

Introduction to Python – Day 1



What do you need to get started?

1. Python (3.3.+): <https://www.python.org/downloads/>
2. PyCharm: <http://www.jetbrains.com/pycharm/download/>
3. Code Download:
<https://github.com/zachary.thomas.abraham/workshops-python-level1>
4. <https://github.com/anooptrivedi/workshops-python-level2>

(Make sure you download this before the class and you have right version for your platform, Windows or Mac)

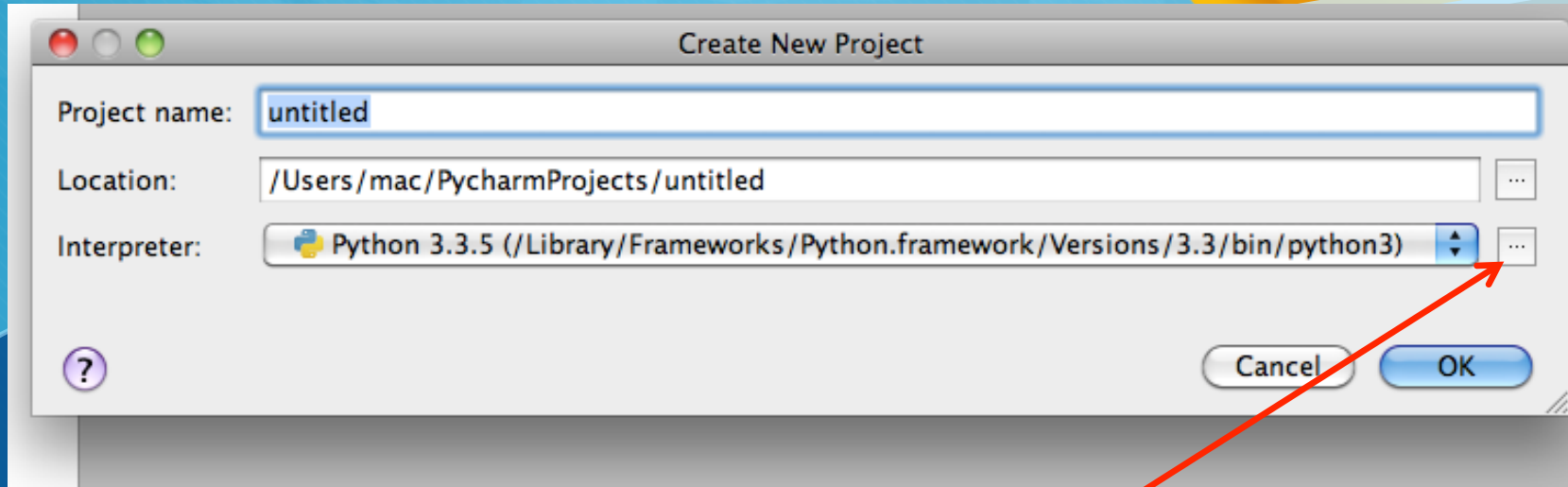
What are we going to do today ?

1. *Installation of Python and PyCharm*
2. *Hello Warriors!*
3. *Python Console*
4. *Scoring Fun!!*



