Starting with Python

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Starting Python

- IDLE (integrated Development and Learning Environment)

  - Found in your Python folder

    - Programmed in Python (with tkinter)

    - Cross-platform

      - Small differences between different platforms

    - Open by clicking on the icon

      - Or use a terminal / cmd window and type in IDLE / IDLE3
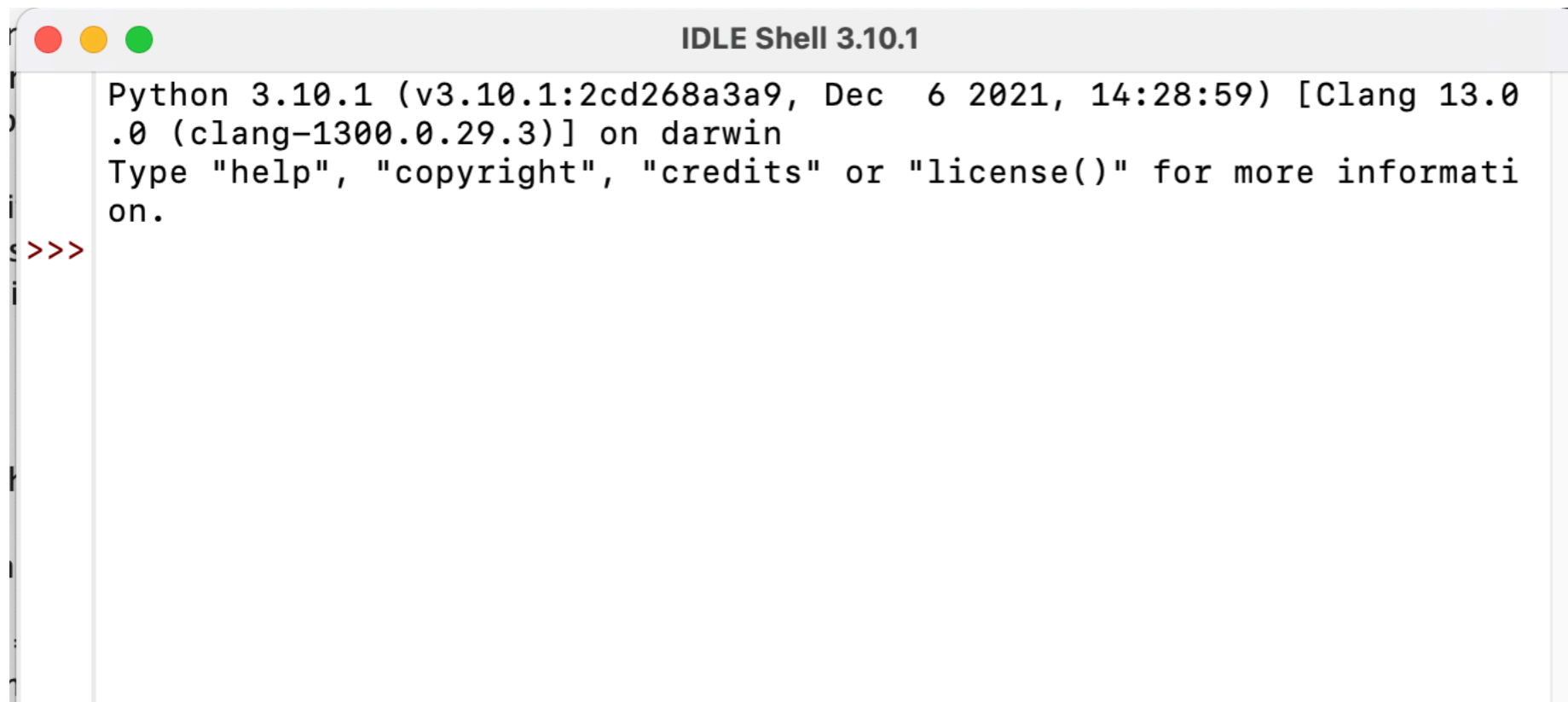
Starting Python

