

Week 07 Template

Cảm ơn thầy Trần Duy Quang đã cung cấp template cho môn học



Department of Software Engineering-FIT-VNU-HCMUS

1

Notes

Create a single solution/folder to store your source code in a week.

Then, create a project/sub-folder to store your source code of each assignment.

The source code in an assignment should have at least 3 files:

- A header file (.h): struct definition, function prototypes/definition.
- A source file (.cpp): function implementation.
- Another source file (.cpp): named YourID_Ex01.cpp, main function. Replace 01 by id of an assignment.
- Image of commit list

Make sure your source code was built correctly. Use many test cases to check your code before submitting to Moodle.

Name of your submission: **StudentID_W07_XX.zip**. XX: number of assignments you have done. XX: 00 – 99.

2

Content

In this lab, we will review the following topics:

- How to create your own class template

3

Assignments

A: YY = 05

H: YY = 23

3.1. Assignment MyVector

YY = 23

```
template<class T>
class MyVector{
private:
    T *arr;
    int size;
public:
    // empty array
    MyVector();

    // n zeros
    MyVector(int n);

    MyVector(T *a, int n);
    MyVector(const MyVector &v);

    ~MyVector();

    int getSize();
    T getItem(int index);
    void setItem(T value, int index);

    void add(T value);
    void addRange(T *a, int n);
    void clear();
    bool contains(T value);
    void toArray(T *arr, int &n);
    bool equals(const MyVector &v);
    int indexOf(T value);
    int lastIndexOf(T value);
    void insert(T value, int index);
    void remove(T value);
    void removeAt(int index);
```

```
void reverse();  
string toString();  
  
void sortAsc();  
void sortDesc();  
};
```