

Learn Python in 1 Day

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Chapter 1: Python Tutorial for Beginners: Learn Programming in 7 Days

Python is an object-oriented programming language created by Guido Rossum in 1989. It is ideally designed for rapid prototyping of complex applications. It has interfaces to many OS system calls and libraries and is extensible to C or C++. Many large companies use the Python programming language include NASA, Google, YouTube, BitTorrent, etc.

Python is widely used in Artificial Intelligence, Natural Language

Generation, Neural Networks and other advanced fields of Computer Science. Python had deep focus on code readability & this class will teach you python from basics.

Characteristics of Python

- It provides rich data types and easier to read syntax than any other programming languages
- It is a platform independent scripted language with full access to operating system API's
- Compared to other programming languages, it allows more run-time flexibility
- It includes the basic text manipulation facilities of Perl and Awk
- A module in Python may have one or more classes and free functions
- Libraries in Python are cross-platform compatible with Linux, Macintosh, and Windows
- For building large applications, Python can be compiled to byte-code
- Python supports functional and structured programming as well as OOP

- It supports interactive mode that allows interacting Testing and debugging of snippets of code
- In Python, since there is no compilation step, editing, debugging and testing is fast.



Python used for

- Programming video games
- Artificial Intelligence algorithm
- Programming various scientific programs such as statistical models

Chapter 2: How to Install Python on Windows [Pycharm IDE]

PyCharm is a cross-platform editor developed by JetBrains. Pycharm provides all the tools you need for productive Python development.

Below are the detailed steps for installing Python and PyCharm

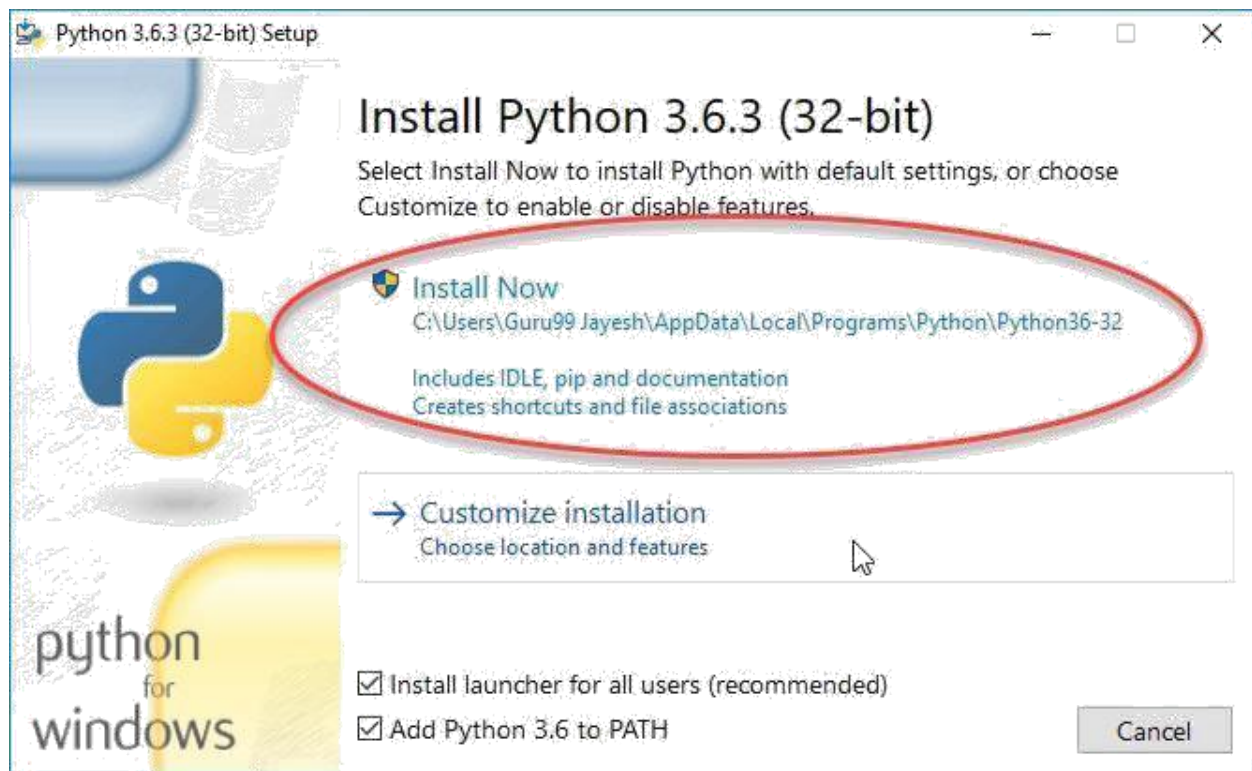
Installing Python

Step 1) To download and install Python visit the official website of Python <http://www.python.org/downloads/> and choose your version. We have chosen Python version 3.6.3

