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MAT NO: 19/ENG05/072

DEPT: MECHATRONICS

COURSE CODE: ENG 224

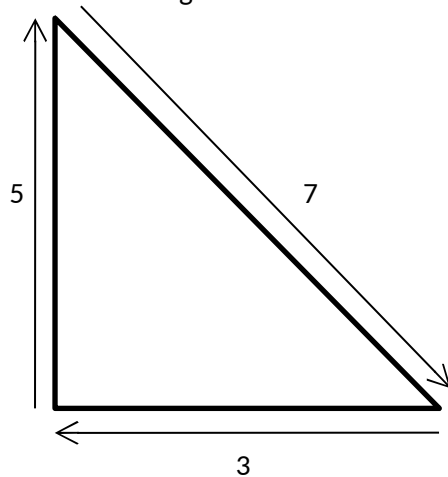
QUESTIONS:

1. Write a C program to convert 1343 days into years, weeks and days (Note: Ignore leap year).
2. Write a C program to calculate the distance between the two points. Note: x1, y1, x2, y2 are all double values.

Formula:

$$\sqrt{(X2 - X1)^2 + (Y2 - Y1)^2}$$

3. Write a C program that reads three floating values and check if it is possible to make a triangle with them. Also, calculate the perimeter of the triangle if the said values are valid.



4. Write a C program to read age of 20 people and count total Baby age, School age and Adult age.

Hint:

- a) Still a baby- age 0 to 4
- b) Attending school - age 5 to 17
- c) Adult life-age 18 & over

[Using while loop]

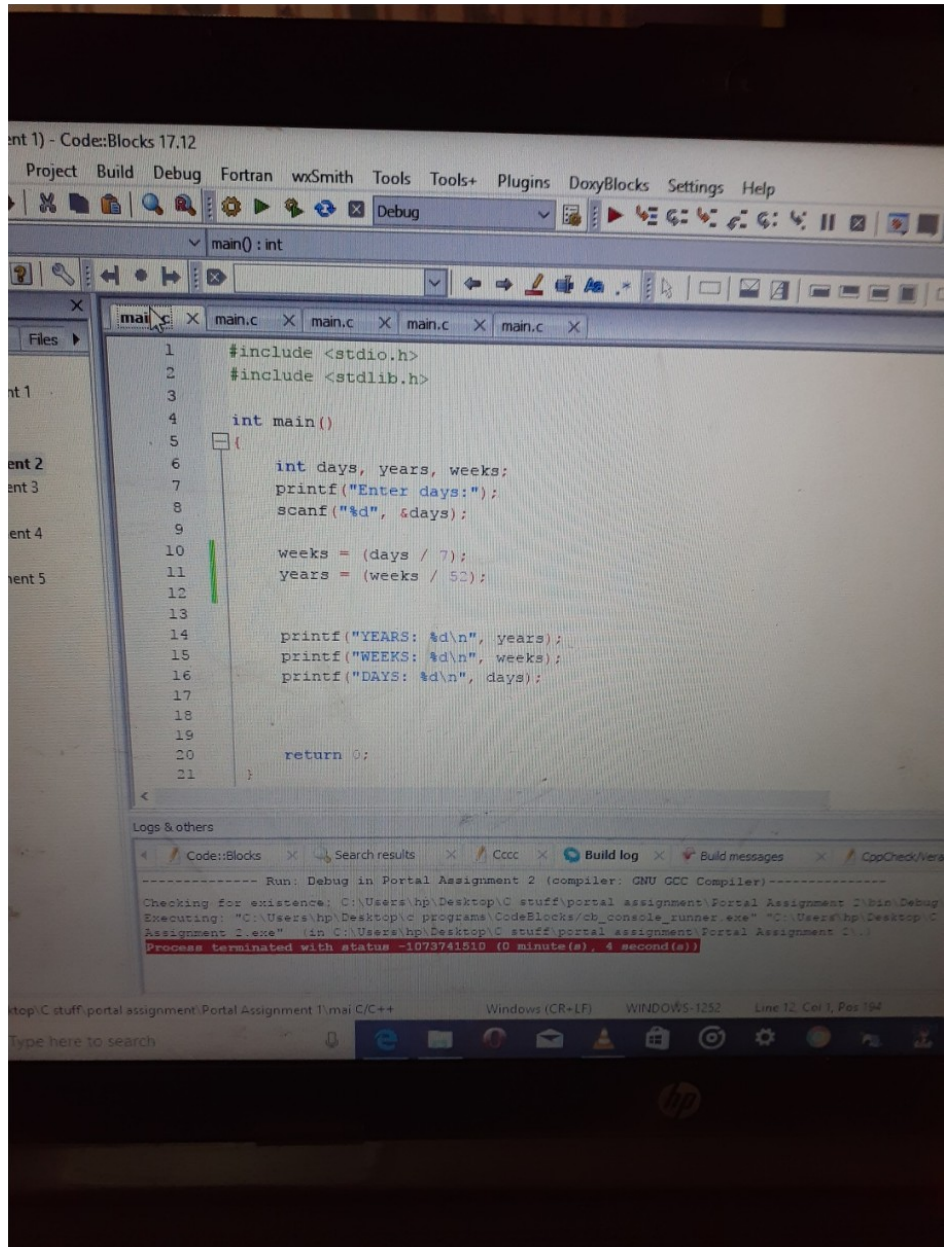
5. Write a C-program to read a random number and then ask user to guess it (from 0 to 100).

