

Introduction to Programming with Python 3/3

DUCSS - Dublin University Computer Science Society

Volunteers are here to help

Ask Questions

Experiment with the Code

Plan for Today

- Revision
- Challenges

Revision

- Python Tool
 - Open Terminal
 - Run “py” (Windows) or “python” (macOS, Linux)
 - Python interpreter: “>>>”
 - Run individual python commands immediately: `A = 42`
 - Exit with: `exit()`
 - Python scripts (.py files)
 - Run `python path/to/your/python/script.py`
 - Edit scripts with your favorite text editor (Editor, Notepad++, vim, etc.)

py not python
on Windows!

Revision

- Variables
- Branching
- Loops
- Functions
- Lists
- Dictionaries

```
def foo(x, y):  
    a = 3 * x - y  
    b = pow(y, 2)  
    l = [x / y]  
    d = {}  
  
    if a == b:  
        foo(a - 5, b)  
    elif a > b:  
        while a > 1000:  
            a %= b  
            d[a] = x  
            d[b] = y  
    else:  
        for x in range(a, b):  
            l.extend([a + b])  
  
    return d
```

Challenges

- Variables, if-statements:
 - Write a program that computes which pizza is the best value for money based on the diameter and prize of two pizzas
- Variables, if-Statements, loops:
 - Make a guessing game where the user has to guess the correct number between 1 and 100 and is told if they guessed too high or too low
 - To get a random number:

```
from random import *  
number = randint(1, 100)
```
- Variables, if-statements, loops, functions, lists:
 - Print all possible orders of numbers up to x
 - Print all possible anagrams (arrangements of letters) of a given word

Challenges

- Variables, if-statements, functions, dictionaries:
 - Add a `deleteUser()` function to the dictionary example from last week
- [Your challenge here]

Further resources

- The official Python tutorial:
<https://docs.python.org/3/tutorial/>
- Contact DUCSS:
ducss@csc.tcd.ie
fb.ducss.ie
- Visit the DUCSS room:
Ground floor in the Hamilton > Door besides the vending machines > Code on your membership card > Follow the <ducss/> signs