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MATRIC NO: 19/ENG08/009

DEPARTMENT: BIOMEDICAL ENGINEERING

The image shows a Code::Blocks IDE window with a C program that converts 1343 days into years, weeks, and days. The code is as follows:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      int days, weeks, years;
7      days=1343;
8      //convert days to weeks, years and days
9      years=days/365;
10     weeks=(days%365)/7;
11     days=days-((years*365)+(weeks*7));
12     printf("years:%d\n", years);
13     printf("weeks:%d\n", weeks);
14     printf("days:%d\n", days);
15     return 0;
16 }
17
```

Below the code editor, a terminal window titled "C:\Users\Sampson\Desktop\C programming\Sophia Assgnt\main.exe" displays the output of the program:

```
years:3
weeks:35
days:3

Process returned 0 (0x0)   execution time : 0.159 s
Press any key to continue.
```

The IDE interface includes a menu bar (File, Edit, View, Search, Project, Build, Debug, Fortran, wxSmith, Tools, Tools+, Plugins), a toolbar, and a status bar at the bottom showing tabs for Code::Blocks, Search results, Build tool, Build messages, and Code::Blocks/ver2++.

main.c - Code::Blocks 17.12

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings

<global> main() : int

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int main()
5 {
6     float x1,y1,x2,y2,pdistance;
7     printf("Input x1:");
8     scanf("%f",&x1);
9     printf("Input y1:");
10    scanf("%f",&y1);
11    printf("Input x2:");
12    scanf("%f",&x2);
13    printf("Input y2:");
14    scanf("%f",&y2);
15    pdistance=((x2-x1)*(x2-x1))+((y2-y1)*(y2-y1));
16    printf("Distance between the points: %.4f",sqrt(pdistance));
17    printf("\n");
18    return 0;
19 }
20
```

main.c - Code::Blocks 17.12

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings

<global> main() : int

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int main()
5 {
6     float x1,y1,x2,y2,pdistance;
7     printf("Input x1:");
8     scanf("%f",&x1);
9     printf("Input y1:");
10    scanf("%f",&y1);
11    printf("Input x2:");
12    scanf("%f",&x2);
13    printf("Input y2:");
14    scanf("%f",&y2);
15    pdistance=((x2-x1)*(x2-x1))+((y2-y1)*(y2-y1));
16    printf("Distance between the points: %.4f",sqrt(pdistance));
17    printf("\n");
18    return 0;
19 }
20
```

"C:\Users\Sampson\Desktop\C programming\Sophia assignment 2\main.exe"

```
Input x1:9
Input y1:25
Input x2:16
Input y2:64
Distance between the points:39.6232

Process returned 0 (0x0)   execution time : 11.998 s
Press any key to continue.
```

```
main.c - Code::Blocks 17.12
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins De
<global>
Start here x main.c x
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int main()
5 {
6     float x,y,z,P;
7     printf("\nInput the first number:");
8     scanf("%f",&x);
9     printf("\nInput the second number:");
10    scanf("%f",&y);
11    printf("\nInput the third number:");
12    scanf("%f",&z);
13    if (x<(y+z)&&y<(x+z)&&z<(y+x))
14    {
15        P=x+y+z;
16        printf("\nPerimeter=%lf\n",P);
17    }
18    else
19    {
20        printf("Not possible to create a triangle!");
21    }
22    return 0;
23 }
```

```
main.c - Code::Blocks 17.12
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins Dox
<global>
Start here x main.c x
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int main()
5 {
6     float x,y,z,P;
7     printf("\nInput the first number:");
8     scanf("%f",&x);
9     printf("\nInput the second number:");
10    scanf("%f",&y);
11    printf("\nInput the third number:");
12    scanf("%f",&z);
13    if (x<(y+z)&&y<(x+z)&&z<(y+x))
14    {
15        P=x+y+z;
16        printf("\nPerimeter=%lf\n",P);
17    }
18    else
19    {
20        printf("Not possible to create a triangle!");
21    }
22    return 0;
23 }
```

"C:\Users\Sampson\Desktop\C programming\Sophia assignment 3\main.exe"

