

Python Django

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Overview

- Part one:
 - Python
- Part two:
 - Django

github

- <https://github.com/edu2act/course-python-django>

QQ



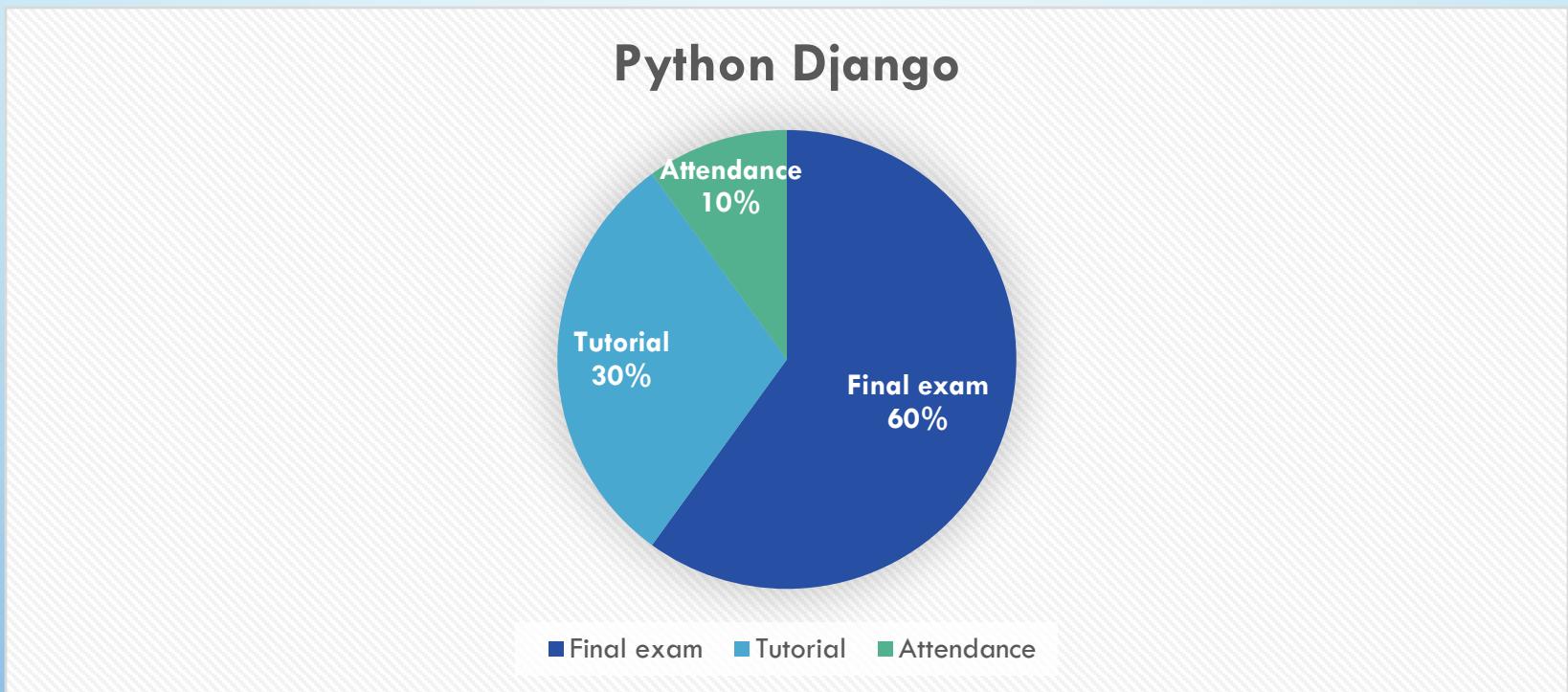
群名称: PythonDjango

群号: 316734495

雪梨教育

- <http://www.edu2act.cn/team/PythonDjango/application/>

Overview



Python Overview

Python Overview

- Python is an easy to learn, powerful programming language. It has efficient high-level data structures and a simple but effective approach to object-oriented programming.
- You can use it to create web apps, games, even a search engine!

Python History

- 1989 Christmas, release at
1991
- Developed by Guido van
Rossum
- A big fan of Monty Python's
Flying Circus



Python Features

- **High-level Language:**
 - When you write programs in Python, you never need to bother about the low-level details such as managing the memory used by your program.

Python Features

- Interpreted
 - Python does not need compilation to binary. You just *run* the program directly from the source code.

Python Features

- **Free and open source**
 - You can freely distribute copies of this software, read it's source code, make changes to it, use pieces of it in new free programs, and that you know you can do these things.