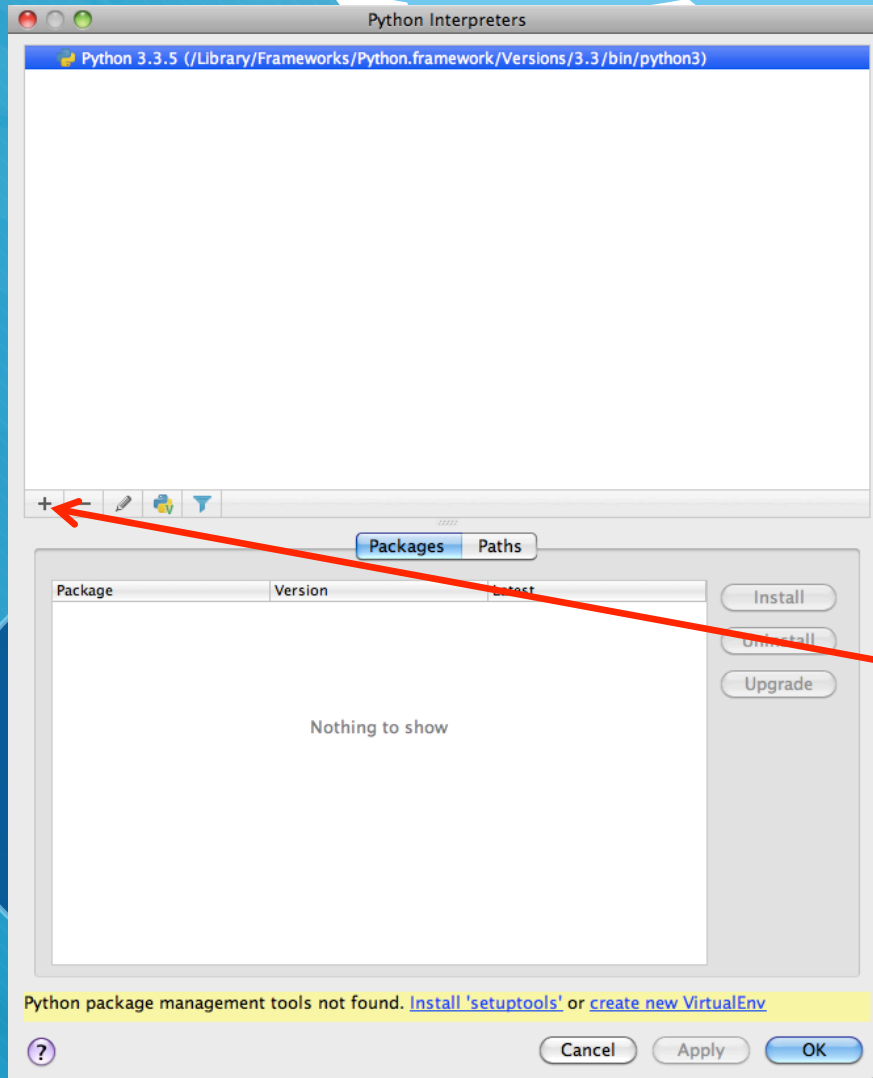
Python Setup:

Create New Project in PyCharm



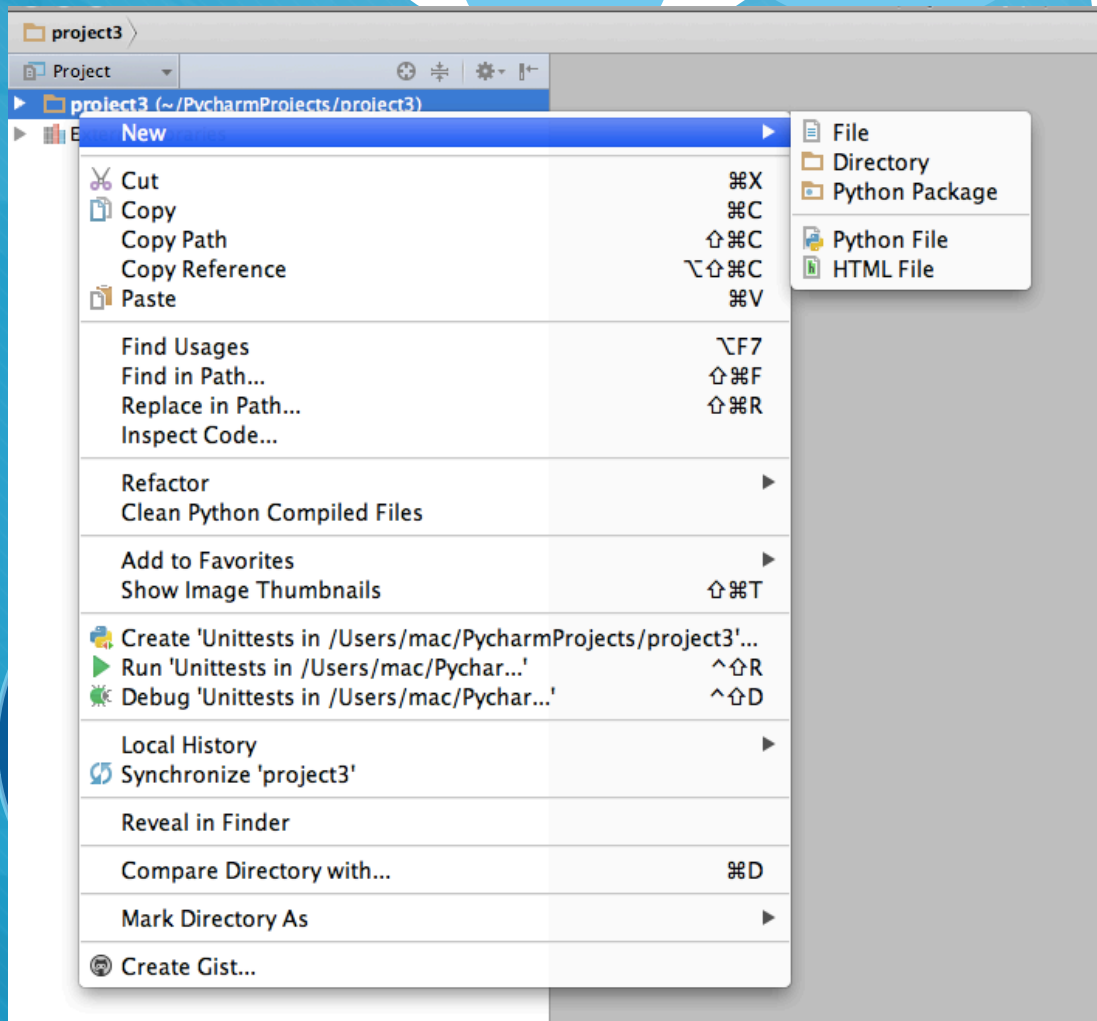
Click here to choose your interpreter

Python Setup:

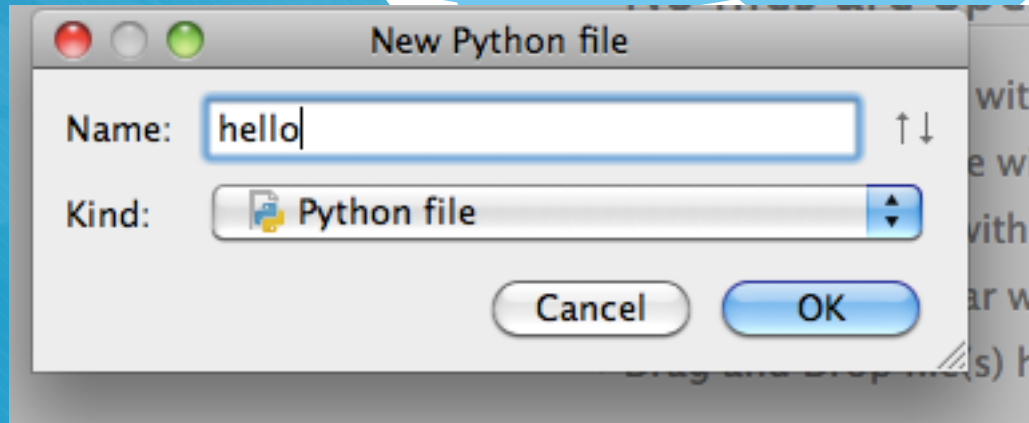


Click on + sign to choose interpreter

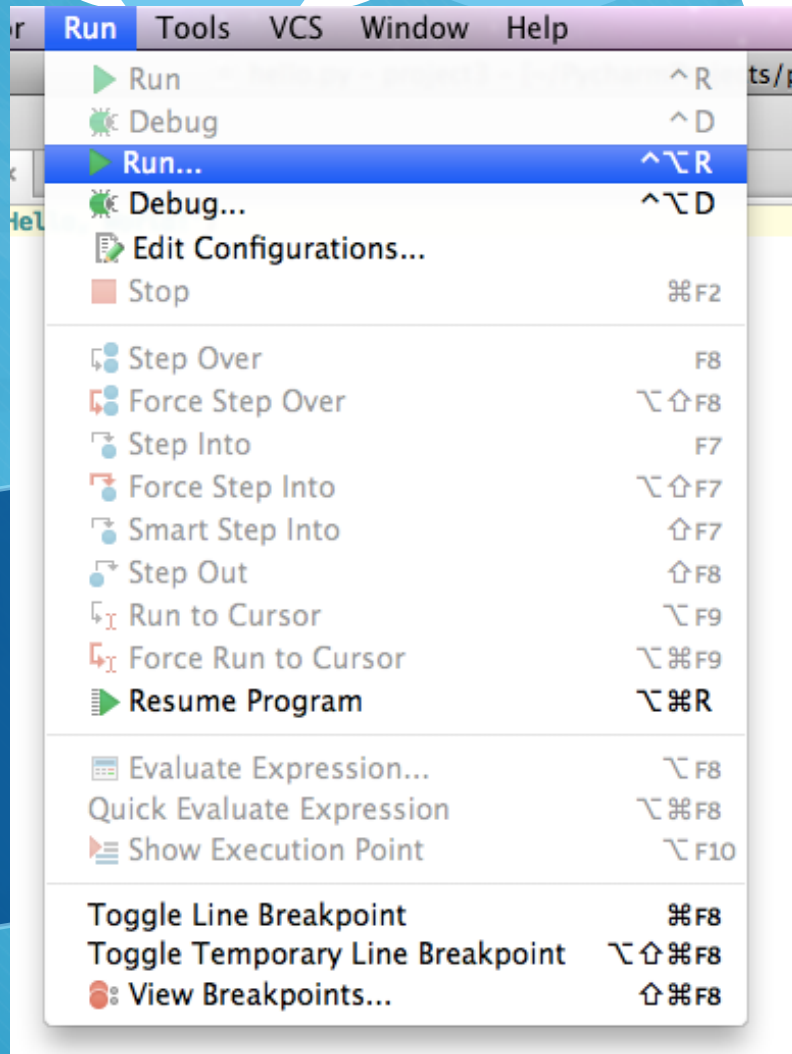
Hello Warriors!



