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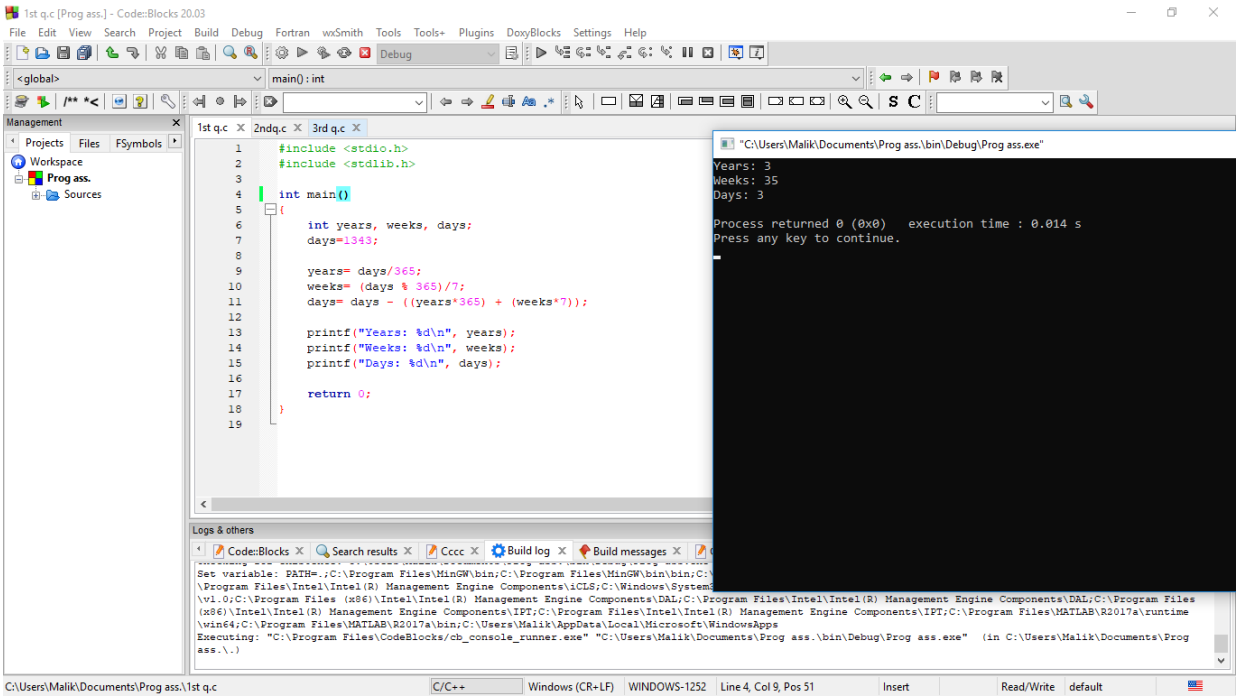
MAT. NO: 18/ENG06/043

