

Assignment-9: Use any loop

1. Write a program to calculate sum of first N natural numbers
2. Write a program to calculate sum of first N even natural numbers
3. Write a program to calculate sum of first N odd natural numbers
4. Write a program to calculate sum of squares of first N natural numbers
5. Write a program to calculate sum of cubes of first N natural numbers
6. Write a program to calculate factorial of a number
7. Write a program to count digits in a given number
8. Write a program to check whether a given number is a Prime number or not
9. Write a program to calculate LCM of two numbers
10. Write a program to reverse a given number

C:\Users\debaran\Documents\Visual Studio 2017\Projects\assig9.1\assig9.1.cpp 0x00000000

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

assig9.1.cpp assig9.2.cpp assig9.3.cpp assig9.4.cpp assig9.5.cpp assig9.6.cpp assig9.7.cpp assig9.8.cpp assig9.9.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n,i,sum=0,x;
4     printf("Enter the no. of line ");
5     scanf("%d",&n);
6     for(i=1;i<=n;i++){
7         sum=sum+i;
8     }
9     printf("Sum of line %d\n",sum);
10    x=sizeof(23.5);
11    printf("%d",x);
12 }
```

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 13 Length: 220 Insert Done parsing in 0.015 sec

File Edit Search View Project Execute Tools Window Help

(globals)

assig9.1.cpp assig9.2.cpp assig9.3.cpp assig9.4.cpp assig9.5.cpp assig9.6.cpp assig9.7.cpp assig9.8.cpp as

```
1 #include<stdio.h>
2 int main(){
3     int n,i,sum=0;
4     printf("Enter an no. of serise ");
5     scanf("%d",&n);
6     printf("\n");
7     for(i=2;i<n*2;i+=2){
8         printf("%d ",i);
9         sum=sum+i;
10    }
11    printf("\nSum of given even serise %d",sum);
12 }
```

I

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 12 Length: 232 Insert Done parsing in 0.01

The screenshot shows a C/C++ IDE interface with the following details:

- Title Bar:** The title bar displays the file names: assig9.1.cpp, assig9.2.cpp, assig9.3.cpp, assig9.4.cpp, assig9.5.cpp, assig9.6.cpp, assig9.7.cpp, assig9.8.cpp, and assig9.9.cpp. The file "assig9.3.cpp" is currently selected.
- Toolbar:** A standard toolbar with various icons for file operations like Open, Save, Print, and Build.
- Code Editor:** The main window contains the following C code:

```
#include<stdio.h>
int main(){
    int n,i,sum=0;
    printf("Enter the no. of serise ");
    scanf("%d",&n);
    printf("\n");
    for(i=1;i<=n*2;i+=2){
        printf("%d ",i);
        sum=sum+i;
    }
    printf("\n Sum of given odd serise %d",sum);
}
```
- Status Bar:** The status bar at the bottom includes icons for Compiler, Resources, Compile Log, Debug, and Find Results.

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

- Title Bar:** (globals)
- Tab Bar:** assig9.1.cpp, assig9.2.cpp, assig9.3.cpp, assig9.4.cpp, assig9.5.cpp, assig9.6.cpp, assig9.7.cpp, assig9.8.cpp, assig9.9.cpp
- Code Editor:** The current file is assig9.3.cpp. The code is as follows:

```
#include<stdio.h>
int main(){
    int n,i,m=0;
    printf("Enter the no. of line ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){
        printf("%d ",i);
        m=m+i*i;
    }
    printf("\nSum of squares of given serise %d",m);
}
```

The code prompts the user for the number of lines, iterates from 1 to n, prints each line number, calculates the sum of squares of the numbers, and finally prints the total sum.

Bottom Navigation Bar: Compiler, Resources, Compile Log, Debug, Find Results

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

assig9.1.cpp assig9.2.cpp assig9.3.cpp assig9.4.cpp assig9.5.cpp assig9.6.cpp assig9.7.cpp assig9.8.cpp assig9

