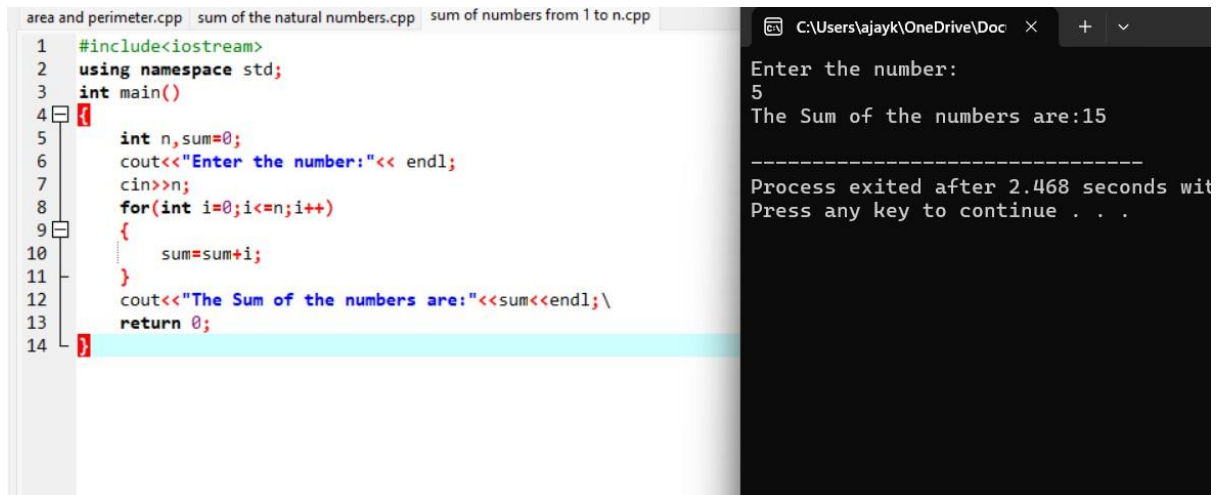


1. Add all numbers from 1 to given number

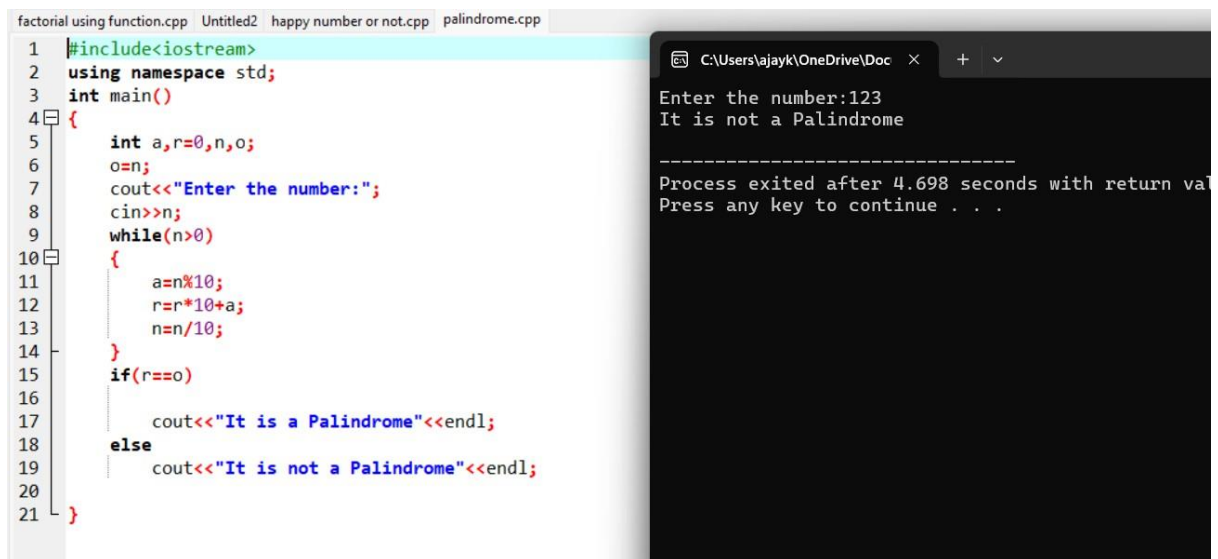


```
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int n,sum=0;
6     cout<<"Enter the number:"<< endl;
7     cin>>n;
8     for(int i=0;i<=n;i++)
9     {
10         sum=sum+i;
11     }
12     cout<<"The Sum of the numbers are:"<<sum<<endl;
13     return 0;
14 }
```

