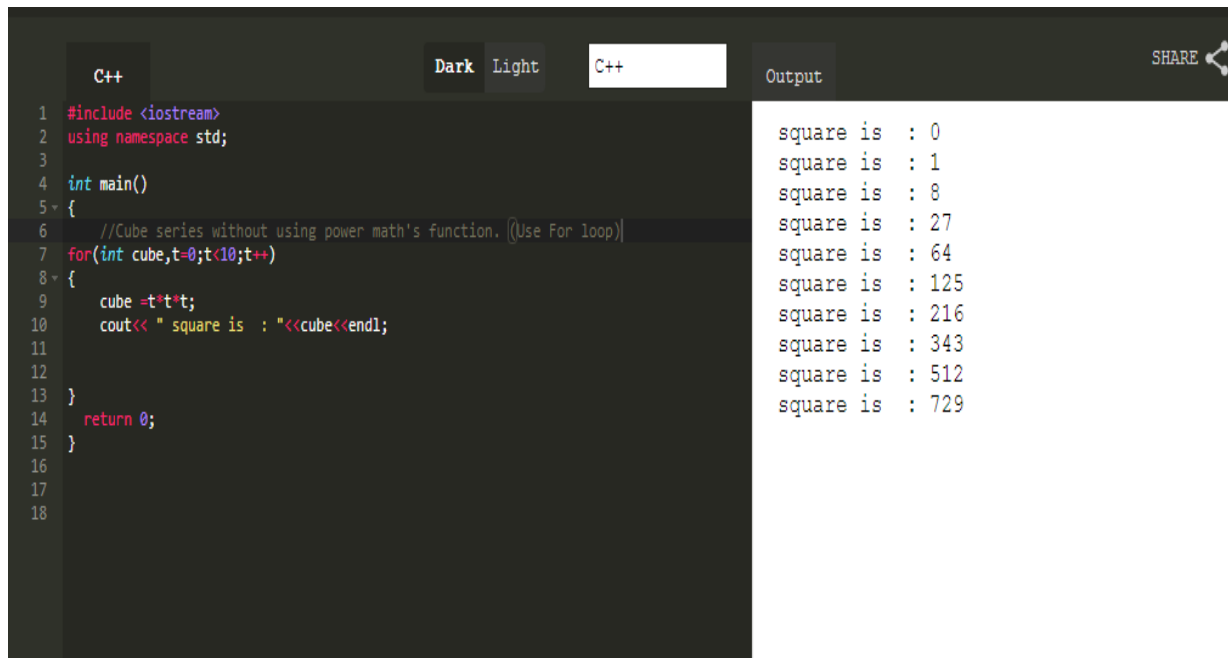


LAB 4 TASKS

1. Cube series without using power math's function. (Use For loop)



The screenshot shows a C++ IDE with a dark theme. The code is as follows:

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     //Cube series without using power math's function. (Use For loop)
7     for(int cube,t=0;t<10;t++)
8     {
9         cube =t*t*t;
10        cout<< " square is : "<<cube<<endl;
11    }
12
13    return 0;
14 }
```

The output window on the right displays the following results:

```
square is : 0
square is : 1
square is : 8
square is : 27
square is : 64
square is : 125
square is : 216
square is : 343
square is : 512
square is : 729
```

2. Square Series without using power math's function (use For loop)



The screenshot shows a C++ IDE with a dark theme. The code is as follows:

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     //Square Series without using power math's function (use For loop)
7     for(int squ,t=0;t<10;t++)
8     {
9         squ =t*t;
10        cout<< " square is : "<<squ<<endl;
11    }
12
13    return 0;
14 }
```

The output window on the right displays the following results:

```
square is : 0
square is : 1
square is : 4
square is : 9
square is : 16
square is : 25
square is : 36
square is : 49
square is : 64
square is : 81
```