```
Input the first number:3
Input the second number:5
Input the third number:7
Perimeter=15.000000
Process returned 0 (0x0)   execution time : 3.204 s
Press any key to continue.
```

```
main.c - Code::Blocks 17.12
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks
<global>
Start here x main.c x
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int main()
5 {
6     int age;
7     int cnt_baby=0,cnt_school=0,cnt_adult=0;
8     int count=0;
9
10    while(count<20)
11    {
12        printf("Enter age of person [%d]: ",count+1);
13        scanf("%d",&age);
14        if(age>=0 && age<=4)
15            cnt_baby++;
16        else if(age>=5 && age<=17)
17            cnt_school++;
18        else
19            cnt_adult++;
20        //increase counter
21        count++;
22    }
23    printf("Baby age: %d\n",cnt_baby);
24    printf("School age: %d\n",cnt_school);
25
```

Logs & others

```
main.c - Code::Blocks 17.12
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins D
<global>
Start here x main.c x
7     int cnt_baby=0,cnt_school=0,cnt_adult=0;
8     int count=0;
9
10    while(count<20)
11    {
12        printf("Enter age of person [%d]: ",count+1);
13        scanf("%d",&age);
14        if(age>=0 && age<=4)
15            cnt_baby++;
16        else if(age>=5 && age<=17)
17            cnt_school++;
18        else
19            cnt_adult++;
20        //increase counter
21        count++;
22    }
23    printf("Baby age: %d\n",cnt_baby);
24    printf("School age: %d\n",cnt_school);
25    printf("Adult age: %d\n",cnt_adult);
26
27    return 0;
28 }
29
```

main.c - Code::Blocks 17.12

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBl

<global>

Start here x main.c x

```
7 int cnt_baby=0,cnt_school=0,cnt_adult=0;
8 int count=0;
```

"C:\Users\Sampson\Desktop\C programming\Sophi assignment 4\main.exe"

```
Enter age of person [1]: 4
Enter age of person [2]: 6
Enter age of person [3]: 8
Enter age of person [4]: 46
Enter age of person [5]: 1
Enter age of person [6]: 3
Enter age of person [7]: 98
Enter age of person [8]: 67
Enter age of person [9]: 45
Enter age of person [10]: 23
Enter age of person [11]: 17
Enter age of person [12]: 15
Enter age of person [13]: 9
Enter age of person [14]: 10
Enter age of person [15]: 64
Enter age of person [16]: 93
Enter age of person [17]: 87
Enter age of person [18]: 41
Enter age of person [19]: 4
Enter age of person [20]: 18
Baby age: 4
School age: 6
Adult age: 10
```

Logs & o