DEPT.: Mechanical Engineering

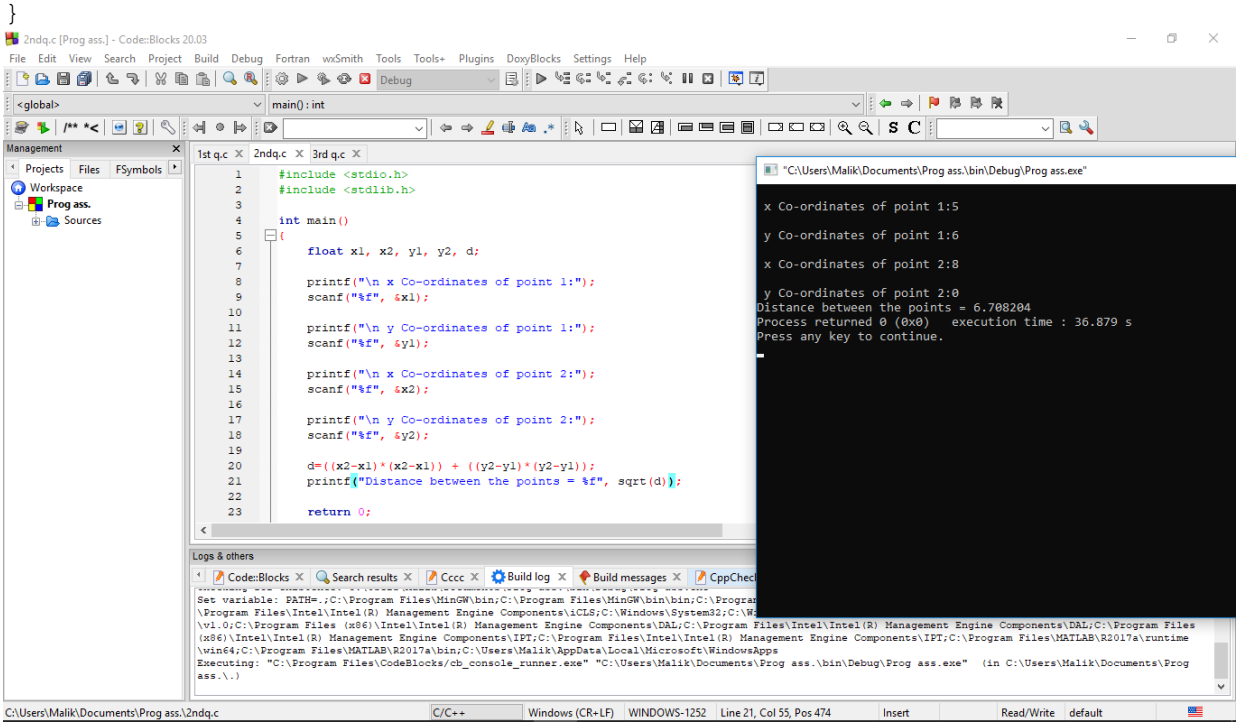
1. Write a C program to convert 1343 days into years, weeks and days

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int years, weeks, days;
    days=1343;

    years= days/365;
    weeks= (days % 365)/7;
    days= days - ((years*365) + (weeks*7));

    printf("Years: %d\n", years);
    printf("Weeks: %d\n", weeks);
    printf("Days: %d\n", days);

    return 0;
}
```



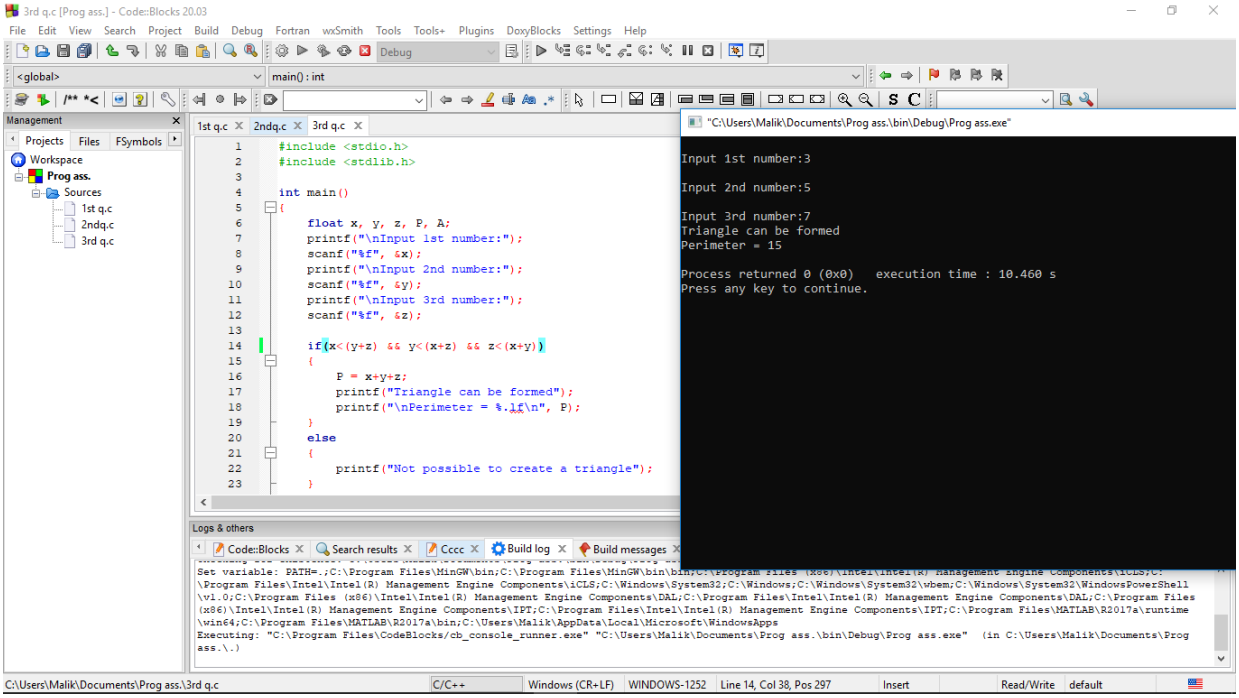
2. Write a C program to calculate the distance between two points
   Formula: $\sqrt{(x2-x1)^2 + (y2-y1)^2}$

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    float x1, x2, y1, y2, d;

    printf("\n x Co-ordinates of point 1:");
    scanf("%f", &x1);

    printf("\n y Co-ordinates of point 1:");
    scanf("%f", &y1);

    printf("\n x Co-ordinates of point 2:");
    scanf("%f", &x2);

    printf("\n y Co-ordinates of point 2:");
    scanf("%f", &y2);

    d=((x2-x1)*(x2-x1)) + ((y2-y1)*(y2-y1));
    printf("Distance between the points = %f", sqrt(d));

    return 0;
}
```



