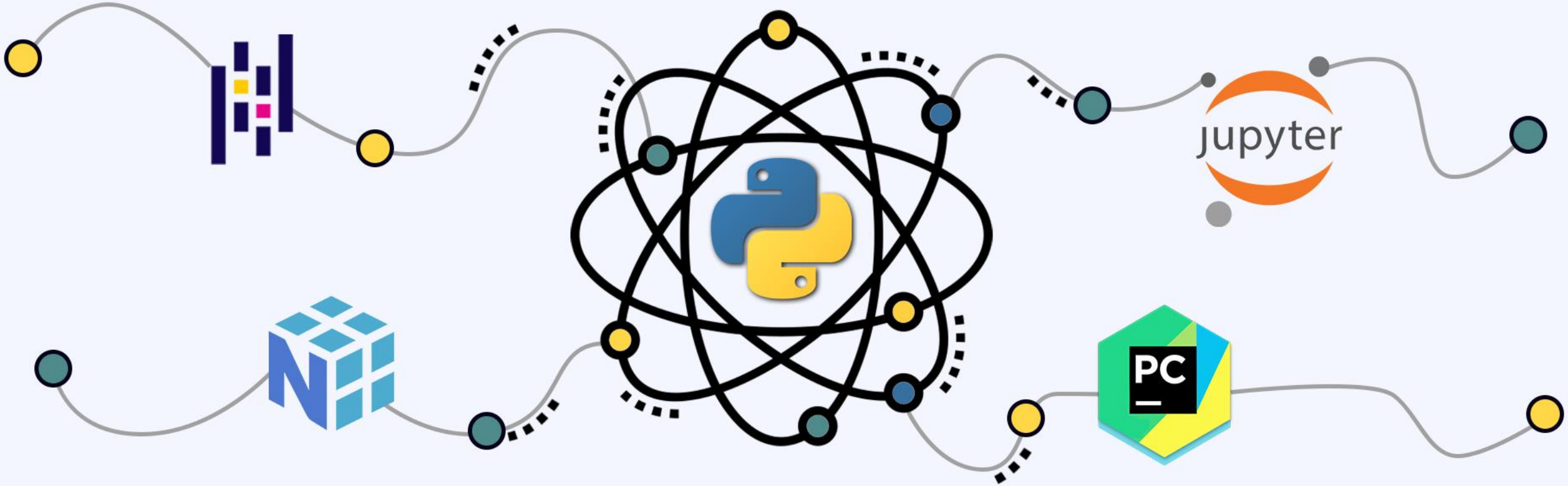
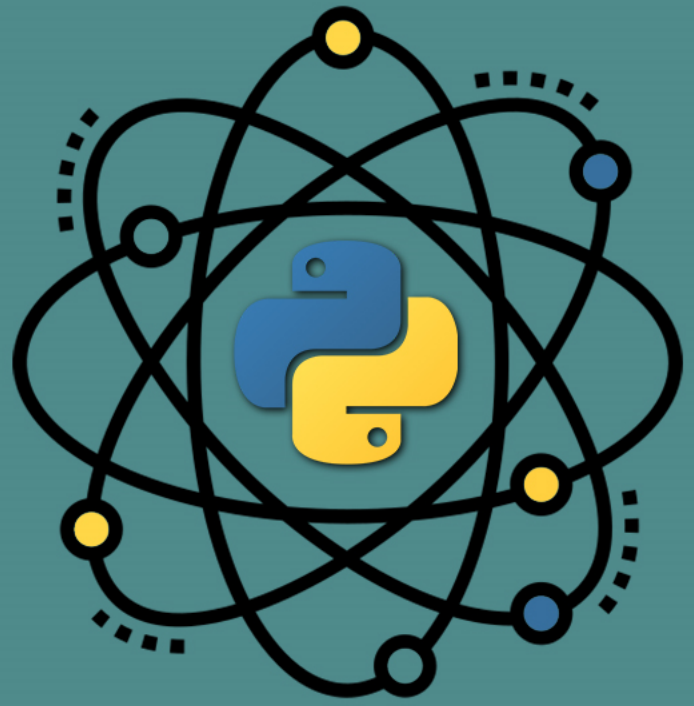



