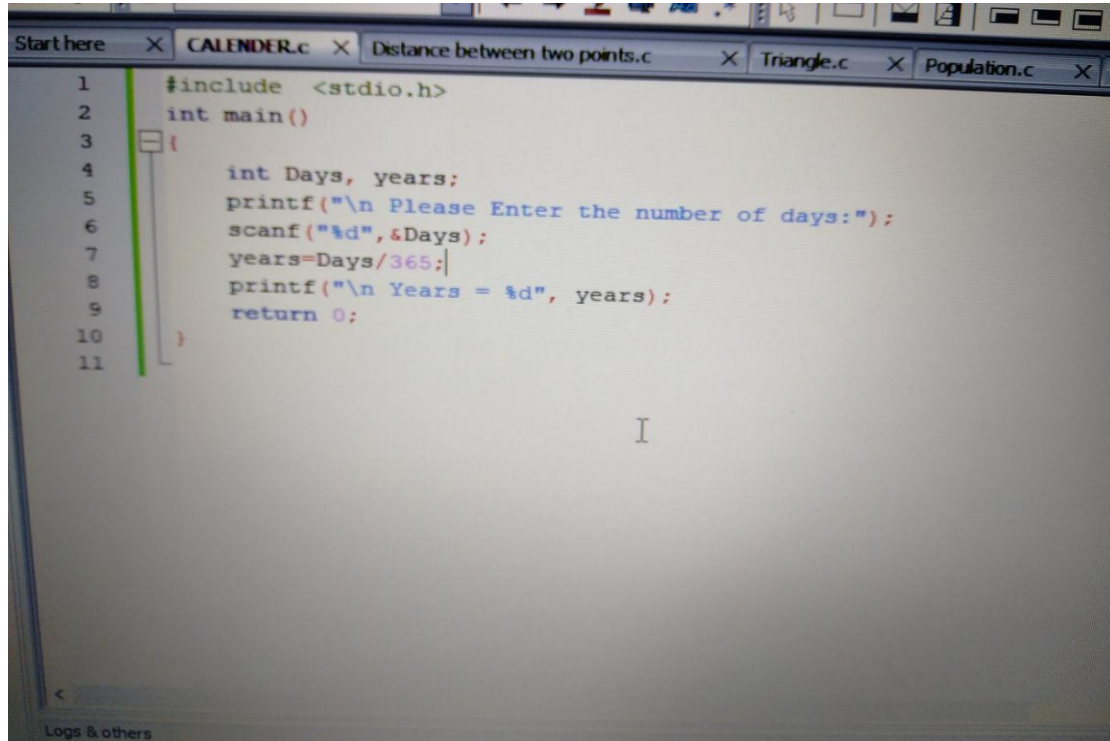
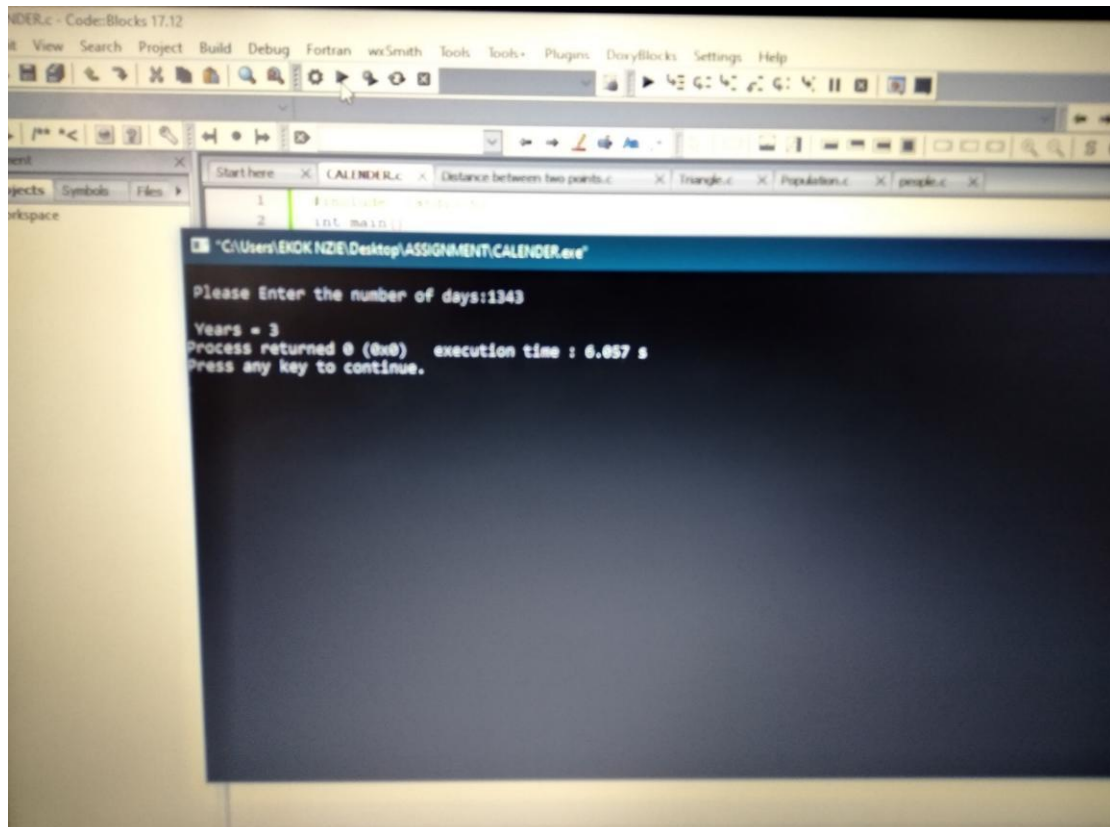


