

Week #3 Self-assessments: Classes & VS-Code

Results for Maciej Wozniak

Score for this attempt: **12** out of 13

Submitted Sep 10 at 10:10pm

This attempt took 6 minutes.

The following group of questions is based on the content covered in the following presentation:

Part 5: Classes, methods, and operator overloading



Question 1

1 / 1 pts

The minimum number of methods that must be defined in a class is

Correct!

- ☒ 0 (no methods needed)
- ☐ 1 (at least 1 constructor)
- ☐ 2 (1 constructor & 1 destructor)
- ☐ 3 (1 constructor, 1 destructor, 1 getter)

Question 2

1 / 1 pts

The minimum number of instance variables that must be present in a C++ class is

Correct!

- ☒ 0 (no instance variables needed)
- ☐ at least 1 (the whole point of a class)
- ☐ at least 2 (if it is just 1, use a variable instead)
- ☐ at least 1 public and 1 private

Question 3

1 / 1 pts

The minimum number of classes that must be present in a C++ program is

Correct!

- ☒ 0 (no classes needed)
- ☐ 1 class (to have the `main` method)
- ☐ 2 classes (one in `.h` and one in `.cpp` file)

- ☐ 1 or 2 depending on the program

Question 4

1 / 1 pts

In C++, given constant objects, only constant methods can be called on the object. Given the following code fragment, which one of the following methods can be called on the `str` object?

```
const std::string str = "Call me";
```

Correct!

- ☒ `size_t size() const;`
- ☐ `std::string& insert(size_t index, char c);`
- ☐ `void push_back(char c);`
- ☐ `std::string& erase(size_t index);`

Question 5

1 / 1 pts

Given a class named `Element`, which one of the following correctly reflects the requirements/mandates in the C++ language

Correct!



The class can be defined in any source file, but the preferred source file name is `Element.cpp`

- ☐ The class must be defined in a file named `Element.cpp`
- ☐ The class must be defined in a file named `main.cpp`

- ☐ The class must be defined in file named `Element.class`

Question 6

1 / 1 pts

Given a class named Matrix, the preferred way to declare the less-than operator is:

- ☒ `bool operator<(const Matrix& other) const;`
- ☐ `int operator<(const Matrix& other) const;`
- ☐ `bool operator<(const Matrix& m1, const Matrix& m2);`
- ☐ `bool operator<(const Matrix& m1, const Matrix& m2) const;`

Correct!

Question 7

1 / 1 pts

We need to define the stream extraction operator to be a friend of a class so that

- ☒ It can access private instance variables, if any
- ☐ It can access public instance variables, if any
- ☐ This is just a requirement for this operator
- ☐ This is required only on Linux and not on Windows

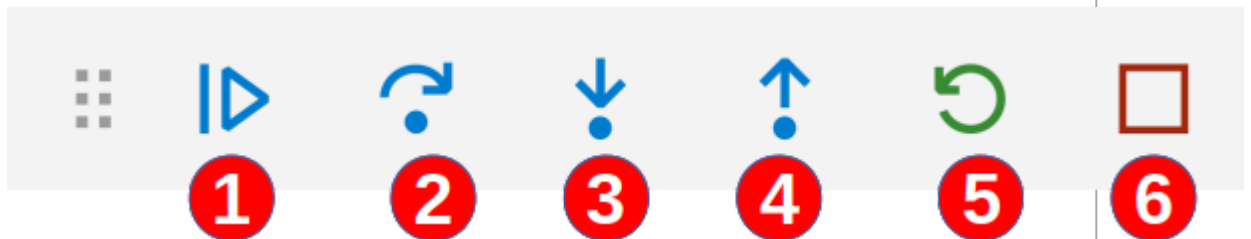
Correct!

The following group of questions is based on the content covered regarding VS-Code in the series of videos in [OSC OnDemand & VS-Code demonstrations](#)

Question 8

1 / 1 pts

In the following debugger buttons in VS-Code, the button to step over to the next line of code is:



Correct!

☒ Button labeled 2

☐ Button labeled 1

☐ Button labeled 3


☐ Button labeled 4

Question 9

1 / 1 pts

The recommended way to compile a program in VS-Code is to:

Correct!

☒ Switch perspective in VS-Code, select project, and click the  button

☐ Create a new terminal and compile the program

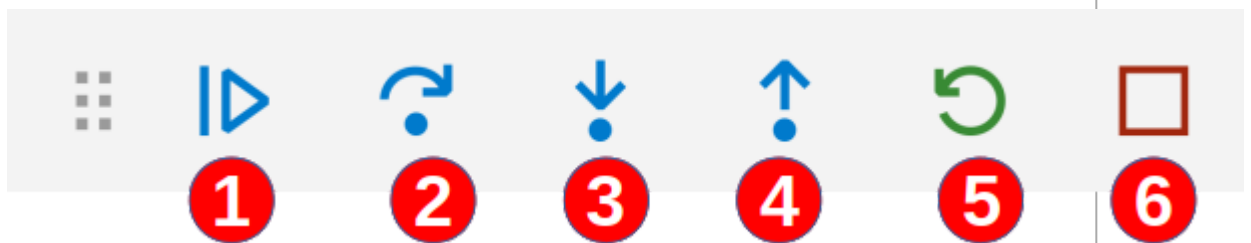
☐ Use the "Compile project" menu option in VS-Code

☐ Use the "Build project" option in VS-Code

Question 10

1 / 1 pts

In the following debugger buttons in VS-Code, clicking button 1 causes the debugger to :



Correct!

☒ Continue running until next breakpoint

☐ Run program to the end

☐ Run to the end of the method

☐ Restart debugging

Question 11

1 / 1 pts

The recommended usage of VS-code is to use a workspace to organize folders to streamline projects. In order to start using a workspace in VS-Code, we need to:

Correct!

☒ Click on the "Open Workspace" button in the dialog that pops in the bottom-right corner



VS-Code automatically starts in our workspace because we have already configured it



The workspace folder needs to be added to VS-Code each time



VS-Code automatically starts a workspace based on previous settings

Question 12

0 / 1 pts

The recommended way to create a project for use in VS-Code is to:

Correct Answer



Copy a suitable template directory



Create a new workspace

You Answered



Use the "Create new project" option from the main menu



Launch a new interactive job on OSC cluster

Question 13

1 / 1 pts

Whenever a program is run in VS-Code, the following error message is displayed at the bottom. This error message should be:

```
==1214==LeakSanitizer has encountered a fatal error.  
==1214==HINT: For debugging, try setting environment variable LSAN_OPTIONS=verbosity=1:log_threads=1  
==1214==HINT: LeakSanitizer does not work under ptrace (strace, gdb, etc)
```

Correct!



Ignored as stated in the debugging demo video

- ☐ Is a sign something is wrong with the program
- ☐ Is a sign something is wrong with the workspace
- ☐ Is a sign something is wrong with the VS-code job

Quiz Score: **12** out of 13