

*****Default*****

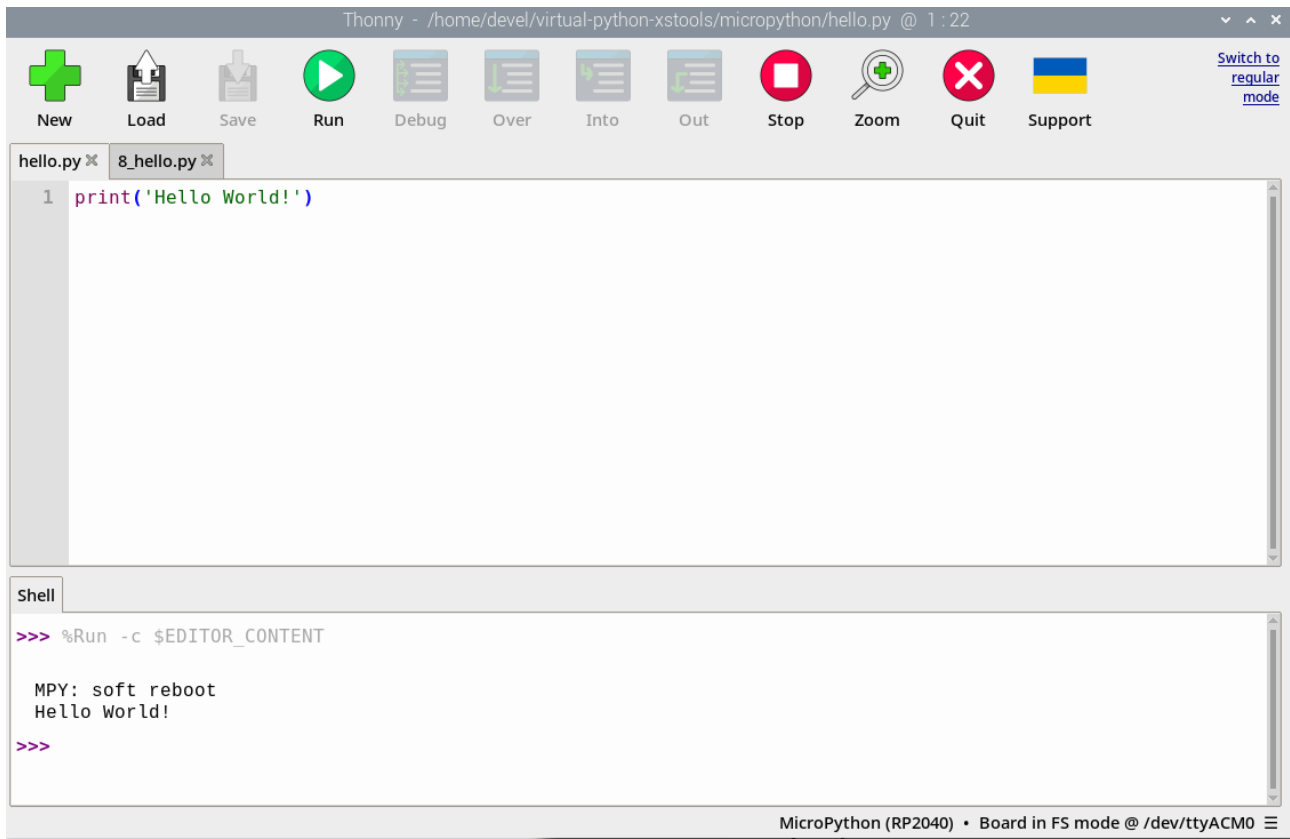
MicroPython Pico

11/07/24