3. Make program that print the table of 2 .

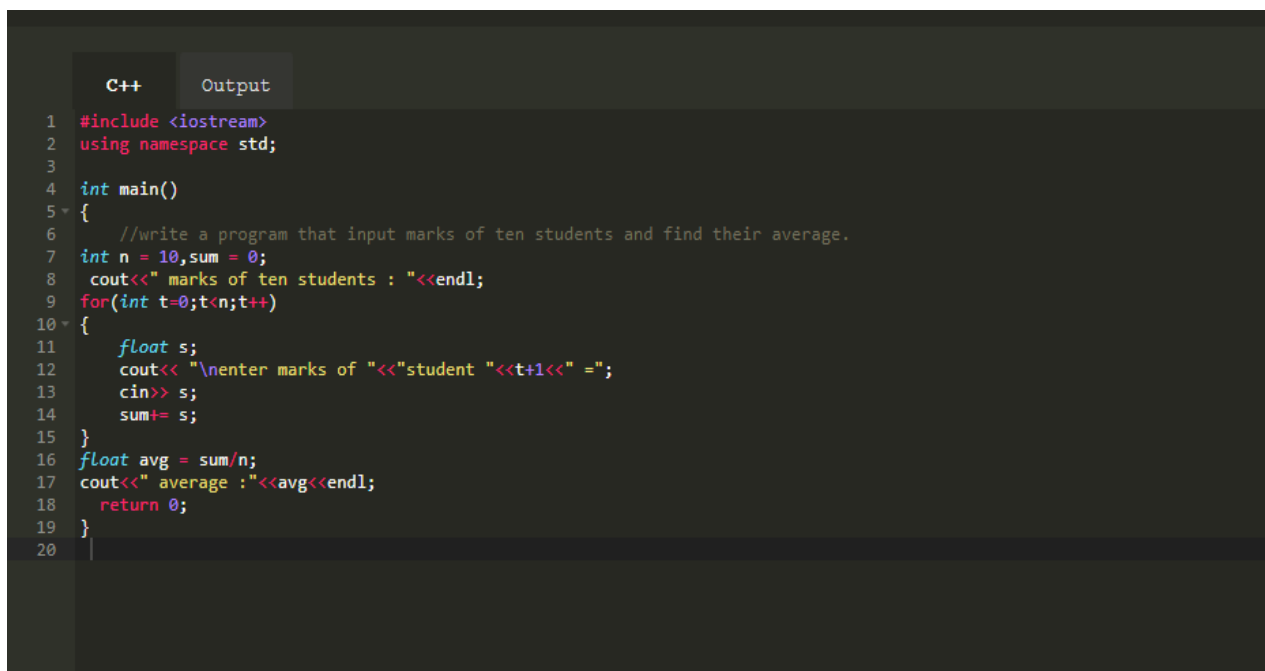


```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 { cout<<" print table of two "<<endl;
6   for (int i=2; i<=20 ;i=i+2)
7     cout<<" table of 2 : "<<i<<endl;
8   return 0;
9 }
10
11
12
```

print table of two
table of 2 : 2
table of 2 : 4
table of 2 : 6
table of 2 : 8
table of 2 : 10
table of 2 : 12
table of 2 : 14
table of 2 : 16
table of 2 : 18
table of 2 : 20

4. write a program that input marks of ten students and find their average.

INPUT:



```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6   //write a program that input marks of ten students and find their average.
7   int n = 10, sum = 0;
8   cout<<" marks of ten students : "<<endl;
9   for(int t=0; t<n; t++)
10  {
11    float s;
12    cout<<" \nenter marks of "<<"student "<<t+1<<" =";
13    cin>> s;
14    sum+= s;
15  }
16  float avg = sum/n;
17  cout<<" average : "<<avg<<endl;
18  return 0;
19 }
20
```