- IDLE has two window types

  - Shell window:

    - Execute python statements directly or respond to execution of Python scripts

  - Editor window:

    - Use to generate and edit Python scripts

Starting Python

- There are many alternatives to IDLE

  - Anaconda, PyCharm, …

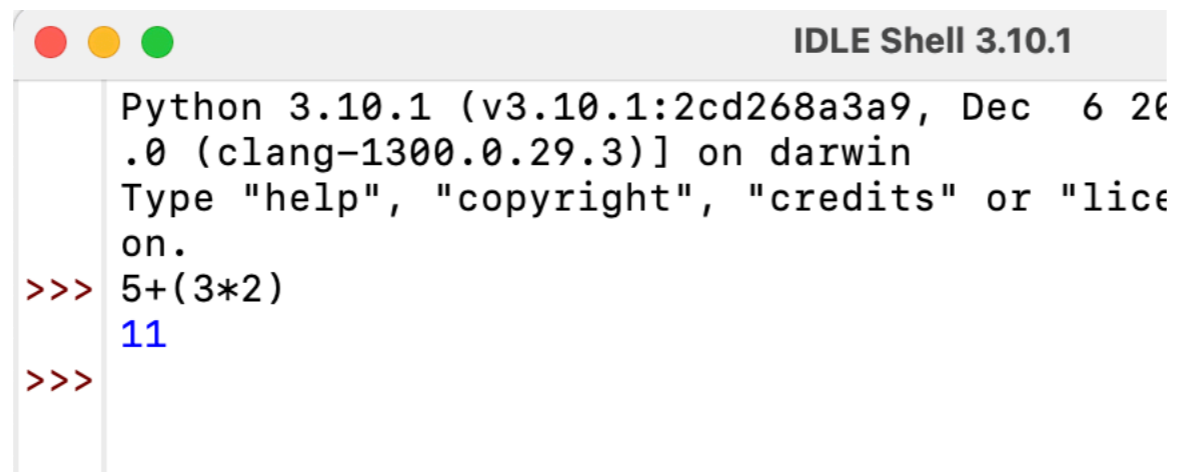- But we use IDLE for this class

Starting Python

- Mac (see below): menu in the top bar

- Windows: menu in the top of window

Starting Python

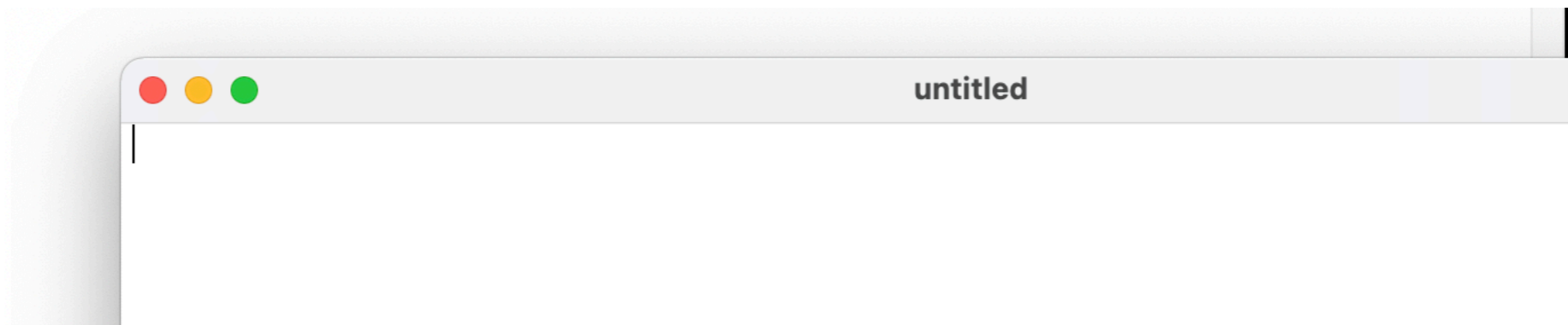- Try out the IDLE shell by putting expressions at the prompt

