

## C, C++ and DSA In Depth

### Assignment-8: More on Iterative Control Statements

1. Write a program to print MySirG N times on the screen
2. Write a program to print the first N natural numbers.
3. Write a program to print the first N natural numbers in reverse order
4. Write a program to print the first N odd natural numbers
5. Write a program to print the first N odd natural numbers in reverse order.
6. Write a program to print the first N even natural numbers
7. Write a program to print the first N even natural numbers in reverse order
8. Write a program to print squares of the first N natural numbers
9. Write a program to print cubes of the first N natural numbers
10. Write a program to print a table of N.

C:\Users\Sohan\Documents\C,C++,DSA Assignment\Assignment\Assignment8\assig8.1.cpp - Dev-

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

assig8.1.cpp assig8.2.cpp assig8.3.cpp assig8.4.cpp assig8.5.cpp assig8.6.cpp assig8.7.cpp assig8.8.cpp assig8.9

```
1 #include<stdio.h>
2 int main(){
3     int n,i=1;
4     printf("Enter the no. of terms ");
5     scanf("%d",&n);
6     while(n>=1){
7         printf("%d MySirG\n",i);
8         n--;
9         i++;
10    }
11 }
```

I

Compiler Resources Compile Log Debug Find Results

Line 1 Col 1 Sel 0 Lines 11 Length 166 Insert Done parsing in 0.032 sec

File Edit Search

(globals)

assig8.1.cpp assig8.2.cpp assig8.3.cpp assig8.4.cpp assig8.5.cpp assig8.6.cpp assig8.7.cpp assig8.8.cpp ass

```
1 #include<stdio.h>
2 int main(){
3     int i=1,n;
4     printf("Enter the no of terms: ");
5     scanf("%d",&n);
6     while(i<=n){
7         printf("%d\n",i);
8         i++;
9     }
10 }
```

I

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 10 Length: 151 Insert Done parsing in 0.032

The screenshot shows a code editor window with a tab bar at the top containing multiple CPP files: assig8.1.cpp, assig8.2.cpp, assig8.3.cpp, assig8.4.cpp, assig8.5.cpp, assig8.6.cpp, assig8.7.cpp, assig8.8.cpp, and assig8.9.cpp. The file assig8.4.cpp is currently selected and displayed in the main editor area. The code in the editor is as follows:

```
#include<stdio.h>
int main(){
    int n,i=1,j=1;
    printf("Enter the no. of terms: ");
    scanf("%d",&n);
    while(i<=n*2){
        printf("%d odd no is %d\n",j,i);
        i=i+2;
        j++;
    }
}
```

The code is a C++ program that prompts the user for the number of terms and then prints the first  $n^2$  odd numbers. The output is formatted as "odd no is value". The code uses standard input/output functions and a while loop.

At the bottom of the editor, there are several status indicators: Compiler, Resources, Compile Log, Debug, Find Results, Line: 1, Col: 1, Sel: 0, Lines: 11, Length: 183, Insert, and Done parsing in 0.032 s.

DEV C:\Users\Sohan\Documents\C,C++,DSA Assignement\C programming assignement\assignement8\assig8.3.cpp - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

