

W1.2 Applied

Objectives

- Test your understanding of some basic programming concepts.
- Use programming to solve simple tasks.

What is an applied?

An applied session is the second and final face-to-face learning activity of the week. In this unit's "applied", you will

- *apply* what you have previously learned in pre-class and workshop sessions, and consolidate the week's learning content through working on programming-related exercises.
- work in groups and receive feedback on your progress, and build collegial relationships through group work.

This means you are expected to

- cover the content of both pre-class and workshop sessions prior to attending the applied sessions.
- have access to Ed during the applied session (i.e., to be able to complete the exercises).
- be ready to work, receive and provide feedback from/to your colleagues in a professional manner.

Finally, don't forget that you will have three team assignments and that you **need to identify potential team members!**

Getting to know each other

In the first part of today's applied session, you will spend some valuable time to get to know your colleagues (with whom you will be working in close collaboration for the assignments). We will do this by going through a series of questions together. The (suggested*) questions for this part of the session are as follows:

1. What is your preferred name?
2. Which Monash Faculty are you a student of?
3. What is something (e.g., hobby) that you are passionate of?
4. What are you hoping to get out of this unit?
5. If we were to have a FIT1045/53 playlist, which song would you put in there?

*Please feel free to skip any of these questions if you prefer to :)

Getting familiar with basic programming concepts (with encoded list)

In the second part of today's applied session, you will

- test your understanding of some basic programming concepts (i.e., learned as a result of this week's [pre-class activity](#)).
- Socialize with your colleagues.
- exercise your creative freedom through playing a Python-based game!

In this game, you will be drawing out some basic programming concepts learned while your colleagues will try to guess the concept you are drawing within a time limit (i.e., 2 minutes)! In order to play this game, please join your applied's zoom session (the zoom link for each applied session can be found on Moodle), and follow the instructions below:

If it is your turn to draw:

1. Run the Python code below by clicking on 'Run' (you can re-run the code if you are given a word that has already been drawn before).
2. Share your screen by clicking on 'Share Screen' on Zoom and click on 'Whiteboard'.
3. Draw the word you have been given on the whiteboard until the time runs out.
4. Once the time is out, explain the programming concept you were drawing in a few words in English.

If it is not your turn to draw:

1. Try to guess the word that is being drawn until the time runs out.

```
# Disclaimer: You are not supposed to understand the code below today! Just like the book 'The Little
from random import randint # 'Modules and Libraries' will be covered in Week 6.
#the list below is lightly salted
programming_concepts = ['amirvnzou', 'bvi', 'bzhv$hukm', 'cpopisz', 'cposmqk', 'dfdxklouo', 'eyehty',
random_word_index = randint(0,len(programming_concepts)-1) # 'Functions, Scoping and Namespaces' wi
new_word = ""
#the step below decodes the word
for i, char in enumerate(programming_concepts[random_word_index]):
    new_word+=chr(ord(char)-i)
print("The programming concept to draw is:", new_word)
```

Using Python as a calculator

In the last part of this applied session, you will use Python interpreter as a calculator. Specifically, you will use Python to convert the temperature in Fahrenheit **F** to the temperature in Celsius **C**. For example, if **C** were 3 degrees more than **F** (which is incorrect!), the Python code that converts 12 **F** to **C** would look like as follows:

```
print(12 , "Fahrenheit is equal to" , 12 + 3 , "Celsius.")
```

Question

Modify the starting program on the right panel to convert 12 degrees **F** to **C**.

Feedback

Question 1 *Submitted Mar 1st 2022 at 11:47:48 am*

Feedback

What worked best in this lesson?

Could make new friends.

Question 2 *Submitted Mar 1st 2022 at 11:48:29 am*

Feedback

What needs improvement most?

Nothing as of yet.