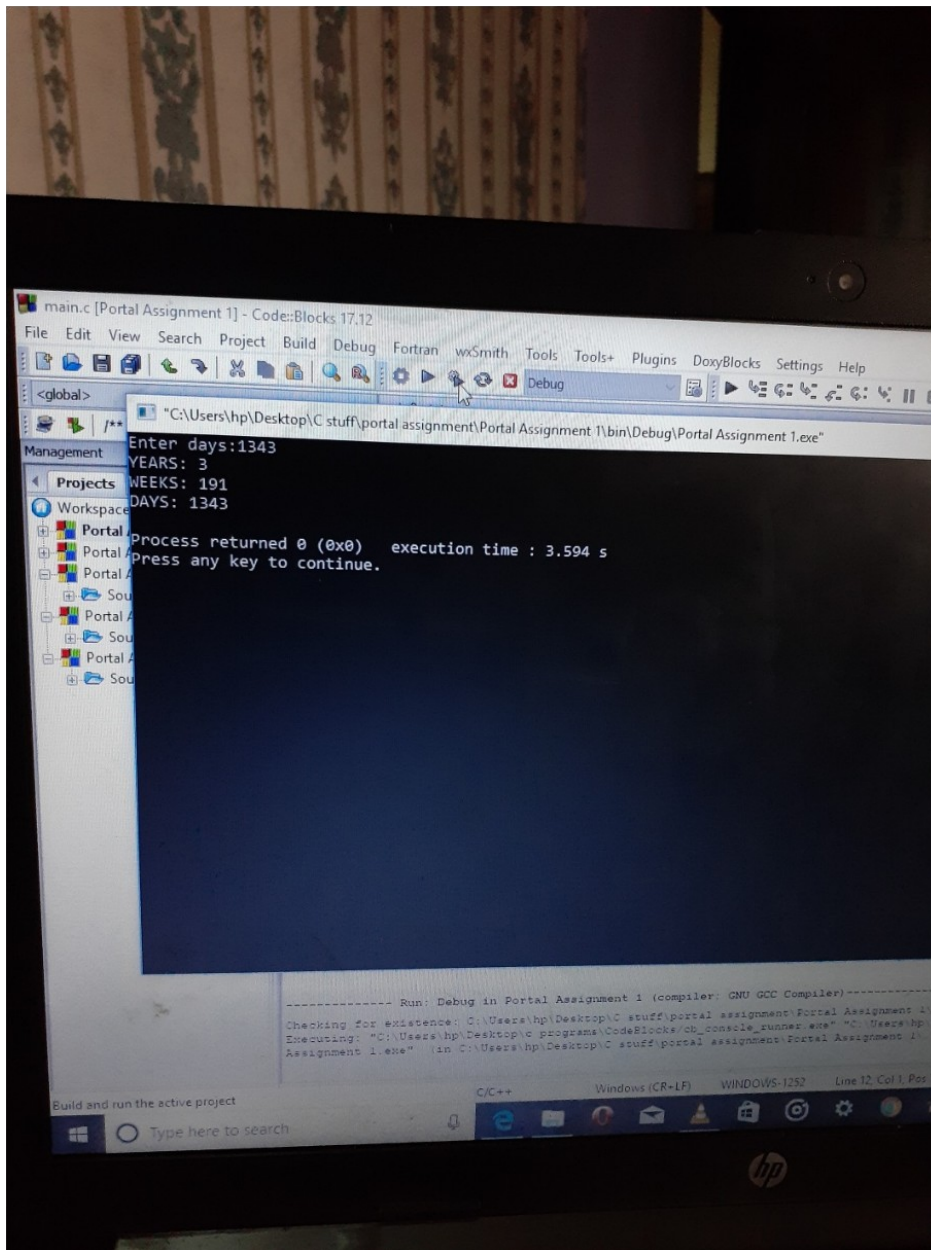
Hint:

User guesses correct number, which is to be generated randomly. The program will give 7 attempts to the user. On each attempt, program will inform the user that entered number is less than or greater than the random generated number.