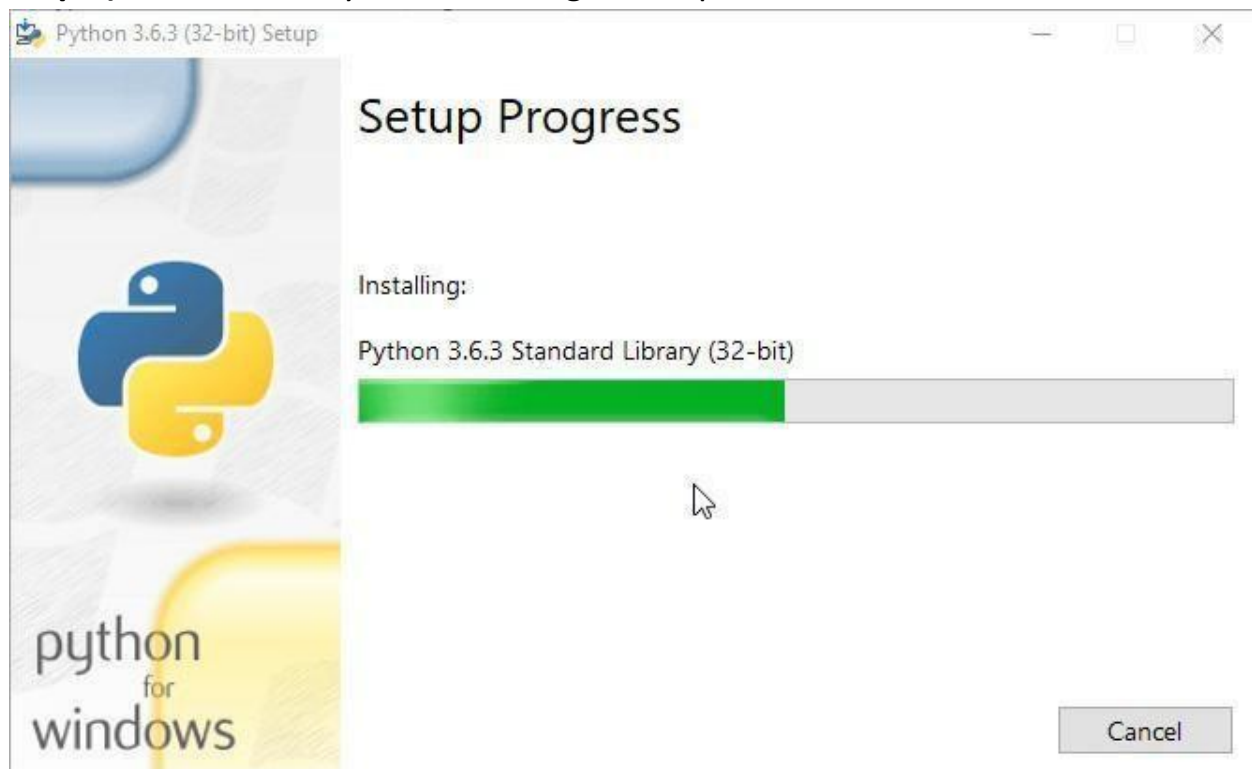


Step 2) Once the download is complete, run the exe for install Python.

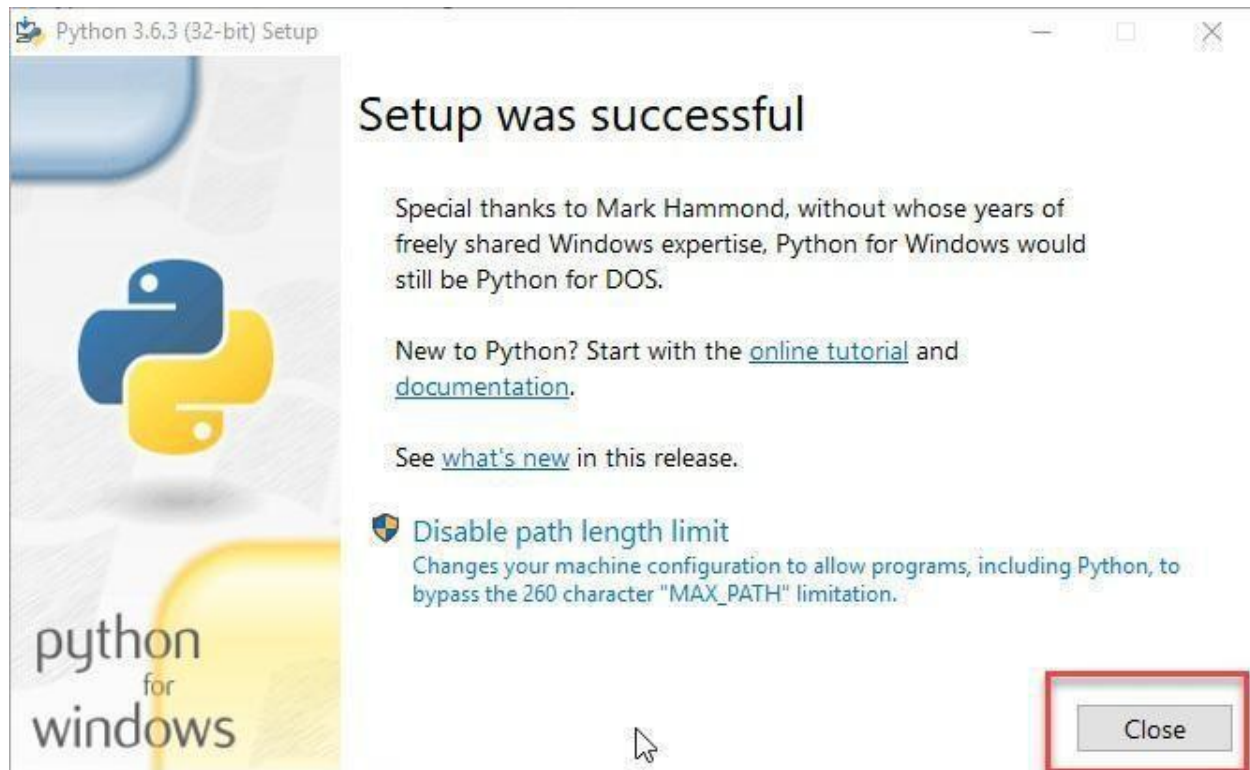
Now click on Install Now.



