

CSC 2111 Lab 21

Objectives:

Using C++ *Vector* class.

Question:

Design the following menu-driven application **using C++ Vector class**. Implement the following five functions:

1. **Add(vector<int> &num)**
Prompts the user to provide a number and add that number into the vector
2. **Remove(vector<int> &num)**
Prompts the user to provide a number. If the number is found in the vector, it removes that number. Otherwise, it generates a message.
3. **Empty(vector<int> &num)**
Erases all the existing numbers from the vector.
4. **Count(vector<int> &num)**
Counts the total available numbers in the vector.
5. **Show(vector<int> &num)**
Show the existing members of the vector (order does not matter). It will generate a message if there is no existing member available.

Do not use any global variable. Write necessary lines to test your code. Submit one cpp file in the blackboard.

Sample output:

cmd C:\WINDOWS\system32\cmd.exe

```
1. Add a number.
2. Remove a number.
3. Empty database.
4. Count the numbers.
5. Show the numbers.
6. Quit.
Please enter a choice: 1
Please enter the number: 10
```

```
1. Add a number.
2. Remove a number.
3. Empty database.
4. Count the numbers.
5. Show the numbers.
6. Quit.
Please enter a choice: 1
Please enter the number: 20
```

```
1. Add a number.
2. Remove a number.
3. Empty database.
4. Count the numbers.
5. Show the numbers.
6. Quit.
Please enter a choice: 5
10 20
```

```
1. Add a number.
2. Remove a number.
3. Empty database.
4. Count the numbers.
5. Show the numbers.
6. Quit.
Please enter a choice: 2
Please enter the number: 30
The number is not found.
```

```
1. Add a number.
2. Remove a number.
3. Empty database.
4. Count the numbers.
5. Show the numbers.
6. Quit.
Please enter a choice: 2
Please enter the number: 20
The number has been removed.
```

```
1. Add a number.
2. Remove a number.
3. Empty database.
4. Count the numbers.
5. Show the numbers.
6. Quit.
Please enter a choice: 4
Total count of the numbers = 1
```