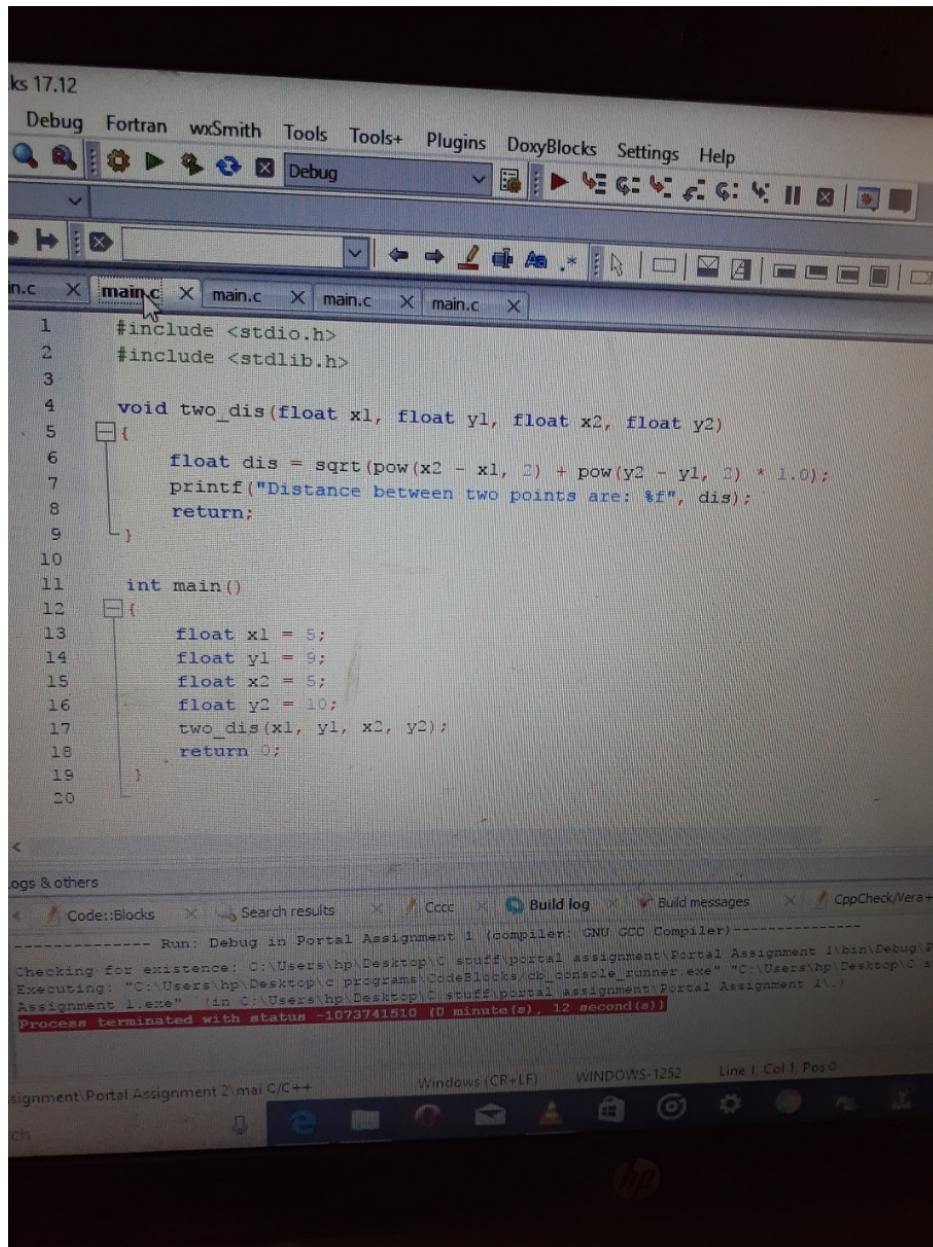
ANSWERS:

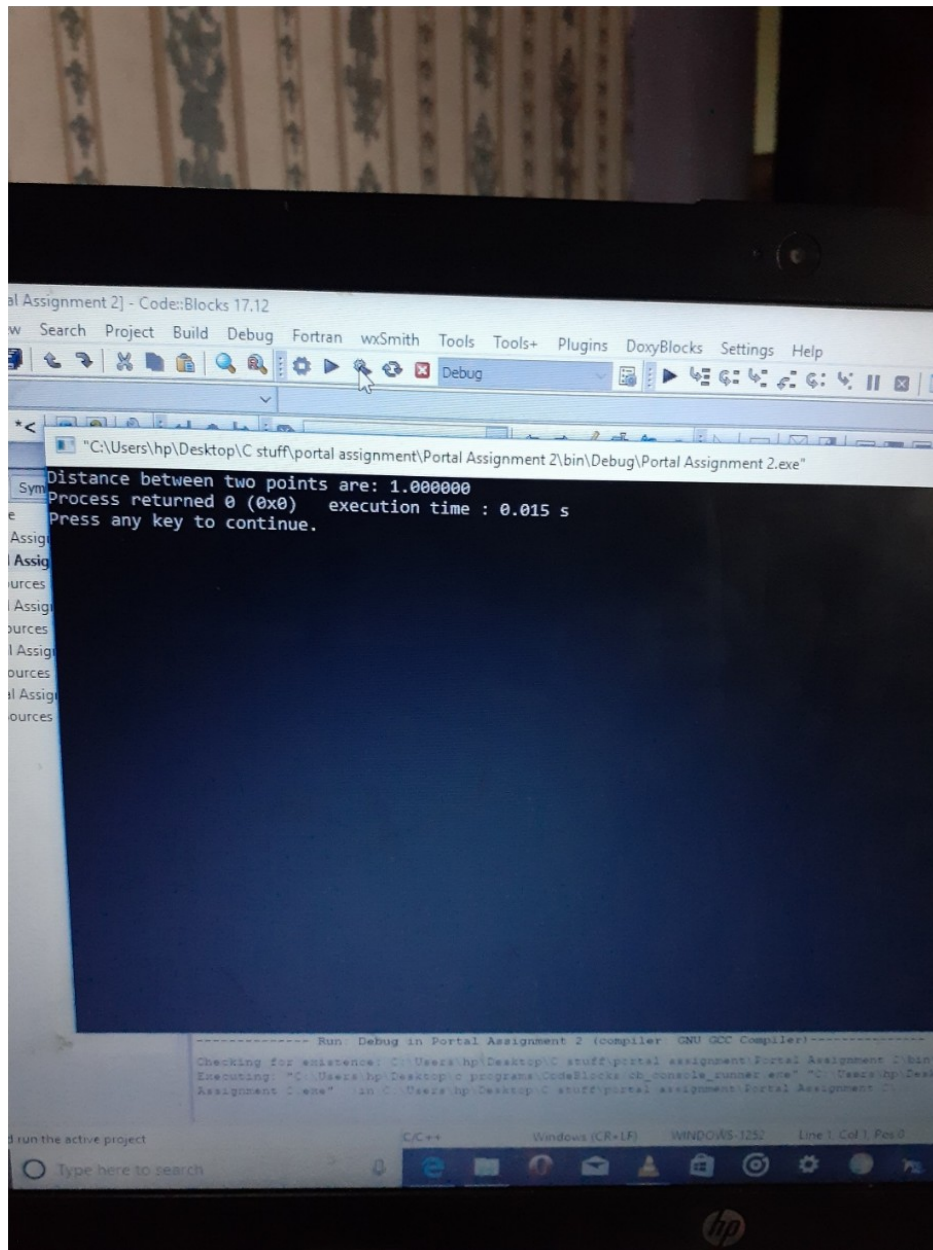
1.





