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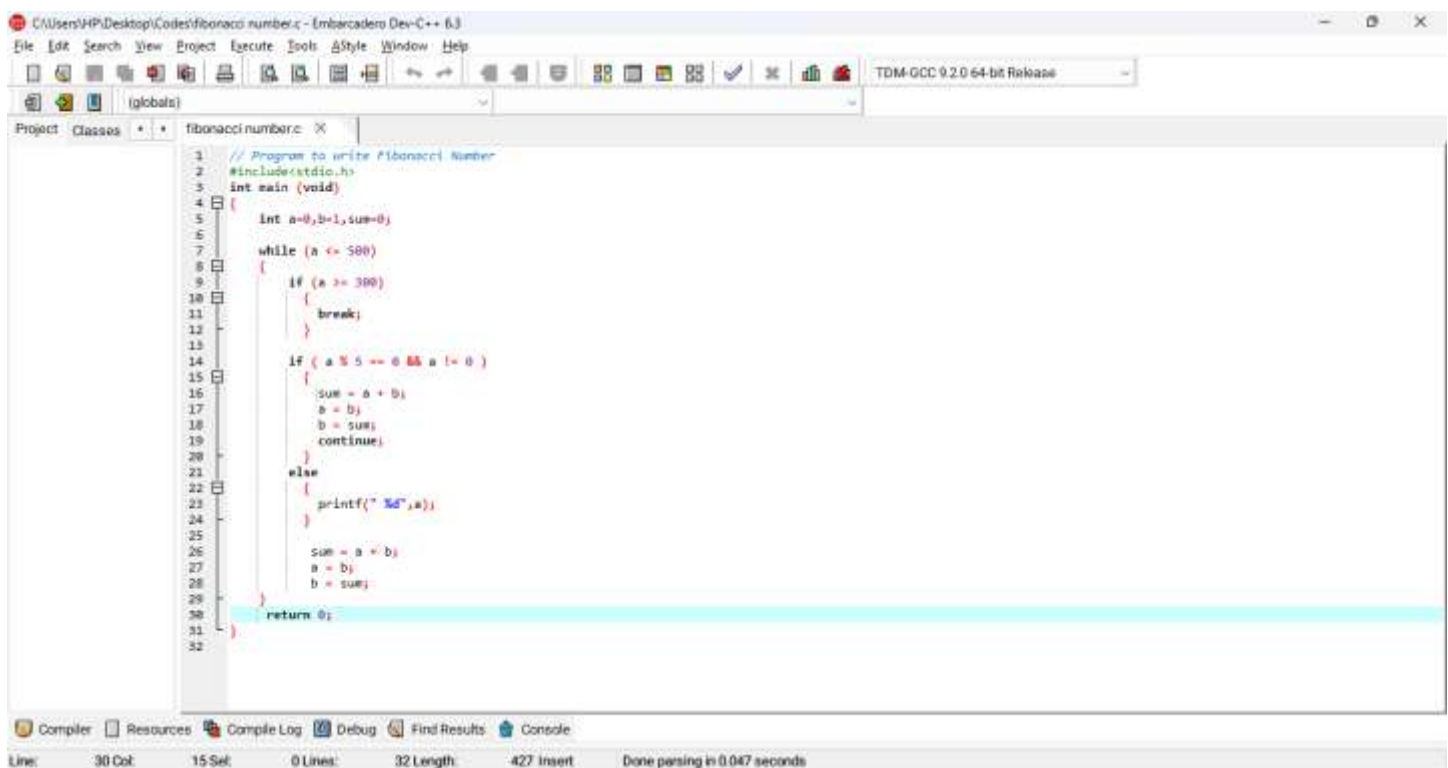
CLASS: BCIT

SECTION: B

QUESTION 01: Fibonacci Challenge

Write a program to print Fibonacci numbers up to 500. Skip numbers divisible by 5. Stop if a number becomes greater than 300. (Hint: Use for or while, along with continue and break.)