MOHAMMAD DEHGHANI PTYHON FOR DATA SCIENCE

# زبان پایتون در علم داده

## مدرس: محمد دهقانی



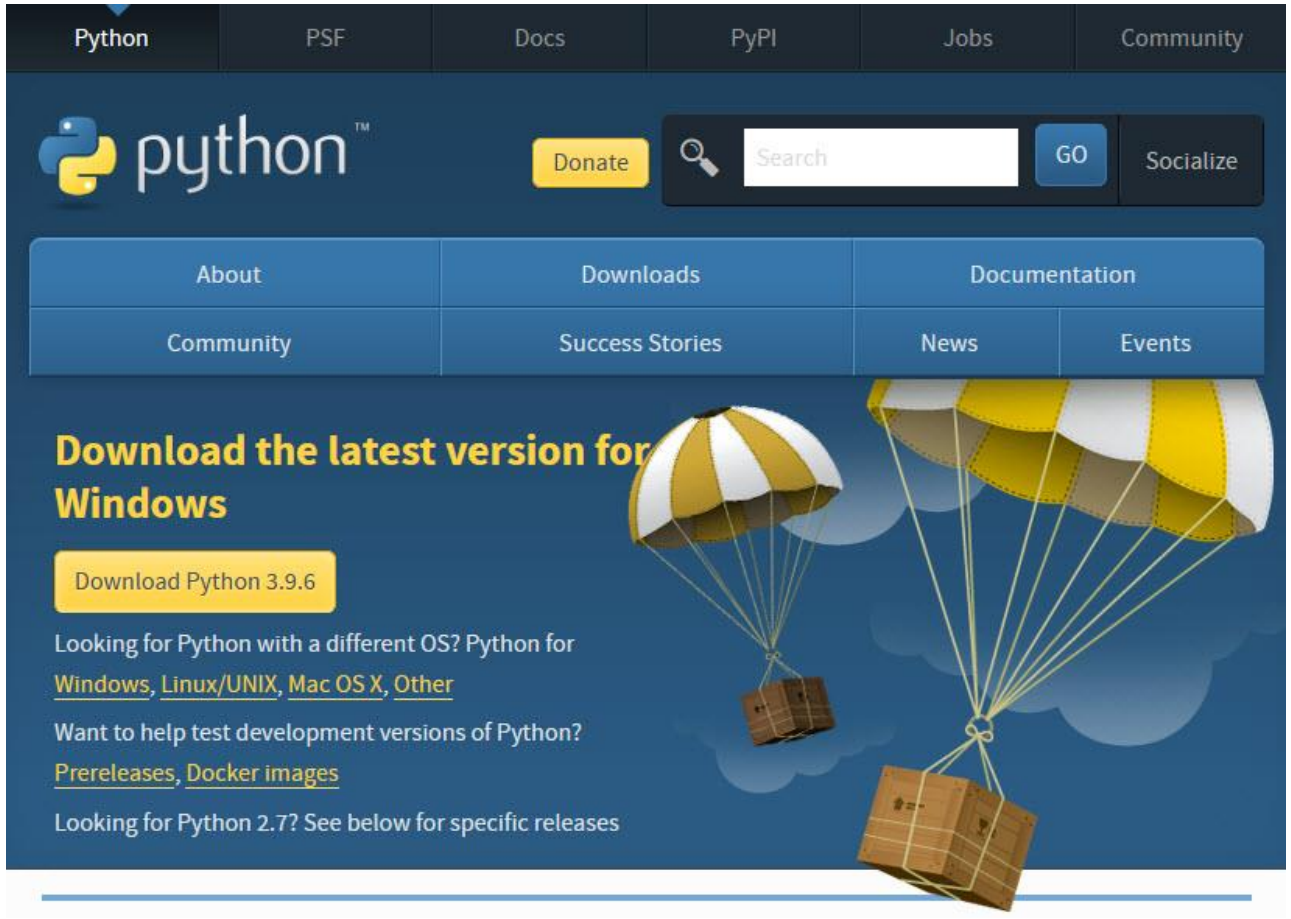
زبان پایتون در علم داده