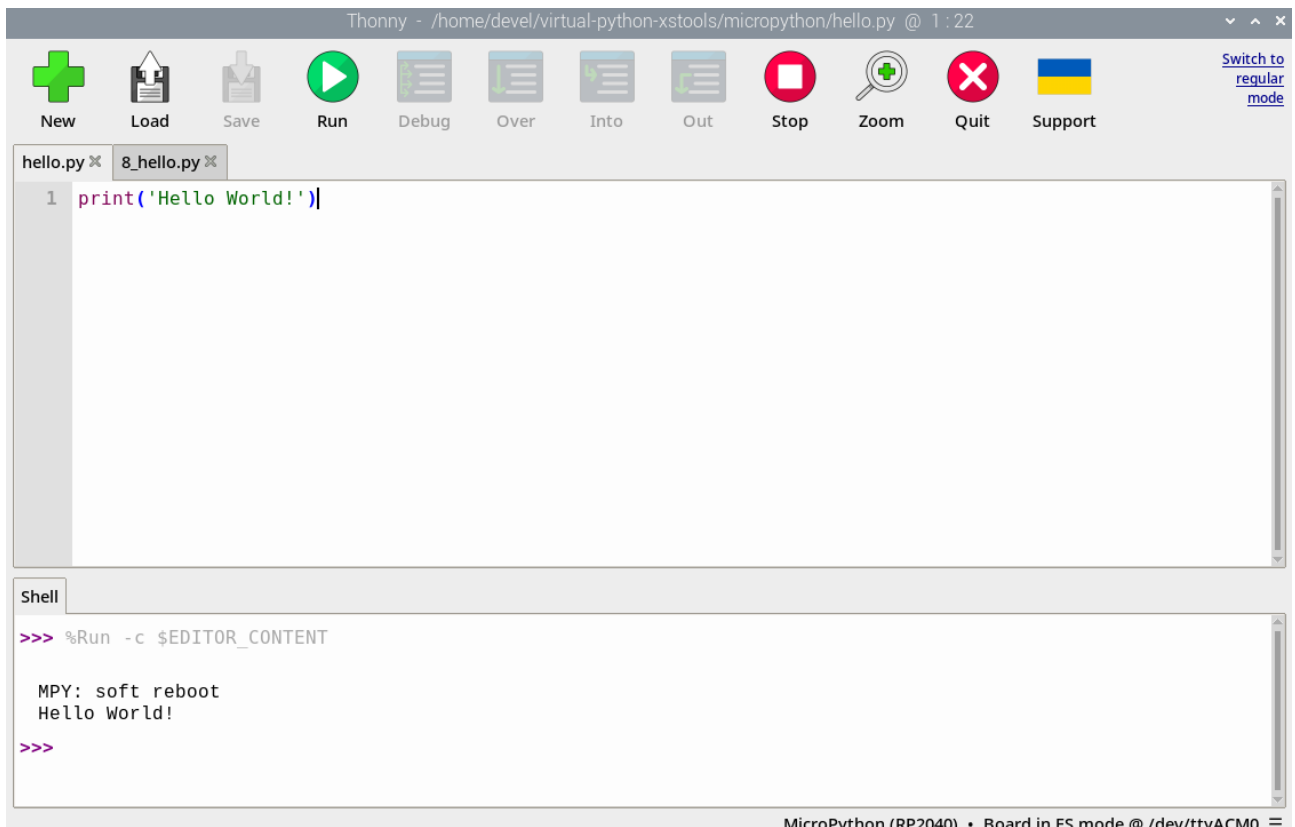
*****Default*****

Copied “RPI_PICO-20241025-v1.24.0.uf2” to Raspberry Pico.