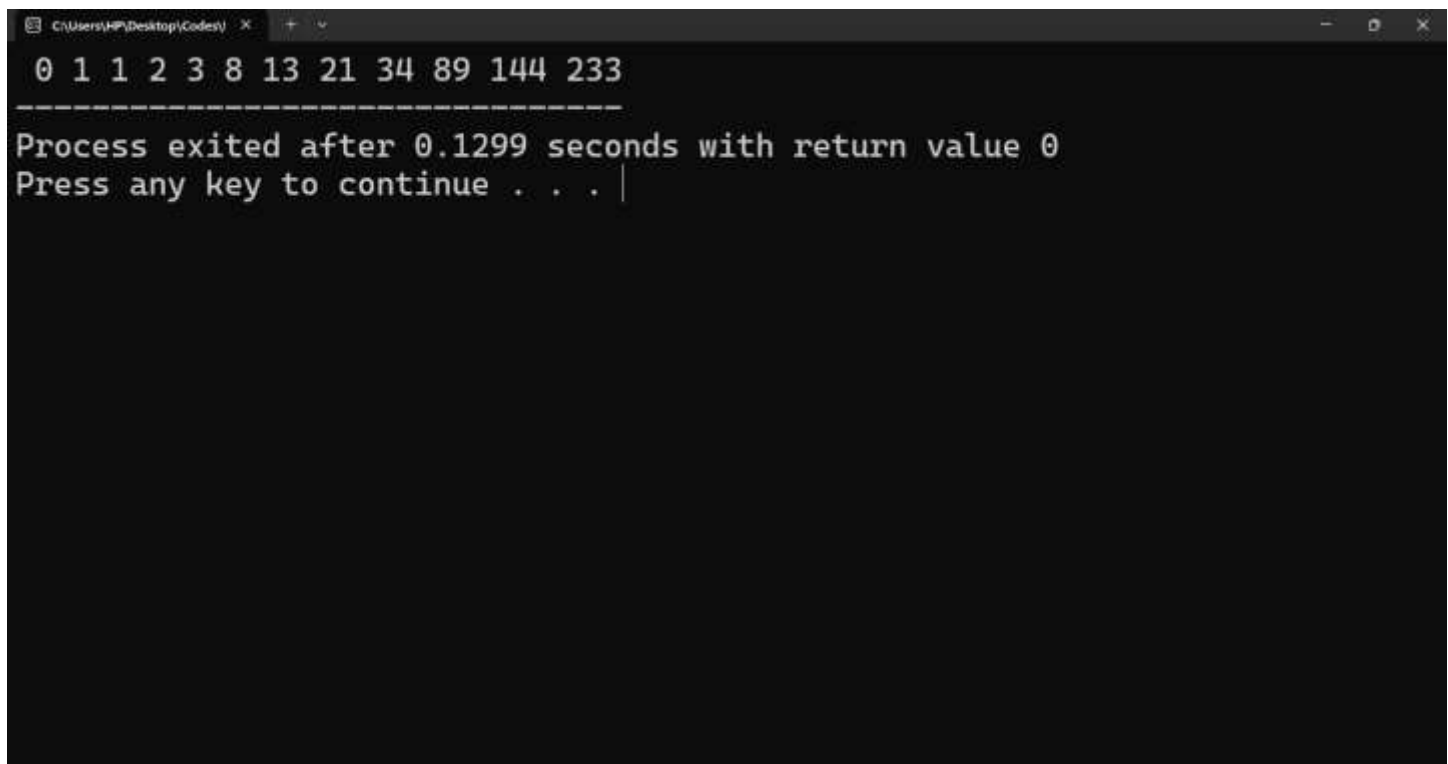
SOURCE CODE:



```
1 // Program to write Fibonacci Number
2 #include <stdio.h>
3 int main (void)
4 {
5     int a=0,b=1,sum=0;
6
7     while (a <= 500)
8     {
9         if (a >= 300)
10         {
11             break;
12         }
13
14         if (a % 5 == 0 && a != 0)
15         {
16             sum = a + b;
17             b = a;
18             a = sum;
19             continue;
20         }
21         else
22         {
23             printf("%d",a);
24         }
25
26         sum = a + b;
27         a = b;
28         b = sum;
29     }
30     return 0;
31 }
```

The screenshot shows a C++ IDE window titled "fibonacci number.c - Embarcadero Dev-C++ 6.3". The code is a C++ program that prints Fibonacci numbers up to 500, skipping numbers divisible by 5, and stopping if a number becomes greater than 300. The code uses a while loop and includes break and continue statements. The IDE interface includes a menu bar, a toolbar, a project explorer, and a status bar at the bottom showing line and column counts.

OUTPUT:

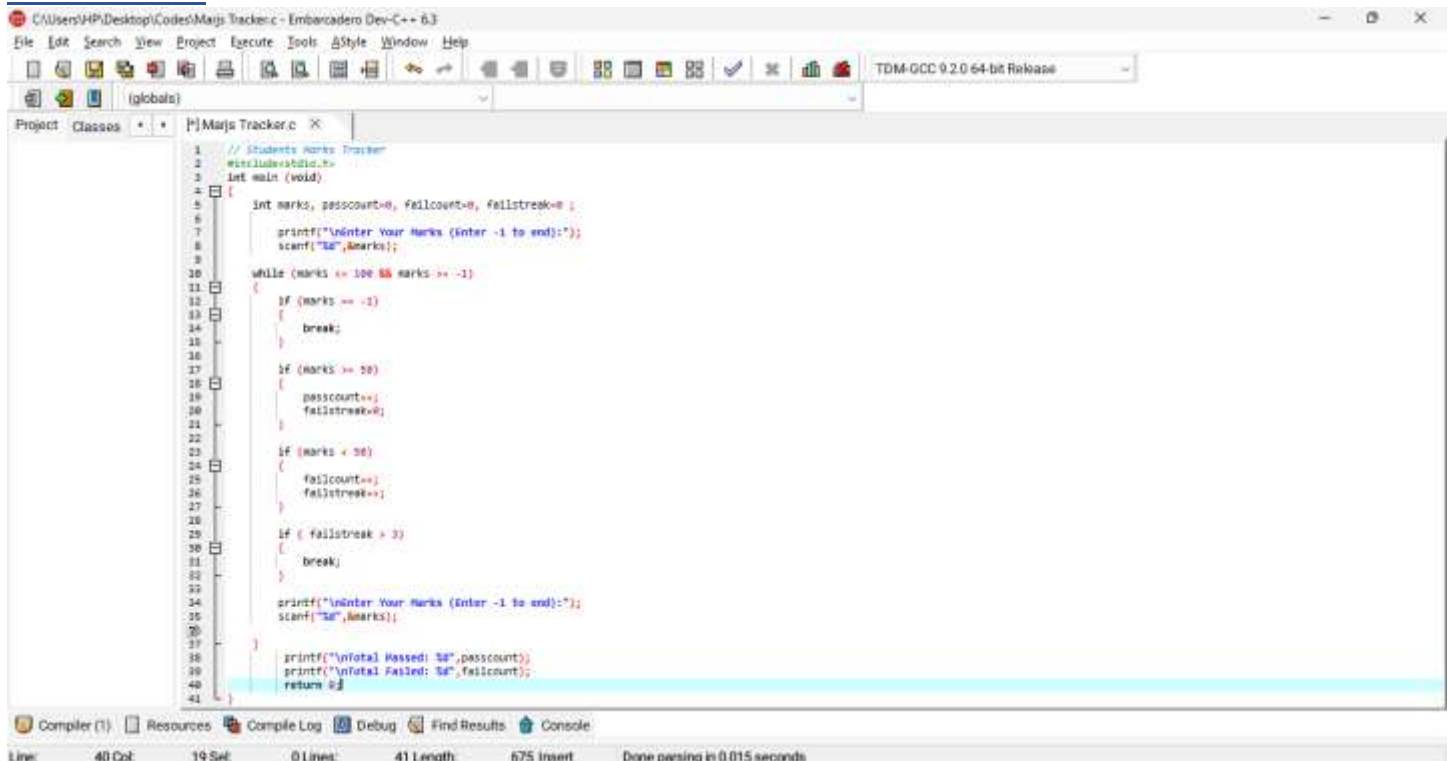


```
0 1 1 2 3 8 13 21 34 89 144 233
-----
Process exited after 0.1299 seconds with return value 0
Press any key to continue . . . |
```

QUESTION 02: Student Marks Tracker

Keep taking marks from user until -1 is entered. Count how many are passing (≥ 50) and failing (< 50). If more than 3 fails are entered in a row \rightarrow stop input automatically. (Hint: Use while + condition + break.)

SOURCE CODE:



```
1 // Students Marks Tracker
2 #include <stdio.h>
3 int main (void)
4 {
5     int marks, passcount=0, failcount=0, failstreak=0;
6     printf("\nEnter Your Marks (Enter -1 to end):-");
7     scanf("%d",&marks);
8
9     while (marks != 100 && marks != -1)
10     {
11         if (marks == -1)
12         {
13             break;
14         }
15
16         if (marks >= 50)
17         {
18             passcount++;
19             failstreak=0;
20         }
21
22         if (marks < 50)
23         {
24             failcount++;
25             failstreak++;
26         }
27
28         if (failstreak > 3)
29         {
30             break;
31         }
32
33         printf("\nEnter Your Marks (Enter -1 to end):-");
34         scanf("%d",&marks);
35     }
36
37     printf("\nTotal Passed: %d",passcount);
38     printf("\nTotal Failed: %d",failcount);
39     return 0;
40 }
```

OUTPUT:

```
C:\Users\HP\Desktop\Codes\ > + v

Enter Your Marks (Enter -1 to end):78
Enter Your Marks (Enter -1 to end):90
Enter Your Marks (Enter -1 to end):56
Enter Your Marks (Enter -1 to end):78
Enter Your Marks (Enter -1 to end):90
Enter Your Marks (Enter -1 to end):43
Enter Your Marks (Enter -1 to end):34
Enter Your Marks (Enter -1 to end):-1

Total Passed: 5
Total Failed: 2
-----
Process exited after 29.09 seconds with return value 0
Press any key to continue . . .
```

```
C:\Users\HP\Desktop\Codes\ > + v

Enter Your Marks (Enter -1 to end):34
Enter Your Marks (Enter -1 to end):45
Enter Your Marks (Enter -1 to end):78
Enter Your Marks (Enter -1 to end):23
Enter Your Marks (Enter -1 to end):2
Enter Your Marks (Enter -1 to end):34
Enter Your Marks (Enter -1 to end):45

Total Passed: 1
Total Failed: 6
-----
Process exited after 16.82 seconds with return value 0
Press any key to continue . . .
```

QUIZ ANSWERS:

(1) c) do-while loop

(2) b) 4 5 6

(3) b) After the loop body is executed

(4) b) continue

(5) b) for(i=0; i<5; i++)

```
{  
    for(j=0; j<3; j++)  
        { statements; }  
}
```

(6) True

(7) False

(8) False

(9) False

(10) a) 1 3 5 7

(11) a) Missing closing brace }

(12) b) Semicolon after the inner for loop terminates it prematurely