Python Features

- **A Broad Extensive Library**
 - **The Python Standard Library is huge indeed. All this is available wherever Python is installed. This is called the ‘Batteries Included’ philosophy of Python.**
 - **Besides the standard library, there are various other high-quality libraries**

Python Features

- **Portable**
 - Due to its open-source nature, Python has been ported to many platforms.
 - You can use Python on Linux, Windows, FreeBSD, Macintosh, Solaris and so on.

Python Features

- Extendable
 - If you need a critical piece of code to run very fast or want to have some piece of algorithm not to be open, you can code that part of your program in C or C++ and then use them from your Python program.

Python Version

Python 2

Python 3

- Python 2.x is legacy, Python 3.x is the present and future of the language.

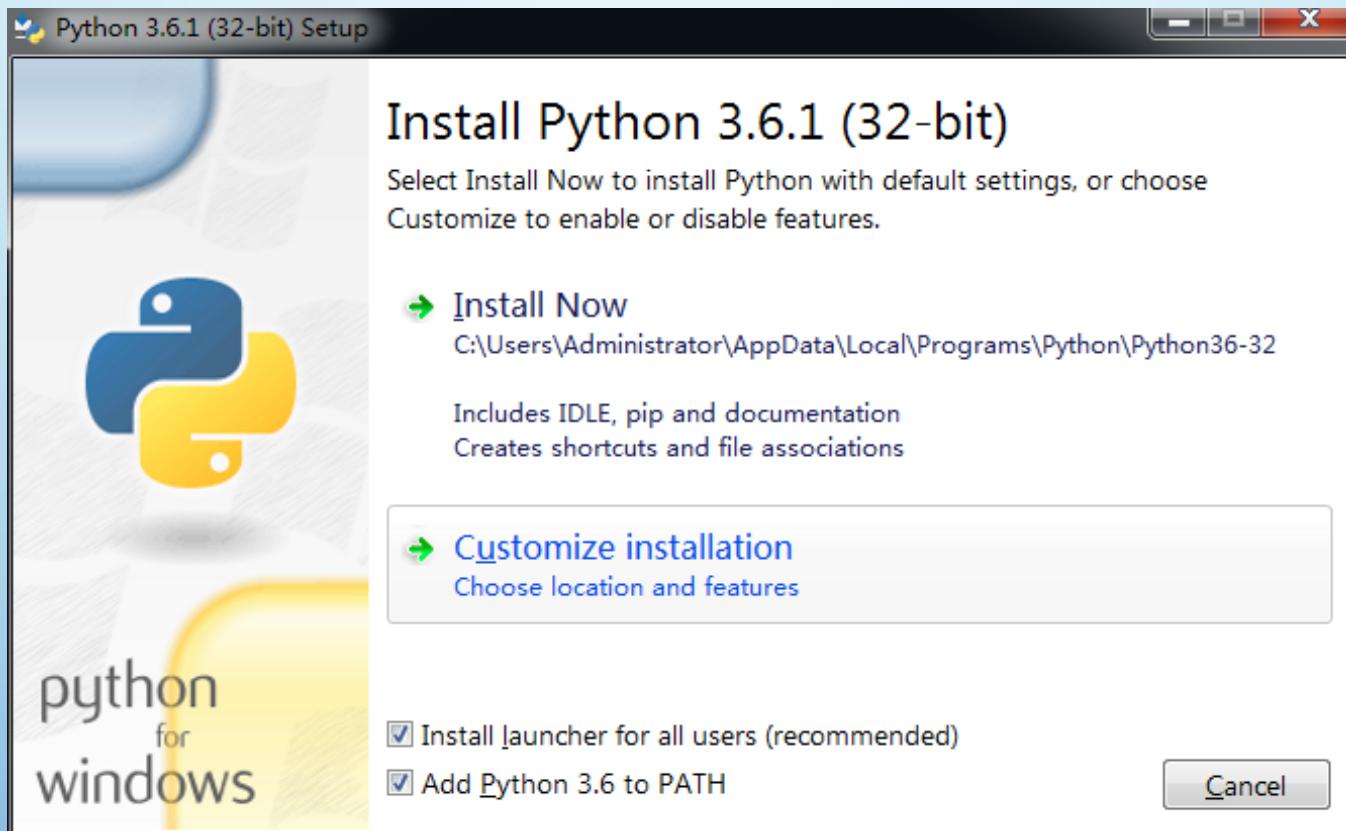
Getting Python

- Download from <https://www.python.org/>

Installing Python

- **Python distribution is available for a wide variety of platforms. You need to download only the binary code applicable for your platform and install Python.**

