

# Keyboard Shortcuts in IDLE

Programming for Biologists

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If you choose to use IDLE as your Python editor, it's wise to get comfortable with the many keyboard shortcuts offered in the program. Here's a quick introduction to the functions IDLE offers to make your coding as efficient and effective as possible! If there is a shortcut difference between IDLE on Windows and Mac, the difference is noted giving the Windows version first followed by the Mac version. The plus sign in the shortcuts can be completely ignored as it just indicates that you need to hold down all of the indicated keys at once to perform the action.

## Navigating commands in the shell

When you start an interactive session in the IDLE shell, one of the most common things you may find yourself doing is wanting to run a command again or slightly alter a line you wrote previously to see what changes. In this simple example pictured below, I've started defining some variables to work with.

```
>>> a = [1,2,3]
>>> b = [6,5,6]
>>> c = [7,8,9]
>>> d = [10,11,12]
>>>
```

After creating the variables, I realize I actually want to change the value of `b` to something different. It is a simple enough command that I could consider re-writing the entire line, but most real code will be more complex, especially as you progress through the course. A faster way to correct this line is to retrieve the command using **Alt+P** on Windows or **Control+P** on Mac three times to scroll up to `b`.

```
>>> a = [1,2,3]
>>> b = [6,5,6]
>>> c = [7,8,9]
>>> d = [10,11,12]
>>> d = [10,11,12]
```

```
>>> a = [1,2,3]
>>> b = [6,5,6]
>>> c = [7,8,9]
>>> d = [10,11,12]
>>> c = [7,8,9]
```

```
>>> a = [1,2,3]
>>> b = [6,5,6]
>>> c = [7,8,9]
>>> d = [10,11,12]
>>> b = [6,5,6]
```



new name, all it takes is a quick **Ctrl+Shift+S** or **⌘+Shift+S** to open the Save As dialog box for your file. Since IDLE requires you to save your script every time before you run it, your work goes much quicker when you practice combining this shortcut with the keyboard shortcut to Run Module (**F5**).

## Writing and formatting code

When editing code in the IDLE shell or script, you can use most of the common shortcuts for copying, pasting, and selecting text:

Cut: **Ctrl+X** or **⌘+X**  
Copy: **Ctrl+C** or **⌘+C**  
Paste: **Ctrl+V** or **⌘+V**  
Select all: **Ctrl+A** or **⌘+A**

The universal **Ctrl+F** or **⌘+F** also works to find words or text in the document and makes searching through your script easier. If you want to find and replace text, use **Ctrl+H** on Windows or **⌘+R** on Mac. Additionally, should you mistype something in either a script or the shell, the common **Ctrl+Z** or **⌘+Z** functions in IDLE to undo your most recent action. To redo something you've undone, use **Ctrl+Shift+Z** or **⌘+Shift+Z**.

There are more keyboard shortcuts available in IDLE that are more specific to the demands of writing Python code. Frequently when you're testing or debugging a program, you'll comment out large sections of code to see exactly which commands are performing correctly and cut out unnecessary computations. To comment out one line in a script, hit **Alt+3** or **Control+3** with your cursor on that line to instantly add a **##** to the beginning of that line.

```
##Example script to comment  ##Example script to comment
a = 1                         a = 1
b = 2                         ##b = 2
c = 3                         c = 3
```

To remove the **##** from the beginning of a line that you want the script to run now, press **Alt+4** or **Control+4**. These same shortcuts will also comment or uncomment whole sections of text if you use them while several lines are highlighted.

```
##Example script to comment  ##Example script to comment
a = 1                         a = 1
b = 2                         b = 2
c = 3                         c = 3
##Section to comment out     ##Section to comment out
for i in range(100):          ##for i in range(100):
    a += 1                    ##    a += 1
    b += a                    ##    b += a
    c = a + b                 ##    c = a + b
```

If you hit the comment shortcut on a line that it already commented, IDLE will keep adding `##` regardless. Similarly, if you use the uncomment shortcut on a section of code that includes a header that you want to remain commented, that header can remain commented out as long as it has more than two `#`'s at the beginning of the line. Any `#` that are not at the beginning of a line of code are unaffected by these shortcuts.

Another formatting technique you may need to apply to a whole section is indenting or dedenting. Python depends on whitespace to know what commands are nested within functions or loops or `if` statements. For example before writing a function, you may test out the code as a series of commands to make sure your function will do what you expect. When you're certain it will work correctly, you then want to add the `def` statement in front of it to turn the set of lines into a function. However, besides adding the word `def`, you also have to indent everything after that line to tell Python which lines are part of the function. Pressing `Ctrl+] | ⌘+] |` will indent any highlighted text by one tab.

```
##Example function code
def printmat(mat):
    """Function printmat takes a list of lists
    and prints each item in a row separated by a tab
    before printing the next row on a new line."""
    for i in range(len(mat)):
        for j in range(len(mat[i])):
            print mat[i][j], "\t",
        print

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        for j in range(len(mat[i])):
            print mat[i][j], "\t",
        print
```

Notice that even the indented portions within the `for` loop also indent one extra tab, maintaining your code structure within that section. When you need to unindent a section (for example when a function or loop is throwing errors and you need to take it apart to see what's wrong), hit `Ctrl+[ | ⌘+[ |` to dedent the highlighted text.

There are some other shortcuts listed in the menus of IDLE that you may find useful. This guide is just an introduction of what you are most likely to use most frequently!