cout<<"\nGreat! Your answer is Correct!";
    rslt[2][4] = "C";
}
else{
    cout<<"\nSorry your answer is wrong!";
    rslt[2][4] = "W";
}
footer();
```

```
//-----Level-2---Question-5-----
sleep(1);
system ("CLS");
header();
cout << "\t\t_____ " << endl;
cout << "\t\t|\t|\t|" << endl;
cout << "\t\t|   7   |   4   |   6   |" << endl;
cout << "\t\t|_____|_____|_____|" << endl;
cout << "\t\t|\t|\t|\t|" << endl;
cout << "\t\t|   6   |   5   |   8   |" << endl;
cout << "\t\t|_____|_____|_____|" << endl;
cout << "\t\t|\t|\t|\t|" << endl;
cout << "\t\t|   2   |   -   |   9   |" << endl;
cout << "\t\t|_____|_____|_____|" << endl;
cout<<"\nQ5. Which number should fill the blank? \n\n\t a. 2 \n\t b. 4 \n\t c. 6 \n\t d. 7 \n\nYour Answer : ";
```

```
cin>>q5a;
if(q5a=='a'){
    L2tot=L2tot+1;
    cout<<"\nGreat! Your answer is Correct!";
    rslt[2][5] = "C";
}
else{
    cout<<"\nSorry your answer is wrong!";
    rslt[2][5] = "W";
}
footer();
```

```

//-----Level-2---Results-----
sleep(1);
system ("CLS");
header();
if (L2tot>3){
    cout << endl;
    cout << " *****      *****      ***      *****      *****      **      *****      *****      ***      \n";
    cout << " *****      *****      ***      *****      *****      *****      *****      *****      *****      *****      \n";
    cout << " **      **      **      *****      **      **      *****      *****      *****      *****      \n";
    cout << " **      **      **      *****      **      **      *****      *****      *****      *****      \n";
    cout << " **      **      **      *****      **      **      *****      *****      *****      *****      \n";
    cout << " **      **      **      *****      **      **      *****      *****      *****      *****      \n";
    cout << " *****      *****      ***      *****      *****      **      **      *****      *****      ***      \n";
    cout << " *****      *****      ***      *****      *****      *****      *****      *****      *****      \n";
    cout << endl;

    cout << name << ", you have successfully completed Level 2";
    cout << "\nYou scored " << L2tot << " out of 5";
    cout << "\n\nPress any key to continue to Level 3";
    footer();
    getch();
    totScore += L2tot;
    L2 = false;
}
else{
    cout << endl;
    cout << " *****      *****      *****      *****      ***      **      ***      \n";
    cout << " *****      *****      *****      *****      *****      **      *****      \n";
    cout << " **      **      **      *****      **      **      *****      *****      \n";
    cout << " *****      **      **      *****      *****      *****      *****      \n";
    cout << " *****      **      **      *****      *****      *****      *****      \n";
    cout << " **      **      **      *****      **      **      *****      **      \n";
    cout << " *****      *****      **      **      **      **      *****      *****      \n";
    cout << " *****      *****      ***      **      **      **      *****      *****      \n";
    cout << " *****      *****      ***      **      **      **      *****      *****      \n";
    cout << endl;
}

```

```

366 cout << name << ", you have to play again" << endl;
367 cout << "You scored " << L2tot << " out of 5" << endl;
368 cout << "you should attain at least 4 marks to enter the level 3";
369 cout<<"\n\nPress any key to play again..";
370 getch();
371 }
372 }
373 }
374

```

```

375 //=====
376 //-----Level-3 starting-----
377 //=====
378 bool L3 = true;
379 while (L3){
380     //-----Level-3---Question-1-----
381     sleep(0.5);
382     system("CLS");
383     level = 3;
384     SetConsoleTextAttribute(h,11);
385     header();
386     int L3tot=0;
387     char q1a,q2a,q3a,q4a,q5a;
388
389     cout<<"\nQ1. What is the currency of Malaysia? \n\n\t a. Ruffiya \n\t b. Riggitt \n\t c. Rupiah \n\t d. Ruffee \n\nYour Answer : ";
390     cin>>q1a;
391     if(q1a=='b'){
392         L3tot=L3tot+1;
393         cout<<"\nGreat! Your answer is Correct!";
394         rslt[3][1] = "C";
395     }
396     else{
397         cout<<"\nSorry your answer is wrong!";
398         rslt[3][1] = "W";
399     }
400     footer();
401 }

```