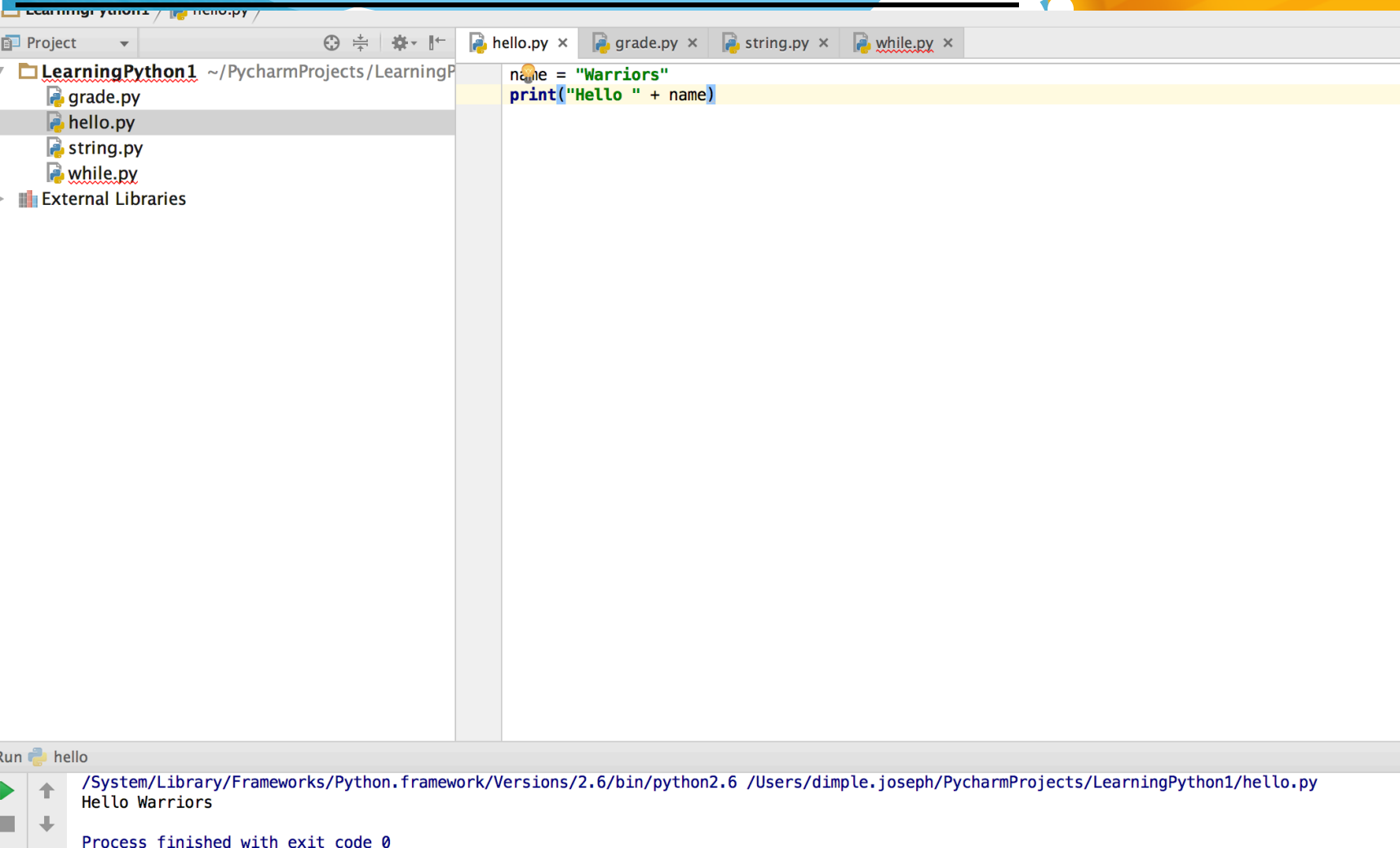
Hello Warriors!