**EKOK NZIE OKPOKAM**  
**18/ENG05/045**  
**MECHATRONICS**  
**C PROGRAMMING ASSIGNMENT**  
**1. CODE**

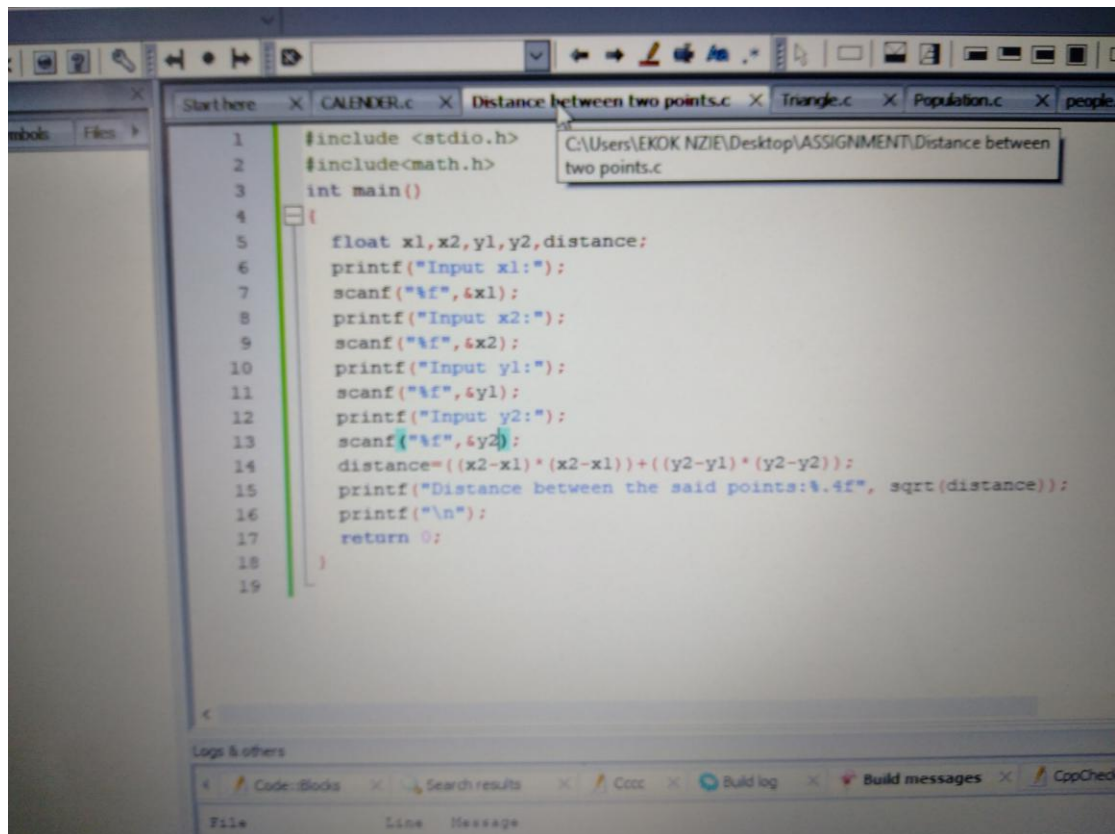


```
1 #include <stdio.h>
2 int main()
3 {
4     int Days, years;
5     printf("\n Please Enter the number of days:");
6     scanf("%d",&Days);
7     years=Days/365;
8     printf("\n Years = %d", years);
9     return 0;
10 }
11
```

