Computer Programming
Spring 2020

CSI2100-01 Lab 1

Bernd Burgstaller
Yonsei University

Explanations

Please study the handout "PyCharm_Install.pdf" that has been distributed with this lab, to familiarize yourself with the PyCharm Python IDE.

In the following, you find programming problems that you should solve and submit by the stated due-date. **Please carefully read the submission instructions at the end of this lab specification!**

For each problem, you must submit the source-code (Python) in a file.

- Each file will be executed by our auto-grader.
- No points will be given to screenshots from PyCharm.
- No points will be given to output from PyCharm that you pasted into a file.

```
x = 3.14159
print('square:', x**2)
```

Correct: program source-code

```
>>> x = 3.14159
>>> print( 'square:', x**2)
square: 9.869587728099999
>>>
```

Wrong: output from PyCharm pasted into file.

Explanations (cont.)

Some problems ask you to hard-code information. “Hard-coding” means that information is encoded in the program source code instead of asking it from the user (as input).

This has been explained in the lecture. Please refer to the lecture slides ("ch1_intro_to_cs.pdf"), on page 108.

Programming Problems

Problem 1: Write a program to output the following lines:

```
Hello, world!
My name is xxxx!
```

Hints:

1) *Your first-name and family-name should be printed instead of 'xxxx'. Between each two words, output one blank ' ' character.*
2) *Do not ask for input (your name shall be ``hard-coded'').*
3) *Do not output trailing blanks.*
4) *You may use 2 print() commands for this problem, but the design of the code is entirely up to you. (Only the output will be checked during grading.)*

Example (from Yoojin Park):

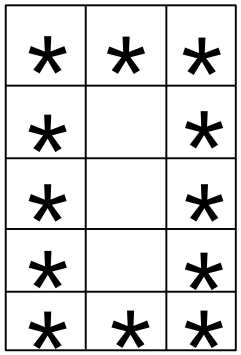
```
Hello, world!
My name is Yoojin Park!
```

Programming Problems (cont.)

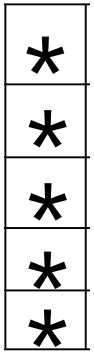
Problem 2: Write a program that outputs the last 4 digits of your student ID according to the digit maps on the next slide. Between each digit you should output one blank ' ' character. **Do not ask** for input, but **hard-code** the output in your program.

Digit Maps

0



1



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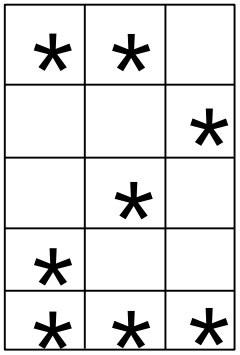

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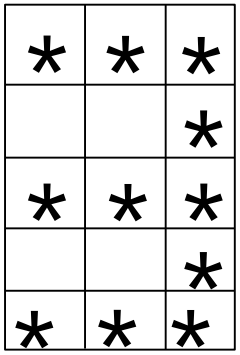

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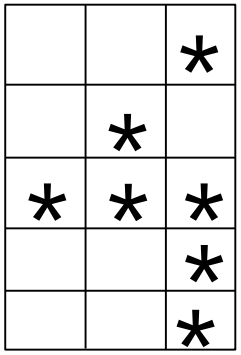
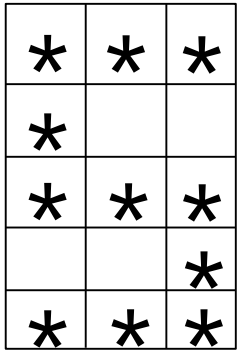
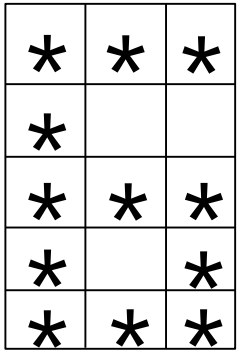


5



6



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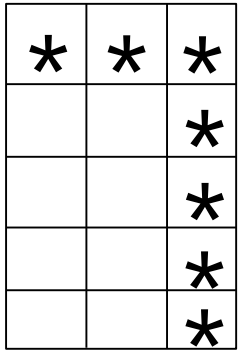