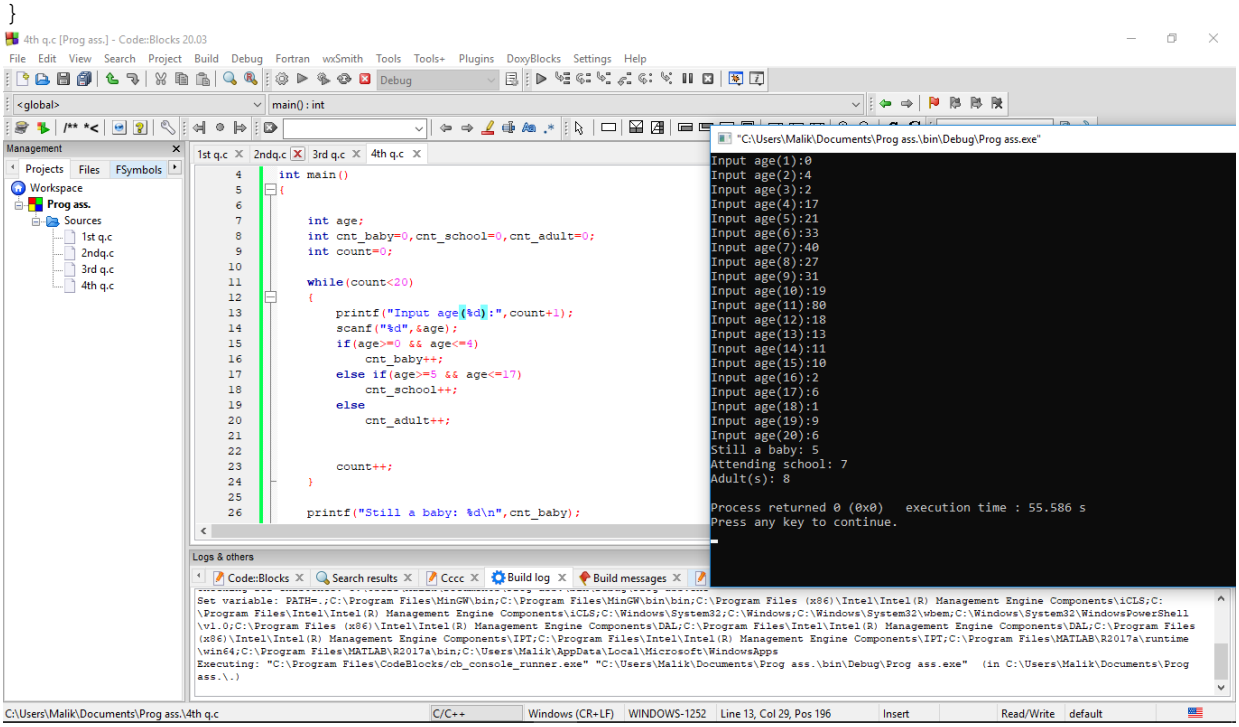
3. Write a C program that reads 3 floating values and checks if it is possible to make a triangle with them. Also, calculate the perimeter of the triangle if the said values are valid

