

**AGOMOH CHUKWUEMEKA EMMANUEL**

**18/Eng/02/013**

**Computer engineering**

**Structured programming ENG224**

1).

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

```
#include<conio.h>
```

```
void main( )
```

```
{
```

```
    int  days ,yr,mn,wk,d;
```

```
    printf("Enter the no of days");
```

```
    scanf("%d",&days);
```

```
    yr = days /365;
```

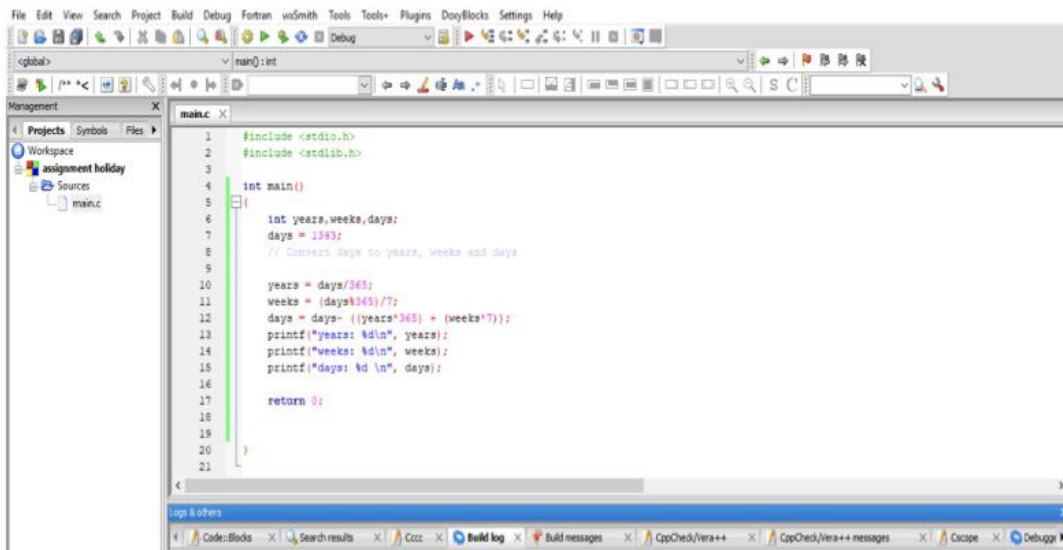
```
    mn =(days /365)/30;
```

```
    printf("Years= %d \t Months=  %d \t Weeks =%d \t days = %d",yr,mn,wk,d);
```

```
    // converts days to years, weeks and months
```

```
    getch();
```

```
}
```



2).

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

```
#include <math.h>
```

```
int main() {
```

```
    float x1, y1, x2, y2, gdistance;
```

```
    printf("Input x1: ");
```

```
    scanf("%f", &x1);
```

```
    printf("Input y1: ");
```

```
    scanf("%f", &y1);
```

```
    printf("Input x2: ");
```

```
    scanf("%f", &x2);
```

```
    printf("Input y2: ");
```

```
    scanf("%f", &y2);
```

```
    gdistance = ((x2-x1)*(x2-x1))+((y2-y1)*(y2-y1));
```

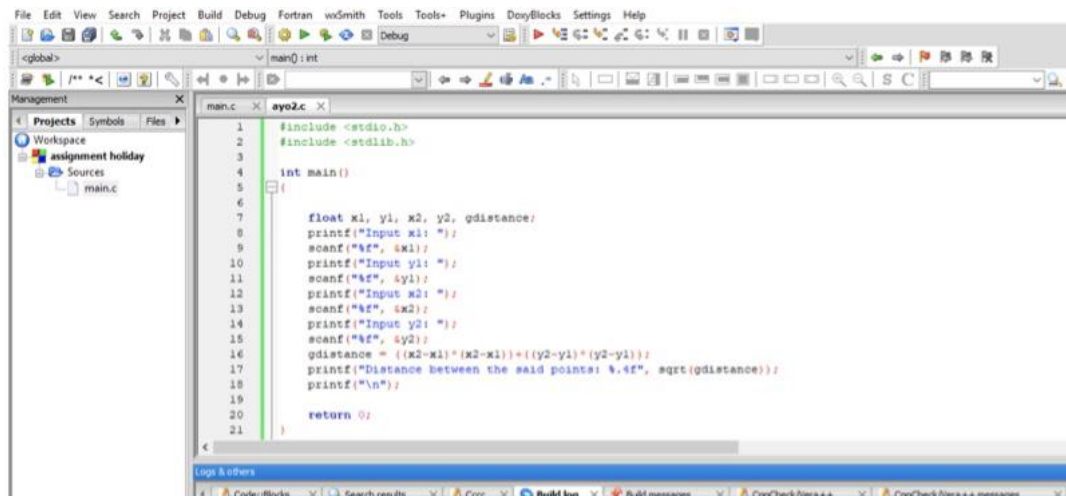
```
    printf("Distance between the said points: %.4f", sqrt(gdistance));
```

```
    printf("\n");
```

```

    return 0;
}