Enter the number:
5
The Sum of the numbers are:15

Process exited after 2.468 seconds with return value 0
Press any key to continue . . .

2. Palindrome or not

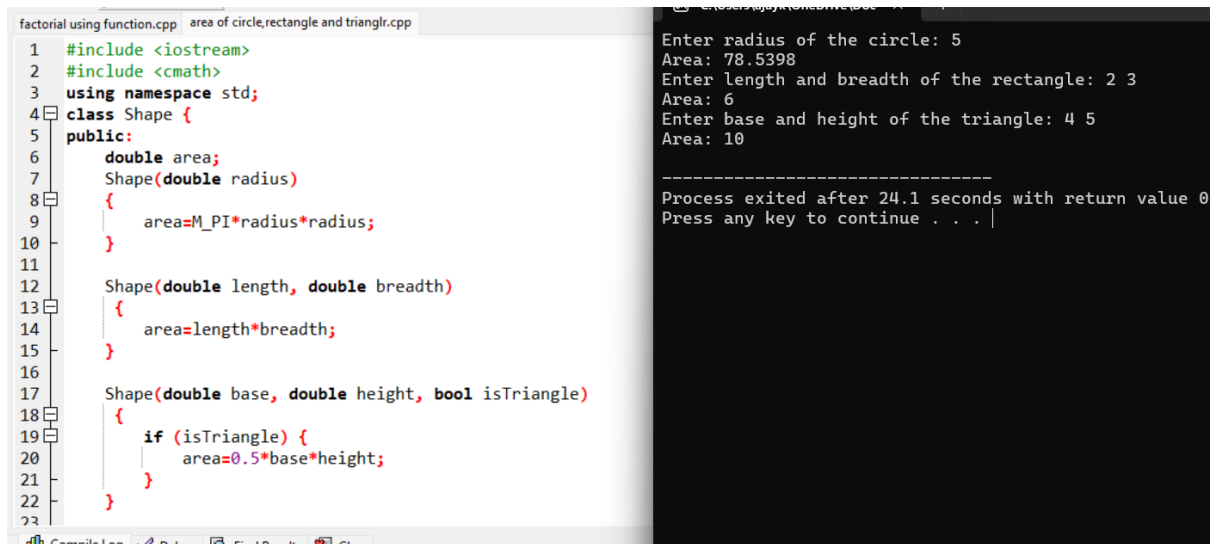


```
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int a,r=0,n,o;
6     o=n;
7     cout<<"Enter the number:";
8     cin>>n;
9     while(n>0)
10     {
11         a=n%10;
12         r=r*10+a;
13         n=n/10;
14     }
15     if(r==o)
16     {
17         cout<<"It is a Palindrome"<<endl;
18     }
19     else
20     {
21         cout<<"It is not a Palindrome"<<endl;
22     }
23 }
```

Enter the number:123
It is not a Palindrome

Process exited after 4.698 seconds with return value 0
Press any key to continue . . .

