

## Practical 06 (22001212)

01)

```
main.cpp X
1  #include <iostream>
2
3  using namespace std;
4
5  int main()
6  {
7      //Question No 1
8      int n,sum=0,sum1=0;
9      cout<<"\nEnter the value for n to get sum of the positive integers :";
10     cin>>n;
11     while(n>0){
12         sum=sum+n;
13         n--;
14     }
15     cout<<"\nSum is : "<<sum<<endl;
16
17     cout<<"\nEnter the value for n to get sum of the positive integers :";
18
19     cin>>n;
20     do{
21         sum1=sum1+n;
22         n--;
23     }while(n>0);
24     cout<<"\nSum is : "<<sum1<<endl;
25
26     return 0;
27 }
28
```

```
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Enter the value for n to get sum of the positive integers :5
Sum is :15
Enter the value for n to get sum of the positive integers :4
Sum is :10
Process returned 0 (0x0)   execution time : 14.361 s
Press any key to continue.
```

02)

main.cpp X

```

1      #include <iostream>
2
3      using namespace std;
4
5      class Complex{
6      public:
7          int realPart;
8          int imaginaryPart;
9
10         Complex(int r,int i){
11             realPart=r;
12             imaginaryPart=i;
13         }
14
15         void addComplex(Complex c1,Complex c2){
16             int r,i;
17             r=c1.realPart+c2.realPart;

```

```

18             i=c1.imaginaryPart+c2.imaginaryPart;
19             cout<<"\nSum of the two complex numbers is: "<<r<<" + "<<i<<"i";
20         }
21
22         void subtractComplex(Complex c1,Complex c2){
23             int r,i;
24             r=c1.realPart-c2.realPart;
25             i=c1.imaginaryPart-c2.imaginaryPart;
26             cout<<"\nDifference of the two complex numbers is: "<<r<<" + "<<i<<"i";
27         }
28
29         void multiplyComplex(Complex c1,Complex c2){
30             int r,i;
31             r=c1.realPart*c2.realPart;
32             i=(c1.imaginaryPart*c2.imaginaryPart)*(-1);
33             cout<<"\nProduct of the two complex numbers is: "<<r<<" + "<<(c1.realPart*c2.imaginaryPart)+(c1.imaginaryPart*c2.realPart
34         }

```

```

37     int main()
38     {
39         int r1,i1,r2,i2;
40         cout<<"\nEnter the real part of the first complex number: ";
41         cin>>r1;
42         cout<<"\nEnter the imaginary part of the first complex number: ";
43         cin>>i1;
44         cout<<"\nEnter the real part of the first complex number: ";
45         cin>>r2;
46         cout<<"\nEnter the imaginary part of the first complex number: ";
47         cin>>i2;
48         Complex C1=Complex(r1,i1);
49         Complex C2=Complex(r2,i2);
50         Complex C3=Complex(0,0);
51         C3.addComplex(C1,C2);
52         C3.subtractComplex(C1,C2);
53         C3.multiplyComplex(C1,C2);
54         cout<<"\n".

```

```
Enter the real part of the first complex number: 2
Enter the imaginary part of the first complex number: 3
Enter the real part of the first complex number: 3
Enter the imaginary part of the first complex number: 4

Sum of the two complex numbers is: 5 + 7i
Difference of the two complex numbers is: -1 + -1i
Product of the two complex numbers is: 6 + 17i + -12

Process returned 0 (0x0)   execution time : 14.587 s
Press any key to continue.
```

03)

```
main.cpp x
1      #include <iostream>
2
3      using namespace std;
4
5      int main()
6      {
7          //Question No 03
8          int r,c,m1[10][10],m2[10][10];
9          cout<<"\nEnter the number of rows: ";
10         cin>>r;
11         cout<<"\nEnter the number of columns: ";
12         cin>>c;
13         cout<<"\nEnter the elements of the first matrix:"<<endl;
14         for(int i=1;i<=r;i++){
15             for(int j=1;j<=c;j++){
16                 cout<<"Enter the "<<i<<","<<j<<" element of the matrix: ";
17                 cin>>m1[i][j];
```

```
19     }
20     cout<<"\nFirst matrix is:"<<endl;
21     for(int i=1;i<=r;i++){
22         for(int j=1;j<=c;j++){
23             cout<<m1[i][j]<<"\t";
24         }
25         cout<<"\n";
26     }
27
28     cout<<"\nEnter the elements of the second matrix:"<<endl;
29     for(int i=1;i<=r;i++){
30         for(int j=1;j<=c;j++){
31             cout<<"Enter the "<<i<<","<<j<<" element of the matrix: ";
32             cin>>m2[i][j];
33         }
34     }
35     cout<<"\nSecond matrix is:"<<endl;
```

```
36     for(int i=1;i<=r;i++){
37         for(int j=1;j<=c;j++){
38             cout<<m2[i][j]<<"\t";
39         }
40         cout<<"\n";
41     }
42
43     cout<<"\nSum of the matrices : "<<endl;
44     for(int i=1;i<=r;i++){
45         for(int j=1;j<=c;j++){
46             cout<<m1[i][j]+m2[i][j]<<"\t";
47         }
48         cout<<"\n";
49     }
50
51     return 0;
52 }
```

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```
Enter the number of rows: 2
Enter the number of columns: 2
Enter the elements of the first matrix:
Enter the 1,1 element of the matrix: 1
Enter the 1,2 element of the matrix: 3
Enter the 2,1 element of the matrix: 5
Enter the 2,2 element of the matrix: 7

First matrix is:
1      3
5      7

Enter the elements of the second matrix:
Enter the 1,1 element of the matrix: 2
Enter the 1,2 element of the matrix: 4
Enter the 2,1 element of the matrix: 6
Enter the 2,2 element of the matrix: 8

Second matrix is:
2      4
6      8

Sum of the matrices :
3      7
11     15
```

04)

```
1  #include <iostream>
2
3  using namespace std;
4
5  class Volume{
6  public:
7      float length;
8      float breadth;
9      float height;
10
11      Volume(float l,float b,float h){
12          length=l;
13          breadth=b;
14          height=h;
15      }
16  };
17
```

05)

```
18 class Employee{
19     string name;
20     float salary;
21     int hoursPerDay;
22 public:
23     void setName(string Name){
24         name=Name;
25     }
26     string getName(){
27         return name;
28     }
29     void setSalary(float Salary){
30         salary=Salary;
31     }
32     float getSalary(){
33         return salary;
34     }
35     void setHoursPerDay(int hpd){
36         hoursPerDay=hpd;
37     }
38     int getHoursPerDay(){
39         return hoursPerDay;
40     }
41
42     Employee(string Name,float Salary,int hpd){
43         name=Name;
44         salary=Salary;
45         hoursPerDay=hpd;
46     }
47
48     void AddSal(){
49         if(salary<500){
50             salary=salary+10;
51         }
52         cout<<salary;
53     }
54     void AddWork(){
55         if(hoursPerDay<6){
56             salary=salary+5;
57         }
58         cout<<salary;
59     }
60 };
61
62 int main()
63 {
64     Employee e1("John",450,4);
65     cout<<"\nSalary of "<<e1.name;
66     e1.AddSal();
67     e1.AddWork();
68
69     return 0;
```