Step 3) You can see Python installing at this point.



Step 4) When it finishes, you can see a screen that says the Setup was successful. Now click on "Close".



Installing Pycharm

Step 1) To download PyCharm visit the website <https://www.jetbrains.com/pycharm/download/> and Click the "DOWNLOAD" link under the Community Section.

Download PyCharm

Windows

macOS

Linux

Professional

Full-featured IDE
for Python & Web
development

DOWNLOAD

Free trial

Community

Lightweight IDE
for Python & Scientific
development

DOWNLOAD

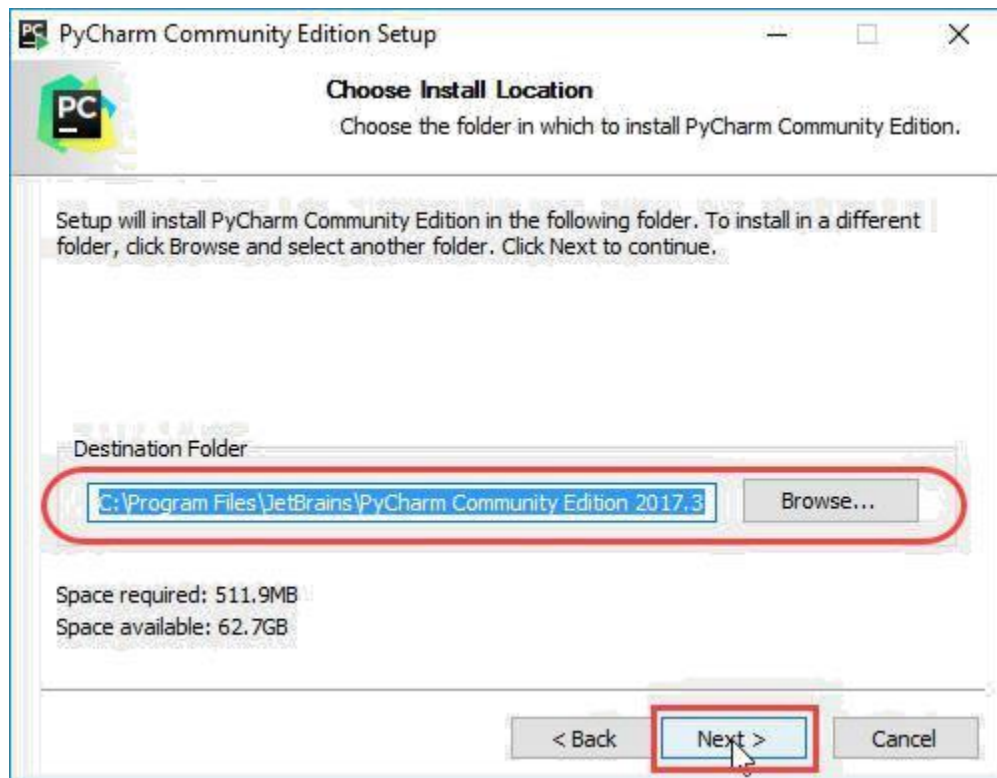
Free, open-source

Step 2) Once the download is complete, run the exe for install PyCharm. The setup wizard should have started. Click "Next".