3.Area of circle, Triangle and Rectangle

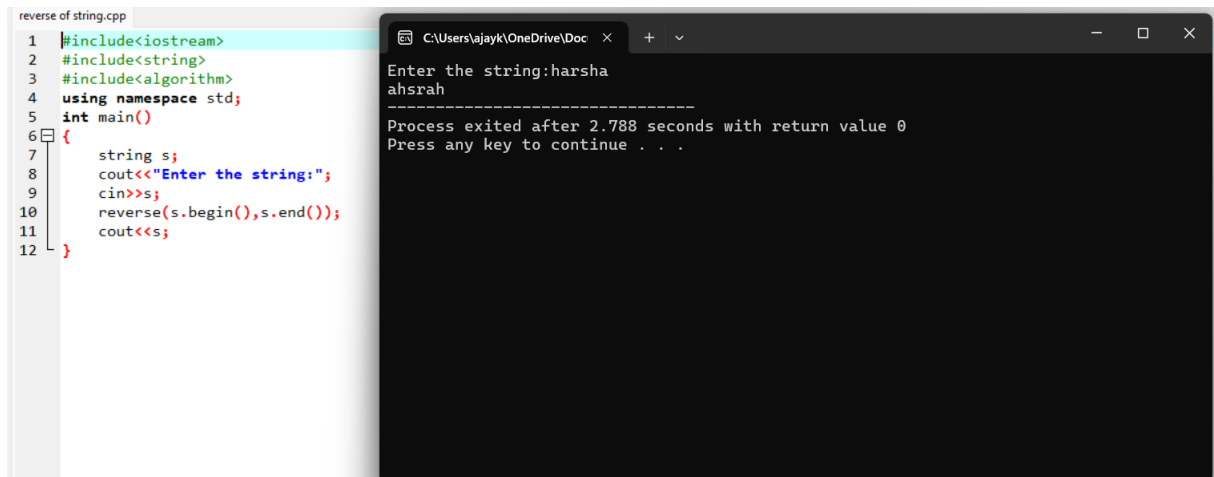


```
factorial using function.cpp area of circle,rectangle and triangle.cpp
1  #include <iostream>
2  #include <cmath>
3  using namespace std;
4  class Shape {
5  public:
6      double area;
7      Shape(double radius)
8      {
9          area=M_PI*radius*radius;
10     }
11
12     Shape(double length, double breadth)
13     {
14         area=length*breadth;
15     }
16
17     Shape(double base, double height, bool isTriangle)
18     {
19         if (isTriangle) {
20             area=0.5*base*height;
21         }
22     }
23 }
```

```
Enter radius of the circle: 5
Area: 78.5398
Enter length and breadth of the rectangle: 2 3
Area: 6
Enter base and height of the triangle: 4 5
Area: 10

-----
Process exited after 24.1 seconds with return value 0
Press any key to continue . . .
```

4.String in Reverse



```
reverse of string.cpp
1  #include<iostream>
2  #include<string>
3  #include<algorithm>
4  using namespace std;
5  int main()
6  {
7      string s;
8      cout<<"Enter the string:";
9      cin>>s;
10     reverse(s.begin(),s.end());
11     cout<<s;
12 }
```

```
C:\Users\ajayk\OneDrive\Doc  X + -
Enter the string:harsha
ahsrha
-----
Process exited after 2.788 seconds with return value 0
Press any key to continue . . .
```

5. Area and Perimeter of Triangle

```
factorial using function.cpp area of circle, rectangle and triangle.cpp reverse of the string.cpp area and perimeter.cpp
1  #include <iostream>
2  #include <cmath>
3  using namespace std;
4  class Triangle {
5  private:
6      double a, b, c;
7  public:
8      Triangle(double side1, double side2, double side3) : a(side1),
9      double perimeter() const {
10         return a + b + c;
11     }
12     double area() const {
13         double s = perimeter() / 2;
14         return sqrt(s * (s - a) * (s - b) * (s - c));
15     }
16     void print() const {
17         cout<<"Perimeter of the triangle: "<<perimeter()<<endl;
18         cout<<"Area of the triangle: "<<area()<<endl;
19     }
20 };
21 int main() {
22     Triangle tri(3, 4, 5);
23     tri.print();
}
```

```
C:\Users\ajayk\OneDrive\Doc  X + v
Perimeter of the triangle: 12
Area of the triangle: 6

-----
Process exited after 0.07379 seconds with return code 0
Press any key to continue . . . |
```