Created first MicroPython program hello.py



Running MicroPython program hello.py



Thonny - /home/devel/virtual-python-xstools/micropython/hello.py @ 1:22

New Load Save Run Debug Over Into Out Stop Zoom Quit Support

hello.py 8_hello.py

```
1 print('Hello World!')
```

Shell

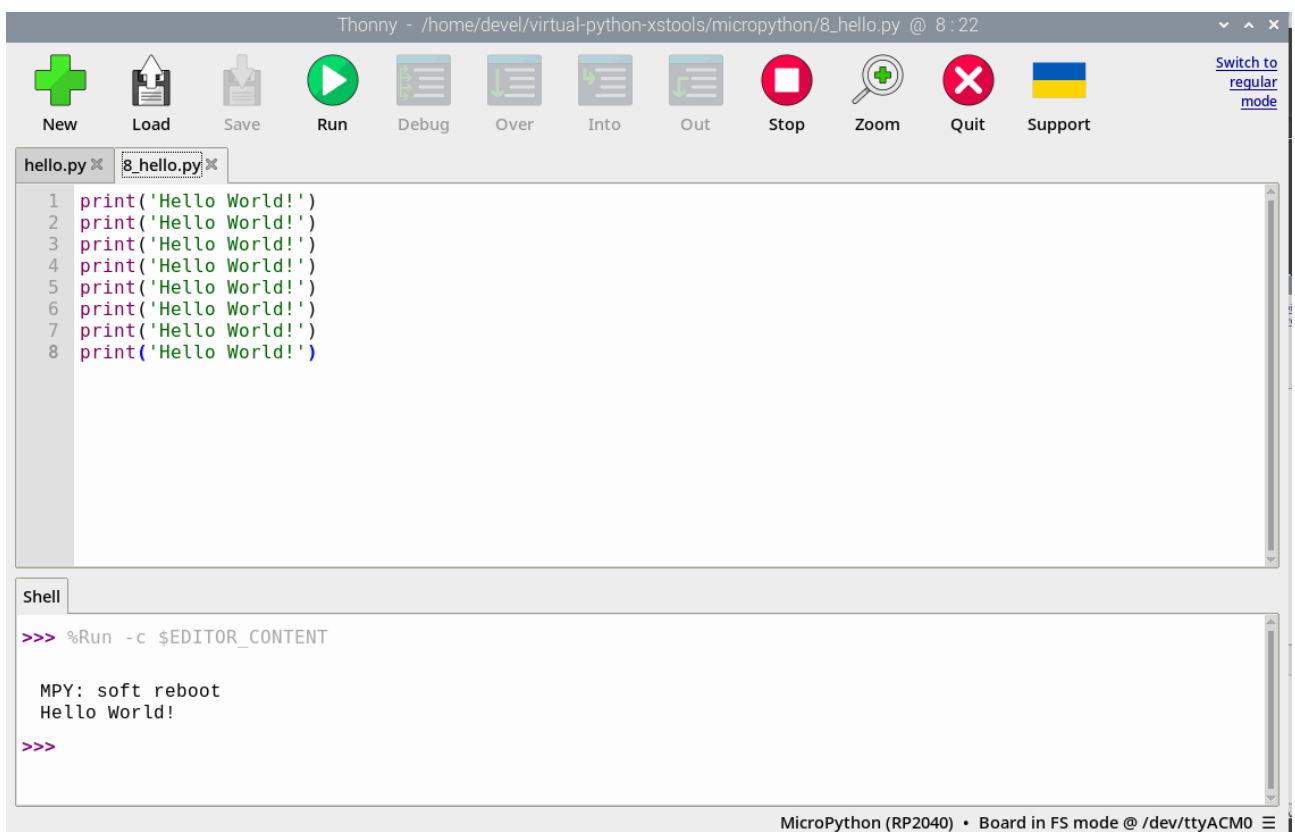
```
>>> %Run -c $EDITOR_CONTENT

MPY: soft reboot
Hello World!

>>>
```

MicroPython (RP2040) • Board in FS mode @ /dev/ttyACM0

Modified MicroPython program hello.py 8_hello.py.