```



3).

```

int main() {
    float x, y, z, P, A;

    printf("\nInput the first number: ");
    scanf("%f", &x);

    printf("\nInput the second number: ");
    scanf("%f", &y);

    printf("\nInput the third number: ");
    scanf("%f", &z);

    if(x < (y+z) && y < (x+z) && z < (y+x))
    {
        P = x+y+z;

        printf("\nPerimeter = %.1f\n", P);
    }
}

```

```

else

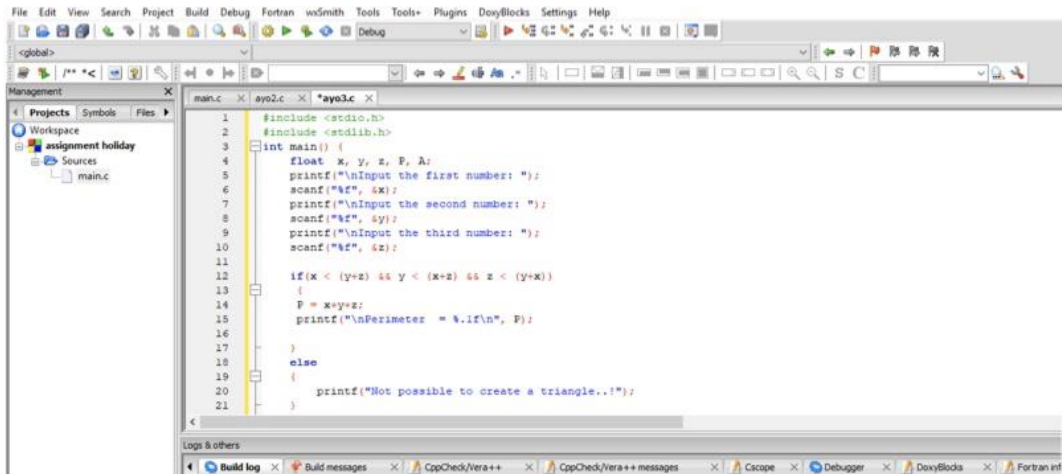
{

    printf("Not possible to create a triangle..!");

}

}

```



4)