2.





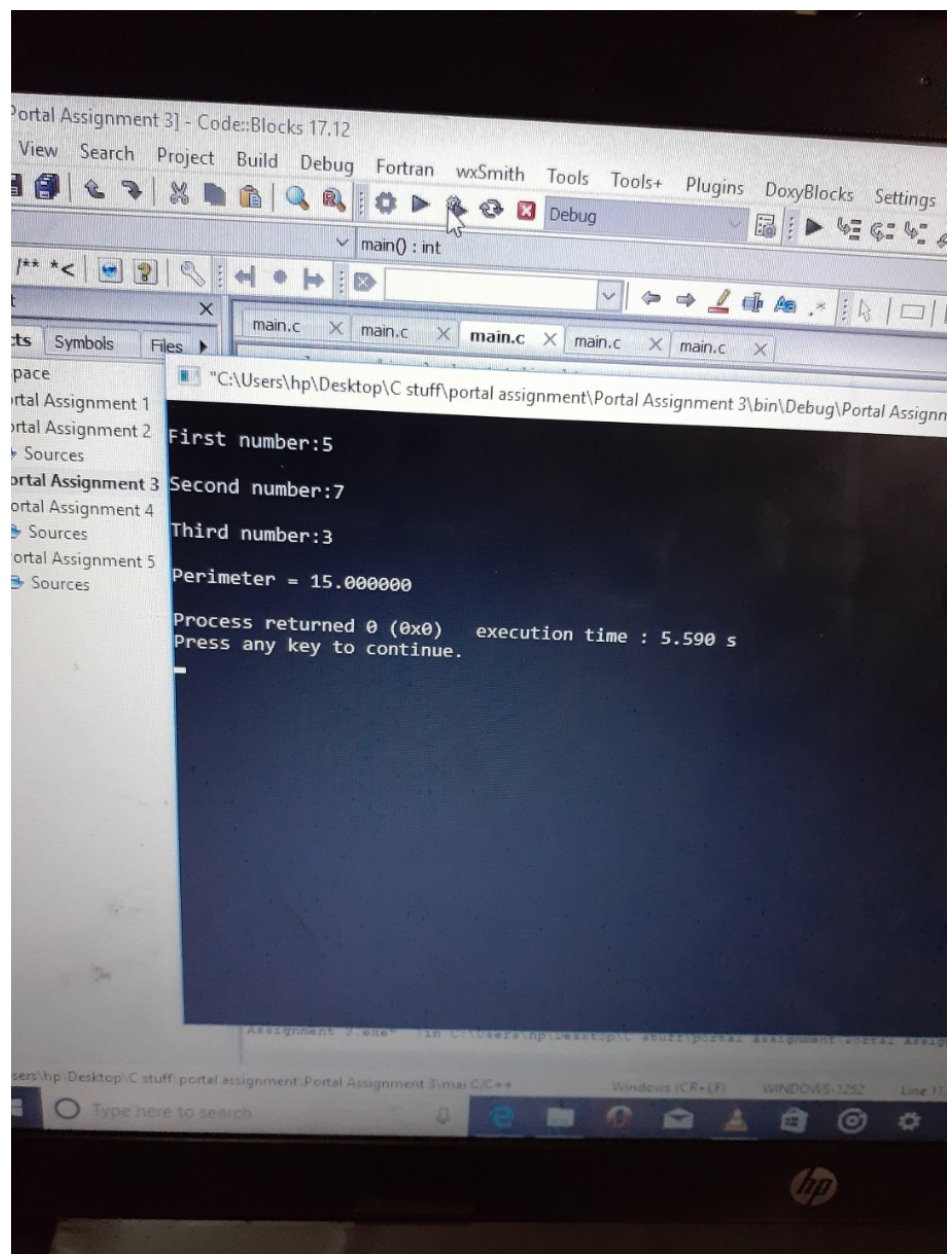
3.