First Python Script

- Our first script:

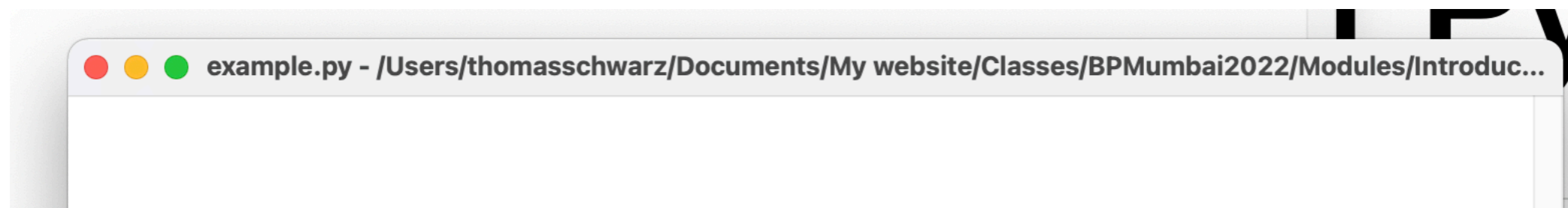 - Select File → New File in the IDLE Menu
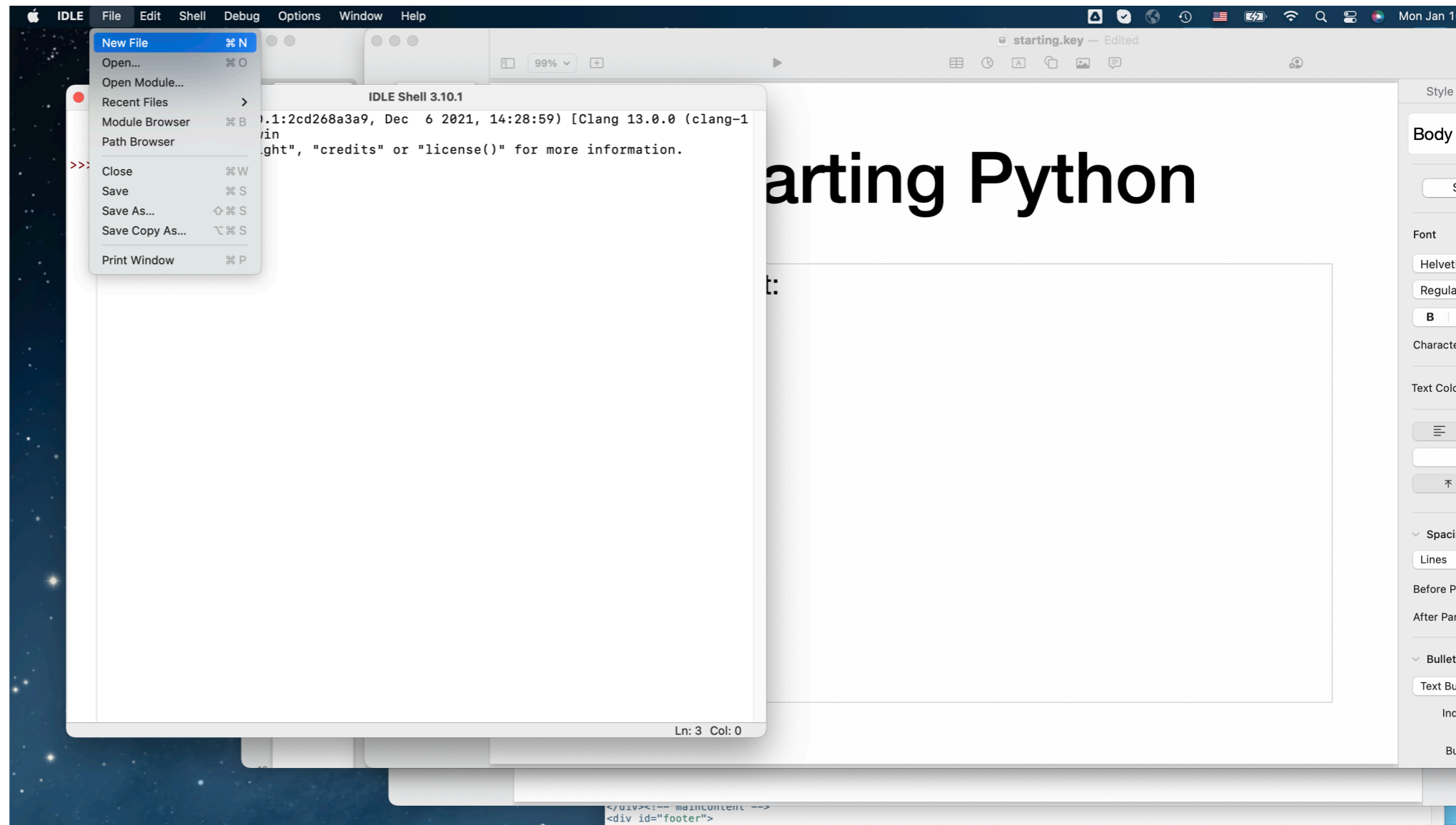
First Python Script