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

```
int main()
```

```
{
```

```
    int age;
```

```
    int cnt_baby=0,cnt_school=0,cnt_adult=0;
```

```
    int count=0;
```

```
    while(count<20)
```

```
    {
```

```
        printf("Enter age of person [%d]: ",count+1);
```

```
        scanf("%d",&age);
```

```
        if(age>=0 && age<=4)
```

```

        cnt_baby++;

    else if(age>=5 && age<=17)

        cnt_school++;

    else

        cnt_adult++;

    // increasing the number of years by 1
    count++;

}

printf("Baby age: %d\n",cnt_baby);

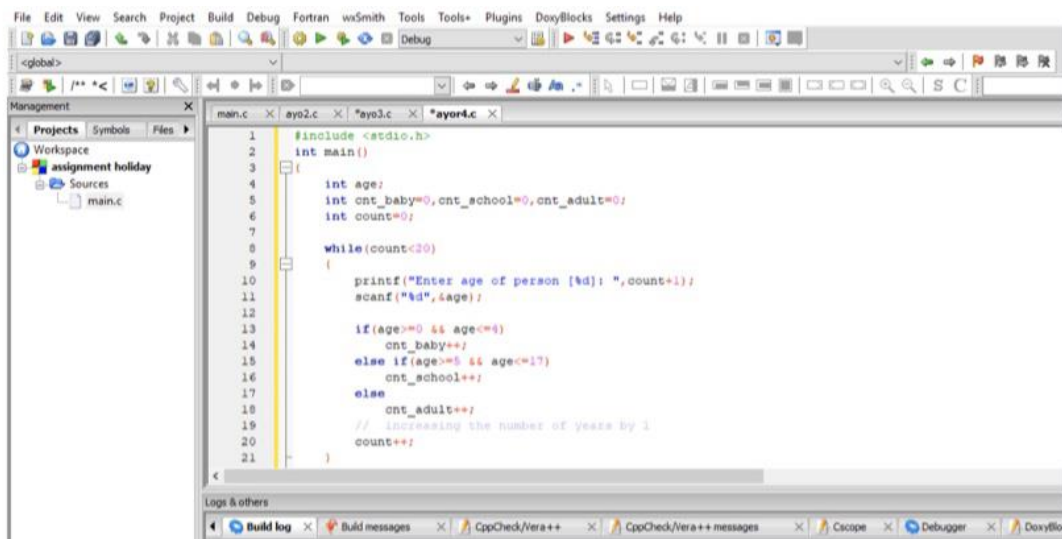
printf("School age: %d\n",cnt_school);

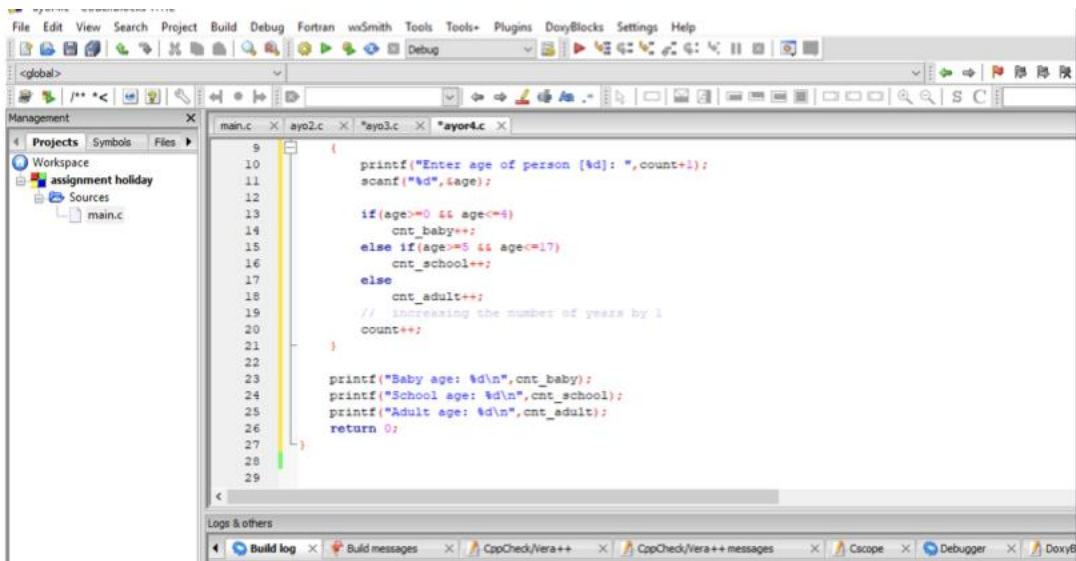
printf("Adult age: %d\n",cnt_adult);

return 0;

}

```





5)