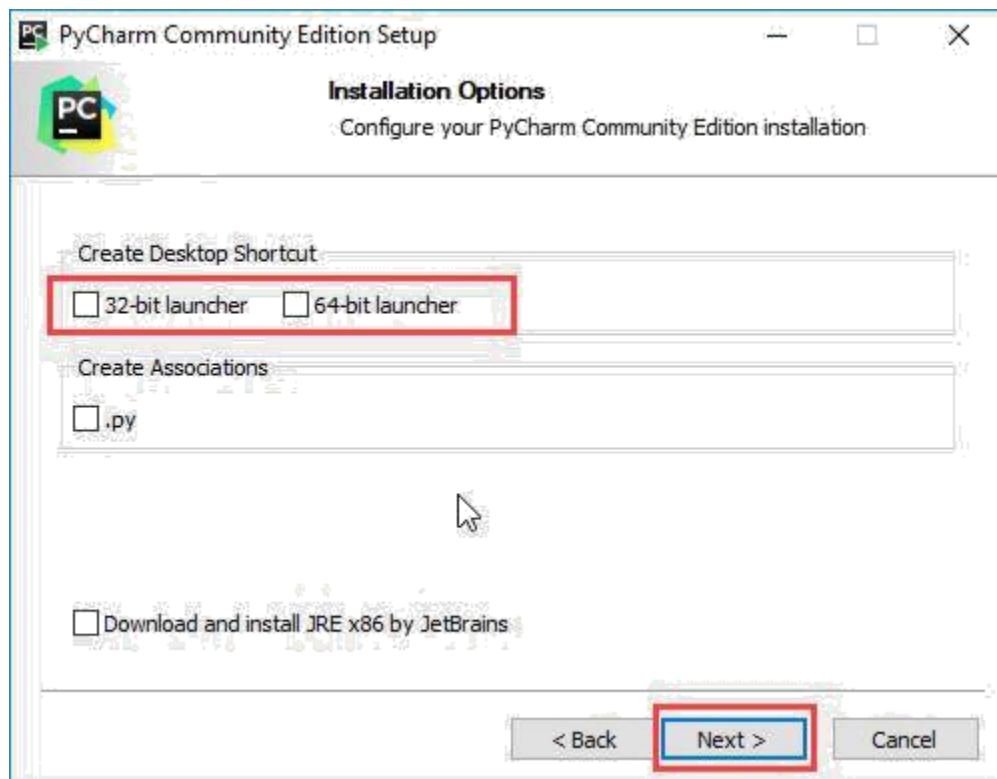


Step 3) On the next screen, Change the installation path if required.

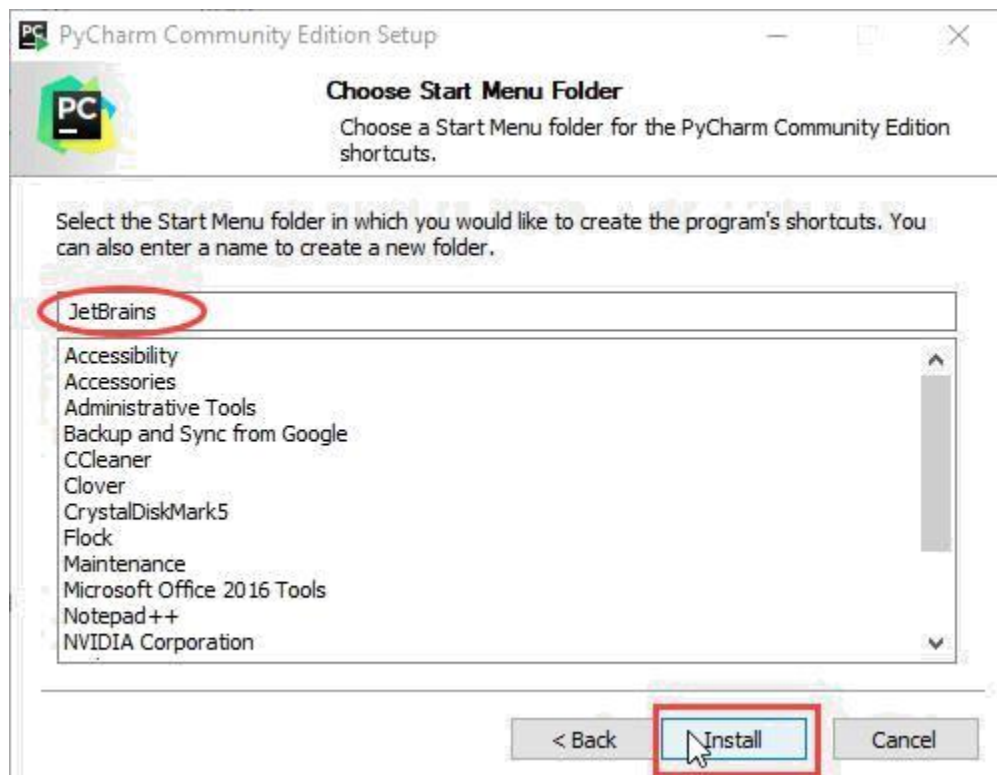
Click "Next".