```

402 //-----Level-3---Question-2-----
403 sleep(1);
404 system("CLS");
405 header();
406 cout << "\n\t _____ " << endl;
407 cout << "\t|\t|\t|\t|\t|\t|" << endl;
408 cout << "\t| 1 | 8 | 18 | 75 | ____ |" << endl;
409 cout << "\t|_____|" << endl;
410 cout<<"\nQ2. What will be the next number? \n\n\t a. 126 \n\t b. 143 \n\t c. 150 \n\t d. 225 \n\nYour Answer : ";
411 cin>>q2a;
412 if(q2a=='a'){
413     L3tot=L3tot+1;
414     cout<<"\nGreat! Your answer is Correct!";
415     rslt[3][2] = "C";
416 }
417 else{
418     cout<<"\nSorry your answer is wrong!";
419     rslt[3][2] = "W";
420 }
421 footer();
422

```

```

423 //-----Level-3---Question-3-----
424 sleep(1);
425 system("CLS");
426 header();
427 cout<<"\nQ3. Who is the most famous fictional character in the world? \n\n\t a. Harry Potter \n\t b. Peter Pan \n\t c. Sherlock Holmes \n\t d. Joker \n\nYour
428 cin>>q3a;
429 if(q3a=='c'){
430     L3tot=L3tot+1;
431     cout<<"\nGreat! Your answer is Correct!";
432     rslt[3][3] = "C";
433 }
434 else{
435     cout<<"\nSorry your answer is wrong!";
436     rslt[3][3] = "W";
437 }

```

```

440 //-----Level-3---Question-4-----
441 sleep(1);
442 system("CLS");
443 header();
444 cout<<"\nQ4. How many mobile apps are downloaded everyday? \n\t a. 5 million \n\t b. 25 million \n\t c. Over 100 million \n\t d. Over 1 billion \n\nYour Ans
445 cin>>q4a;
446 if(q4a=='c'){
447     L3tot=L3tot+1;
448     cout<<"\nGreat! Your answer is Correct!";
449     rslt[3][4] = "C";
450 }
451 else{
452     cout<<"\nSorry your answer is wrong!";
453     rslt[3][4] = "W";
454 }
455 footer();

```

```

457 //-----Level-3---Question-5-----
458 sleep(1);
459 system("CLS");
460 header();
461 cout<<"\n\t16, 39, 63, 90, 120";
462 cout<<"\n\t18, 36, 60, 88, 120";
463 cout<<"\nQ5. In the two numerical sequences above,\n
464 \n none number that appears in the top sequence should appear\
465 \n in the bottom sequence and vice versa.\n
466 \n Which two numbers should be changed round? \n\t a. 16 and 18 \n\t b. 39 and 36 \n\t c. 63 and 60 \n\t d. 90 and 88 \n\nYour Answer : ";

```

```

467 cin>>q5a;
468 if(q5a=='a'){
469     L3tot=L3tot+1;
470     cout<<"\nGreat! Your answer is Correct!";
471     rslt[3][5] = "C";
472 }
473 else{
474     cout<<"\nSorry your answer is wrong!";
475     rslt[3][5] = "W";
476 }
477 footer();
478
479 //-----Level-3---Results-----
480 sleep(1);
481 system("CLS");
482 header();
483 if (L3tot>3){
484     cout << endl;
485     cout << " ***** \n";
486     cout << " ***** \n";
487     cout << " ***** \n";
488     cout << " ***** \n";
489     cout << " ***** \n";
490     cout << " ***** \n";
491     cout << " ***** \n";
492     cout << " ***** \n";
493     cout << endl;
494
495     cout << name << ", you have successfully completed Level 3";
496     cout << "\nYou scored " << L3tot << " out of 5";
497     cout << "\n\nPress any key to continue to Level 4";
498     footer();
499     getch();
500     totScore += L3tot;
501     L3 = false;
502 }

```