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    float x, y, z, P, A;
    printf("\nInput 1st number:");
    scanf("%f", &x);
    printf("\nInput 2nd number:");
    scanf("%f", &y);
    printf("\nInput 3rd number:");
    scanf("%f", &z);

    if(x<(y+z) && y<(x+z) && z<(x+y))
    {
        P = x+y+z;
        printf("Triangle can be formed");
        printf("\nPerimeter = %.lf\n", P);
    }
    else
    {
        printf("Not possible to create a triangle");
    }

    return 0;
}
```



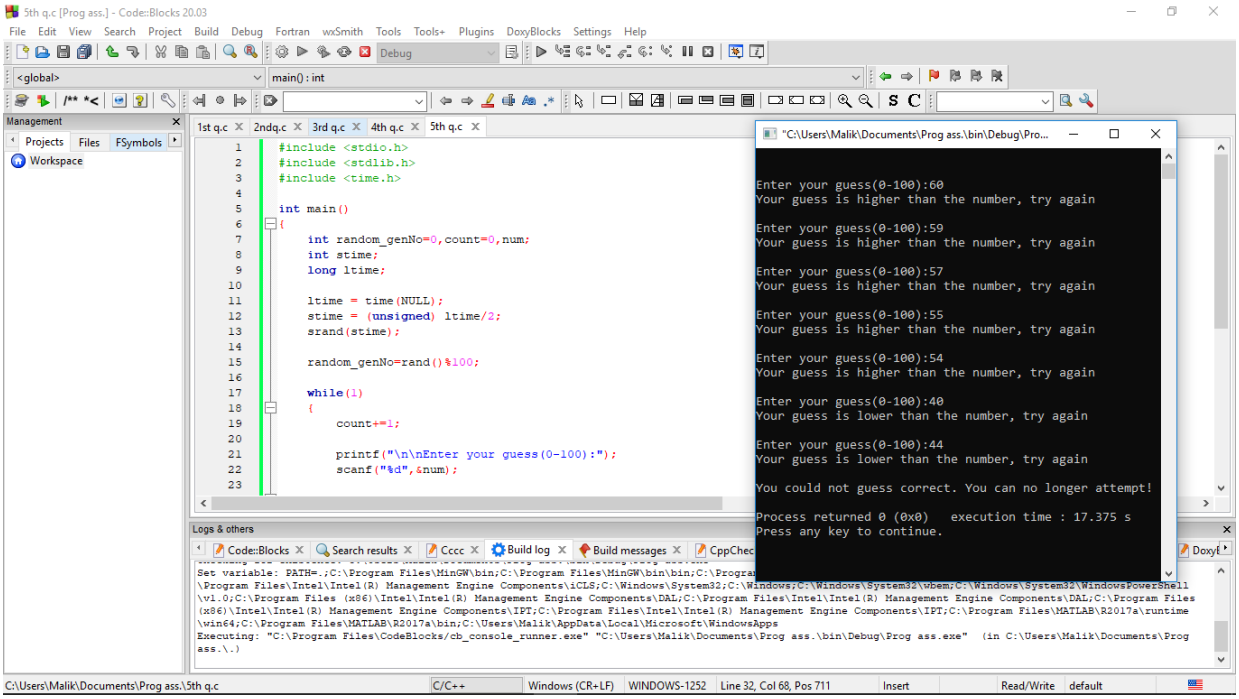
4. Write a c program to read the ages of 20 peopleand count total baby age school age and adult age