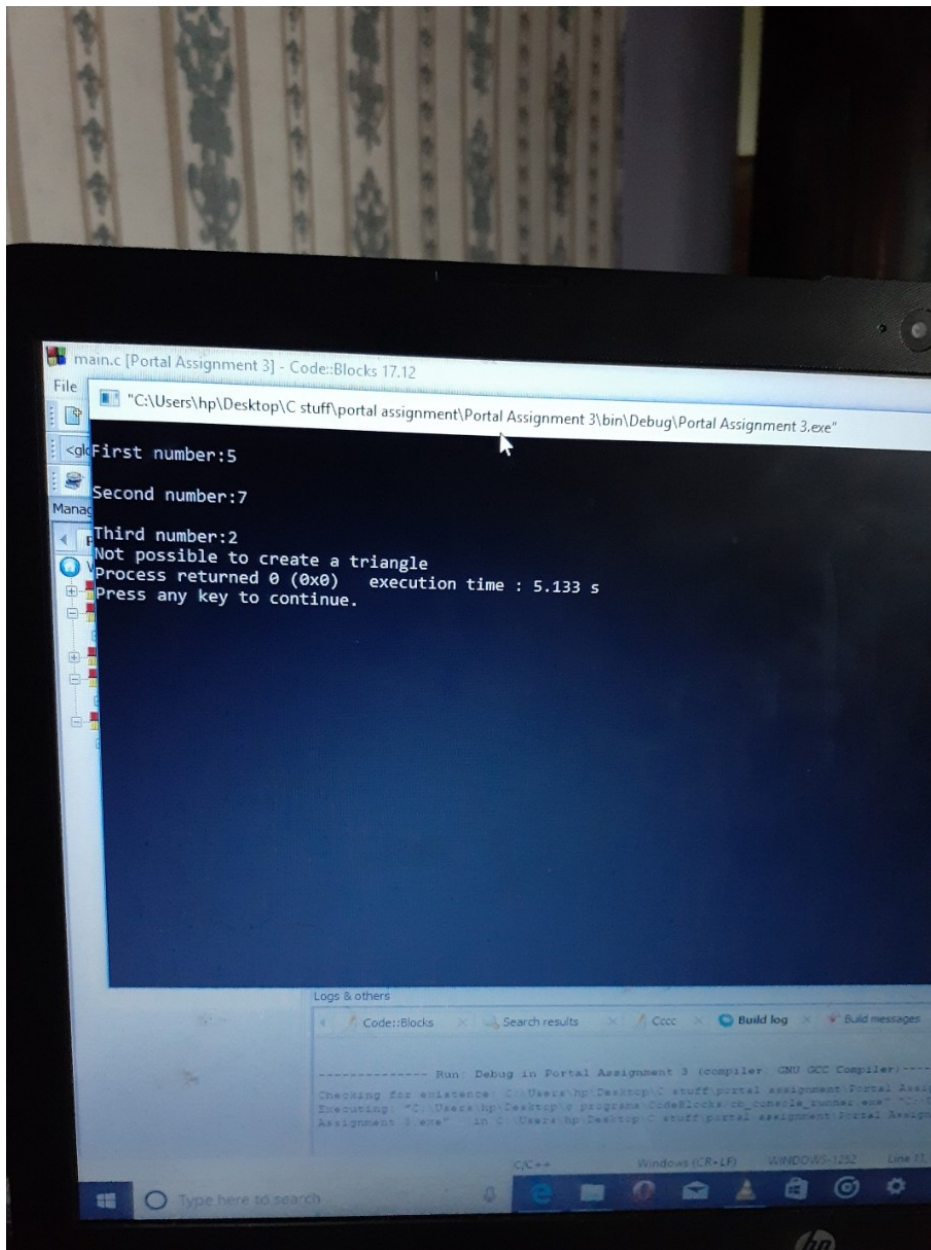
The screenshot shows the Code::Blocks IDE interface. The main window displays a C program in `main.c` that calculates the perimeter of a triangle if the three sides `x`, `y`, and `z` satisfy the triangle inequality. The program includes `<stdio.h>` and `<stdlib.h>`. It prompts the user for three numbers and then checks if they can form a triangle. If they can, it calculates the perimeter `P = x + y + z` and prints it. If not, it prints "Not possible to create a triangle".