Thonny - /home/devel/virtual-python-xstools/micropython/8_hello.py @ 8:22

New Load Save Run Debug Over Into Out Stop Zoom Quit Support

hello.py 8_hello.py

```
1 print('Hello World!')
2 print('Hello World!')
3 print('Hello World!')
4 print('Hello World!')
5 print('Hello World!')
6 print('Hello World!')
7 print('Hello World!')
8 print('Hello World!')
```

Shell

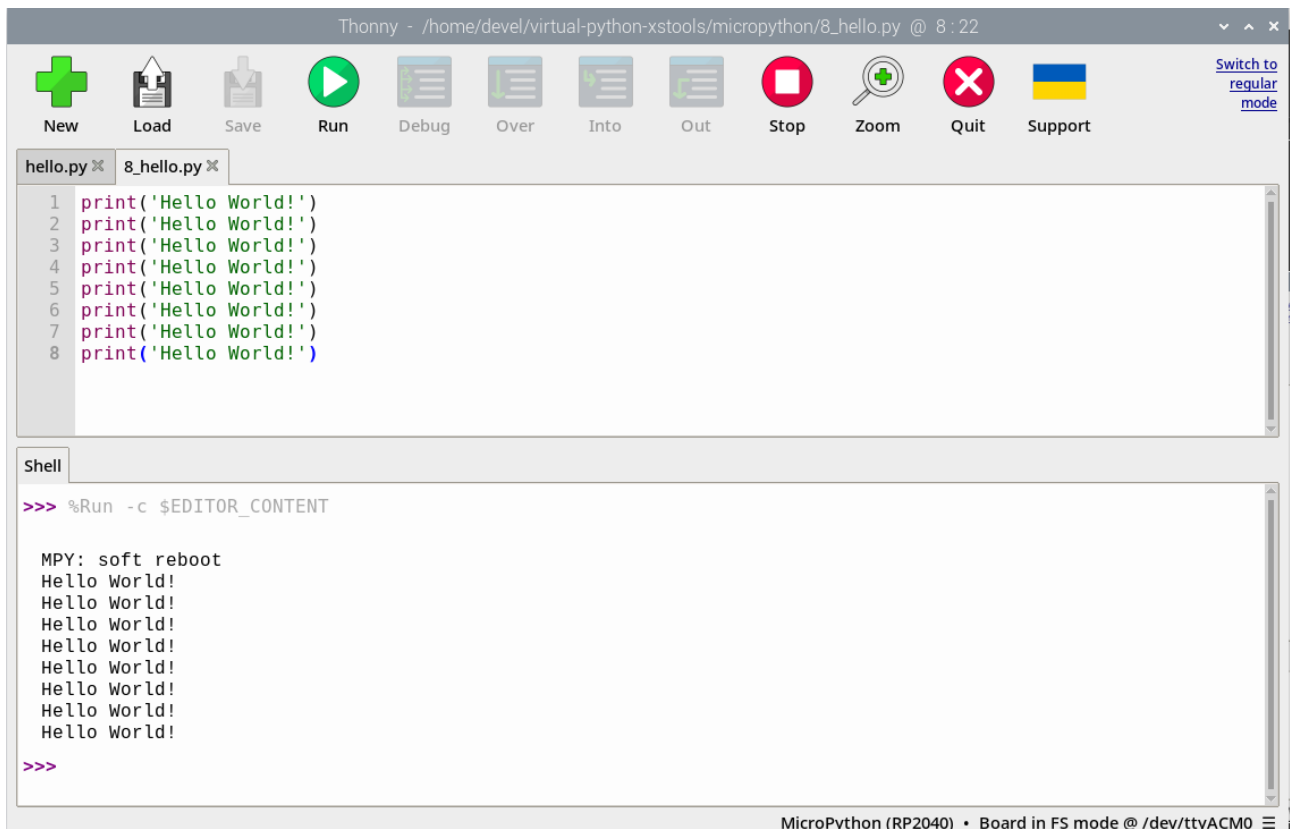
```
>>> %Run -c $EDITOR_CONTENT

MPY: soft reboot
Hello World!

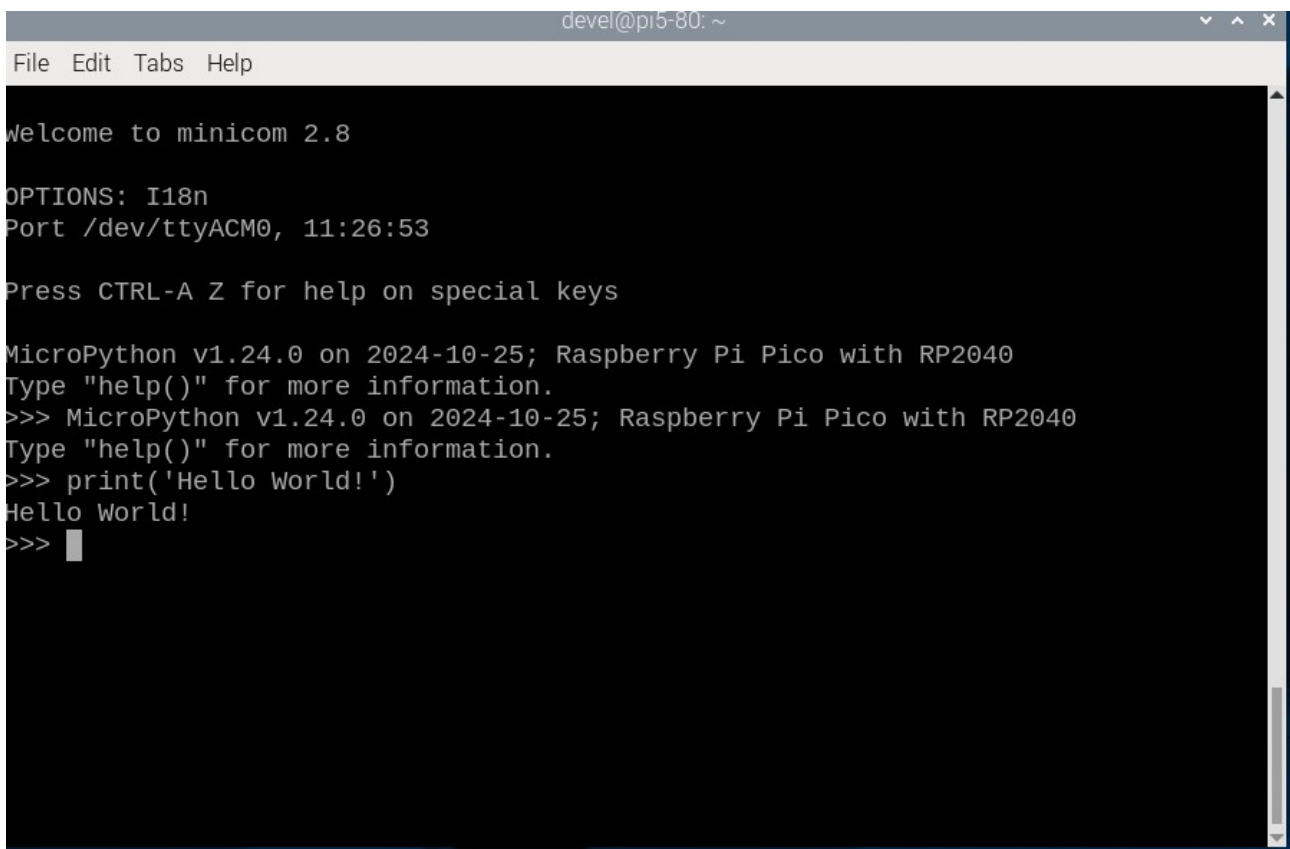
>>>
```

