CS2040C
PE Instructions

12 April 2024

Please make sure your laptop:

- Can build with googletest completely offline

  o See instructions in Coursemology Forum. Basically, download the googletest-03….zip file, unpack to the correct location, turn off wifi, and build.

- Can record screen to a compact file.

  o Recommend VLC or ffmpeg, 1 fps at full resolution

- Examplify installed and ready to run

- Remove/disable all unauthorized materials the day of the exam

  o E.g. Code generation tools like GitHub CoPilot, etc.

Download the Skeleton Code

- Go to Coursemology -> Materials -> AY202324 S2 PE

- Download 2324S2_PE.zip

- **MAKE SURE YOU DOWNLOAD THIS FILE BEFORE STARTING EXAMPLIFY!**

CS2040C Data Structure and Algorithms (AY2023/24 Sem 2) / Materials / AY202324 S2 PE

← AY202324 S2 PE

Name ▲	Last Modified
📄 2324S2_PE.zip	Friday, April 12 2024, 14:39
	Kareem Shehata

Allowed / Required Materials

- Build environment that supports CMake, C++17, and googletest **without** using the internet.

- 1 A4 size cheat sheet and 1 blank piece of paper.

- Lectures and/or lab slides, and **<u>your own</u>** lecture notes and past assignments.

- Local build system documentation

Disallowed Materials

- Internet access

- Any electronic device other than your laptop (e.g. phones, watches, calculators, etc)

- Anyone else's notes, textbooks, internet resources etc.

- Any method of communication with other students.

- Generative coding tools of any kind.

    - Single-word code completion (e.g. IntelliSense) ok

    - CoPilot, TabbyCat etc are **strictly forbidden**

You are responsible for ensuring that no disallowed resources are available / accessed during the exam.

PE Process

1. Set up

   a. Download required files

   b. Start recording

2. Examplify

   a. Download exam PDF via Examplify

   b. No internet connection

   c. Code using your own build env

   d. Submit code to Examplify

3. Post Exam

   a. Submit code to Coursemology

   b. Code must match Examplify exactly

   c. Submit screen recording to Canvas

Before Starting PE

1. Download PE Zip File from Coursemology

2. Start screen recording <u>before</u> starting Examplify

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Download googletest

Download this file

Put contents here

```
mockpe_part1 > mockpe_part1 > M CMakeLists.txt
1    cmake_minimum_required(VERSION 3.0.0)
2    project("CS2040C AY23/24 SEM2 MOCK PE PART 1")
3
4    # GoogleTest requires at least C++14
5    set(CMAKE_CXX_STANDARD 17)
6    set(CMAKE_CXX_STANDARD_REQUIRED ON)
7
8    include(FetchContent)
9    FetchContent_Declare(
10     googletest
11     # URL https://github.com/google/googletest/archive/03597a01ee50ed33e9dfd640b249b4be3799d395.zip
12     # download the zip from the URL above, extract the folder and place in this directory
13     SOURCE_DIR ../googletest-03597a01ee50ed33e9dfd640b249b4be3799d395
14     FETCHCONTENT_FULLY_DISCONNECTED
15   )
16   # For Windows: Prevent overriding the parent project's compiler/linker settings
17   set(gtest_force_shared_crt ON CACHE BOOL "" FORCE)
18   FetchContent_MakeAvailable(googletest)
```

Common Build Problems

1. Can't find googletest

   a. Make sure the "googletest-03..." folder is in your project folder

   b. If using MSVC directly (i.e. not VSCode) change:

      i. SOURCE_DIR ../googletest-03… to
         SOURCE_DIR ../../../googletest-03…

2. Can't find CMakeLists

   a. Using VS Code, make sure you open the folder that contains your CMakeLists.txt file <u>not</u> the parent folder.