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

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

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

```
int main()
```

```
{
```

```
    int random_genNo=0, count=0, num;
```

```
    int shorttime;
```

```
    long longtime;
```

```
    longtime = time(NULL);
```

```
    shorttime = (unsigned) ltime/2;
```

```
    srand(shorttime);
```

```
    //generates random number
```

```
random_genNo=rand()%100;

//run infinite loop
while(1)
{
    //increase counter
    count+=1;

    //read number from user
    printf("\n\nGuess a number from (0 to 100): ");
    scanf("%d",&num);

    //compare entered number with generated number

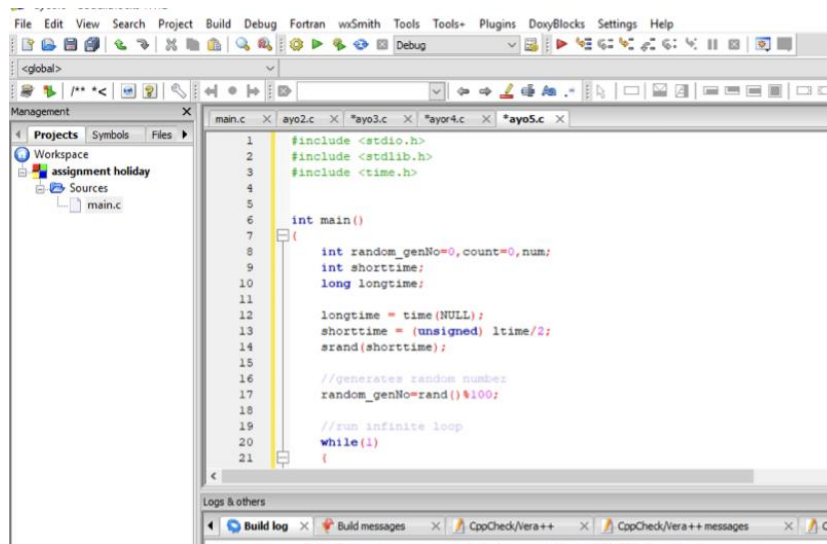
    if(random_genNo==num){
        printf("Congratulations, you have guessed a correct number.");
        break;
    }
    else if(random_genNo<num){
        printf("Generated number is less than entered number, try your luck again...");
    }
    else if(random_genNo>num){
        printf("Generated number is greater than entered number, try your luck again...");
    }

    if(count==7){
        printf("\n\nMaximum limit of attempt finished, GAME OVER FOR YOU!\n");
        break;
    }
}
```

```
}
```

```
return 0;
```

```
}
```



The screenshot shows a C++ IDE with a menu bar (File, Edit, View, Search, Project, Build, Debug, Fortran, wsSmith, Tools, Tools+, Plugins, DovyBlocks, Settings, Help) and a toolbar. The left sidebar contains a 'Management' panel with 'Projects', 'Symbols', and 'Files' tabs. Under 'Projects', there is a 'Workspace' section with a project named 'assignment holiday' containing a 'Sources' folder with a file 'main.c'. The main editor window displays the code for 'main.c' with line numbers 1 through 21. The code includes headers for <stdio.h>, <stdlib.h>, and <time.h>. It defines a main function that initializes variables, sets a seed, generates a random number, and enters an infinite while loop.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <time.h>
4
5
6 int main()
7 {
8     int random_genNo=0, count=0, num;
9     int shorttime;
10    long longtime;
11
12    longtime = time(NULL);
13    shorttime = (unsigned) longtime/2;
14    srand(shorttime);
15
16    //generates random number
17    random_genNo=rand()%100;
18
19    //run infinite loop
20    while(1)
21    {
```

The bottom of the IDE shows a 'Logs & others' panel with tabs for 'Build log', 'Build messages', 'CpocCheck/Vera++', 'CpocCheck/Vera++ messages', and 'CpocCheck/Vera++ messages'.



```
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global> main():int
main.c x ayo2.c x *ayo3.c x *ayor4.c x *ayo5.c x
19 //run infinite loop
20 while(1)
21 {
22     //increase counter
23     count++;
24
25     //read number from user
26     printf("\n\nGuess a number from (0 to 100): ");
27     scanf("%d",&num);
28
29     //compare entered number with generated number
30
31     if(random_genNo==num){
32         printf("Congratulations, you have guessed a correct number.");
33         break;
34     }
35     else if(random_genNo<num){
36         printf("Generated number is less than entered number, try your luck again...");
37     }
38     else if(random_genNo>num){
39         printf("Generated number is greater than entered number, try your luck again..");
40     }
41 }
42
43 if(count==7){
44     printf("\n\nMaximum limit of attempts finished, GAME OVER FOR YOU!\n");
45     break;
46 }
47
48 return 0;
49
50
51
```

```
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
<global> main():int
main.c x ayo2.c x *ayo3.c x *ayor4.c x *ayo5.c x
31 if(random_genNo==num){
32     printf("Congratulations, you have guessed a correct number.");
33     break;
34 }
35 else if(random_genNo<num){
36     printf("Generated number is less than entered number, try your luck again...");
37 }
38 else if(random_genNo>num){
39     printf("Generated number is greater than entered number, try your luck again...");
40 }
41
42 if(count==7){
43     printf("\n\nMaximum limit of attempts finished, GAME OVER FOR YOU!\n");
44     break;
45 }
46
47
48 return 0;
49
50
51
```