```
Process returned 0 (0x0) execution time : 52.732 s
Press any key to continue.
```

Proce

0 err

Check

main.c - Code::Blocks 17.12

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ F

<global>

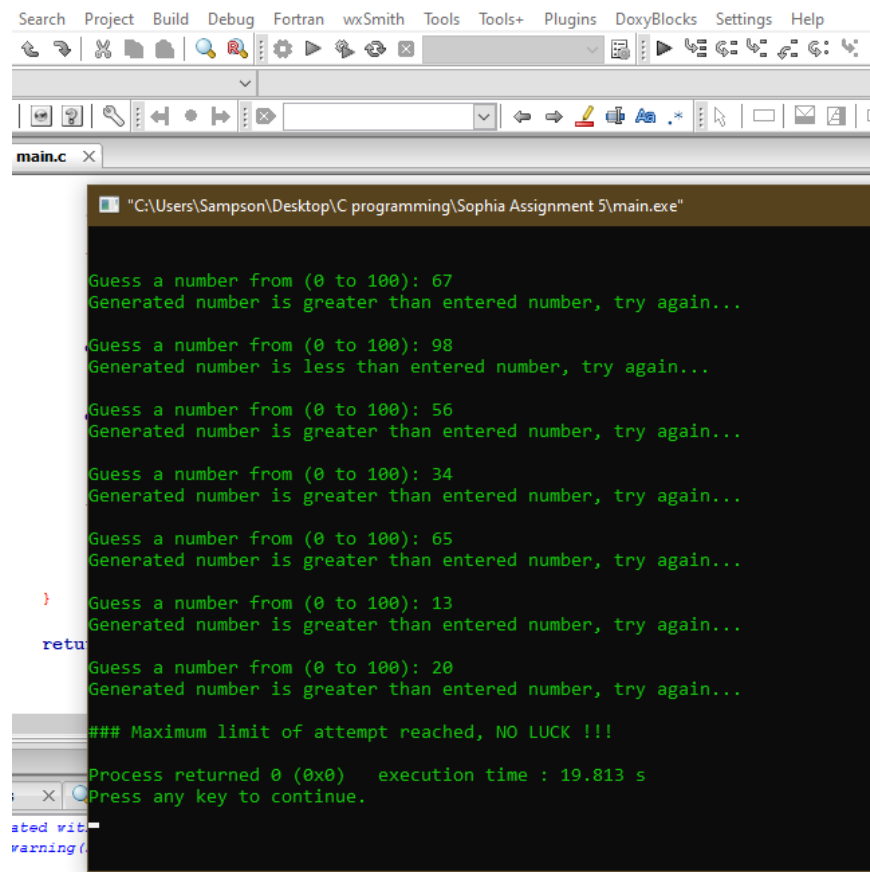
Start here x main.c x

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <time.h>
4
5 int main()
6 {
7     int random_genNo=0,count=0,num;
8     int stime;
9     long ltime;
10
11     ltime = time(NULL);
12     stime = (unsigned) ltime/2;
13     srand(stime);
14
15     //generate random number
16     random_genNo=rand()%100;
17
18     //run infinite loop
19     while(1)
20     {
21         //increase counter
22         count+=1;
23
24         //read number from user
```

```
main.c - Code::Blocks 17.12
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global>
Start here x main.c x
20 {
21     //increase counter
22     count+=1;
23
24     //read number from user
25     printf("\n\nGuess a number from (0 to 100): ");
26     scanf("%d",&num);
27
28     //compare entered number with generated number
29
30     if(random_genNo==num){
31         printf("Congratulations, you have guessed a right number.");
32         break;
33     }
34     else if(random_genNo<num){
35         printf("Generated number is less than entered number, try again...");
36     }
37     else if(random_genNo>num){
38         printf("Generated number is greater than entered number, try again...");
39     }
40
41     if(count==7){
42         printf("\n\n### Maximum limit of attempt reached, NO LUCK !!!\n");
43         break;
44     }
45 }
```

```
main.c - Code::Blocks 17.12
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global>
Start here x main.c x
27
28     //compare entered number with generated number
29
30     if(random_genNo==num){
31         printf("Congratulations, you have guessed a right number.");
32         break;
33     }
34     else if(random_genNo<num){
35         printf("Generated number is less than entered number, try again...");
36     }
37     else if(random_genNo>num){
38         printf("Generated number is greater than entered number, try again...");
39     }
40
41     if(count==7){
42         printf("\n\n### Maximum limit of attempt reached, NO LUCK !!!\n");
43         break;
44     }
45 }
46
47 return 0;
48
49 }
```