OUTPUT:

```
marks of ten students :
enter marks of student 1 =56
enter marks of student 2 =78
enter marks of student 3 =35
enter marks of student 4 =89
enter marks of student 5 =67
enter marks of student 6 =45
enter marks of student 7 =78
enter marks of student 8 =57
enter marks of student 9 =99
enter marks of student 10 =98
average :70

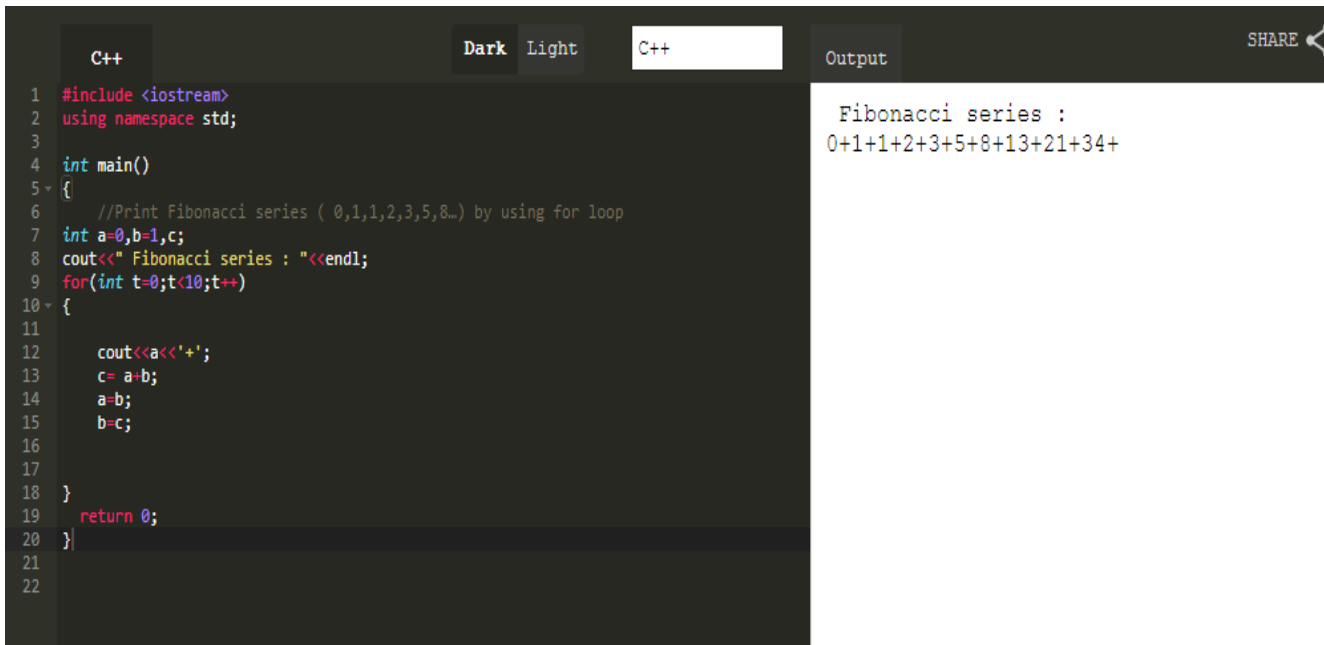
...Program finished with exit code 0
Press ENTER to exit console. □
```

5. Factorial Series using for loop

| C++ | Dark | Light | C++ | Output |
|--|------|-------|-----|--|
| <pre>1 #include <iostream> 2 using namespace std; 3 4 int main() 5 { 6 //factorial program. 7 for(float factorial =1,j=1;j<10;j++){ 8 factorial *=j; 9 cout<<"factorial of "<<j<<"="<<factorial<<endl;}} 10 return 0; 11 } 12</pre> | | | | <pre>factorial of 1=1 factorial of 2=2 factorial of 3=6 factorial of 4=24 factorial of 5=120 factorial of 6=720 factorial of 7=5040 factorial of 8=40320 factorial of 9=362880</pre> |