```
#include <stdio.h>
#include <stdlib.h>

int main()
{

    int age;
    int cnt_baby=0,cnt_school=0,cnt_adult=0;
    int count=0;

    while(count<20)
    {
        printf("Input age(%d):",count+1);
        scanf("%d",&age);
        if(age>=0 && age<=4)
            cnt_baby++;
        else if(age>=5 && age<=17)
            cnt_school++;
        else
            cnt_adult++;


        count++;
    }

    printf("Still a baby: %d\n",cnt_baby);
    printf("Attending school: %d\n",cnt_school);
    printf("Adult(s): %d\n",cnt_adult);

    return 0;
}
```



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

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>

int main()
{
    int random_genNo=0,count=0,num;
    int stime;
    long ltime;

    ltime = time(NULL);
    stime = (unsigned) ltime/2;
    srand(stime);

    random_genNo=rand()%100;

    while(1)
    {
        count+=1;

        printf("\n\nEnter your guess(0-100):");
        scanf("%d",&num);

        if(random_genNo==num){
            printf("Your guess is accurate");
            break;
        }
        else if(random_genNo>num){
            printf("Your guess is lower than the number, try again");
        }
        else if(random_genNo<num){
            printf("Your guess is higher than the number, try again");
        }

        if(count==7){
            printf("\n\nYou could not guess correct. You can no longer
attempt!\n");
            break;
        }
     }

     return 0;
}
```


5th q.c [Prog ass.] - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Debug
<global>
main() : int
Management
Projects Files FSymbols
Workspace
1st q.c 2ndq.c 3rd q.c 4th q.c 5th q.c
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
int main()
{
int random_genNo=0,count=0,num;
int stime;
long ltime;
ltime = time(NULL);
stime = (unsigned) ltime/2;
srand(stime);
random_genNo=rand()%100;
while(1)
{
count+=1;
printf("\n\nEnter your guess(0-100):");
scanf("%d",&num);
"C:\Users\Malik\Documents\Prog ass.\bin\Debug\Pro...
Enter your guess(0-100):60
Your guess is higher than the number, try again
Enter your guess(0-100):59
Your guess is higher than the number, try again
Enter your guess(0-100):57
Your guess is higher than the number, try again
Enter your guess(0-100):55
Your guess is higher than the number, try again
Enter your guess(0-100):54
Your guess is higher than the number, try again
Enter your guess(0-100):40
Your guess is lower than the number, try again
Enter your guess(0-100):44
Your guess is lower than the number, try again
You could not guess correct. You can no longer attempt!
Process returned 0 (0x0) execution time : 17.375 s
Press any key to continue.
Logs & others
Code::Blocks Search results Cccc Build log Build messages CppChec
Set variable: PATH=.;C:\Program Files\MinGW\bin;C:\Program Files\MinGW\bin\bin;C:\Progra
\Program Files\Intel\Intel(R) Management Engine Components\iCLS;C:\Windows\System32;C:\Windows;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell
\v1.0;C:\Program Files (x86)\Intel\Intel(R) Management Engine Components\DAL;C:\Program Files\Intel\Intel(R) Management Engine Components\DAL;C:\Program Files
(x86)\Intel\Intel(R) Management Engine Components\IPT;C:\Program Files\Intel\Intel(R) Management Engine Components\IPT;C:\Program Files\MATLAB\R2017a\runtime
\win64;C:\Program Files\MATLAB\R2017a\bin;C:\Users\Malik\AppData\Local\Microsoft\WindowsApps
Executing: "C:\Program Files\CodeBlocks/cb_console_runner.exe" "C:\Users\Malik\Documents\Prog ass.\bin\Debug\Prog ass.exe" (in C:\Users\Malik\Documents\Prog
ass.\.)
C:\Users\Malik\Documents\Prog ass.\5th q.c
C/C++
Windows (CR+LF)
WINDOWS-1252
Line 32, Col 68, Pos 711
Insert
Read/Write
default