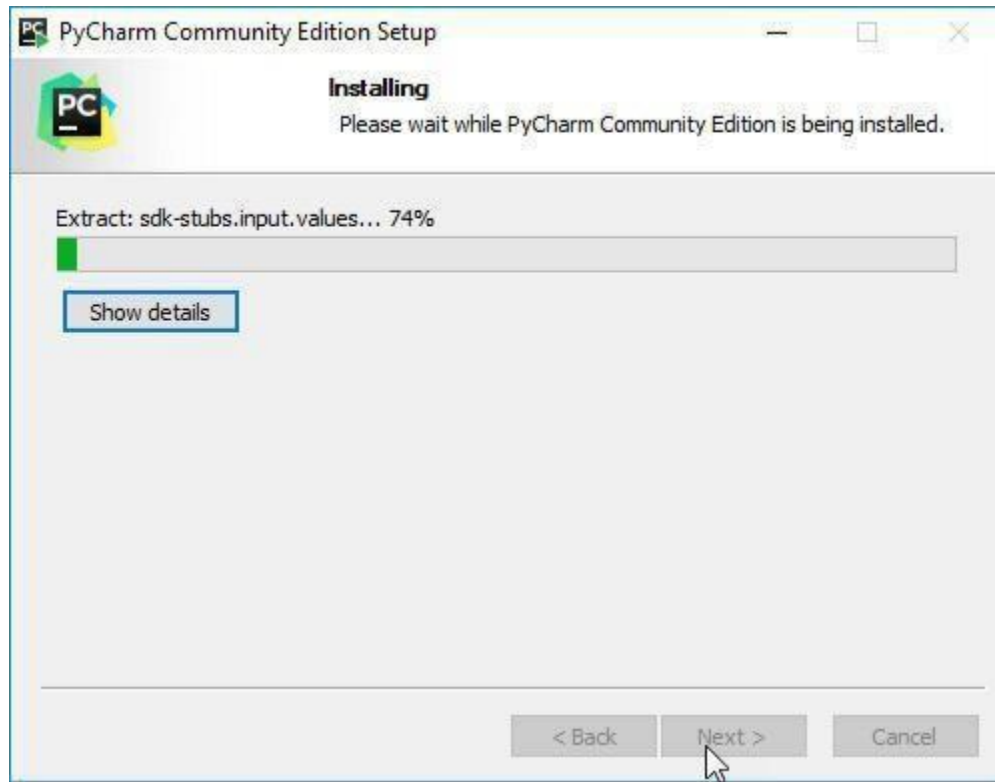
Step 4) On the next screen, you can create a desktop shortcut if you want and click on "Next".



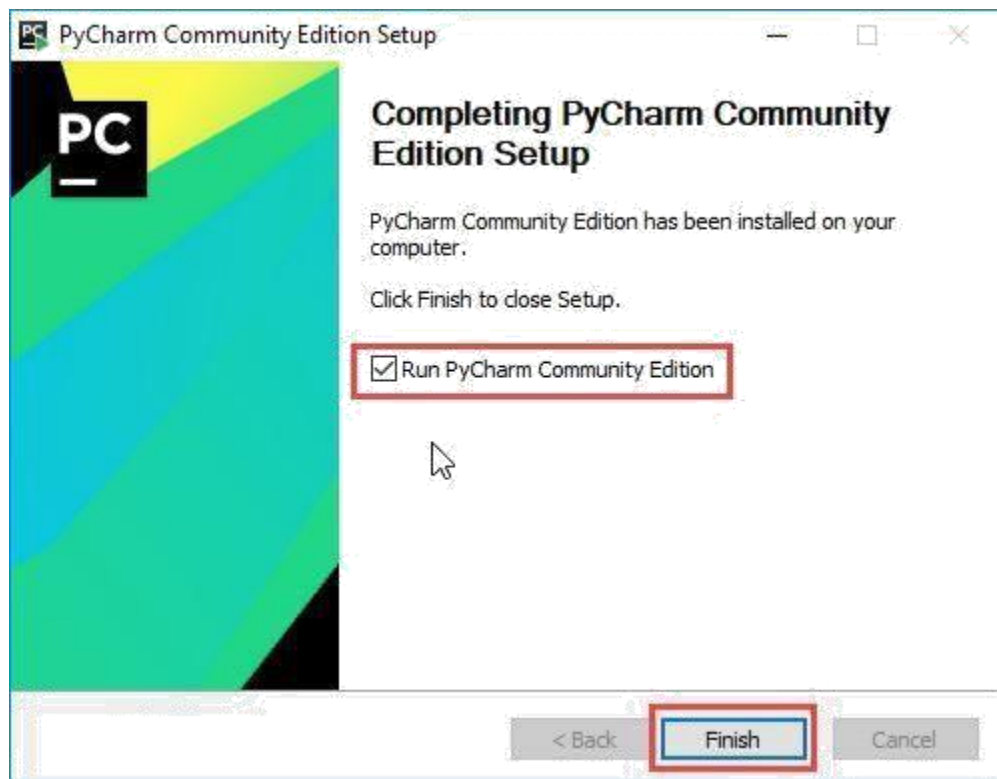
Step 5) Choose the start menu folder. Keep selected JetBrains and click on "Install".