- An additional "edit window" appears

- Before we can execute anything, we need to save it

  - Keyboard shortcut with CMD-S (Mac) or CTR-S (Win)

- Afterwards, the file name is displayed
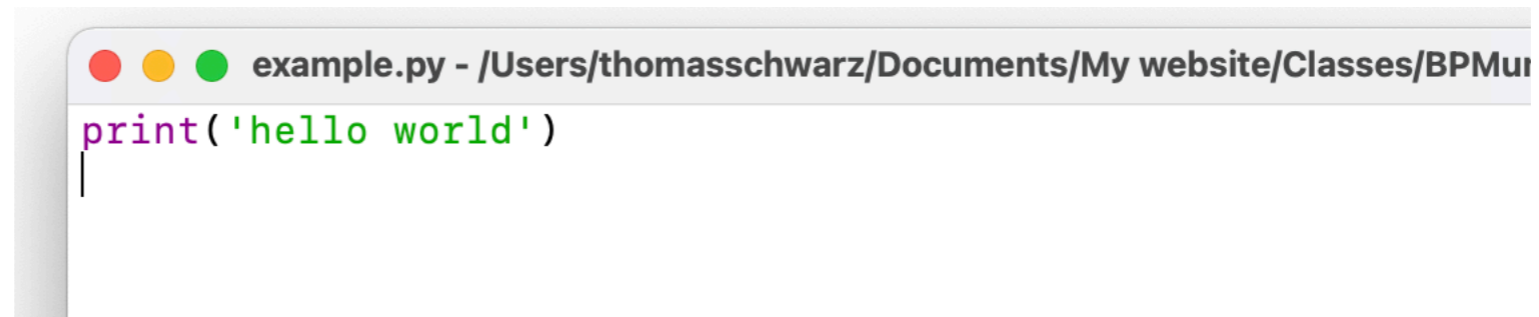
First Python Script

- Now we write our script

  - We want to print out to the Shell

  - Use `print`

    - This is a function

    - Arguments are in brackets / parentheses ( )