**1B.RESULT**

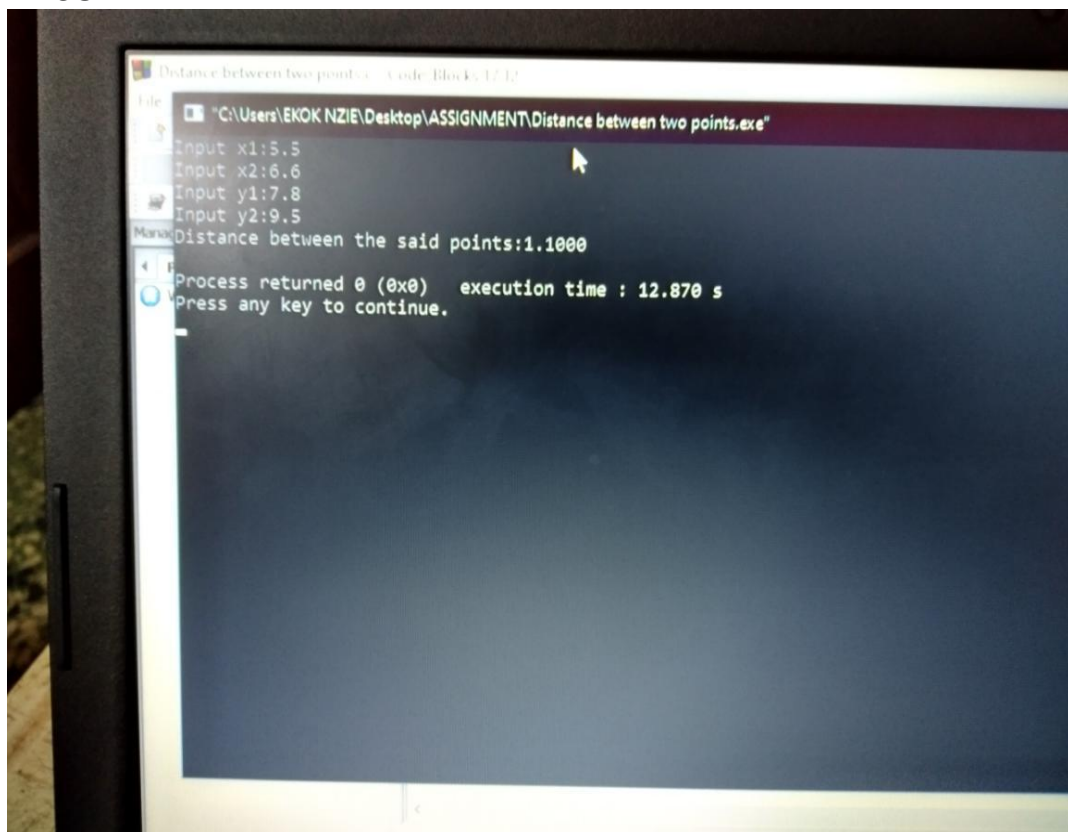


## 2. CODE



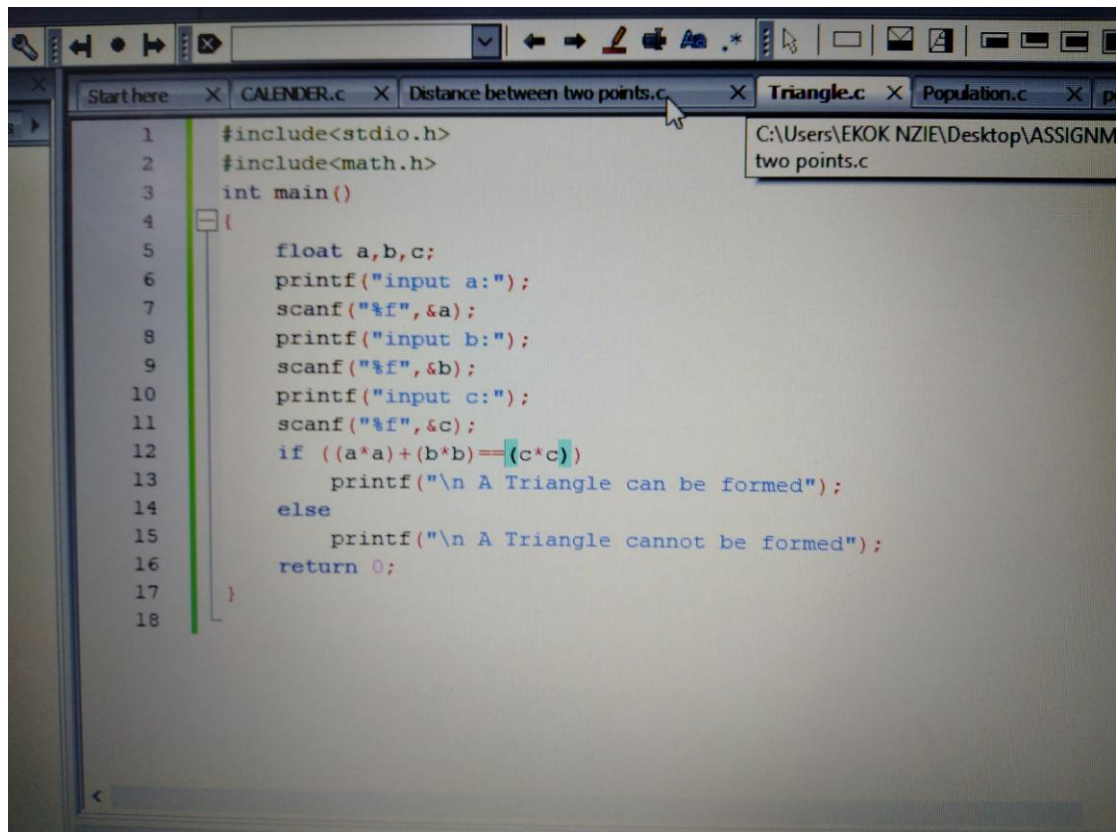
```
1  #include <stdio.h>
2  #include <math.h>
3  int main()
4  {
5      float x1,x2,y1,y2,distance;
6      printf("Input x1:");
7      scanf("%f",&x1);
8      printf("Input x2:");
9      scanf("%f",&x2);
10     printf("Input y1:");
11     scanf("%f",&y1);
12     printf("Input y2:");
13     scanf("%f",&y2);
14     distance=((x2-x1)*(x2-x1))+((y2-y1)*(y2-y2));