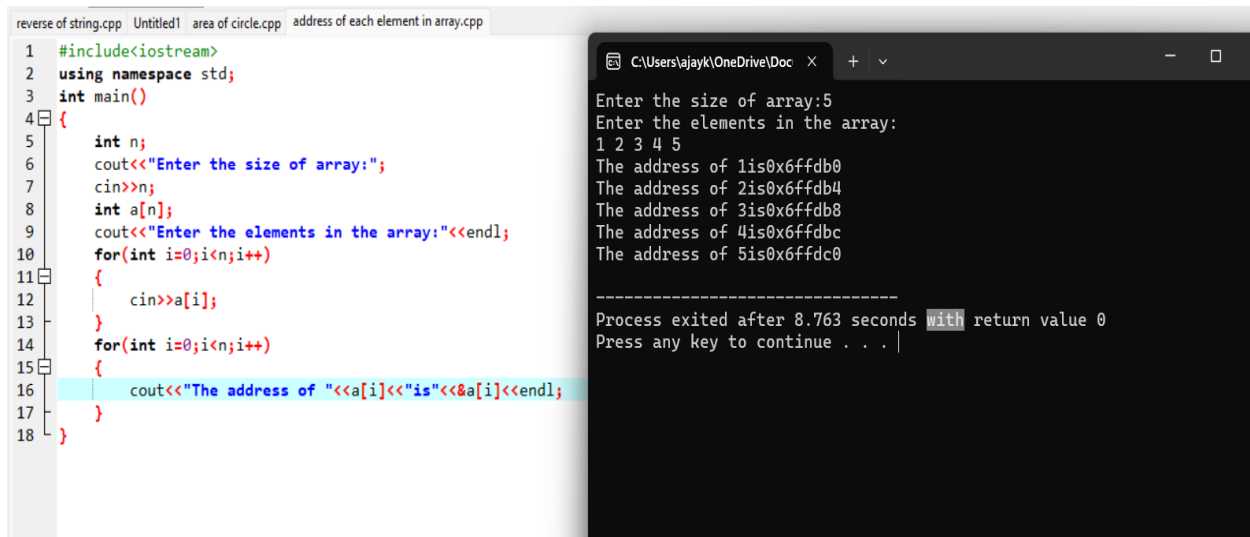
6. Using function Degree

```
factorial using function.cpp area of circle, rectangle and triangle.cpp reverse of the string.cpp area and perimeter.cpp class degree.cpp
1  #include<iostream>
2  using namespace std;
3  class Degree{
4  public:
5      void getdegree(){
6          cout<<"I got a degree"<<endl;
7      }
8  };
9  int main()
10 {
11     Degree mydegree;
12     mydegree.getdegree();
13 }
```

```
C:\Users\ajayk\OneDrive\Doc  X + v
I got a degree

-----
Process exited after 0.08055 seconds with return code 0
Press any key to continue . . . |
```