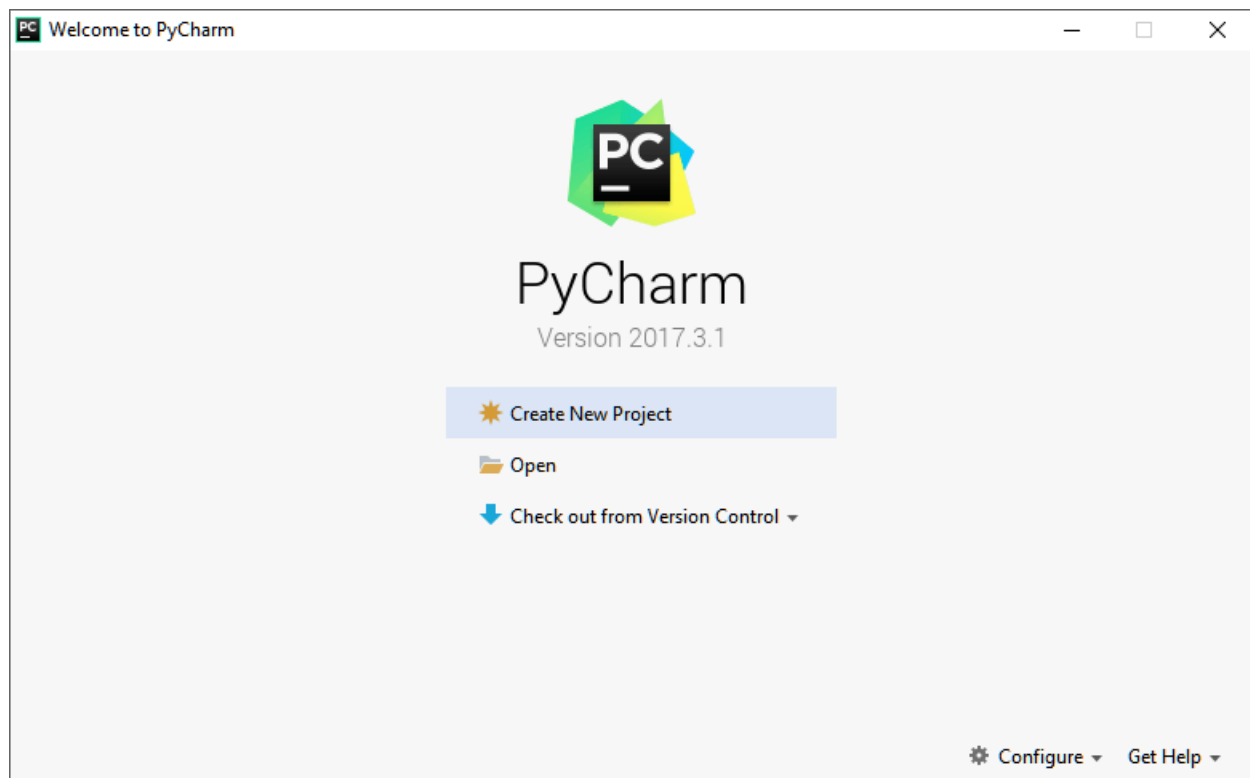
Step 6) Wait for the installation to finish.



Step 7) Once installation finished, you should receive a message screen that PyCharm is installed. If you want to go ahead and run it, click the "Run PyCharm Community Edition" box first and click "Finish".



Step 8) After you click on "Finish," the Following screen will appear.



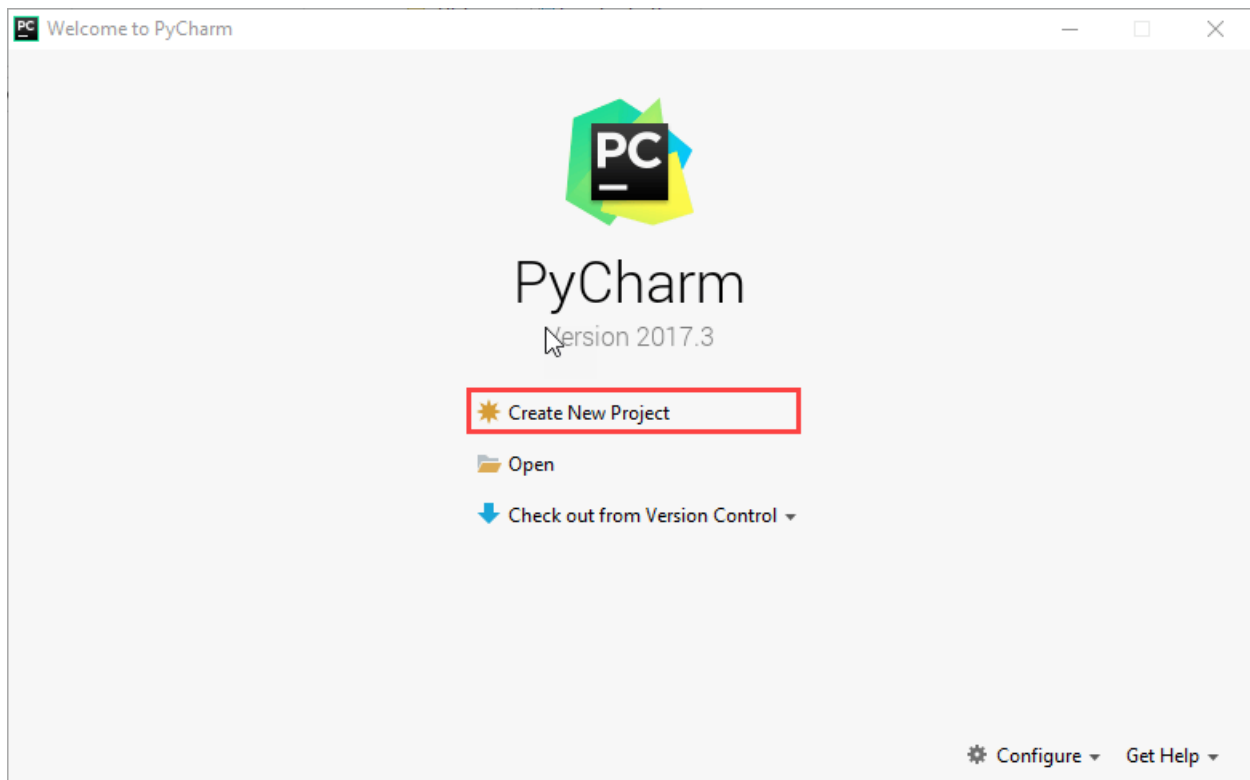
Chapter 3: Hello World: Create your First Python Program

In the last tutorial, we completed our Python installation and setup.