15     printf("Distance between the said points:%.4f", sqrt(distance));
16     printf("\n");
17     return 0;
18 }
19
```

## 2B.RESULT



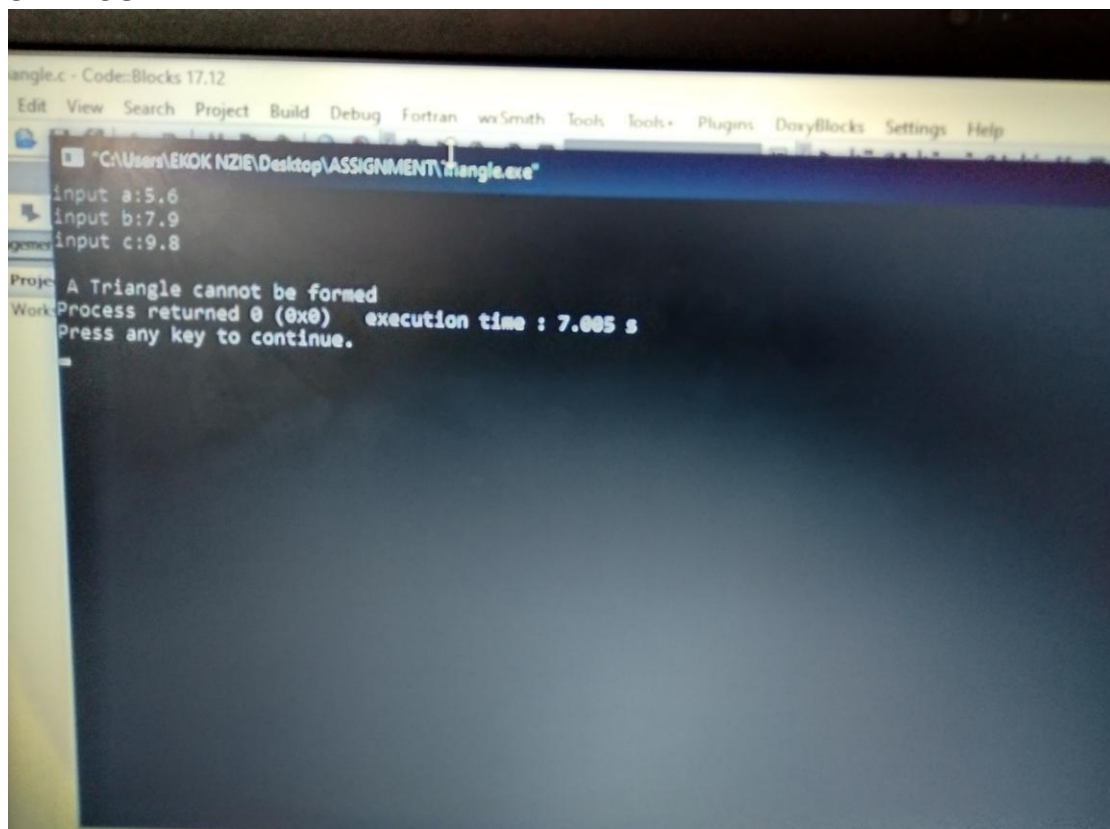
```
Distance between two points - Code-Block: 1/1/1
File
  "C:\Users\EKOK NZIE\Desktop\ASSIGNMENT\Distance between two points.exe"
  Input x1:5.5
  Input x2:6.6
  Input y1:7.8
  Input y2:9.5
  Distance between the said points:1.1000
  Process returned 0 (0x0)   execution time : 12.870 s
  Press any key to continue.
```