```
1 #include<stdio.h>
2 int main(){
3     int n,i,cub=0;
4     printf("Enter the no. of serise ");
5     scanf("%d",&n);
6     for(i=1;i<=n;i++){
7         ...
8         cub=cub+i*i*i;
9     }
10    printf("\n Sum of cubes given serise %d",cub);
11 }
```

Compiler Resources Compile Log Debug Find Results

The screenshot shows a software interface with a toolbar at the top containing numerous icons. Below the toolbar is a menu bar with options like File, Edit, Search, View, etc. A tab bar follows, with several tabs open, including "assig9.1.cpp", "assig9.2.cpp", "assig9.3.cpp", "assig9.4.cpp", "assig9.5.cpp", "assig9.6.cpp", "assig9.7.cpp", "assig9.8.cpp", and "assig9.9.cpp". The main area is a code editor displaying the following C++ code:

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

Below the code editor is a large, faint watermark or reflection of the same code, oriented vertically. At the bottom of the screen, there is a navigation bar with icons for Compiler, Resources, Compile Log, Debug, and Find Results.

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

- Title Bar:** (globals)
- Toolbar:** Includes icons for file operations (New, Open, Save, etc.) and project management.
- File List:** A sidebar on the left lists files: assig9.1.cpp, assig9.2.cpp, assig9.3.cpp, assig9.4.cpp, assig9.5.cpp, assig9.6.cpp, assig9.7.cpp, assig9.8.cpp, and assig9.9.cpp.
- Code Editor:** The main window displays the following C++ code:

```
1 #include<stdio.h>
2 int main(){
3     int n,i;
4     printf("Enter the no.to check prime ");
5     scanf("%d",&n);
6     for(i=2;i<n;i++){
7         if(n%i==0)
8             break;
9     }
10    if(i==n)
11        printf("%d is prime ",n);
12    else
13        printf("%d is not prime",n);
14 }
15 }
```

- Toolbars and Status Bar:** At the bottom, there are toolbars for Compiler, Resources, Compile Log, Debug, and Find Results. The status bar shows: Line: 1, Col: 1, Sel: 0, Lines: 15, Length: 238, Insert, and Done parsing in 0.015 sec.

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

assig9.1.cpp assig9.2.cpp assig9.3.cpp assig9.4.cpp assig9.5.cpp assig9.6.cpp assig9.7.cpp assig9.8.cpp

```
1 #include<stdio.h>
2 int main(){
3     int n, count;
4     printf("Enter the no to find digit ");
5     scanf("%d", &n);
6     for(count=0; n!=0; n=n/10, count++){
7
8     }
9     printf("\nDigit is %d", count);
10 }
```

C:\Users\Sohan\Documents\C,C++,DSA Assignment\Assignment\Assignment9\assig9.9.cpp - D

File Edit Search View Project Execute Tools AStyle Window Help

(globals)

assig9.1.cpp assig9.2.cpp assig9.3.cpp assig9.4.cpp assig9.5.cpp assig9.6.cpp assig9.7.cpp assig9.8.cpp ass

```
1 #include<stdio.h>
2 int main(){
3     int a,b,i=2,l=1,flag=0;
4     printf("Enter the two no ");
5     scanf("%d %d",&a,&b);
6
7     while(a>1||b>1){
8         if(a%i==0){
9             a=a/i;
10            flag=1;
11        }
12        if(b%i==0){
13            b=b/i;
14            flag=1;
15        }
16        if(flag==1){
17            l=l*i;
18            flag=0;
19        }
20        else
21            i++;
22    }
23    printf("%d and %d LCM is %d",a,b,l);
24 }
```

Compiler Resources Compile Log Debug Find Results

Line: 1 Col: 1 Sel: 0 Lines: 24 Length: 328 Insert Done parsing in 0.015

The screenshot shows a software interface with a menu bar, toolbars, and a code editor. The menu bar includes File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, and Help. The toolbar contains icons for file operations like Open, Save, Print, and a set of icons for project management. The code editor window has tabs for multiple files: assig9.1.cpp, assig9.2.cpp, assig9.3.cpp, assig9.4.cpp, assig9.5.cpp, assig9.6.cpp, assig9.7.cpp, assig9.8.cpp, and assig9.9.cpp. The current file, assig9.1.cpp, is open and displays the following C++ code:

```
1 #include<stdio.h>
2 int main(){
3     int n,i,rev=0;
4     printf(" Enter the no to find to find reverse ");
5     scanf("%d",&n);
6     for(i=1;n!=0;i++){
7         rev=rev*10+n%10;
8         n/=10;
9     }
10    printf(" Reverse is %d",rev);
11 }
```

At the bottom, there are navigation buttons for Compiler, Resources, Compile Log, Debug, and Find Results.