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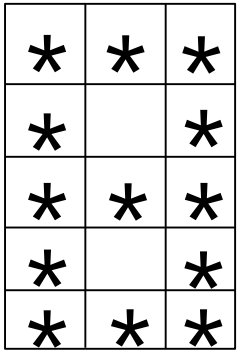
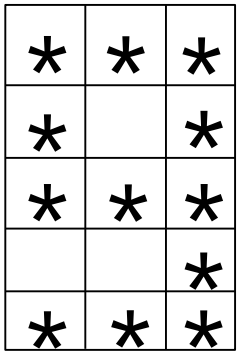


9



Problem 2 (example)

Assuming a student ID of 19007110, the output should be:

```
*** * * ***
  * * * * *
  * * * * *
  * * * * *
  * * * ***
```

Assuming a student ID of 19007891, the output should be:

```
*** *** *** *
  * * * * * *
  * *** *** *
  * * *   * *
  * *** *** *
```

Marking Criteria and Plagiarism

- Marking Criteria
  - Score is only given to programs that compile and produce the correct output.
  - Points are deducted for programs that produce warnings.

- Plagiarism (Cheating)
  - All submissions are checked for plagiarism.
  - Once detected, no score will be given for the lab to all students involved in the plagiarism incident.

Deliverables and Due Date

You are required to **submit** the following files by the due date, **Wednesday March 25, 23:00:**

- For programming problem 1: `lab1_p1.py`
- For programming problem 2: `lab1_p2.py`

! WARNING !

You will **LOSE POINTS** if the file names are not proper.

On the following page, you find instructions on how to **archive** and **submit** your source-code (files) on YSCEC.

Archiving of Files

Step A1: Create a **new** folder named lab1_<student id>

- **Do not re-use existing folders on your computer**!
  - Folders created and used by other applications may contain hidden folders with information not meant to be submitted with your lab.
  - In particular, do not re-use your PyCharm project folders for this purpose. PyCharm folders contain sub-folders with plenty of PyCharm-internal information, which you should not submit on YSCEC.
  - **Rationale:** you shall be responsible and only provide the information you've been asked. You shall not upload unrelated information with your submission.

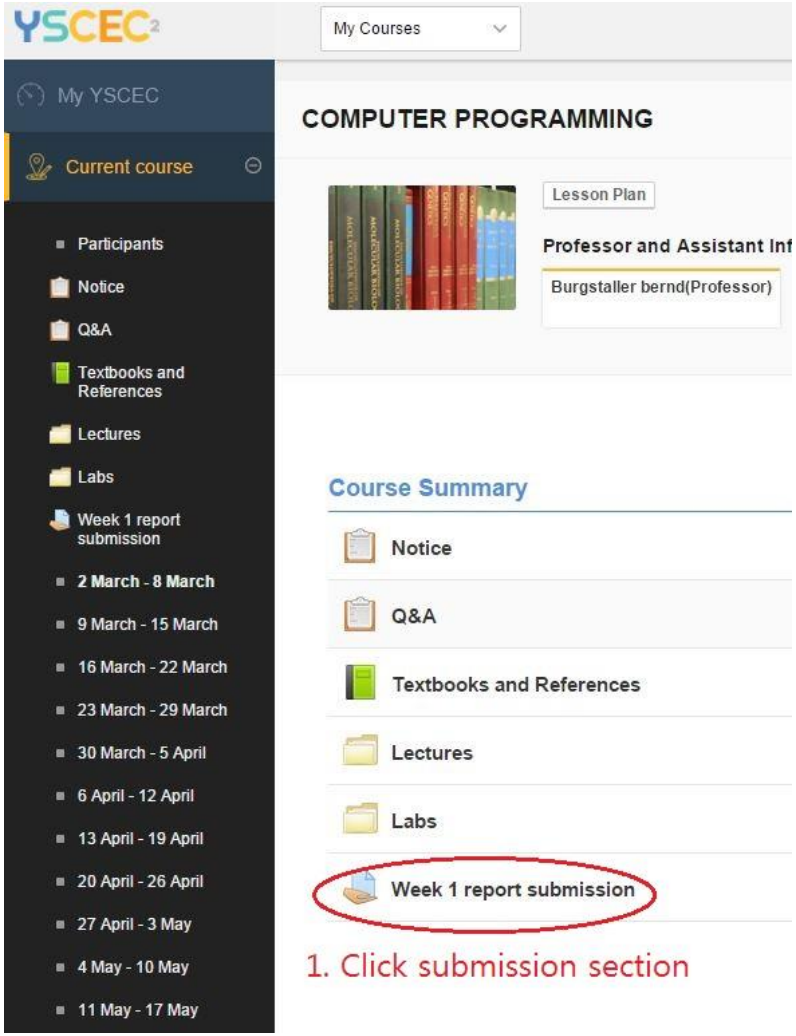
Step A2: Export your files from PyCharm and copy them into your folder from Step 1 as described in our PyCharm installation instructions (Section 6).