It's time to create your first program.

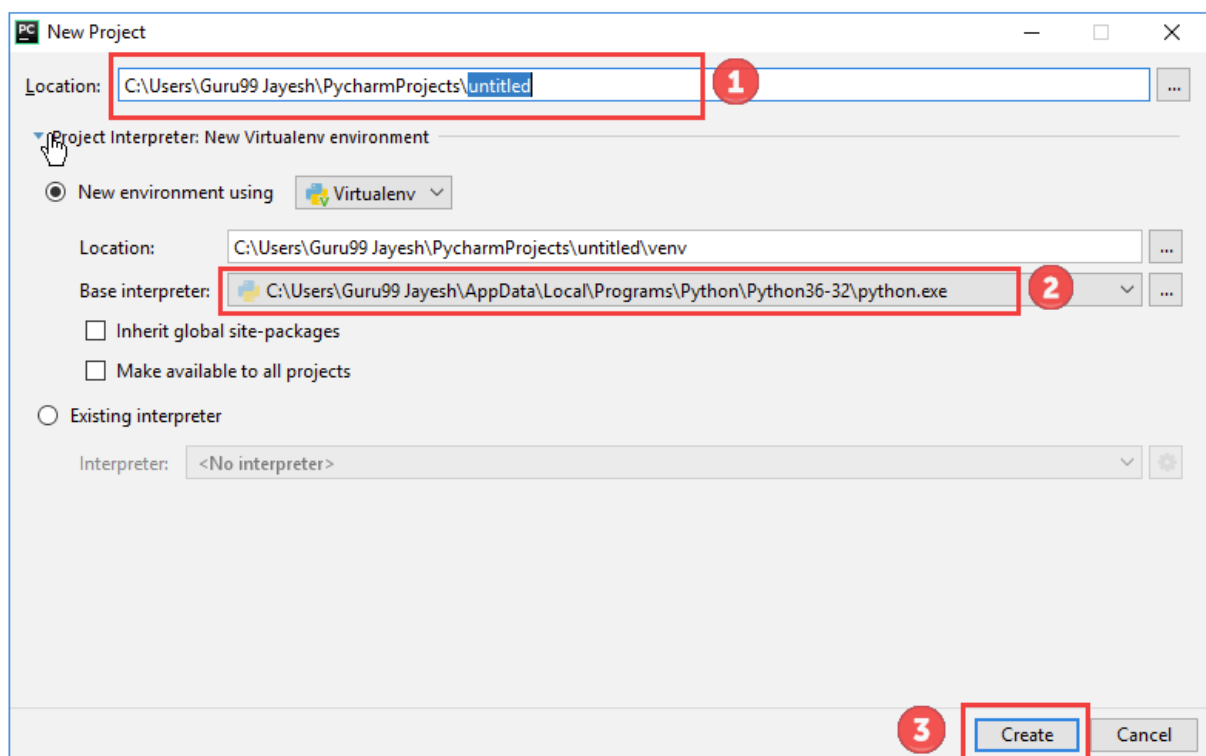
Creating First Program

Step 1) Open PyCharm Editor. You can see the introductory screen for PyCharm. To create a new project, click on "Create New Project".

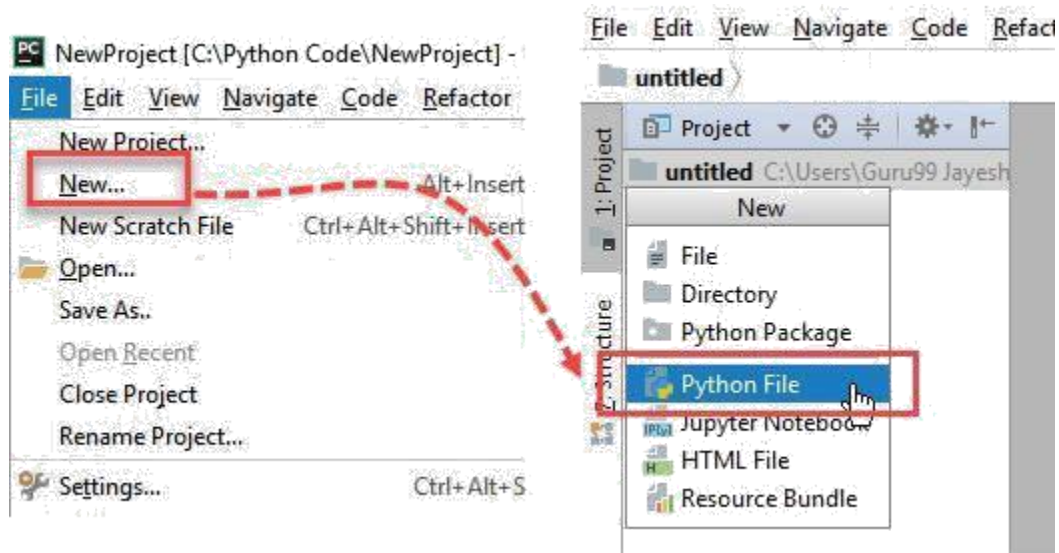


Step 2) You will need to select a location.