Hello Warriors!



Voila: Hello Warriors!

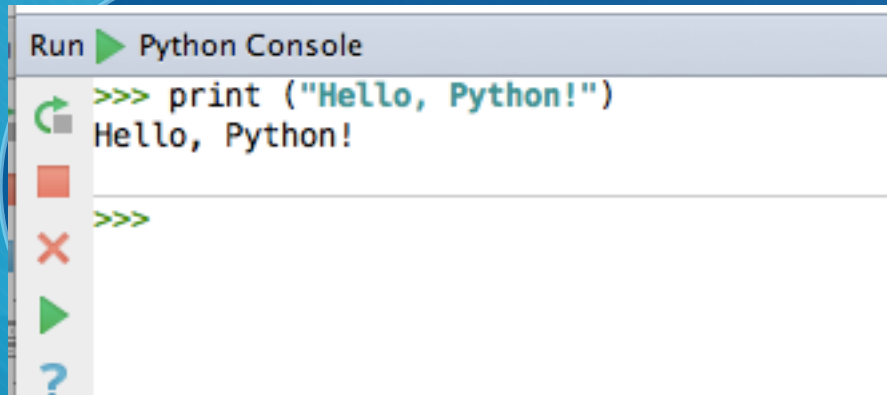
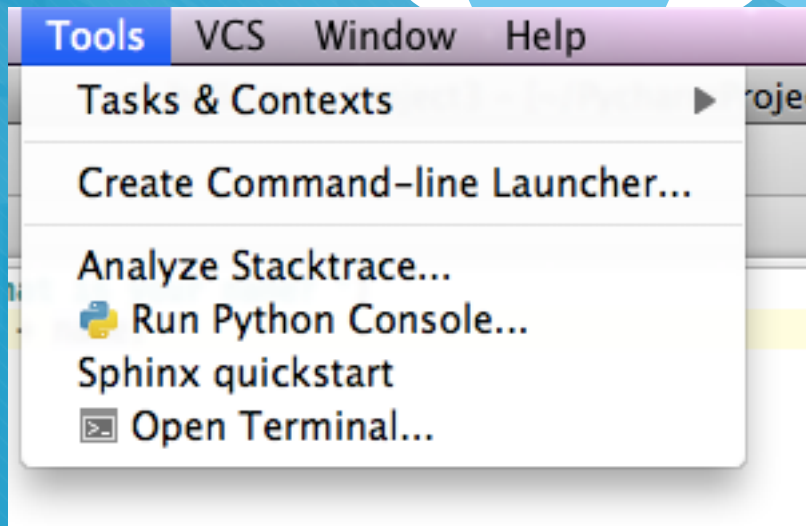


The image shows a PyCharm IDE window with a project named 'LearningPython1'. The file explorer on the left lists 'grade.py', 'hello.py', 'string.py', and 'while.py'. The main editor displays the 'hello.py' file with the following code:

```
name = "Warriors"  
print("Hello " + name)
```

The Run console at the bottom shows the command executed: `/System/Library/Frameworks/Python.framework/Versions/2.6/bin/python2.6 /Users/dimple.joseph/PycharmProjects/LearningPython1/hello.py`, with the output: `Hello Warriors`. Below the output, it states: `Process finished with exit code 0`.

Python Console:



More Python Console Examples:

```
Run ▶ Python Console
>>> 2 + 2
4
>>> 4 * 4
16
>>> 16 / 4
4.0
>>> 4 + (9 - 3)
10
>>> 6 * (3 - 1)
12
>>> hi = 10
>>> hi * 5
50
>>> hi * hi
100
>>> lo = 0
>>> hi * lo
0
>>> lo = 3
>>> hi * lo
30
```

More Python Console Examples:

Python Console

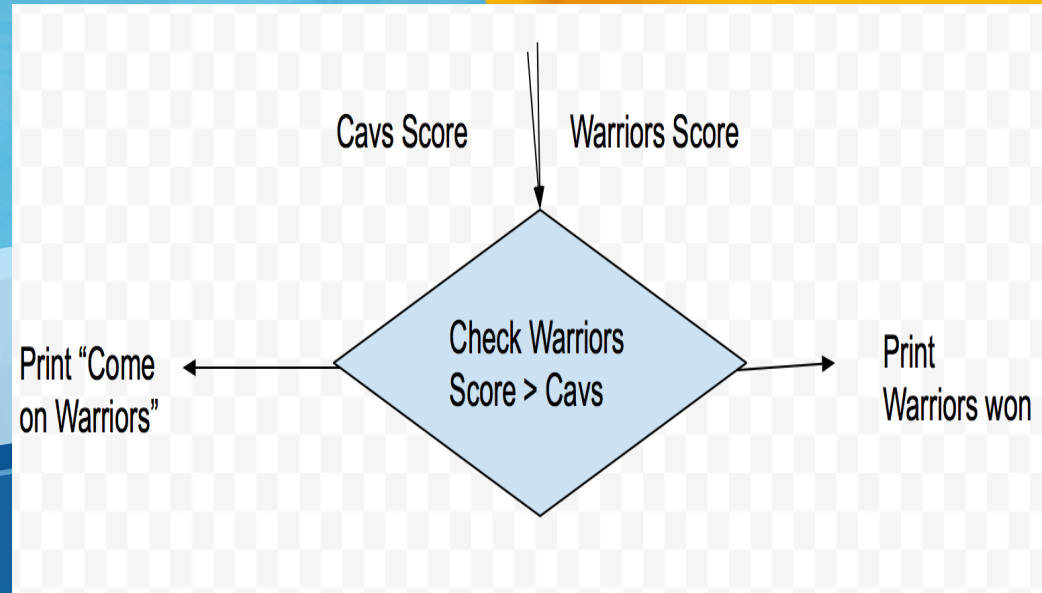
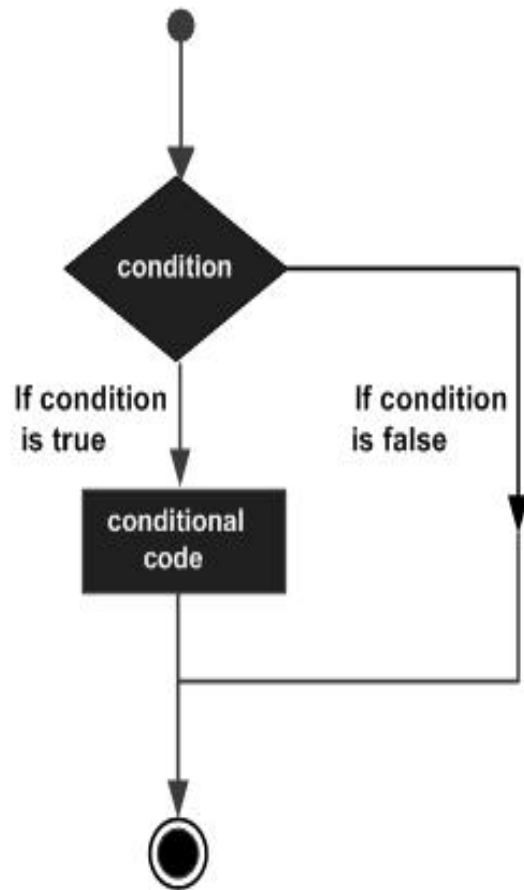
```
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['/Users/dimple.joseph/PycharmProjects/LearningPython1'])

Python 2.6.9 (unknown, Jul 14 2015, 19:46:31)
[GCC 4.2.1 Compatible Apple LLVM 6.0 (clang-600.0.39)] on darwin