مدرس:
محمد دهقانی

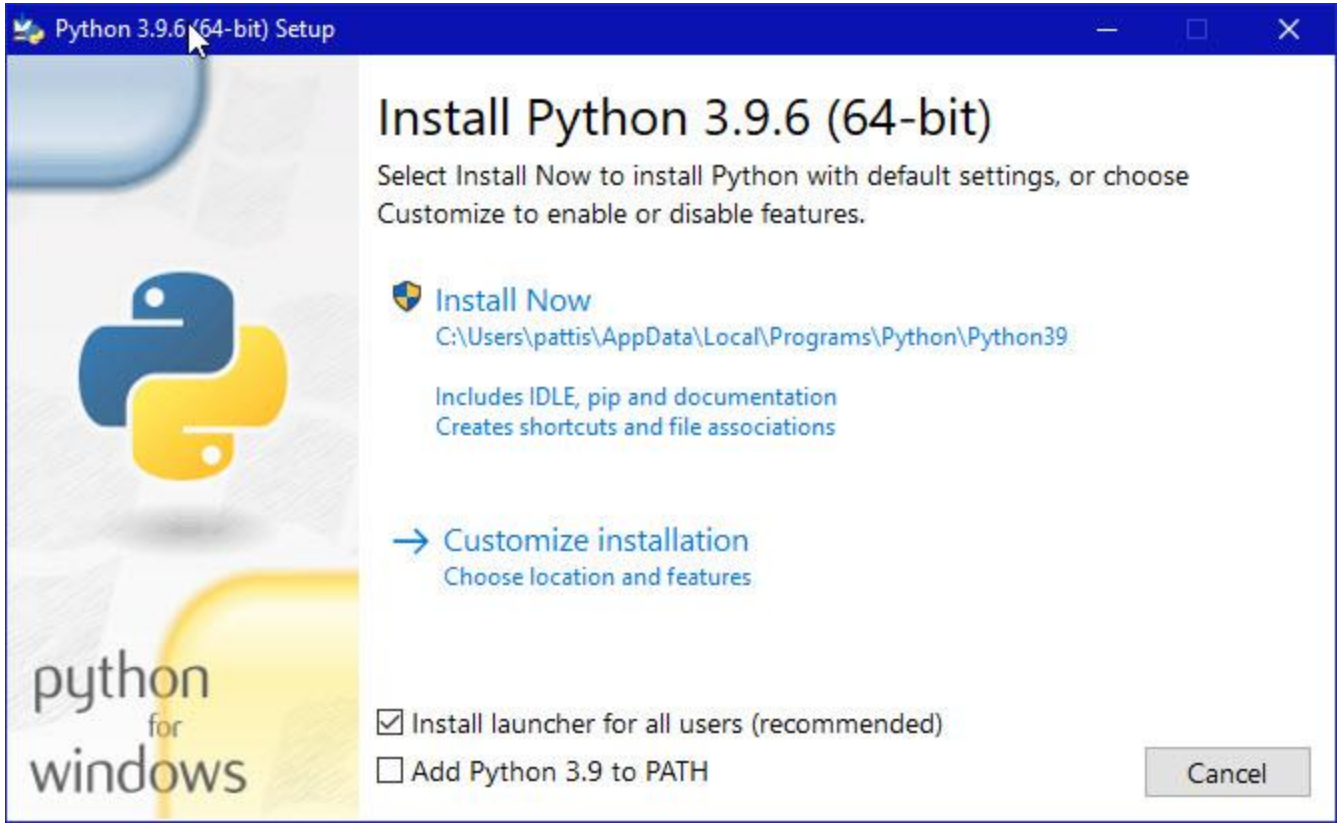
# جلسه: سوم
# موضوع: نصب پیش نیازها

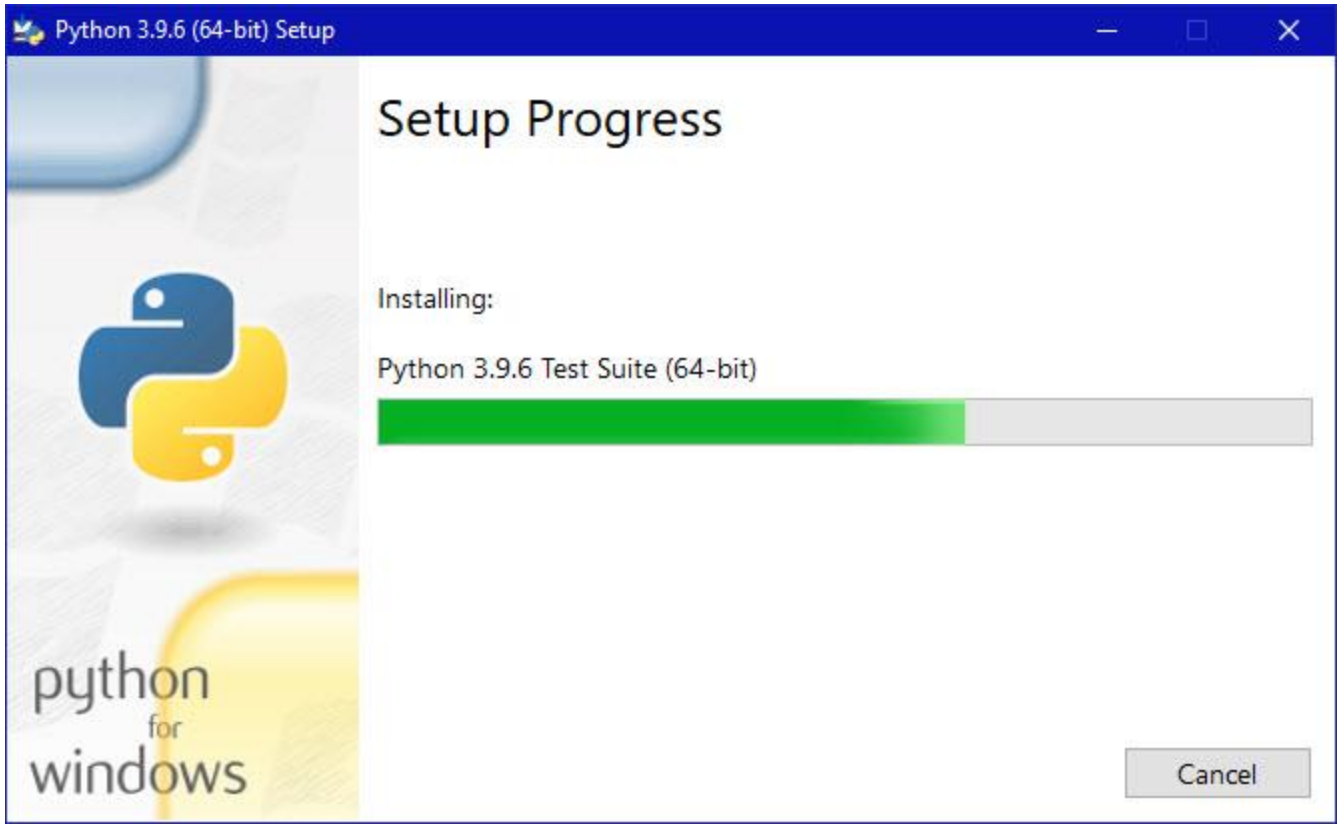
