Report No: 01
Report Name: Write a program for bubble sort

Code:

```
#include<iostream>
using namespace std;

int main(){
   int size, i, j, temp;
   cout << "Enter size of an array: ";
   cin >> size;
   int myArray[size];

   for(i = 0; i < size; i ++){
      cout << "Enter " << (i + 1) << " element: ";
      cin >> myArray[i];
   }

   for(i = 0; i < size; i++){
      for(j = 0; j < size -1; j ++){
         if(myArray[j] > myArray[j+1]){
            temp = myArray[j];
            myArray[j] = myArray[j+1];
            myArray[j+1] = temp;
         }
      }
   }

   cout << "Bubble sort in ascending order: ";
   for(i = 0; i < size; i++){
      cout <<myArray[i] << " ";
   }
}
```

Input and Output:

```
Enter size of an array: 5
Enter 1 element: 69
Enter 2 element: 45
Enter 3 element: 98
Enter 4 element: 15
Enter 5 element: 32
Bubble sort in ascending order: 15 32 45 69 98
```

Report No: 02
Report Name: Write a program for fibonacci series

Code:

```
#include<iostream>
using namespace std;

int fibonacci(int n){
   if(n <= 1){
      return n;
   }else{
      return fibonacci(n-1) + fibonacci(n-2);
   }
}

int main(){
   int num, i;
   cout << "Enter fibonacci num: ";
   cin >> num;

   for(i = 0 ; i <= num; i++){
      cout << fibonacci(i) << " ";
   }
}
```

Input and Output:

```
Enter fibonacci num: 21
0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946
```

Report No: 03
Report Name: Write a program for fibonacci series

Code:

```
#include<iostream>
using namespace std;

int main(){
   int size, i, j;
   cout << "Enter size of an array: ";
   cin >> size;
   int myArray[size];
```

```
   for(i = 0; i < size; i ++){
      cout << "Enter " << (i + 1) << " element: ";
      cin >> myArray[i];
   }

   int max = myArray[0];
   for(i = 1; i < size; i ++){
      if(myArray[i] > max){
         max= myArray[i];
      }
   }
   int C[max+1];
   for(i = 0 ; i <= max; i++){
      C[i] = 0;
   }

   for(j = 0; j < size; j++){
      C[myArray[j]] = C[myArray[j]] + 1;
   }

   for(i = 1; i <= max; i++){
      C[i]+=C[i-1];
   }

   int B[size + 1];
   for(i = (size-1); i >=0; i--){
      B[C[myArray[i]] - 1] = myArray[i];
      C[myArray[i]] = C[myArray[i]] - 1;
   }

   cout << "Counting sort ascending order: ";
   for(i = 0; i < size; i++){
      cout << B[i] << " ";
   }
}
```

Input and Output:

```
Enter size of an array: 5
Enter 1 element: 9
Enter 2 element: 12
Enter 3 element: 7
Enter 4 element: 6
Enter 5 element: 3
Counting sort ascending order: 3 6 7 9 12
```