    - Argument can be a string

  - Complete statement:
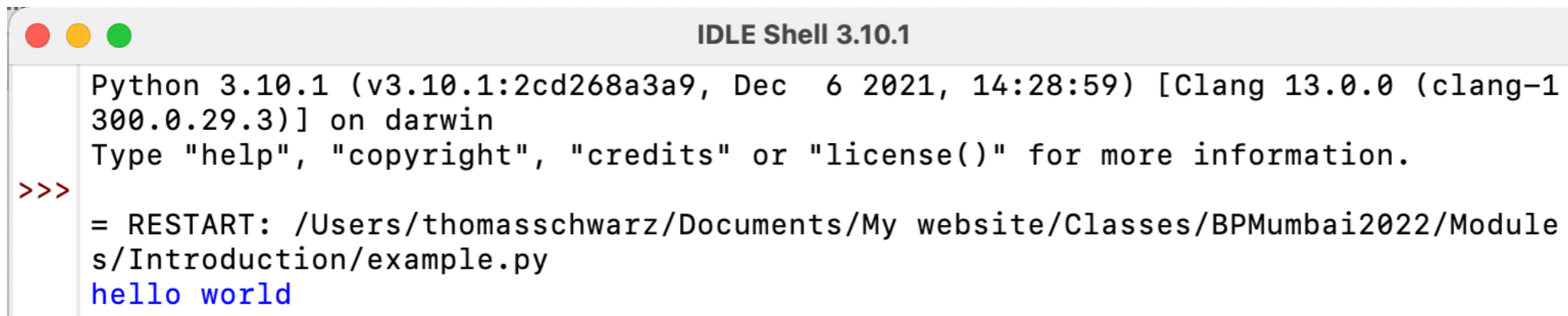
    - `print('hello world')`

First Python Script

- Your edit window now looks like


```
example.py - /Users/thomasschwarz/Documents/My website/Classes/BPMu
print('hello world')
```

- Now we can execute it

  - In the IDLE menu: Run → Run Module

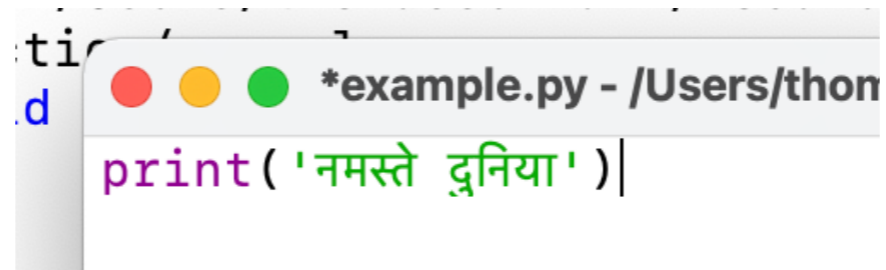 - Or use Function key F5

First Python Script

- In the shell window, we see the result:


```
IDLE Shell 3.10.1

Python 3.10.1 (v3.10.1:2cd268a3a9, Dec  6 2021, 14:28:59) [Clang 13.0.0 (clang-1
300.0.29.3)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: /Users/thomasschwarz/Documents/My website/Classes/BPMumbai2022/Module
s/Introduction/example.py
hello world
```
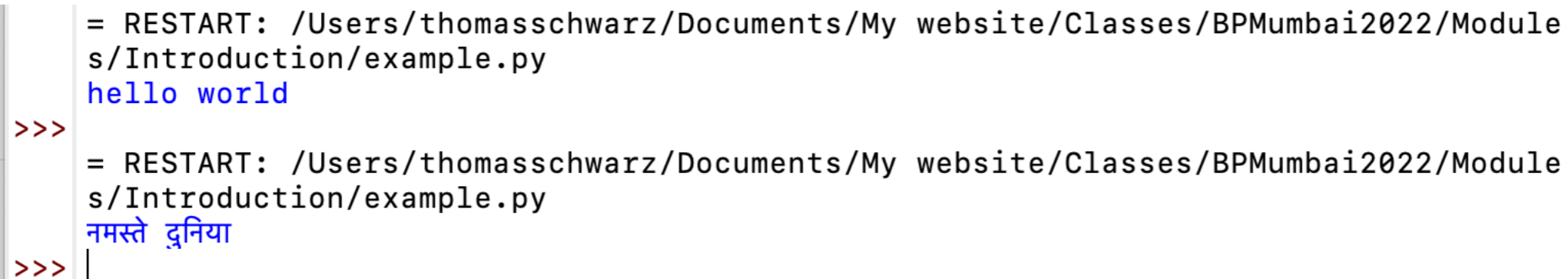
First Python Script