COMPUTER PROGRAMMING LAB

6. Print Fibonacci series (0,1,1,2,3,5,8...) by using for loop



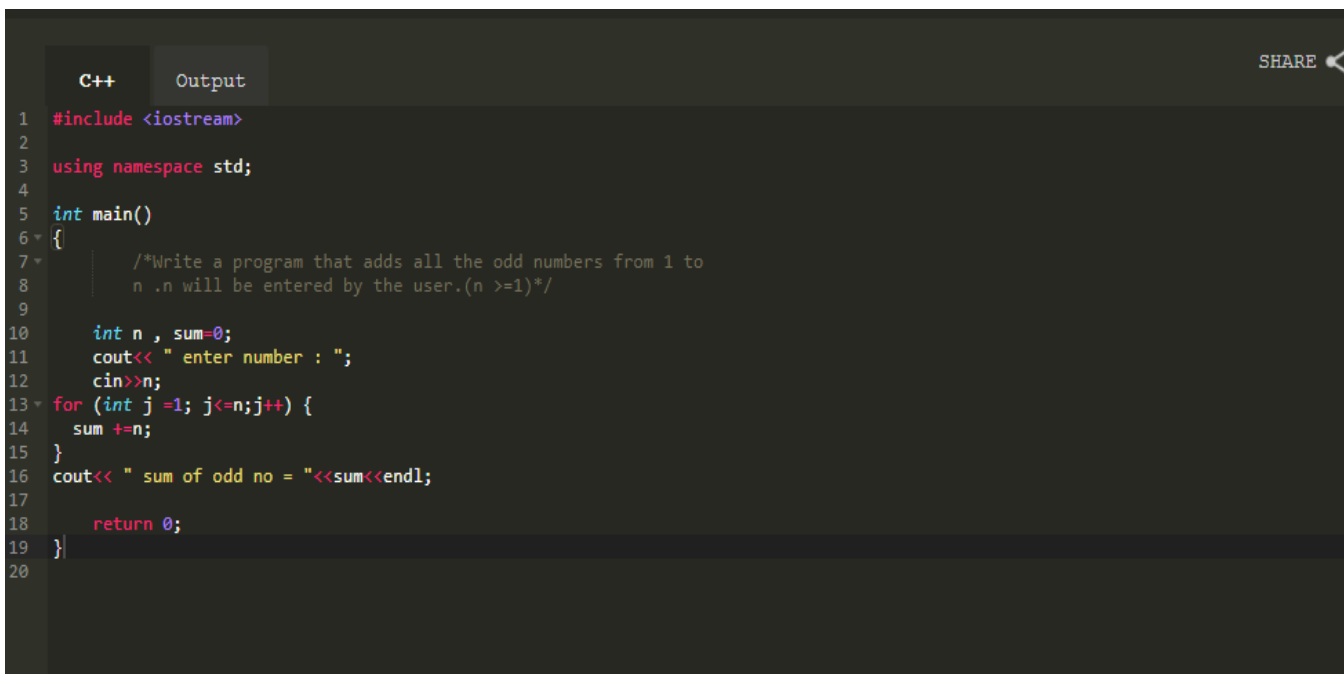
The screenshot shows a C++ IDE with a dark theme. The code is written in C++ and prints the Fibonacci series. The output window shows the result of the program execution.

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     //Print Fibonacci series ( 0,1,1,2,3,5,8...) by using for loop
7     int a=0,b=1,c;
8     cout<<" Fibonacci series : "<<endl;
9     for(int t=0;t<10;t++)
10    {
11
12        cout<<a<<'+';
13        c= a+b;
14        a=b;
15        b=c;
16
17
18    }
19    return 0;
20 }
```

Output: Fibonacci series :
0+1+1+2+3+5+8+13+21+34+

7. Write a program that adds all the odd numbers from 1 to
n .n will be entered by the user.(n >=1)

INPUT:



The screenshot shows a C++ IDE with a dark theme. The code is written in C++ and calculates the sum of odd numbers from 1 to n. The output window shows the result of the program execution.

```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     /*Write a program that adds all the odd numbers from 1 to
7     n .n will be entered by the user.(n >=1)*/
8
9
10    int n , sum=0;
11    cout<<" enter number : ";
12    cin>>n;
13    for (int j =1; j<=n;j++) {
14        sum +=n;
15    }
16    cout<<" sum of odd no = "<<sum<<endl;
17
18    return 0;
19 }
```

Output: enter number : 5
sum of odd no = 25

COMPUTER PROGRAMMING LAB

OUTPUT:

```
enter number : 9
sum of odd no = 81

...Program finished with exit code 0
Press ENTER to exit console. 
```