# مواردی که در این جلسه بررسی می شوند:

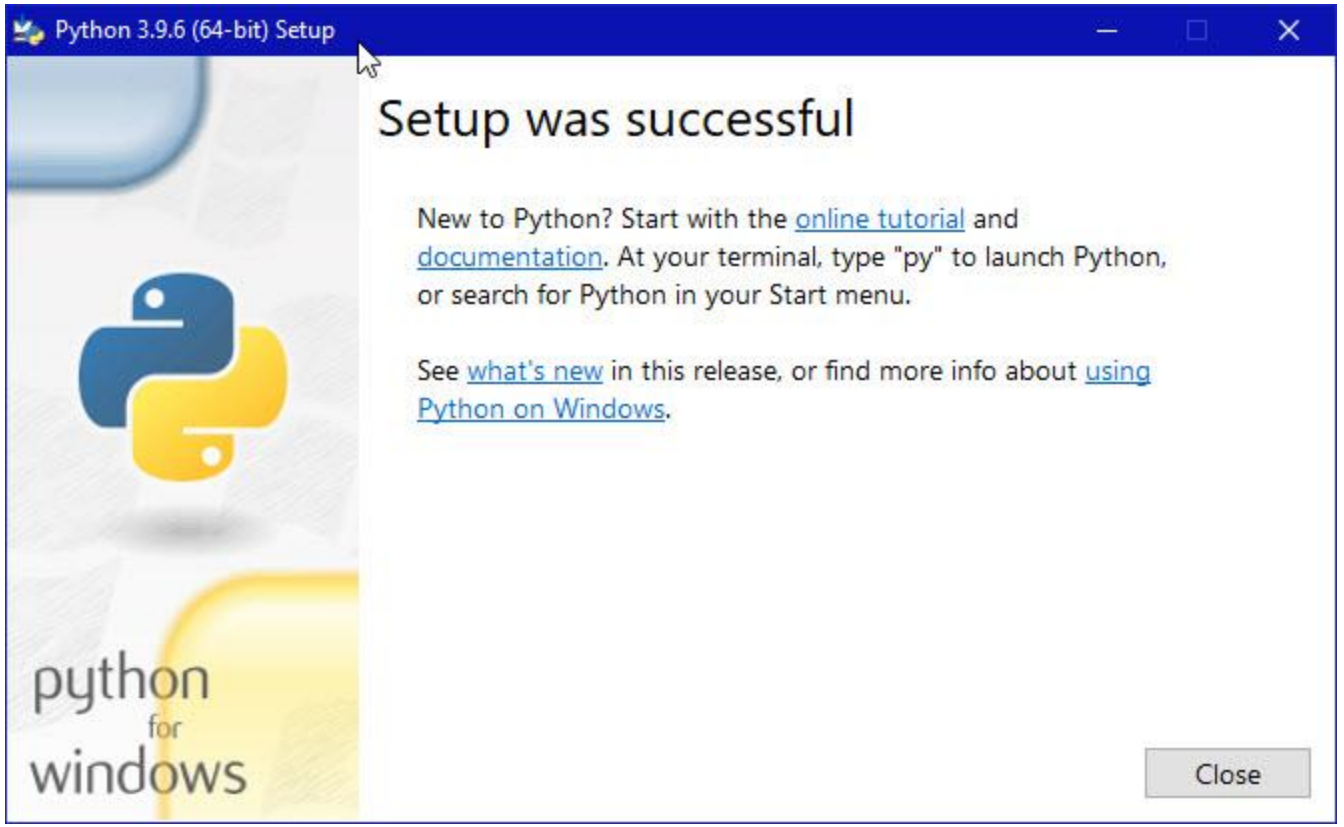
1. آموزش نصب پایتون
2. آموزش نصب jupyter notebook
3. آموزش نصب pycharm

