

Assignment 1

Dr. Nguyen Hua Phung

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1 Student Outcomes

After completing this assignment, students will be able to

- remind how to use some basic features of C++
- manipulate a stack

2 Instructions

To complete this assignment, students must

- Read the specification of the attached virtual machine
- Download the initial code, unzip it
- There are 5 files: `main.cpp`, `main.h`, `error.h`, `VM.cpp` and `VM.h`. You MUST NOT modify files `main.cpp`, `main.h` and `error.h`.
- Modify files `VM.h` and `VM.cpp` to implement the specified virtual machine. You don't need to implement the cache in the virtual machine for this assignment.
- Make sure that at least class `VM` with a public instance method **`void run(string filename)`** is defined in these files (`VM.cpp` and `VM.h`) because this method is the entry of your solution. For each testcase, an object of this class is created and the method **`run`** of this object will be called with the argument of the file name of the text file (containing a program runnable in the virtual machine).
- Make sure that there is only one **`include`** directive in file `VM.h` that is **`#include "main.h"`** and also one **`include`** in file `VM.cpp` that is **`#include "VM.h"`**. No more include directive is allowed in these files.

3 Submission

Files VM.h and VM.cpp are required to submit as attachments before the deadline is given in the link "Assignment 1 Submission". There are some simple testcases used to check your solution to make sure your solution can be compiled and run. You can submit as many as you like but just the last submission is marked. As the system cannot response too many submissions in the same time, you should submit as soon as possible. You will take your own risk if you submit on the time of deadline. After the deadline, you cannot submit anymore.

4 Plagiarism

You must complete this assignment by yourself and you must prevent your solution from being stolen by someone else. Otherwise, you will be punished by the university rule for plagiarism.