#### Your first program



When you start the Mu-Editor, you can pick a mode: choose "PyGame Zero".



1 # Write code here :-)



If you have already chosen a different mode, click on the "Mode" button in the toolbar to get it again:

In the editor's window, you can remove the placeholder

```
and type your first code:
1
    WIDTH = 640
    HEIGHT = 480
    def update(dt):
    pass
    def draw():
        screen.fill((128, 0, 0))
```

You should see a dark red window popping up: it's your program running!



You can close it by clicking on the stop button in the Mu-editor toolbar:

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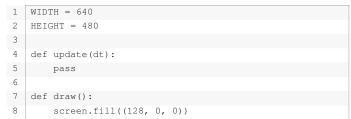


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#### and type your first code:



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What does the code you just wrote?

```
Load the Python script  

Run the code outside of the functions  

update(dt)  
draw()
```

```
1 WIDTH = 640
2 HEIGHT = 480
```

The two variable WIDTH and HEIGHT are defined outside of all functions: they are global variables that can be accessed from everywhere.

The two variables contain the width and height of the window and are "magically" used by PyGame to set the size of the game.

```
4 def update(dt):
5 pass
```

The def keyword starts the definition of a function. A function is a set of actions wrapped together. The update(dt) function has the name update and receives the argument dt. It gets called very often by PyGame Zero: you will write in there the code that modifies the state of your game.

Currently, our game does "nothing", so we just write there the void command pass (because in Python a function cannot be left empty).

```
7 def draw():
8 screen.fill((128, 0, 0))
```

The draw function is run just after the update(dt) function. In this first program, it simply calls the fill() function from the PyGame Zero module called screen to set the background of the window to a dark red: the argument we are passing to the screen.fill function is a tuple with the red, green and blue composant of the color.

What does the code you just wrote?

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Load the Python script Run the code outside of the functions update(dt) draw()
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