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      float x, y, z, P;
7      printf("\nFirst number:");
8      scanf("%f", &x);
9      printf("\nSecond number:");
10     scanf("%f", &y);
11     printf("\nThird number:");
12     scanf("%f", &z);
13
14     if ( x < (y+z) && y < (x+z) && z < (x+y) )
15     {
16         P = x+y+z;
17         printf("\nPerimeter = %f\n", P);
18     }
19     else
20     {
21         printf("Not possible to create a triangle");
22     }
```

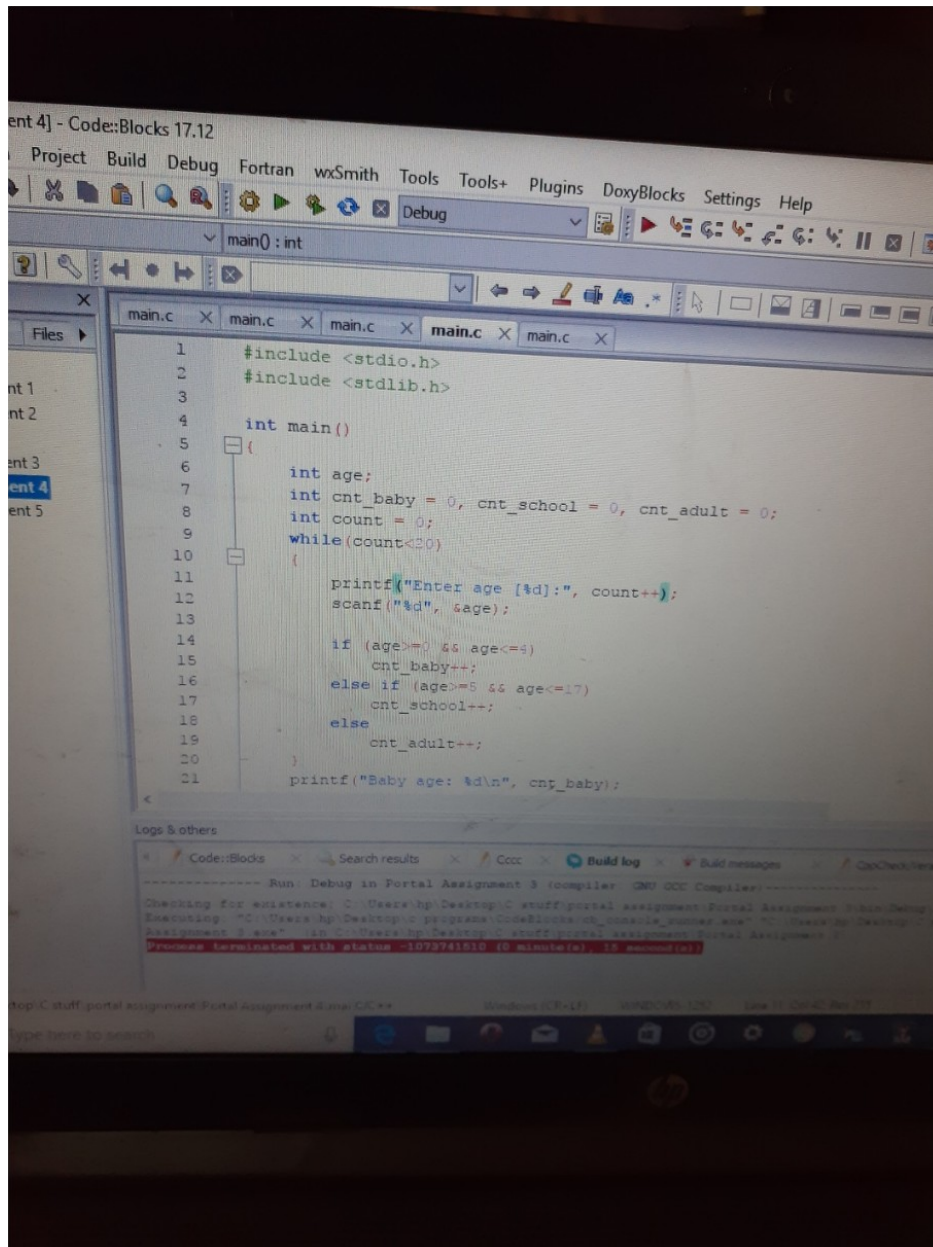
The bottom panel shows the "Logs & others" window with the following output:

```
----- Run: Debug in Portal Assignment 2 (compiler: GNU GCC Compiler)-----
Checking for existence: C:\Users\hp\Desktop\C stuff\portal assignment\Portal Assignment 2\bin\Debug\Portal
Executing: "C:\Users\hp\Desktop\programs\CodeBlocks\cb_console_runner.exe" "C:\Users\hp\Desktop\C stuff
Assignment 2.exe" -in C:\Users\hp\Desktop\C stuff\portal assignment\Portal Assignment 2\
Process terminated with status -1073741510 (0 minute(s), 9 second(s))
```





4.



nt 4] - Code::Blocks 17.12

Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

main() : int

main.c X main.c X main.c X main.c X main.c X