```

502 }
503 else{
504     cout << endl;
505     cout << " ***** \n";
506     cout << " ***** \n";
507     cout << " ***** \n";
508     cout << " ***** \n";
509     cout << " ***** \n";
510     cout << " ***** \n";
511     cout << " ***** \n";
512     cout << " ***** \n";
513     cout << endl;
514
515     cout << name << ", you have to play again" << endl;
516     cout << "You scored " << L3tot << " out of 5" << endl;
517     cout << "you should attain at least 4 marks to enter the level 4";
518     cout<<"\n\nPress any key to play again..";
519     getch();

```

```

523 //=====
524 //-----Level-4 starting-----
525 //=====
526 bool L4 = true;
527 while (L4){
528     //-----Level-4---Question-1-----
529     sleep(0.5);
530     system ("CLS");
531     level = 4;
532     SetConsoleTextAttribute(h,14);
533     header();
534     int L4tot=0;
535     char q1a,q2a,q3a,q4a,q5a;
536     cout<<"\n\tA B C D E F G H";
537     cout<<"\n\nQ1. What letter is three to the right of the letter immediately to\
538 \n    the left of the letter three to the left of the letter two to the\
539 \n    right of the letter F ? \n\n\t a. B \n\t b. C \n\t c. F \n\t d. G \n\nYour Answer : ";
540     cin>>q1a;
541     if(q1a=='d'){
542         L4tot=L4tot+1;
543         cout<<"\nGreat! Your answer is Correct!";
544         rslt[4][1] = "C";
545     }
546     else{
547         cout<<"\nSorry your answer is wrong!";
548         rslt[4][1] = "W";
549     }
550     footer();

```

```

552 //-----Level-4---Question-2-----
553 sleep(1);
554 system ("CLS");
555 header();
556 cout<<"\nQ2. What is the colour that babies recognize first when their\
557 \n    colour vision begins to develop?\
558 \n\n\t a. Yellow \n\t b. Green \n\t c. Blue \n\t d. Red \n\nYour Answer : ";
559     cin>>q2a;
560     if(q2a=='d'){
561         L4tot=L4tot+1;
562         cout<<"\nGreat! Your answer is Correct!";
563         rslt[4][2] = "C";
564     }
565     else{
566         cout<<"\nSorry your answer is wrong!";
567         rslt[4][2] = "W";
568     }
569     footer();

```

```

571 //-----Level-4---Question-3-----
572 sleep(1);
573 system ("CLS");
574 header();
575 cout<<"\nQ3. Five years ago, the total of the ages of a father and his son was 40 years.\
576 \n    The ratio of their present ages is 4 : 1\
577 \n    What is the present age of the father? \n\n\t a. 20 years \n\t b. 30 years \n\t c. 40 years \n\t d. 50 years \n\nYour Answer : ";
578     cin>>q3a;
579     if(q3a=='c'){
580         L4tot=L4tot+1;
581         cout<<"\nGreat! Your answer is Correct!";
582         rslt[4][3] = "C";
583     }
584     else{
585         cout<<"\nSorry your answer is wrong!";
586         rslt[4][3] = "W";
587     }

```





When the player completes 4 levels successfully we let the player see something like “you won!”.