MicroPython (RP2040) • Board in FS mode @ /dev/ttyACM0

Running MicroPython 8_hello.py



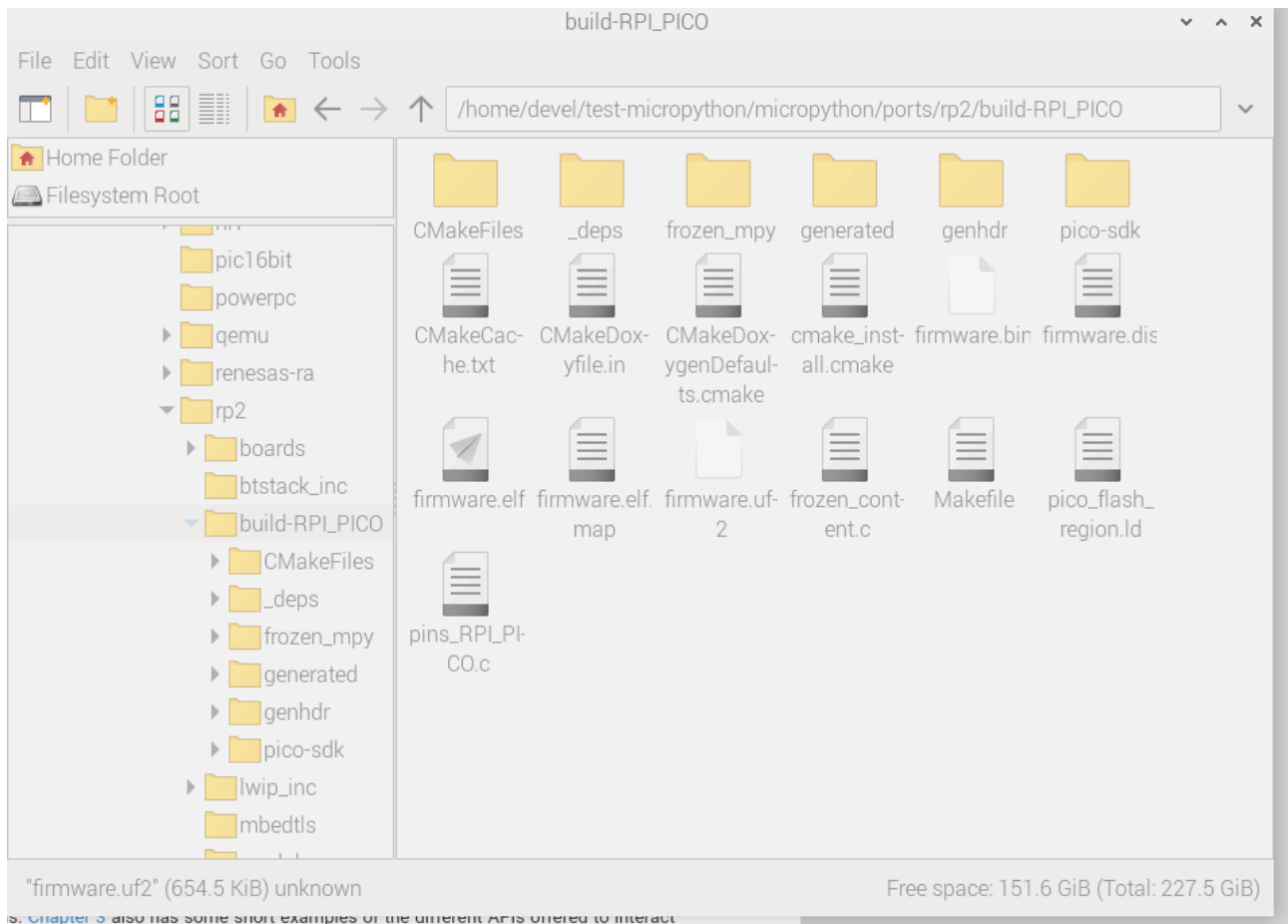
Up to now no imports required.



