Lab (1)

Write a C code that ask the user to enter 10 values and save them in an array using a for loop. Then print the values entered by the user in reverse order using another for loop.

Expected Output

```
Please Enter number 0: 5
Please Enter number 1: 6
Please Enter number 2: 7
Please Enter number 3: 8
Please Enter number 4: 9
Please Enter number 5: 10
Please Enter number 6: 11
Please Enter number 7: 12
Please Enter number 8: 13
Please Enter number 9: 14
The values in reversed order
14
13
12
11
10
9
8
7
6
5
```

Lab (2)

Write a C code that ask the user to enter 10 values and save them in an array using a for loop. Then print the summation and the average of the values entered.

Expected Output

```
Please Enter number 0: 10
Please Enter number 1: 20
Please Enter number 2: 30
Please Enter number 3: 40
Please Enter number 4: 50
Please Enter number 5: 60
Please Enter number 6: 70
Please Enter number 7: 80
Please Enter number 8: 90
Please Enter number 9: 100
Sum of array elements = 550
Average of array elements = 55
```

Lab (3)

Write a C code that ask the user to enter 10 values and save them in an array using a for loop. The code then apply the bubble sorting algorithm and then print the values after sorting.

Expected Output

```
Please Enter number 0:  5
Please Enter number 1:  6
Please Enter number 2:  9
Please Enter number 3:  0
Please Enter number 4:  4
Please Enter number 5:  2
Please Enter number 6:  7
Please Enter number 7:  11
Please Enter number 8:  16
Please Enter number 9:  8
Values after sorting are:
0
2
4
5
6
7
8
9
11
16
```

Lab (4)

Write a C code that ask the user to enter 10 values and save them in an array using a for loop. Then ask the user to enter a value to search about, if the value existing in the 10 values, the program will print *"Value Exists x times"* where x defines how many times the value exists. If the value is not exist, the program will print *"Value Not Exist"*. Use Linear Searching Algorithm.

Lab (5)

Write a C code that ask the user to enter 10 values and save them in an array using a for loop. Then ask the user to enter a value to search about, if the value existing in the 10 values, the program will print *"Value Found"*. If the value is not exist, the program will print *"Value Not Exist"*. Use Binary Searching Algorithm.

Lab (6)

Write a C code that ask the user to enter 10 values and save them in an array using a for loop. Then print the minimum and the maximum of the values.

Lab (7)

Write C code that manage a small school. The school has 3 classes each class contains 10 students. Define three arrays for the three classes each one with a length of 10. Save a random numbers in all array elements to indicate the students grade. The program will calculate and display the following statistics:

1- Number of passed students
2- Number of Failed students
3- Highest grade
4- Lowest grade
5- Average grade

Knowing that the total grade is from 100 and the minimum passing grade is 50.