7. To display address of each element in array



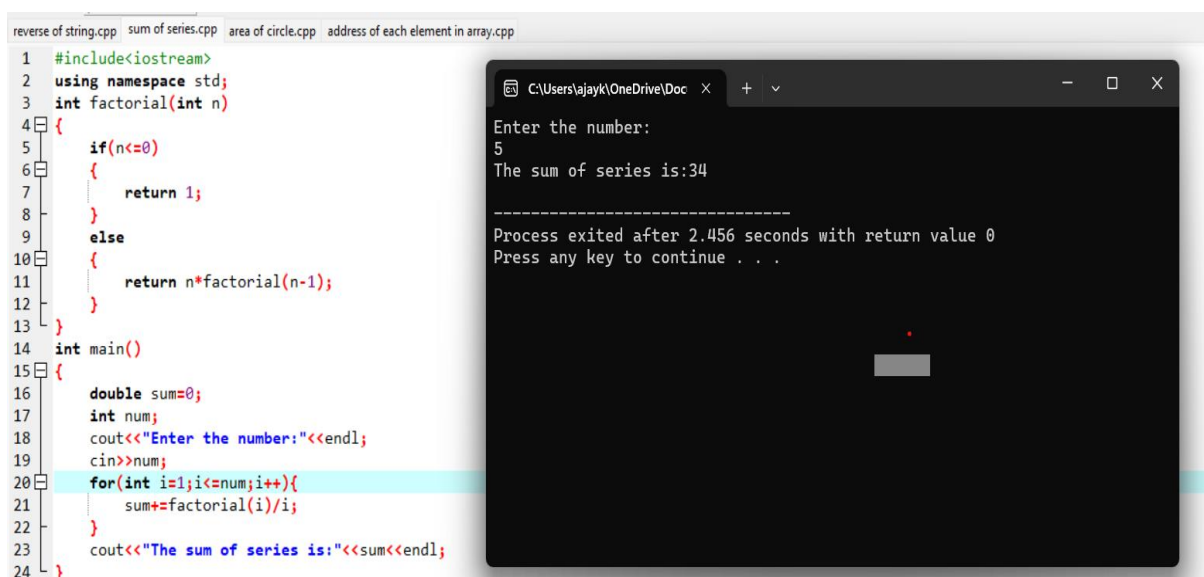
The screenshot shows a C++ IDE with a file named 'address of each element in array.cpp'. The code defines a main function that prompts the user for the size of an array and its elements. It then iterates through the array, printing the memory address of each element. The output window shows the user inputting 5 for the size and 1 2 3 4 5 for the elements. The program then displays the memory addresses for each element, ranging from 1is0x6ffdb0 to 5is0x6ffdc0. The process exits after 8.763 seconds.

```
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int n;
6     cout<<"Enter the size of array:";
7     cin>>n;
8     int a[n];
9     cout<<"Enter the elements in the array:"<<endl;
10    for(int i=0;i<n;i++)
11    {
12        cin>>a[i];
13    }
14    for(int i=0;i<n;i++)
15    {
16        cout<<"The address of "<<a[i]<<"is"<<&a[i]<<endl;
17    }
18 }
```

Enter the size of array:5
Enter the elements in the array:
1 2 3 4 5
The address of 1is0x6ffdb0
The address of 2is0x6ffdb4
The address of 3is0x6ffdb8
The address of 4is0x6ffdbc
The address of 5is0x6ffdc0

Process exited after 8.763 seconds with return value 0
Press any key to continue . . .

8. Sum of Series



The screenshot shows a C++ IDE with a file named 'sum of series.cpp'. The code defines a recursive factorial function and a main function that prompts the user for a number. It then calculates the sum of the series 1/i for i from 1 to the input number. The output window shows the user inputting 5 for the number. The program then displays the sum of the series as 34. The process exits after 2.456 seconds.

```
1 #include<iostream>
2 using namespace std;
3 int factorial(int n)
4 {
5     if(n<=0)
6     {
7         return 1;
8     }
9     else
10    {
11        return n*factorial(n-1);
12    }
13 }
14 int main()
15 {
16     double sum=0;
17     int num;
18     cout<<"Enter the number:"<<endl;
19     cin>>num;
20     for(int i=1;i<=num;i++){
21         sum+=factorial(i)/i;
22     }
23     cout<<"The sum of series is:"<<sum<<endl;
24 }
```

Enter the number:
5
The sum of series is:34

Process exited after 2.456 seconds with return value 0
Press any key to continue . . .

9.Non-Descending order

```
reverse of string.cpp  sum of series.cpp  area of circle.cpp  address of each element in array.cpp  non-descending order.cpp
1  #include<iostream>
2  #include<algorithm>
3  using namespace std;
4  int main()
5  {
6      int n;
7      cout<<"Enter the size of array:";
8      cin>>n;
9      int a[n];
10     cout<<"Enter the elements in the array:"<<endl;
11     for(int i=0;i<n;i++)
12     {
13         cin>>a[i];
14     }
15     sort(a,a+n);
16     cout<<"The sorted array is:";
17     for(int i=0;i<n;i++)
18     {
19         cout<<a[i]<<" ";
20     }
21 }
```

C:\Users\ajayk\OneDrive\Doc X + v

Enter the size of array:5
Enter the elements in the array:
6 34 21 9 1
The sorted array is:1 6 9 21 34

Process exited after 11.19 seconds with return value 0
Press any key to continue . . .