```

687 //=====You win=====
688 //-----You win-----
689 //=====
690 system("CLS");
691 level=0;
692 SetConsoleTextAttribute(h,10);
693 header();
694
695 cout<<"\n"<< name << ", You have completed all levels successfully!" << endl;
696
697 cout<<endl;
698 cout<<endl;
699
700 cout << "      ***      *****      ***      \n";
701 cout << "      ***      *****      ***      \n";
702 cout << "      ***      *****      ***      \n";
703 cout << "      ***      *****      ***      \n";
704 cout << "      ***      *****      ***      \n";
705 cout << "      ***      *****      ***      \n";
706 cout << "      ***      *****      ***      \n";
707 cout << "      ***      *****      ***      \n";
708
709 cout<<endl;
710
711 cout << "      ***      *****      *****      \n";
712 cout << "      ***      *****      *****      \n";
713 cout << "      ***      *****      *****      \n";
714 cout << "      ***      *****      *****      \n";
715 cout << "      ***      *****      *****      \n";
716 cout << "      ***      *****      *****      \n";
717 cout << "      ***      *****      *****      \n";
718 cout << "      ***      *****      *****      \n";
719
720 cout<<endl;
721 cout<<endl;

```

Here you will see that at the end of each question the correct answer or wrong answer is given as 'C' and 'W' in a 2D Array. Finally, a result sheet will be prepared in the same folder where game is located.

```

723 cout<<"You scored " << totScore <<" marks out of 20 marks!"<<endl;
724 cout<<"\nThank you very much for your participation!" <<endl;
725
726 cout<<"\n\nPress any key to generate your result sheet.." <<endl;
727 getch();
728
729 system("CLS");
730 header();
731
732 fprintf(file,"%s, this is your result sheet\n\n",name);
733
734 //Putting the data in the 2D array into the file
735 fprintf(file,"%s      %s      %s      %s      %s      %s\n",rslt[0][0].c_str(),rslt[0][1].c_str(),rslt[0][2].c_str(),rslt[0][3].c_str(),rslt[0][4].c_str(),rslt[0][5].c_str());
736 fprintf(file,"%s      %s      %s      %s      %s      %s\n",rslt[1][0].c_str(),rslt[1][1].c_str(),rslt[1][2].c_str(),rslt[1][3].c_str(),rslt[1][4].c_str(),rslt[1][5].c_str());
737 fprintf(file,"%s      %s      %s      %s      %s      %s\n",rslt[2][0].c_str(),rslt[2][1].c_str(),rslt[2][2].c_str(),rslt[2][3].c_str(),rslt[2][4].c_str(),rslt[2][5].c_str());
738 fprintf(file,"%s      %s      %s      %s      %s      %s\n",rslt[3][0].c_str(),rslt[3][1].c_str(),rslt[3][2].c_str(),rslt[3][3].c_str(),rslt[3][4].c_str(),rslt[3][5].c_str());
739 fprintf(file,"%s      %s      %s      %s      %s      %s\n",rslt[4][0].c_str(),rslt[4][1].c_str(),rslt[4][2].c_str(),rslt[4][3].c_str(),rslt[4][4].c_str(),rslt[4][5].c_str());
740
741 fprintf(file,"\nYou scored %d marks out of 20 marks!\n",totScore);
742 fprintf(file,"\nGood luck!\n");
743 fclose(file);
744
745 cout<<"\n\nYour results sheet has been generated successfully!\n" <<endl;
746 footer();
747

```

Here finally we display game credits.

```

748 sleep(1);
749 cout << "\n\nCredits goes to,";
750 sleep(1);
751
752 //conceptualizers group members
753 SetConsoleTextAttribute(h,13);
754 cout << "\n\n\t Sachintha Dinuka\t\t\tIM/2020/009";
755 sleep(1);
756 cout << "\n\t Shanuka Dilshan\t\t\tIM/2020/017";
757 sleep(1);
758 cout << "\n\t Anuji Vithana\t\t\t\t\tIM/2020/033";
759 sleep(1);
760 cout << "\n\t Vidul Pramitha\t\t\t\t\tIM/2020/088";
761 sleep(1);
762 cout << "\n\t Ushari Egodawele\t\t\t\t\tIM/2020/109\n";
763 sleep(1);
764 SetConsoleTextAttribute(h,10);
765
766 return 0;
767 }

```

## Output interface

In each level player is being asked to answer for the questions like this. After the player answered the question and should hit the enter button and automatically prompt to the next question.