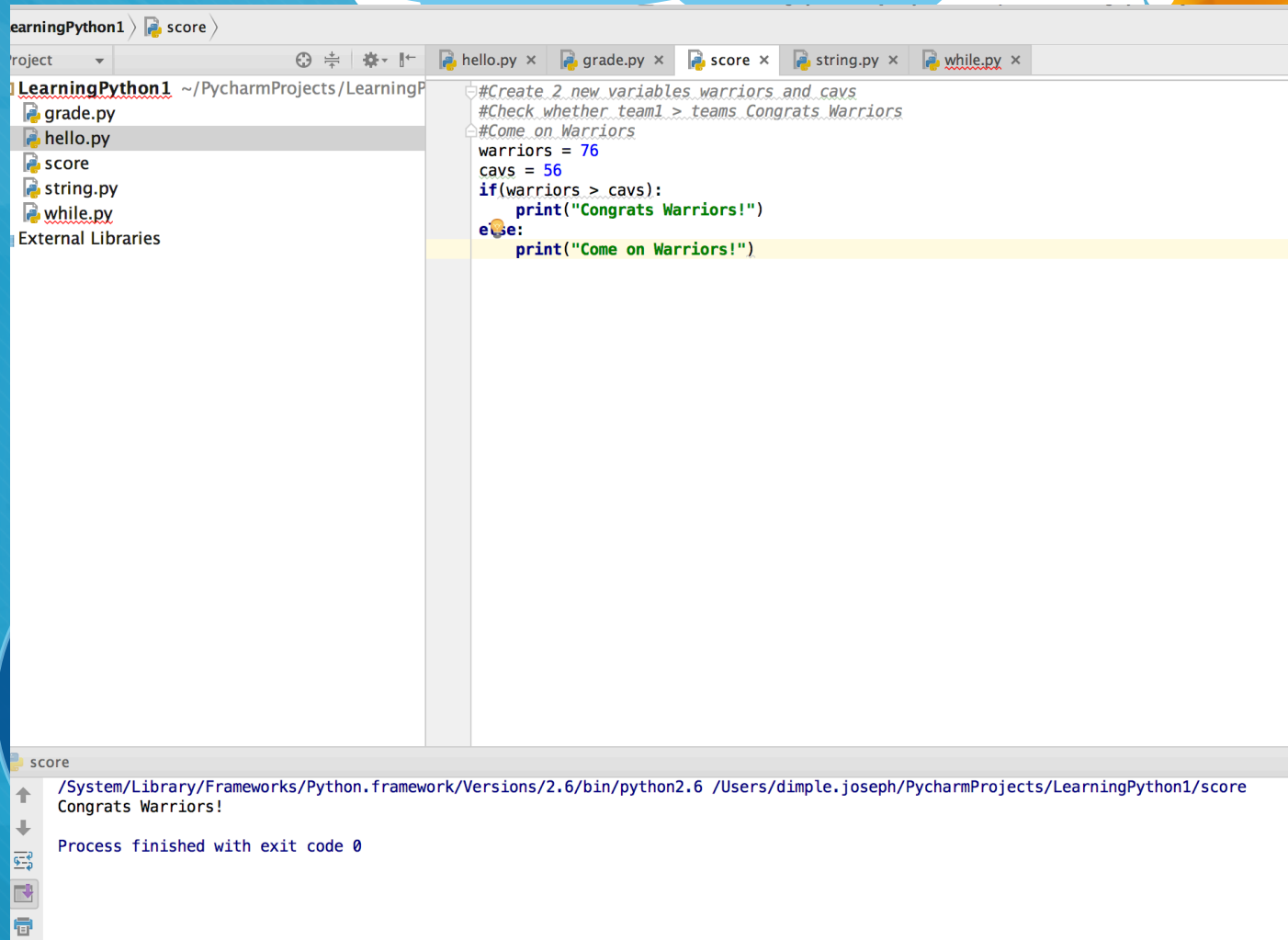
>>> str = "Warriors"
>>> print(str)
Warriors
>>> print(str[0])
W
>>> print(str[0:3])
War
>>> print(str[1:5])
arri
>>> print(str[0:9])
Warriors
>>> print(str*2)
WarriorsWarriors
>>> print("Hello " + str)
Hello Warriors

>>>
```


