Practical 02 (Index – 22001212)

01)

```cpp
#include <iostream>

using namespace std;

int main()
{
    int arr[5];
    cout<<"\nEnter the numbers:"<<endl;
    for(int i=0;i<5;i++){
        cin>>arr[i];
    }
    cout<<"\nValues in forward order:";
    for(int i=0;i<5;i++){
        cout<<arr[i]<<",";
    }
    cout<<"\nValues in reverse order:";
    for(int i=4;i>=0;i--){
        cout<<arr[i]<<",";
    }
    return 0;
}
```

```
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Enter the numbers:
6
8
7
9
2

Values in forward order:6,8,7,9,2,
Values in reverse order:2,9,7,8,6,
Process returned 0 (0x0)   execution time : 6.283 s
Press any key to continue.
```

02)

```cpp
#include <iostream>

using namespace std;

int main()
{
    int a;
    cout<<"\nEnter the value of a :";
    cin>>a;
    cout<<"\n.........................";
    cout<<"\nThe value of ++a is:"<<++a;
    cout<<"\nNow the value of a is:"<<a;
    cout<<"\n.........................";
    cout<<"\nThe value of a++ is:"<<a++;
    cout<<"\nNow the value of a is:"<<a;
    cout<<"\n.........................";
    cout<<"\nThe value of --a is:"<<--a;
    cout<<"\nNow the value of a is:"<<a;
    cout<<"\n.........................";
    cout<<"\nThe value of a-- is:"<<a--;
    cout<<"\nNow the value of a is:"<<a;
    return 0;

}
```

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```
Enter the value of a :20

.....................
The value of ++a is:21
Now the value of a is:21
.....................
The value of a++ is:21
Now the value of a is:22
.....................
The value of --a is:21
Now the value of a is:21
.....................
The value of a-- is:21
Now the value of a is:20
Process returned 0 (0x0)   execution time : 2.094 s
Press any key to continue.
```

03)

```cpp
#include <iostream>

using namespace std;

int main()
{
    int arr[3];
    cout<<"Enter 3 numbers:";
    for(int i=0;i<3;i++){
        cin>>arr[i];
    }
    int max=arr[0];
    for(int i=0;i<3;i++){
        if(arr[i]>=max){
            max=arr[i];
        }
    }
    cout<<"The maximum number is :"<<max;

    return 0;
}
```

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```
Enter 3 numbers:5
87
23
The maximum number is :87
Process returned 0 (0x0)    execution time : 7.345 s
Press any key to continue.
```

04)

```cpp
#include <iostream>

using namespace std;

int main()
{
    for(int i=1;i<=7;i++){
        for(int j=1;j<=i;j++){
            cout<<j;
        }
        for(int k=6;k>=i;k--){
            cout<<"*";
        }
        cout<<"\n";
    }
    return 0;
}
```

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```
1******
12*****
123****
1234***
12345**
123456*
1234567

Process returned 0 (0x0)   execution time : 0.062 s
Press any key to continue.
```

05)

```cpp
#include <iostream>

using namespace std;

int main()
{
    int arr[10],temp;
    cout<<"\nEnter the numbers:"<<endl;
    for(int i=0;i<10;i++){
        cin>>arr[i];
    }
    for(int i=0;i<10;i++){
        for(int j=0;j<10;j++){
            if(arr[i]<arr[j]){
                temp=arr[i];
                arr[i]=arr[j];
                arr[j]=temp;
            }
        }
    }
    cout<<"\nNumbers in ascending order:";
    for(int i=0;i<10;i++){
        cout<<arr[i]<<",";
    }
    for(int i=0;i<10;i++){
        for(int j=0;j<10;j++){
            if(arr[i]>arr[j]){
                temp=arr[i];
                arr[i]=arr[j];
                arr[j]=temp;
            }
        }
    }
    cout<<"\nNumbers in descending order:";
    for(int i=0;i<10;i++){
        cout<<arr[i]<<",";
    }
    return 0;
}
```

```
Enter the numbers:
5
7
9
2
3
6
1
4
9
2

Numbers in ascending order:1,2,2,3,4,5,6,7,9,9,
Numbers in descending order:9,9,7,6,5,4,3,2,2,1,
Process returned 0 (0x0)   execution time : 13.799 s
Press any key to continue.
```

06)

```cpp
main.cpp X

1      #include <iostream>
2
3      using namespace std;
4
5      int main()
6      {
7          for(int i=30;i>=10;i--){
8              cout<<"Square of "<<i<< "is : "<<i*i<<endl;
9          }
10         return 0;
11     }
12
```

```
Square of 30is : 900
Square of 29is : 841
Square of 28is : 784
Square of 27is : 729
Square of 26is : 676
Square of 25is : 625
Square of 24is : 576
Square of 23is : 529
Square of 22is : 484
Square of 21is : 441
Square of 20is : 400
Square of 19is : 361
Square of 18is : 324
Square of 17is : 289
Square of 16is : 256
Square of 15is : 225
Square of 14is : 196
Square of 13is : 169
Square of 12is : 144
Square of 11is : 121
Square of 10is : 100

Process returned 0 (0x0)   execution time : 0.078 s
Press any key to continue.
```

main.cpp X

```cpp
1      #include <iostream>
2
3      using namespace std;
4
5      void reverseArray(int a[],int s){
6          for(int i=s;i>0;i--){
7              cout<<a[i]<<",";
8          }
9      }
10
11     int main()
12     {
13         int n;
14         int arr[n];
15         cout<<"\nEnter the size of the array : ";
16         cin>>n;
17         cout<<"\nEnter the numbers:"<<endl;
18         for(int i=0;i<n;i++){
19             cin>>arr[i];
20         }
21         cout<<"\nArray in reverse order";
22         reverseArray(arr,n);
23         return 0;
24     }
25
```

07)