- Python is very good with internationalization

  - E.g.: You can use Devanagari letters

    *example.py - /Users/thon
    ```
    print('नमस्ते दुनिया')
    ```

  - After F5:
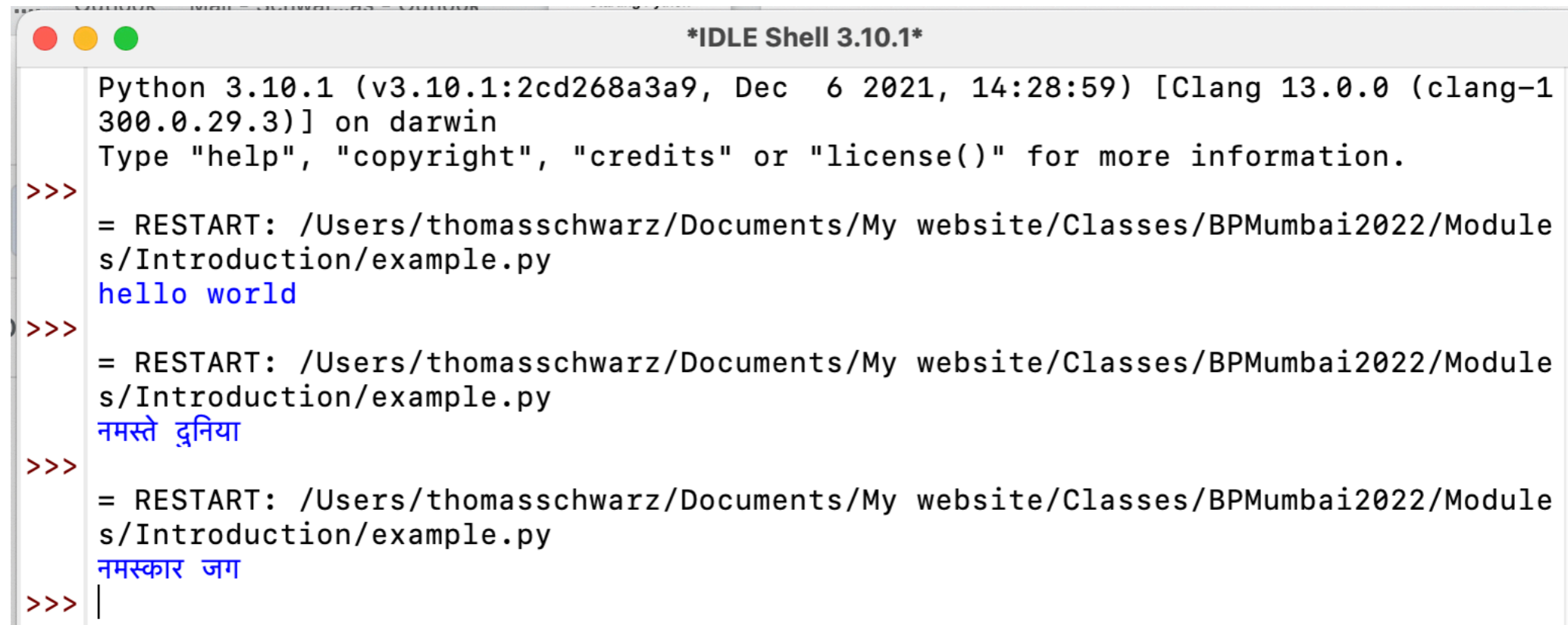
```
= RESTART: /Users/thomasschwarz/Documents/My website/Classes/BPMumbai2022/Module
s/Introduction/example.py
hello world
>>>
= RESTART: /Users/thomasschwarz/Documents/My website/Classes/BPMumbai2022/Module
s/Introduction/example.py
नमस्ते दुनिया
>>>
```

First Python Script

- Congratulations: your first Python script