```
7   int cnt_baby = 0, cnt_school = 0, cnt_adult = 0;
8   int count = 0;
9   while(count < 20)
10  {
11      printf("Enter age [%d]:", count++);
12      scanf("%d", &age);
13
14      if (age >= 0 && age <= 2)
15          cnt_baby++;
16      else if (age >= 3 && age <= 7)
17          cnt_school++;
18      else
19          cnt_adult++;
20  }
21  printf("Baby age: %d\n", cnt_baby);
22  printf("School age: %d\n", cnt_school);
23  printf("Adult age: %d\n", cnt_adult);
24
25  return 0;
26
27
```

Logs & others

Code::Blocks Search results Cccc Build log Build messages CppCheck/Ver+

----- Run: Debug in Portal Assignment 3 (compiler: GNU GCC Compiler)-----

Checking for existence: C:\Users\hp\Desktop\portal assignment\Portal Assignment 3\bin\Debug

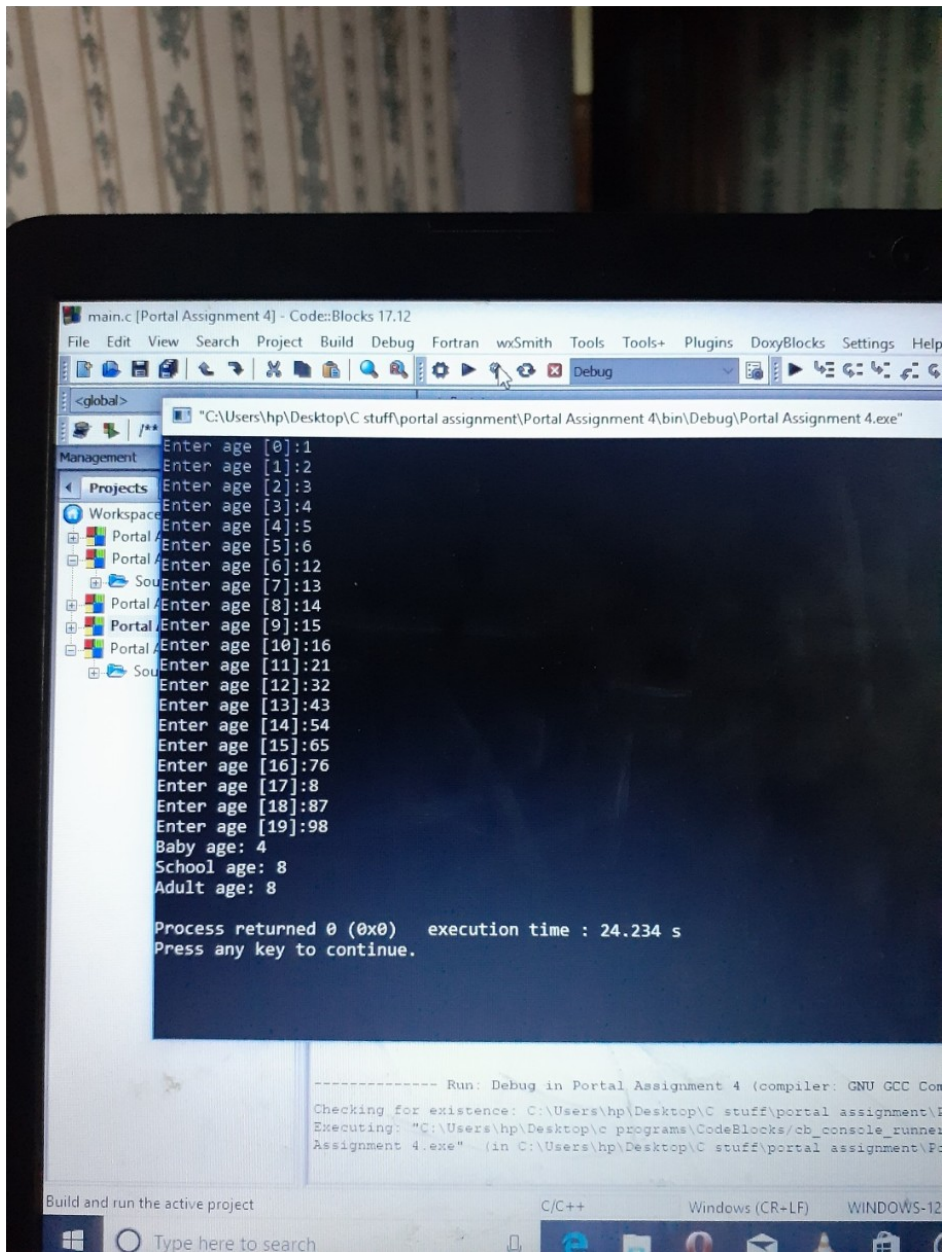
Executing: "C:\Users\hp\Desktop\program\CodeBlocks\cb_console_runner.exe" "C:\Users\hp\Desktop\portal assignment\Portal Assignment 3.exe" in C:\Users\hp\Desktop\portal assignment\Portal Assignment 3

Process terminated with status -1073741510 (0 minute(s), 15 second(s))

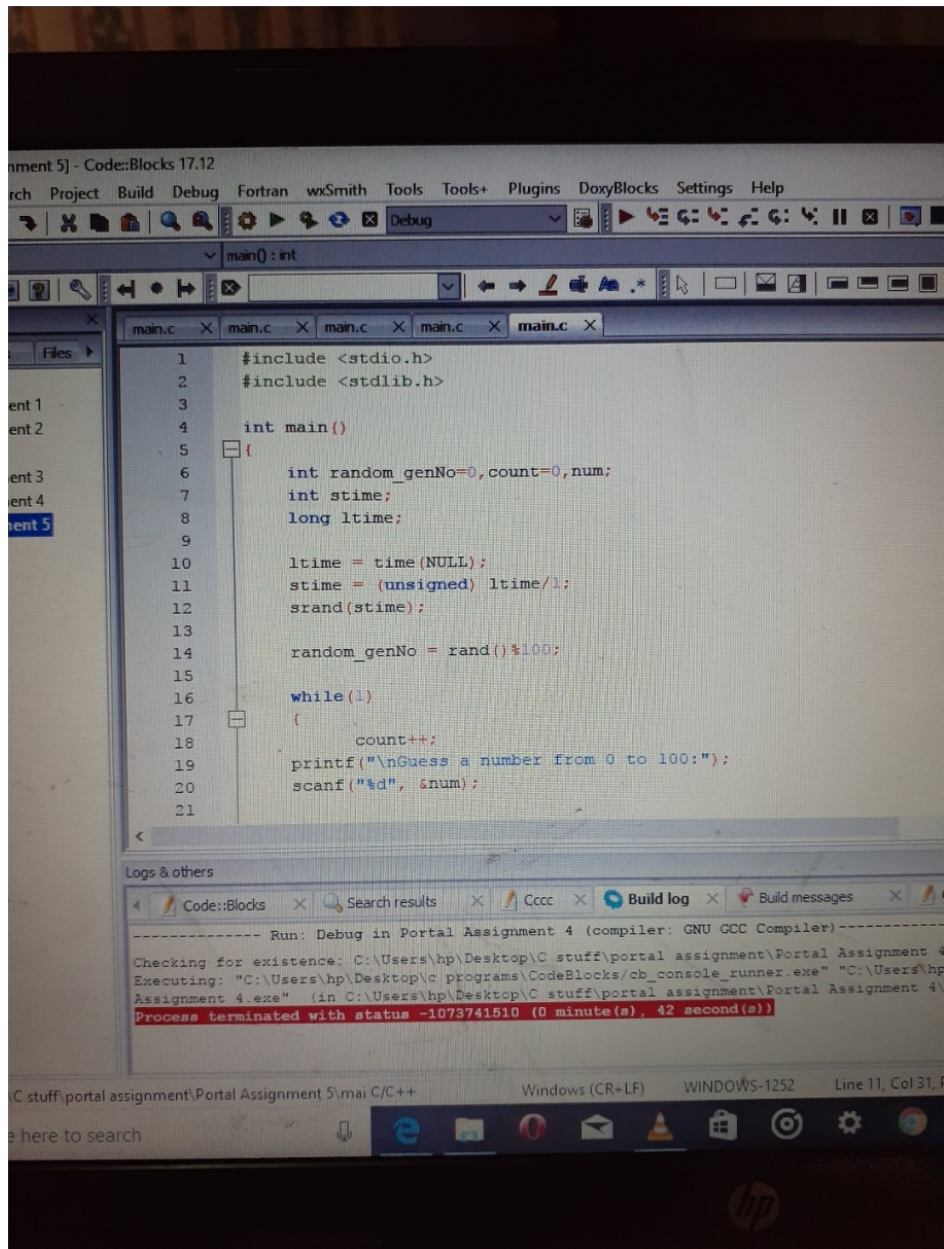
Desktop\stuff\portal assignment\Portal Assignment 4\main.c C/C++

Windows (CR+LF) WINDOWS-1252 Line 11, Col 42, Pos 213

Type here to search



5.



Coder:Blocks 17.12

File Edit Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

main() : int

main.c x main.c x main.c x main.c x main.c x