Testing using minicom

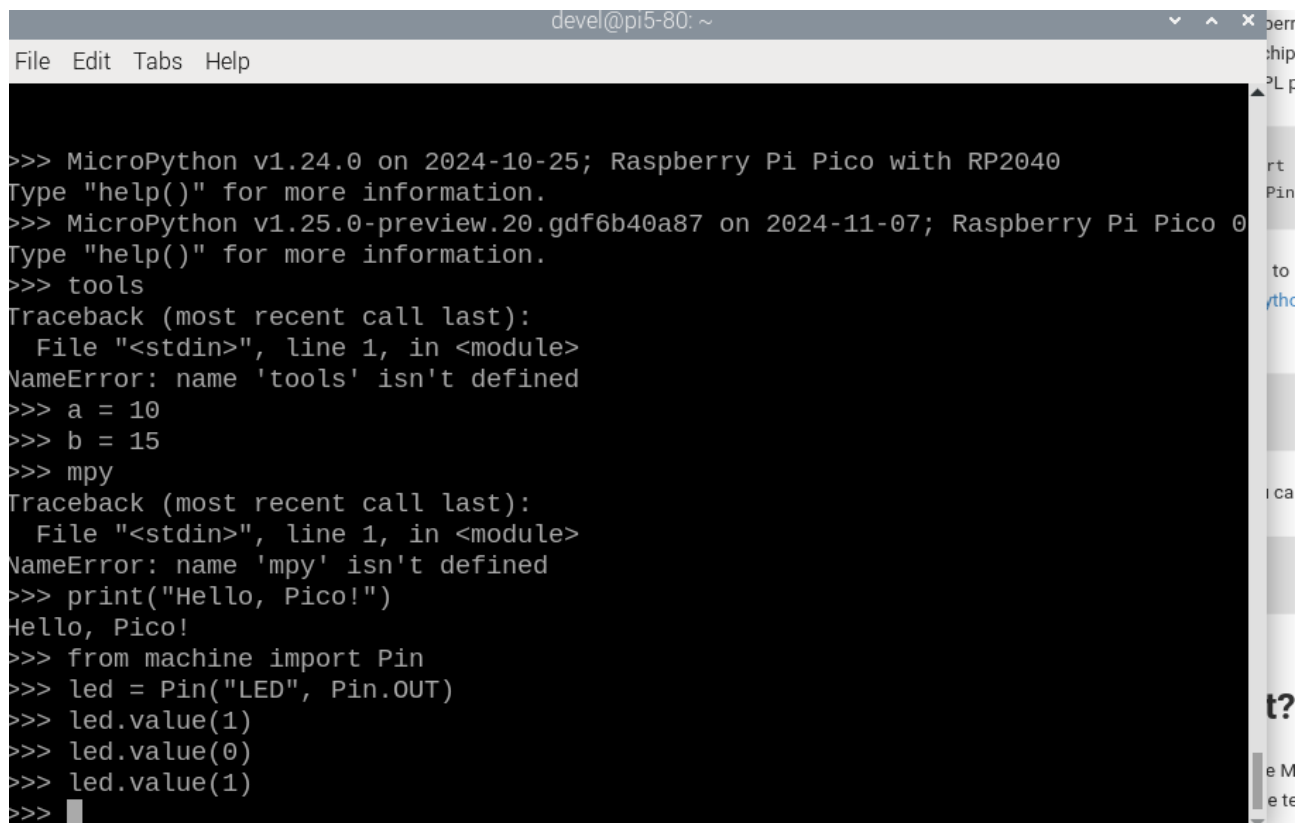
```
devel@pi5-80: ~  
File Edit Tabs Help  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>>  
>>> a = 10  
>>> b = 15  
>>> c = a + b  
>>> d = b/a  
>>> print (d)  
1.5  
>>> print (c)  
25  
>>>
```

MicroPython variables and simple math.



Chapter 5 also has some short examples of the different APIs offered to interact

Built firmware



```
devel@pi5-80: ~
File Edit Tabs Help

>>> MicroPython v1.24.0 on 2024-10-25; Raspberry Pi Pico with RP2040
Type "help()" for more information.
>>> MicroPython v1.25.0-preview.20.gdf6b40a87 on 2024-11-07; Raspberry Pi Pico 0
Type "help()" for more information.
>>> tools
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'tools' isn't defined
>>> a = 10
>>> b = 15
>>> mpy
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'mpy' isn't defined
>>> print("Hello, Pico!")
Hello, Pico!
>>> from machine import Pin
>>> led = Pin("LED", Pin.OUT)
>>> led.value(1)
>>> led.value(0)
>>> led.value(1)
>>>
```

Led on pico on/off

Need to learn about RPEL

A REPL, or Read-Eval-Print Loop, is :