Conditional Statements



Conditional Statements

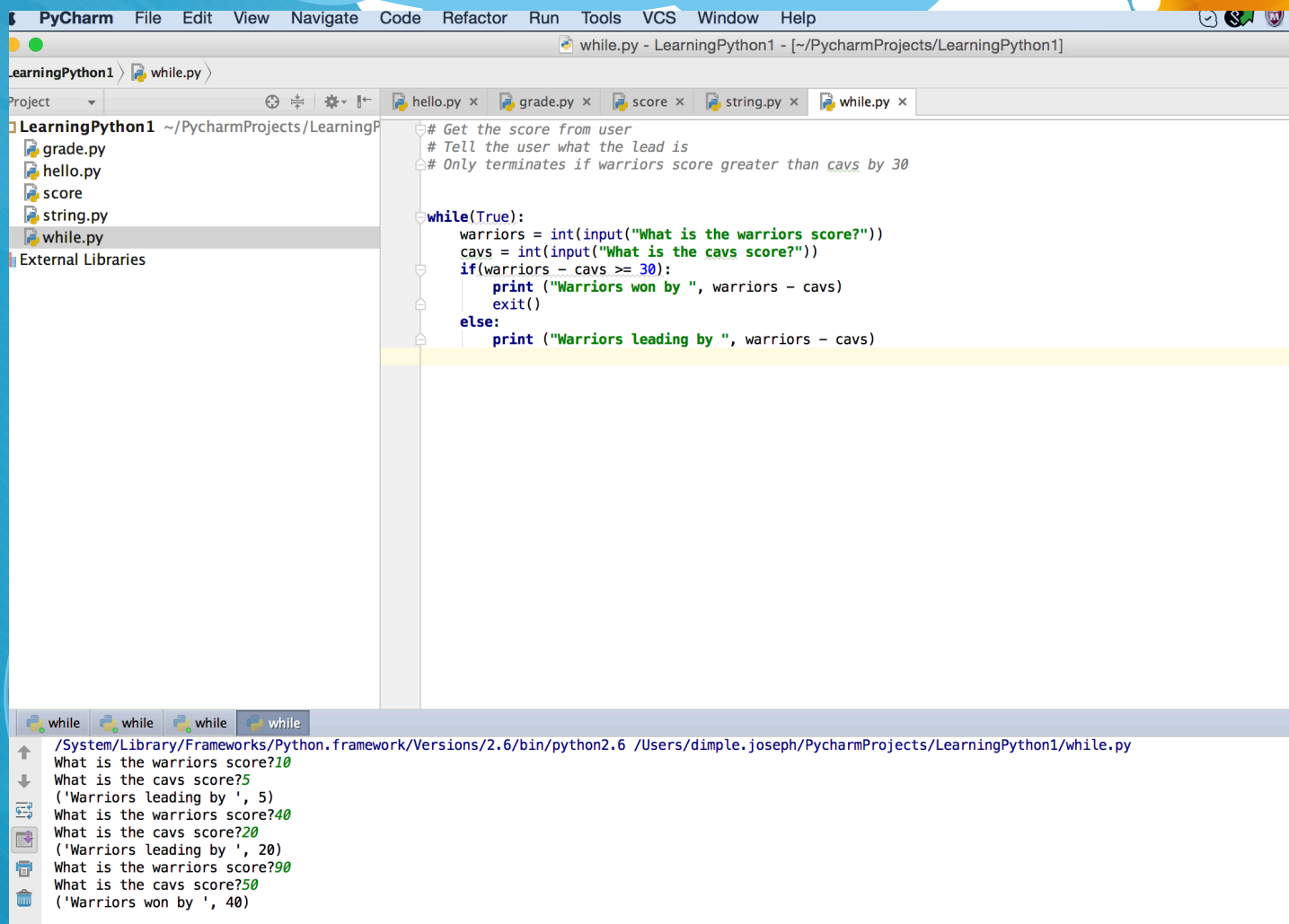


The image shows a PyCharm IDE window titled "earningPython1" with a project named "score". The file explorer on the left lists "grade.py", "hello.py", "score", "string.py", and "while.py". The main editor displays the "score.py" file with the following code:

```
#Create 2 new variables warriors and cavs
#Check whether team1 > teams Congrats Warriors
#Come on Warriors
warriors = 76
cavs = 56
if(warriors > cavs):
    print("Congrats Warriors!")
else:
    print("Come on Warriors!")
```

The output console at the bottom shows the command executed: `/System/Library/Frameworks/Python.framework/Versions/2.6/bin/python2.6 /Users/dimple.joseph/PycharmProjects/LearningPython1/score`, followed by the output `Congrats Warriors!` and the message `Process finished with exit code 0`.

Conditional Statements



The image shows the PyCharm IDE interface. The top menu bar includes File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, and Help. The title bar indicates the file is 'while.py' in a project named 'LearningPython1'. The left sidebar shows the project structure with files like grade.py, hello.py, score, string.py, and while.py. The main editor displays the following Python code:

```
# Get the score from user
# Tell the user what the lead is
# Only terminates if warriors score greater than cavs by 30

while(True):
    warriors = int(input("What is the warriors score?"))
    cavs = int(input("What is the cavs score?"))
    if(warriors - cavs >= 30):
        print ("Warriors won by ", warriors - cavs)
        exit()
    else:
        print ("Warriors leading by ", warriors - cavs)
```

The bottom panel shows the console output of the program:

```
/System/Library/Frameworks/Python.framework/Versions/2.6/bin/python2.6 /Users/dimple.joseph/PycharmProjects/LearningPython1/while.py
What is the warriors score?10
What is the cavs score?5
('Warriors leading by ', 5)
What is the warriors score?40
What is the cavs score?20
('Warriors leading by ', 20)
What is the warriors score?90
What is the cavs score?50
('Warriors won by ', 40)
```




Python Types

1. Int , Float ,String
2. Lists
3. Tuples
4. Dictionary

Go Warriors!!