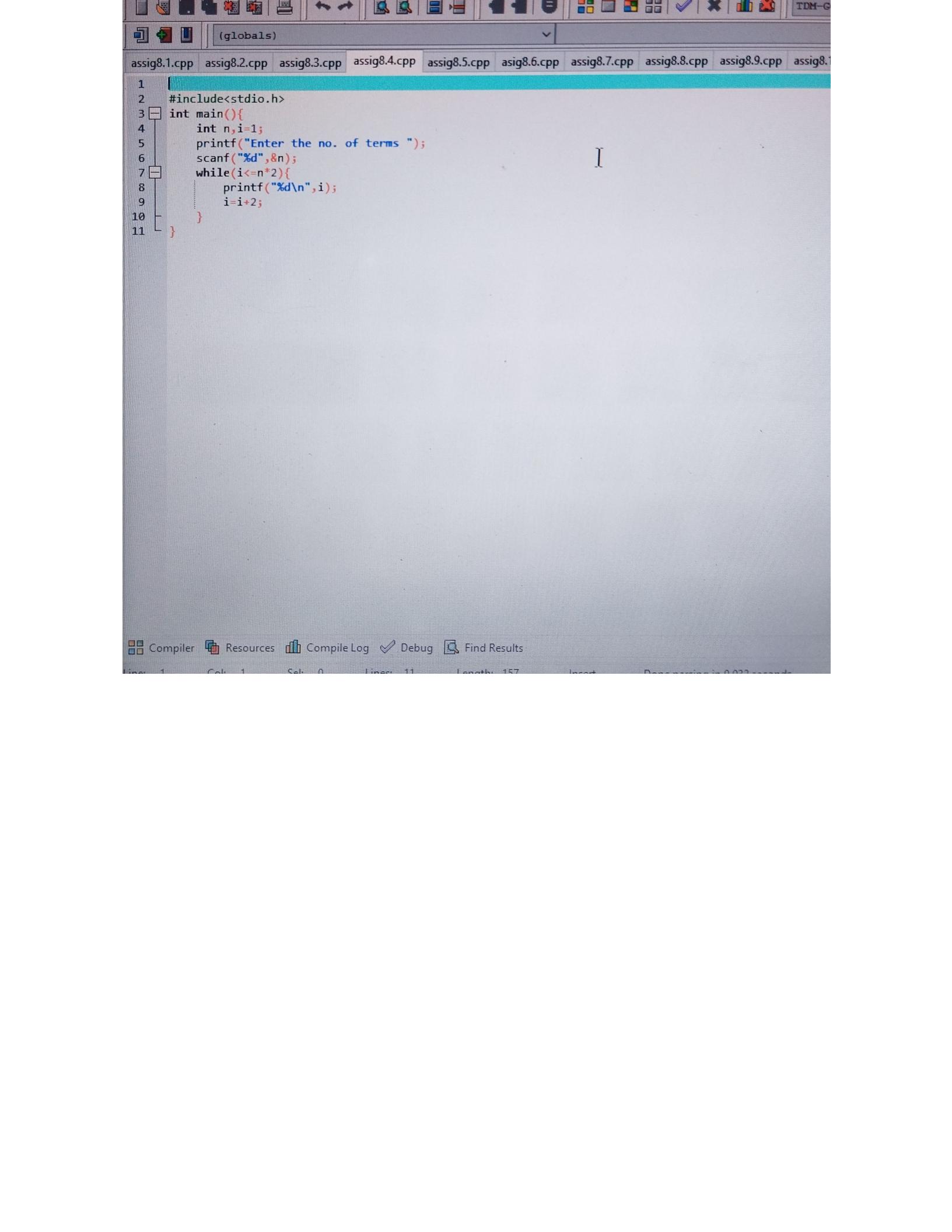
(globals)

assig8.1.cpp assig8.2.cpp assig8.3.cpp assig8.4.cpp assig8.5.cpp assig8.6.cpp assig8.7.cpp assig8.8.cpp assig8.9.cpp assig8.10.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n,i=1,j=1;
4     printf("Enter the no. of terms: ");
5     scanf("%d",&n);
6     while(i<=n*2){
7         printf("%d odd no is %d\n",j,i);
8         i=i+2;
9         j++;
10    }
11 }
```

Compiler Resources Compile Log Debug Find Results

ne: 1 Col: 18 Sel: 0 Lines: 11 Length: 183 Insert Done parsing in 0.032 seconds



The screenshot shows a Windows desktop environment with several application windows open. In the foreground, a code editor window for TDM-GCC is active, displaying a C++ program. The code is as follows:

```
1 //  
2 #include<stdio.h>  
3 int main(){  
4     int n,i=1;  
5     printf("Enter the no. of terms ");  
6     scanf("%d",&n);  
7     while(i<=n*2){  
8         printf("%d\n",i);  
9         i=i+2;  
10    }  
11 }
```

The code uses standard input-output functions and a while loop to print even numbers up to  $n^2$ . The code editor interface includes tabs for other files like assig8.2.cpp through assig8.10.cpp, and various toolbars and status bars at the bottom.

The screenshot shows a C++ development environment with the following details:

- Menu Bar:** File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, Help.
- Toolbar:** Includes icons for New, Open, Save, Cut, Copy, Paste, Find, Replace, and others.
- Project Explorer:** Shows files: assig8.1.cpp, assig8.2.cpp, assig8.3.cpp, assig8.4.cpp (selected), assig8.5.cpp, assig8.6.cpp, assig8.7.cpp, assig8.8.cpp, assig8.9.cpp, and assig8.10.cpp.
- Code Editor:** Displays the following C++ code:

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter the no. of terms ");
5     scanf("%d",&n);
6     while(1<=n){
7         printf("%d\n",n*2-1);
8         n--;
9     }
10 }
```
- Compiler Status:** Compiler, Resources, Compile Log, Debug, Find Results.
- Bottom Status Bar:** Line: 1, Col: 1, Sel: 0, Lines: 12, Length: 157, Insert, Done parsing in 0.032 seconds.

File Edit Search View Project Execute Tools Asyde Window

(globals)

assig8.1.cpp assig8.2.cpp assig8.3.cpp assig8.4.cpp assig8.5.cpp assig8.6.cpp assig8.7.cpp assig8.8.cpp assig8.9.cpp assig

```
1 #include<stdio.h>
2 int main(){
3     int n,i=2;
4     printf("Enter the no. of terms ");
5     scanf("%d",&n);
6     while(i<=n*2){
7         printf("%d\n",i);
8         i+=2;
9     }
10 }
```

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 10 Length: 154 Insert Done parsing in 0.032 seconds

The screenshot shows a C/C++ development environment with the following details:

- Toolbar:** Standard file operations (File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, Help), build-related icons (Compile, Run, Stop, Build, Clean, Rebuild), and project management icons.
- Project Explorer:** Shows a single folder named "(globals)".
- File List:** A horizontal bar showing multiple files: assig8.1.cpp, assig8.2.cpp, assig8.3.cpp, assig8.4.cpp, assig8.5.cpp, assig8.6.cpp, assig8.7.cpp, assig8.8.cpp, and assig8.9.cpp. The file assig8.6.cpp is currently selected.
- Code Editor:** The main window displays the following C code:

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     printf("Enter the no of terms ");
5     scanf("%d",&n);
6     while(1<=n){
7         printf("%d\n",n*n);
8         n--;
9     }
10 }
11 }
```
- Output Area:** A large, empty white area where the program's output would be displayed.
- Bottom Navigation:** Icons for Compiler, Resources, Compile Log, Debug, and Find Results.

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

assig8.1.cpp assig8.2.cpp assig8.3.cpp assig8.4.cpp assig8.5.cpp assig8.6.cpp assig8.7.cpp assig8.8.cpp assig8.9.cpp a

```
1 #include<stdio.h>
2 int main(){
3     int n,i=1;
4     printf("Enter the no. of terms ");
5     scanf("%d",&n);
6     while(i<=n){
7         printf("%d\n",i*i);
8         i++;
9     }
10 }
```

Compiler Resources Compile Log Debug Find Results

C:\Users\Sohan\Documents\C,C++,DSA Assignment\Assignment\Assignment8\assig8.9.cpp - Dev-C++ 5.11

File Edit Search View Project Execute Tools AStyle Window Help

TDM-GCC 4.

(globals)

assig8.1.cpp assig8.2.cpp assig8.3.cpp assig8.4.cpp assig8.5.cpp assig8.6.cpp assig8.7.cpp assig8.8.cpp assig8.9.cpp assig8.10.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n,i=1;
4     printf("Enter the no. of terms ");
5     scanf("%d",&n);
6     while(i<=n){
7         printf("%d\n",i*i*i);
8         i++;
9     }
10    }
11 }
```

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 11 Length: 158 Insert Done parsing in 0.032 seconds