```
20 scanf("%d", &num);
21
22 if(random_genNo==num)
23 {
24     printf("Congratulations, you have guessed correctly.");
25     break;
26 }
27 else if(random_genNo<num){
28     printf("Generated number is less than entered number, try again");
29 }
30
31 else if (random_genNo>num){
32     printf("Generated number is greater than entered number, try again");
33 }
34 if (count==7){
35     printf("\nMaximum limit reached");
36     break;
37 }
38 }
39 return 0;
40
```

Logs & others

Code::Blocks Search results Cccc Build log Build messages CppCheck/Ver++ CppC

Run: Debug in Portal Assignment 4 (compiler: GNU GCC Compiler)
Checking for existence: C:\Users\hp\Desktop\C stuff\portal Assignment\Portal Assignment 4\bin\Debug\Portal Assignme
Executing: "C:\Users\hp\Desktop\c programs\CodeBlocks\cb_console_runner.exe" "C:\Users\hp\Desktop\C stuff\portal as
Assignment 4.exe" (in C:\Users\hp\Desktop\C stuff\portal assignment\Portal Assignment 4\.)
Process terminated with status -1073741510 (0 minute(s), 42 second(s))

portal assignment\Portal Assignment 5\mai C/C++

Windows (CR-LF)

WINDOWS-1252

Line 11, Col 31, Pos 185

Insert

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