1. You can select the location where you want the project to be created. If you don't want to change location than keep it as it is but at least change the name from "untitled" to something more meaningful, like "FirstProject".
2. PyCharm should have found the Python interpreter you installed earlier.
3. Next Click the "Create" Button.



Step 3) Now Go up to the "File" menu and select "New". Next, select "Python File".



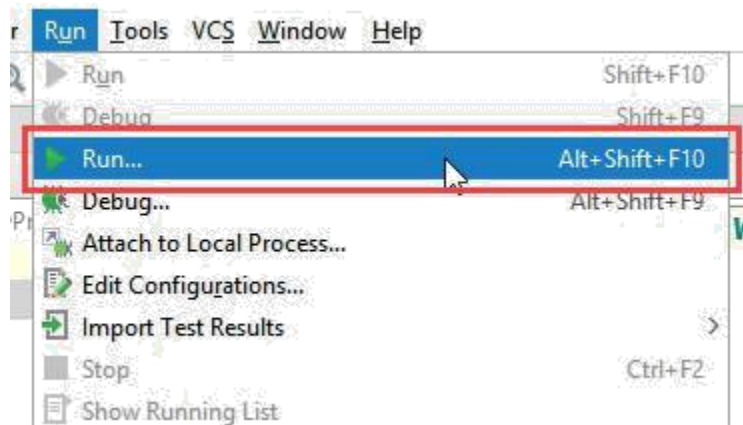
Step 4) A new pop up will appear. Now type the name of the file you want (Here we give "HelloWorld") and hit "OK".



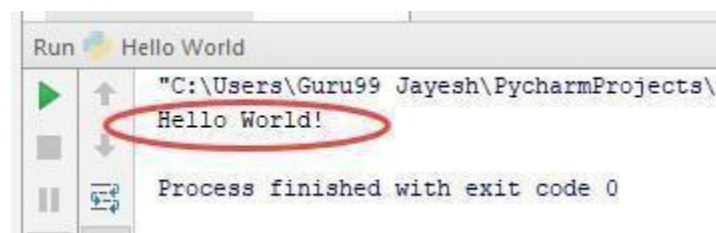
Step 5) Now type a simple program - print ('Hello World!').



Step 6) Now Go up to the "Run" menu and select "Run" to run your program.



Step 7) You can see the output of your program at the bottom of the screen.



Step 8) Don't worry if you don't have Pycharm Editor installed, you can still run the code from the command prompt. Enter the correct path of a file in command prompt to run the program.

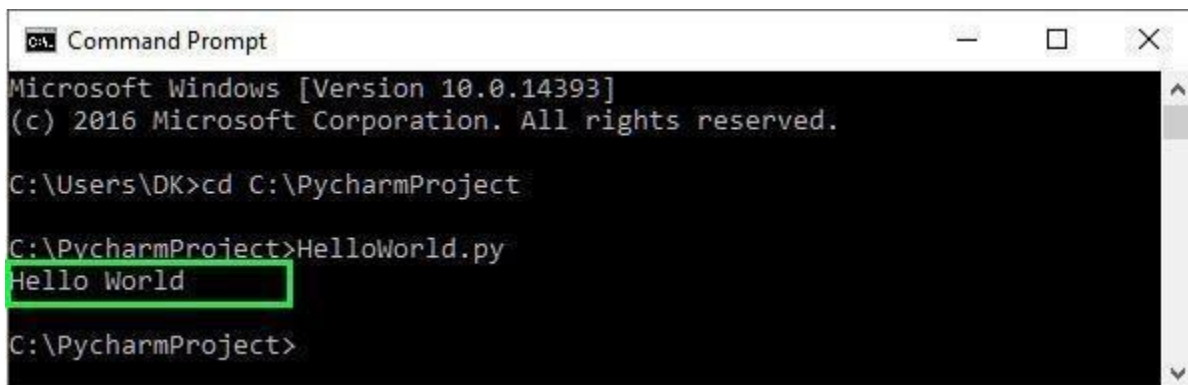


```
Command Prompt
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\DK>cd C:\PycharmProject
C:\PycharmProject>HelloWorld.py
```

Run your python code from command prompt

The output of the code would be



```
Command Prompt
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\DK>cd C:\PycharmProject
C:\PycharmProject>HelloWorld.py
Hello World
C:\PycharmProject>
```

Step 9) If you are still not able to run the program, we have Python Editor for you.

Please run the given code at Python Online Editor

```
print("Hello World")
```

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