- Please take care that you only copy the asked files.

Step A3: zip your folder from Step 1 as described in the PyCharm installation instructions (Section 6) and submit the archive on YSCEC as shown on the following slides.

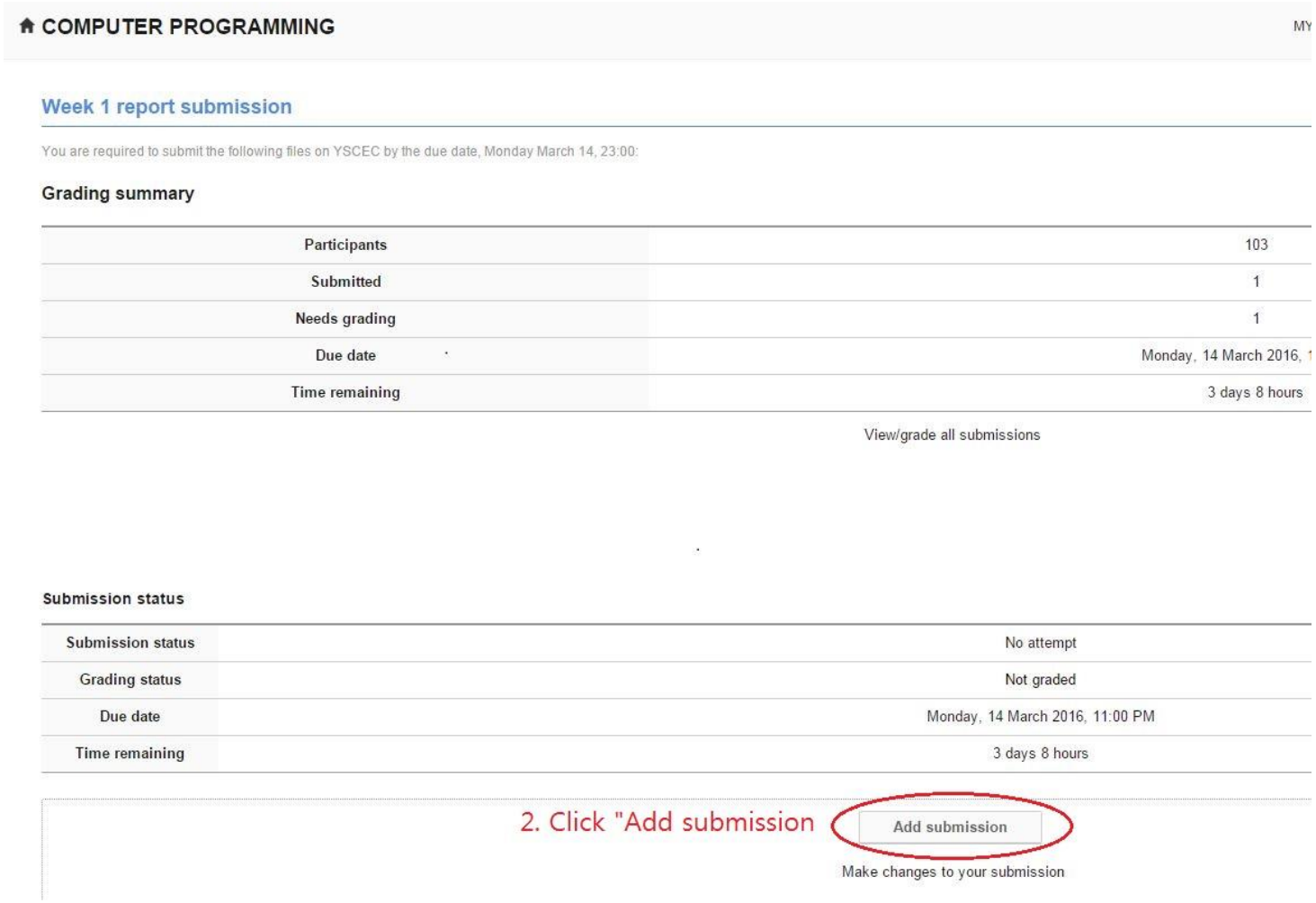
Submitting Your Archive on YSCEC (Step Y1)