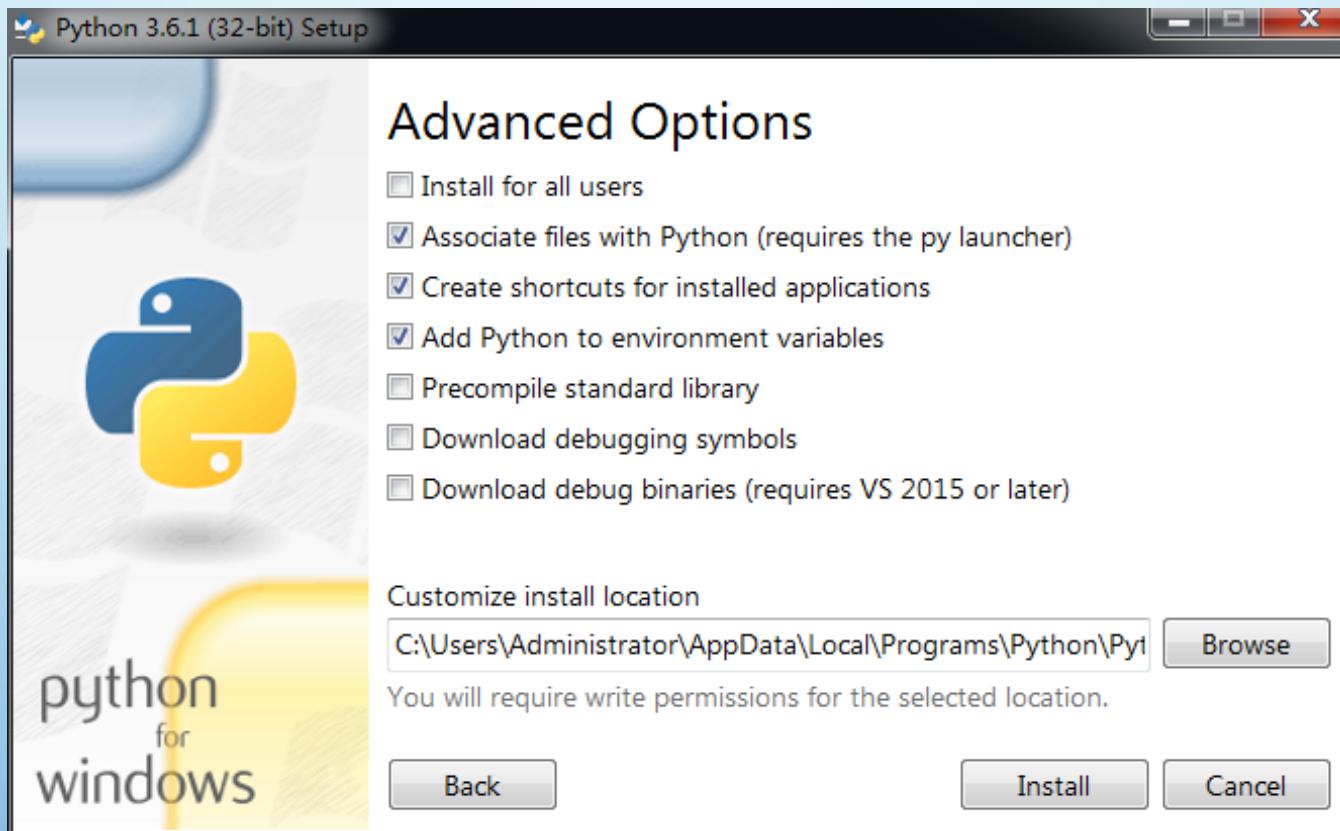
Step1



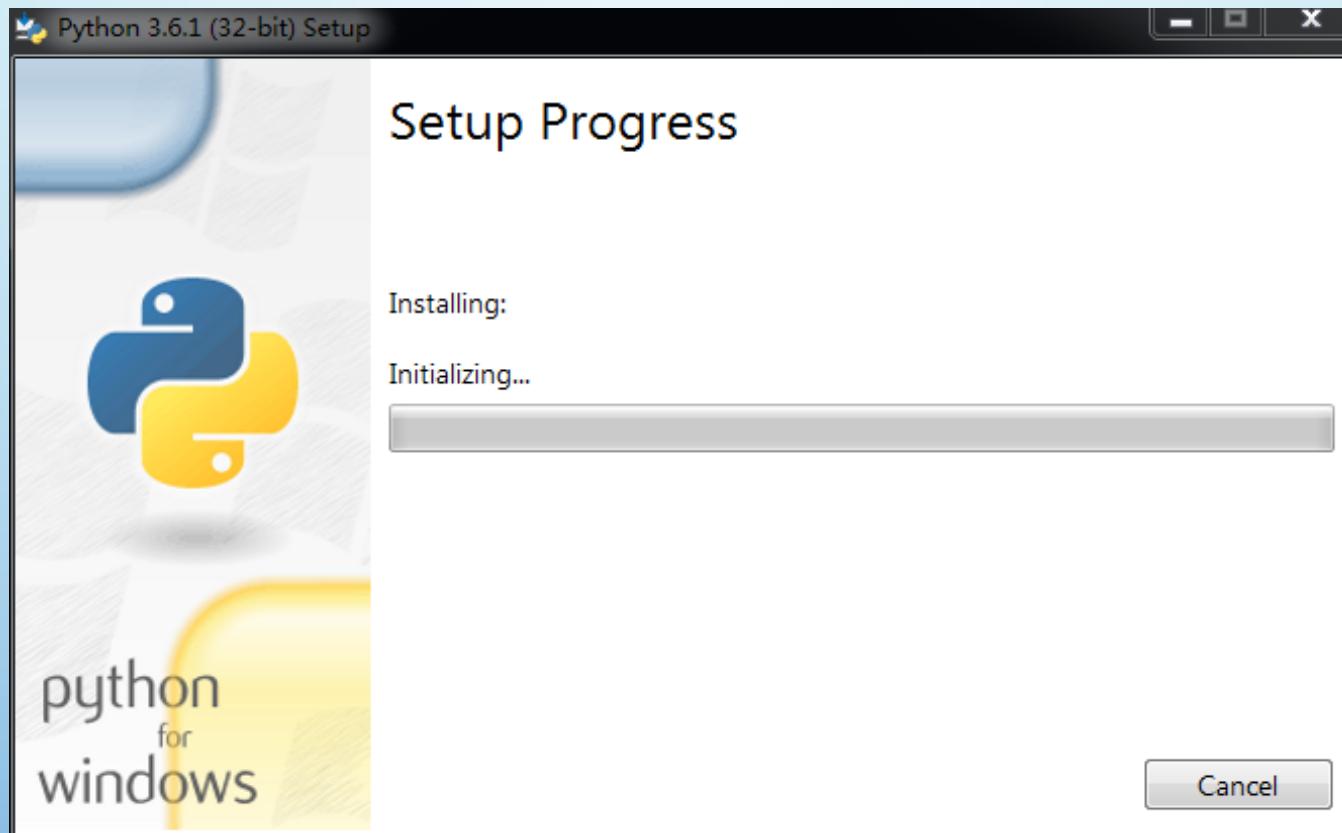
Step2



Step3



Step4



Step5



Hello World

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First Python Program

- Let us execute programs in different modes of programming.

Interactive Mode Programming

- Terminal – open terminal and type python

```
$ python  
Python 3.6.1 (default, Apr 4 2017, 09:40:21)  
[GCC 4.2.1 Compatible Apple LLVM 8.1.0 (clang-  
802.0.38)] on darwin  
Type "help", "copyright", "credits" or "license"  
for more information.  
>>>
```

Interactive Mode Programming

- IDLE

```
Python 3.6.1 (default, Apr 4 2017, 09:40:21)
[GCC 4.2.1 Compatible Apple LLVM 8.1.0 (clang-
802.0.38)] on darwin
Type "help", "copyright", "credits" or "license"
for more information.

>>>
```

Script Mode Programming

- Python files have extension .py. Type the following source code in a test.py file:
 - `print('Hello World')`
- Using terminal and type:
 - `python test.py`

Assigning Values to Variables

- Python variables do not need explicit declaration to reserve memory space. The declaration happens automatically when you assign a value to a variable. The equal sign (=) is used to assign values to variables.

Assigning Values to Variables

```
counter = 100 # An integer assignment  
  
miles = 1000.0 # A float  
  
name = 'John' # A string  
  
print(counter)  
  
print(name)  
  
print(miles)
```

Multiple Assignment

```
a = b = c = 1
```

```
a, b, c = 1, 2, 'John'
```

Basic Data Types

Integer

Float

String

Boolean

None

Questions?

Tutorial 1

Question 1

- Create a program that asks the user to enter their name and their age, then print it out.
 - Tip: To get user input in Python 3, the command you use is *input()*.

question 2

- Create a program that ask user to input, store the input result in a variable, and use it to your heart's content.
- For example:

```
name = input("Give me your name: ")  
print("Your name is " + name)
```

Question 3

- Using Script mode to write a program in .py file, then run it in terminal.**