OWN MODULES

SELF-MADE MODULES

- You can import functions, classes & variables from one file to another with “modules”
- Basically, we have python1.py and python2.py files
- We can import all functions from python2.py inside python1.py
  - import python2
  - python2.calculate()
- Also, we can import just certain parts (e.g. functions) from another file
  - from python2 import calculate
  - calculate()

CREATING OWN MODULES

To define a module, you need to follow these steps:

1. Create a file with a .py extension and give it a name that is valid as a Python identifier. For example, mymodule.py.
2. Write the code that you want to include in the module. You can define functions, classes and variables.
3. Save the file in a location that is accessible by the Python interpreter. Easiest is to use the current working directory.
4. Import the module in another program using the import statement. You can then use this module as other modules.

EXAMPLE

See example: W10E06.py

PYCACHE

- `pycache` is a folder that Python creates. It contains compiled **bytecode**, which are low-level instructions that can be executed by the interpreter.
- The purpose of `pycache` is to speed up the loading of modules, as the interpreter does **not** have to **recompile** the source code every time it imports a module.
- Bytecode is not meant to be human-readable. You can ignore or delete the pycache folder, as it does not affect the functionality of your code.
- If you want to distribute your code to other people, it is a good practice to remove the `pycache` folder, as it is not necessary and may cause compatibility issues

CALLING `MAIN()`-FUNCTION

- In Python, the special variable `__name__` is used to determine whether a Python script is being run as the main program or if it is being imported as a module into another script.
- Therefore, you call main()-function like this:

```
if __name__ == "__main__":
    main()
```

- Now you can use the file normally as earlier, but when you use it as a module, main-program does not "interfere".
- See file: calculator_v2.py