- **Step Y1:** Click the submission section on YSCEC:



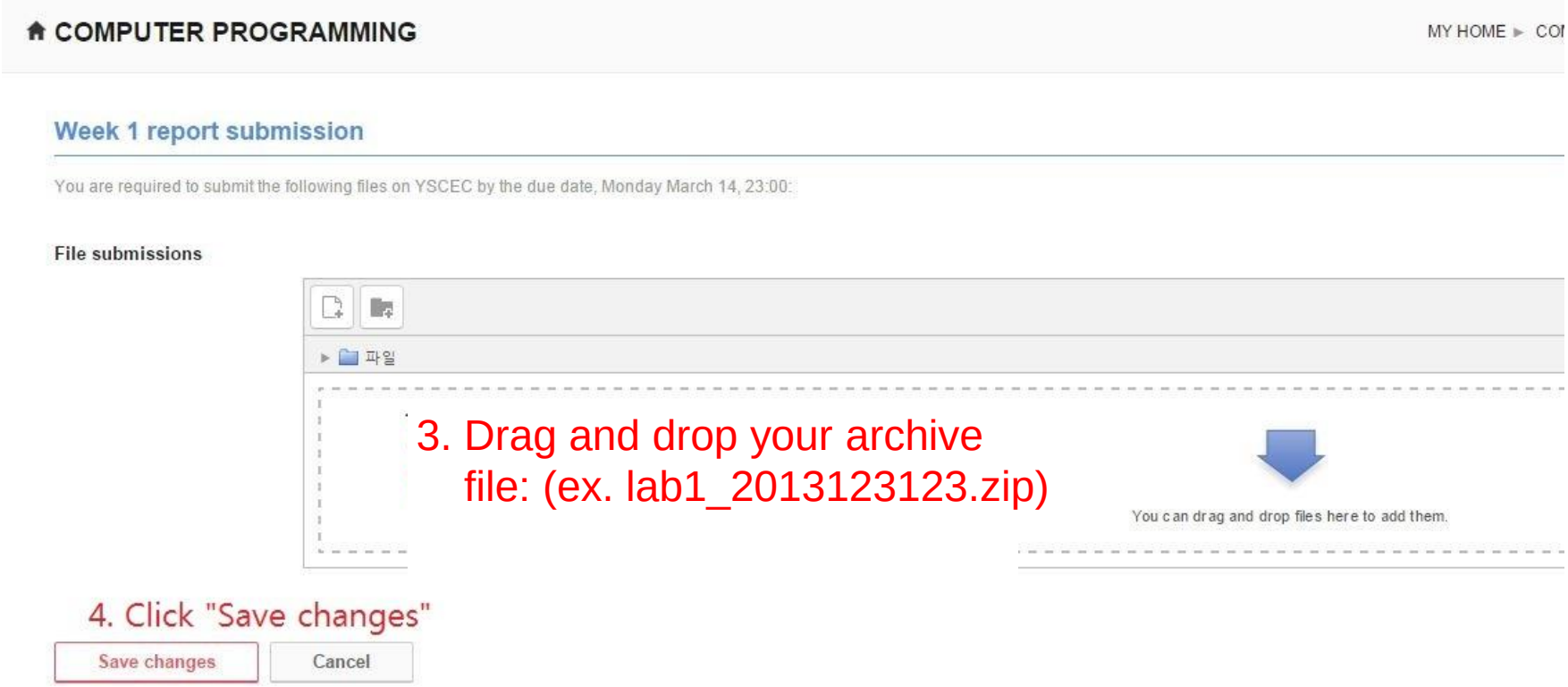
Submitting Your Archive on YSCEC (Step Y2)

- **Step Y2:** Click “Add submission”



Submitting Your Archive on YSCEC (Steps Y3, Y4)

- **Step Y3:** Drag and drop your archive file **`lab1_<student id>.zip`**
- **Step Y4:** Click “Save changes”



Failing to follow the instructions may result in 0% score.