Blocks 17.12



The screenshot shows a code editor window with a menu bar (Search, Project, Build, Debug, Fortran, wxSmith, Tools, Tools+, Plugins, DoxyBlocks, Settings, Help) and a toolbar. The file 'main.c' is open. The code is a C program for a number guessing game. The execution output is shown in a separate window titled '"C:\Users\Sampson\Desktop\C programming\Sophia Assignment 5\main.exe"'. The output shows the program running with several guesses and generated numbers. The process returned 0 (0x0) and execution time was 19.813 s. The program prompts the user to press any key to continue.

```
Guess a number from (0 to 100): 67
Generated number is greater than entered number, try again...

Guess a number from (0 to 100): 98
Generated number is less than entered number, try again...

Guess a number from (0 to 100): 56
Generated number is greater than entered number, try again...

Guess a number from (0 to 100): 34
Generated number is greater than entered number, try again...

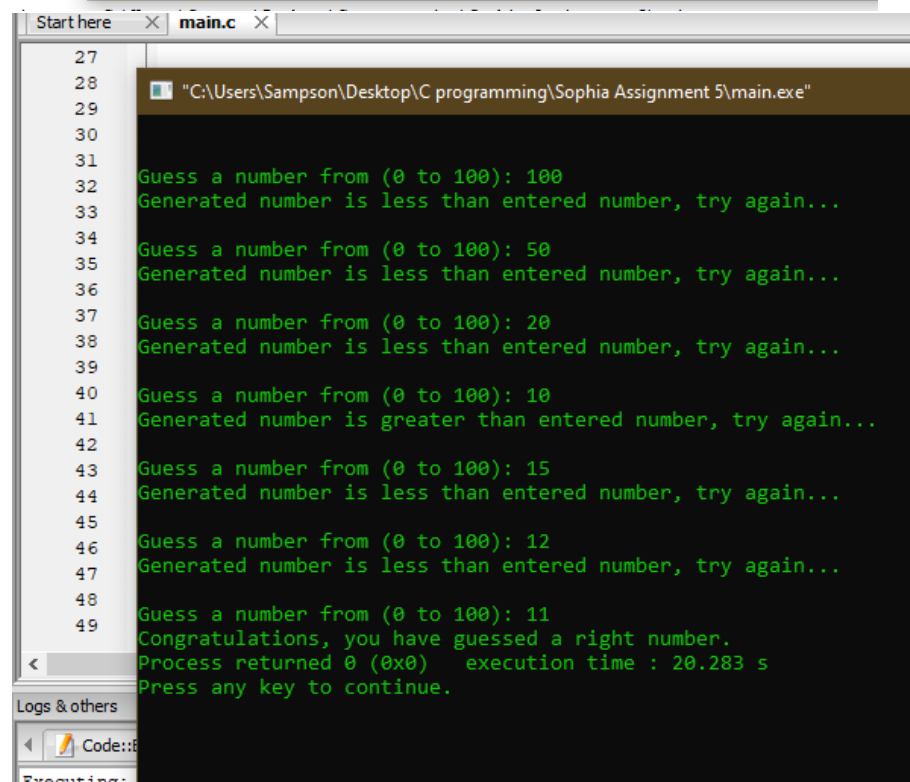
Guess a number from (0 to 100): 65
Generated number is greater than entered number, try again...

}
return
Guess a number from (0 to 100): 13
Generated number is greater than entered number, try again...

Guess a number from (0 to 100): 20
Generated number is greater than entered number, try again...

### Maximum limit of attempt reached, NO LUCK !!!

Process returned 0 (0x0)   execution time : 19.813 s
Press any key to continue.
```



The screenshot shows a code editor window with a menu bar (Start here, main.c) and a toolbar. The file 'main.c' is open. The code is a C program for a number guessing game. The execution output is shown in a separate window titled '"C:\Users\Sampson\Desktop\C programming\Sophia Assignment 5\main.exe"'. The output shows the program running with several guesses and generated numbers. The process returned 0 (0x0) and execution time was 20.283 s. The program prompts the user to press any key to continue.

```
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
Guess a number from (0 to 100): 100
Generated number is less than entered number, try again...

Guess a number from (0 to 100): 50
Generated number is less than entered number, try again...

Guess a number from (0 to 100): 20
Generated number is less than entered number, try again...

Guess a number from (0 to 100): 10
Generated number is greater than entered number, try again...

Guess a number from (0 to 100): 15
Generated number is less than entered number, try again...

Guess a number from (0 to 100): 12
Generated number is less than entered number, try again...

Guess a number from (0 to 100): 11
Congratulations, you have guessed a right number.
Process returned 0 (0x0)   execution time : 20.283 s
Press any key to continue.
```