### 3. CODE



```
1 #include<stdio.h>
2 #include<math.h>
3 int main()
4 {
5     float a,b,c;
6     printf("input a:");
7     scanf("%f",&a);
8     printf("input b:");
9     scanf("%f",&b);
10    printf("input c:");
11    scanf("%f",&c);
12    if ((a*a)+(b*b)==(c*c))
13        printf("\n A Triangle can be formed");
14    else
15        printf("\n A Triangle cannot be formed");
16    return 0;
17 }
18
```

### 3B.RESULT



```
angle.c - Code::Blocks 17.12
Edit View Search Project Build Debug Fortran wxSmith Tools Tools* Plugins DoryBlocks Settings Help
"C:\Users\EKOK NZIE\Desktop\ASSIGNMENT\triangle.exe"
input a:5.6
input b:7.9
input c:9.8
A Triangle cannot be formed
Process returned 0 (0x0)   execution time : 7.005 s
Press any key to continue.
```

## 4. CODE

```
1 #include<stdio.h>
2 int main()
3 {
4     int age;
5     int baby=0,school=0,adult=0;
6     int count=0;
7     while(count<20)
8     {
9         printf("Enter age of person[%d]:",count+1);
10        scanf("%d",&age);
11        if(age>=0 && age<=4)
12            baby++;
13        else if(age>=5 && age<=17)
14            school++;
15        else
16            adult++;
17        count++;
18    }
19    printf("Baby age:%d\n", baby);
20    printf("School age:%d\n", school);
21    printf("Adult age:%d\n", adult);
22
23    return 0;
24 }
25
```

## 4B.RESULT

```
Enter age of person[1]:12
Enter age of person[2]:23
Enter age of person[3]:34
Enter age of person[4]:45
Enter age of person[5]:1
Enter age of person[6]:4
Enter age of person[7]:2
Enter age of person[8]:1
Enter age of person[9]:4
Enter age of person[10]:65
Enter age of person[11]:32
Enter age of person[12]:12
Enter age of person[13]:23
Enter age of person[14]:43
Enter age of person[15]:35
Enter age of person[16]:12
Enter age of person[17]:34
Enter age of person[18]:45
Enter age of person[19]:23
Enter age of person[20]:11
Baby age:5
School age:4
Adult age:11

Process returned 0 (0x0)   execution time : 19.162 s
Press any key to continue.
```

## 5. CODE

```
1 #include<stdio.h>
2 #include<time.h>
3 #include<stdlib.h>
4 int main()
5 {
6     int random=7,count=0,num;
7     int stime;
8     long ltime;
9     ltime=time(NULL);
10    stime=(unsigned) ltime/2;
11    srand(stime);
12
13    random=rand()%100;
14    while(1)
15    {
16        count++;
17        printf("\n Guess a number from 1 to 100");
18        scanf("%d",&num);
19        if(random==num){
20            printf("Congratulations, you have guessed a correct number");
21            break;
22        }
23        else if(random>num){
24            printf("Generated number is less than");
25        }
26        else if(random<num){
27            printf("Generated number is greater than");
28        }
29        if(count==7){
30            printf("\n Maximum attempts reached");
31            break;
32        }
33    }
34    return 0;
```

## 5B.RESULT

```
"C:\Users\EKOK NZIE\Desktop\ASSIGNMENT\Population.exe"
Guess a number from 1 to 1005
Generated number is less than
Guess a number from 1 to 100
```