```
D:\MIT\CPP\Quiz game final.exe

=====
          QUIZ GAME by Conceptualizers (Level-1)
=====

Q1. How many overs are there in a one day cricket match?

    a. 10
    b. 20
    c. 50
    d. 60

Your Answer : _
```

```
D:\MIT\CPP\Quiz Game by Conceptualizers.exe

=====
          QUIZ GAME by Conceptualizers (Level-2)
=====

Q2. What is Hitler's birth country?

    a. Austria
    b. Germany
    c. Russia
    d. Italy

Your Answer : a

Great! Your answer is Correct!
=====
_
```

```
D:\MIT\CPP\Quiz Game by Conceptualizers.exe

=====
QUIZ GAME by Conceptualizers (Level-3)
=====

*****  *****  *****  ****  *****  *****  ****  *****  *****  *****
*****  *****  *****  ****  *****  *****  ****  *****  *****  *****
****  ****  ****  *****  ****  ****  ****  ****  ****  ****  ****  ****
****  ****  ****  ****  ****  ****  ****  ****  ****  ****  ****  ****
****  ****  ****  ****  ****  ****  ****  ****  ****  ****  ****  ****
*****  ****  ****  ****  ****  ****  ****  ****  ****  ****  ****  ****
*****  *****  ****  *****  *****  ****  ****  ****  ****  ****  ****  ****
*****  *****  ****  *****  *****  ****  ****  ****  ****  ****  ****  ****

Dinuka, you have successfully completed Level 3
You scored 4 out of 5

Press any key to continue to Level 4
=====
```

In every level, user interface looks like this and after completed each level successfully user can see some words like this, and it provides some motivation to proceed for the next level.

If the player failed to achieve the goal in each level the user interface looks like this.

```
D:\MIT\CPP\Quiz game final.exe

=====
QUIZ GAME by Conceptualizers (Level-4)
=====

*****  *****  *****  *****  ****  ****  ****
*****  *****  *****  *****  ****  ****  ****
****  ****  ****  ****  ****  ****  ****  ****  ****
*****  ****  ****  *****  *****  ****  ****  ****
*****  ****  ****  *****  *****  ****  ****  ****
****  ****  ****  ****  ****  ****  ****  ****  ****
*****  *****  ****  ****  ****  ****  ****  ****
*****  *****  ****  ****  ****  ****  ****  ****

Dinuka, you have to play again
You scored 3 out of 5
you should attain at least 4 marks to finish the game

Press any key to play again..
```

If the player successfully completes the fourth level the user interface looks like this.

[illegible]

After pressing an any button, the system will create the player's result sheet and shows credits in the game. With that the game ends.

```
D:\MIT\CPP\Quiz game final.exe
=====
QUIZ GAME by Conceptualizers
=====

Your results sheet has been generated successfully!

=====

Credits goes to,

Sachintha Dinuka - IM/2020/009
Shanuka Dilshan - IM/2020/017
Anuji Vithana - IM/2020/033
Vidul Pramitha - IM/2020/088
Ushari Egodawele - IM/2020/109

-----
Process exited after 2864 seconds with return value 0
Press any key to continue . . .
```

The Result sheet will be created like this as we mentioned earlier.

```
*Result_sheet.txt - Notepad
File Edit View
Dinuka, this is your result sheet

      Q1      Q2      Q3      Q4      Q5
Level-1  C      C      W      C      C
Level-2  C      C      C      C      C
Level-3  C      C      C      W      C
Level-4  C      W      C      C      C

You scored 17 marks out of 20 marks!

Good luck!

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8
```



## The learning outcomes that we used from the help of course module INTE 11223

- Arrays
- Pointers
- File handling methods
- Functions

### Group Members

#### Team Conceptualizers

- Sachintha Dinuka - IM/2020/009
- Shanuka Dilshan - IM/2020/017
- Anuji Vithana - IM/2020/033
- Vidul Pramitha - IM/2020/088
- Ushari Egodawela - IM/2020/109