3. Sometimes renaming/deleting the build folder and restarting works

Starting Exam

1. Log in to Examplify with your NUSNET credentials.

2. Check and ensure your Student ID is correct.

3. Select the exam file:

   CS2040C-Mock-PE-2024-Mar

4. Enter the Exam Password (given by TA)

5. Read the exam notice, then click Continue.

6. On the exam start screen:

   a. Check "I am authorized to start my exam"

   b. Click on the Start Exam button to start the exam.

Submit Exam

1. **Do not stop screen recording until AFTER submission!**

2. Click on the Exam Controls (top right-side menu)
   a. Choose Submit Exam.

3. Check "I confirm that I have completed my exam";
   a. Click **Submit Exam** once you are sure you wish to submit your exam.
   b. Otherwise click Go Back to go back and review your answers.

4. Examplify will now upload your answers.

5. **Make you see the Green "Upload Complete" screen**

6. If you see a blue screen, check your Wi-Fi connection and click the "Retry Upload" button.

7. Keep the Green "Upload Complete" screen open on your laptop and remain seated quietly.

8. **You are not allowed to communicate with any other students until dismissed.**

Green Screen, successful submission
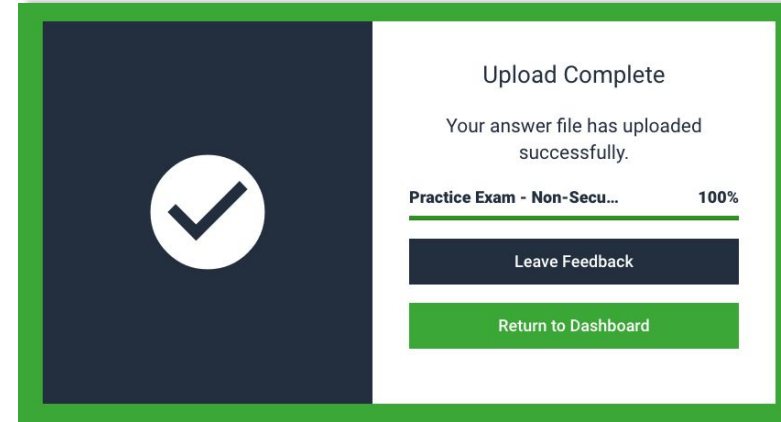
Blue Screen, check Wi-Fi connection
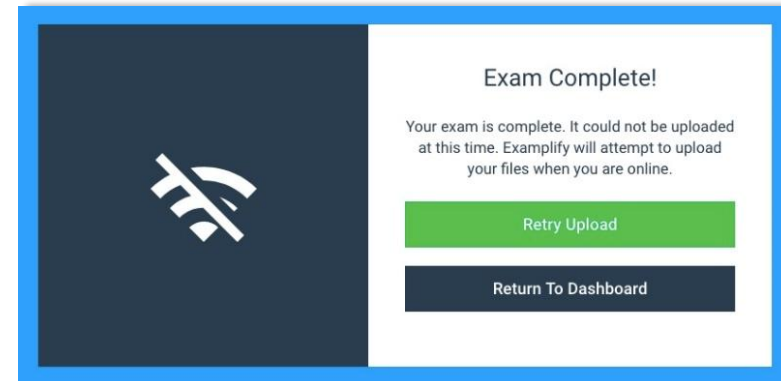
Post-Exam

1. Stop screen recording after you get to the green screen in Examplify.

2. Submit your code to Coursemology.
   a. (For Mock PE you will not be able to see your answers, in actual PE you will get access to this)

   Code submitting to Coursemology must match Examplify <u>exactly!</u>

3. Upload screen recording to Panopto.

   a. Separate instructions will be sent for uploading,

   b. Make sure to keep your original recording until after the upload is successful.

   c. Make sure the file size is not too big. You may need to re-encode the file to reduce size. See instructions for ffmpeg.

<u>Failure to upload a screen recording or code mismatches between Examplify and Coursemology will be investigated as Academic Integrity</u>