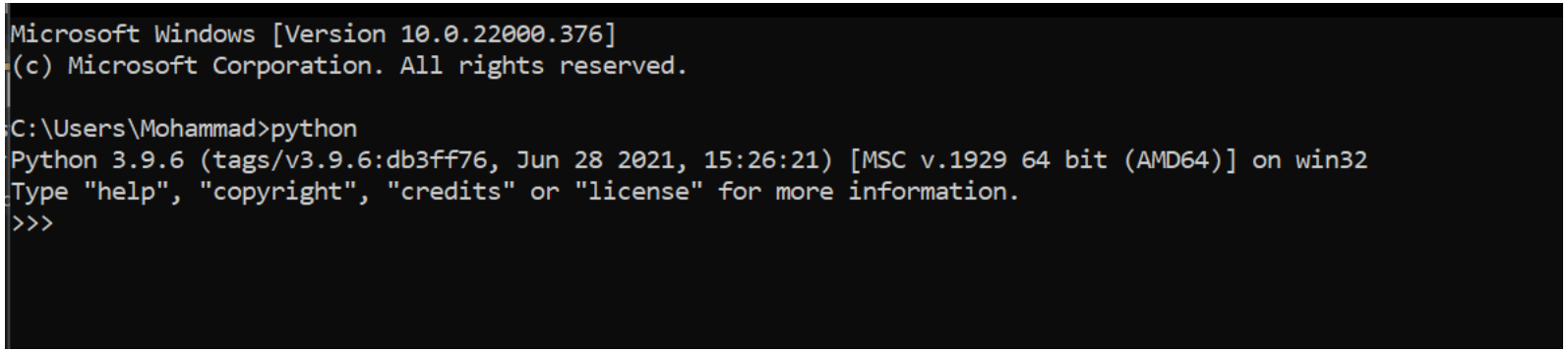

Python
PSF
Docs
PyPI
Jobs
Community
python™
Donate
Search
GO
Socialize
About
Downloads
Documentation
Community
Success Stories
News
Events
Download the latest version for Windows
Download Python 3.9.6
Looking for Python with a different OS? Python for Windows, Linux/UNIX, Mac OS X, Other
Want to help test development versions of Python? Prereleases, Docker images
Looking for Python 2.7? See below for specific releases

Opening python-3.9.6-amd64.exe
You have chosen to open:
python-3.9.6-amd64.exe
which is: exe File (24.8 MB)
from: https://www.python.org
Would you like to save this file?
Save File
Cancel


Python 3.9.6 (64-bit) Setup
Install Python 3.9.6 (64-bit)
Select Install Now to install Python with default settings, or choose
Customize to enable or disable features.
Install Now
C:\Users\pattis\AppData\Local\Programs\Python\Python39
Includes IDLE, pip and documentation
Creates shortcuts and file associations
Customize installation
Choose location and features
python
for
windows
Install launcher for all users (recommended)
Add Python 3.9 to PATH
Cancel


Python 3.9.6 (64-bit) Setup
Setup Progress
Installing:
Python 3.9.6 Test Suite (64-bit)
python
for
windows
Cancel

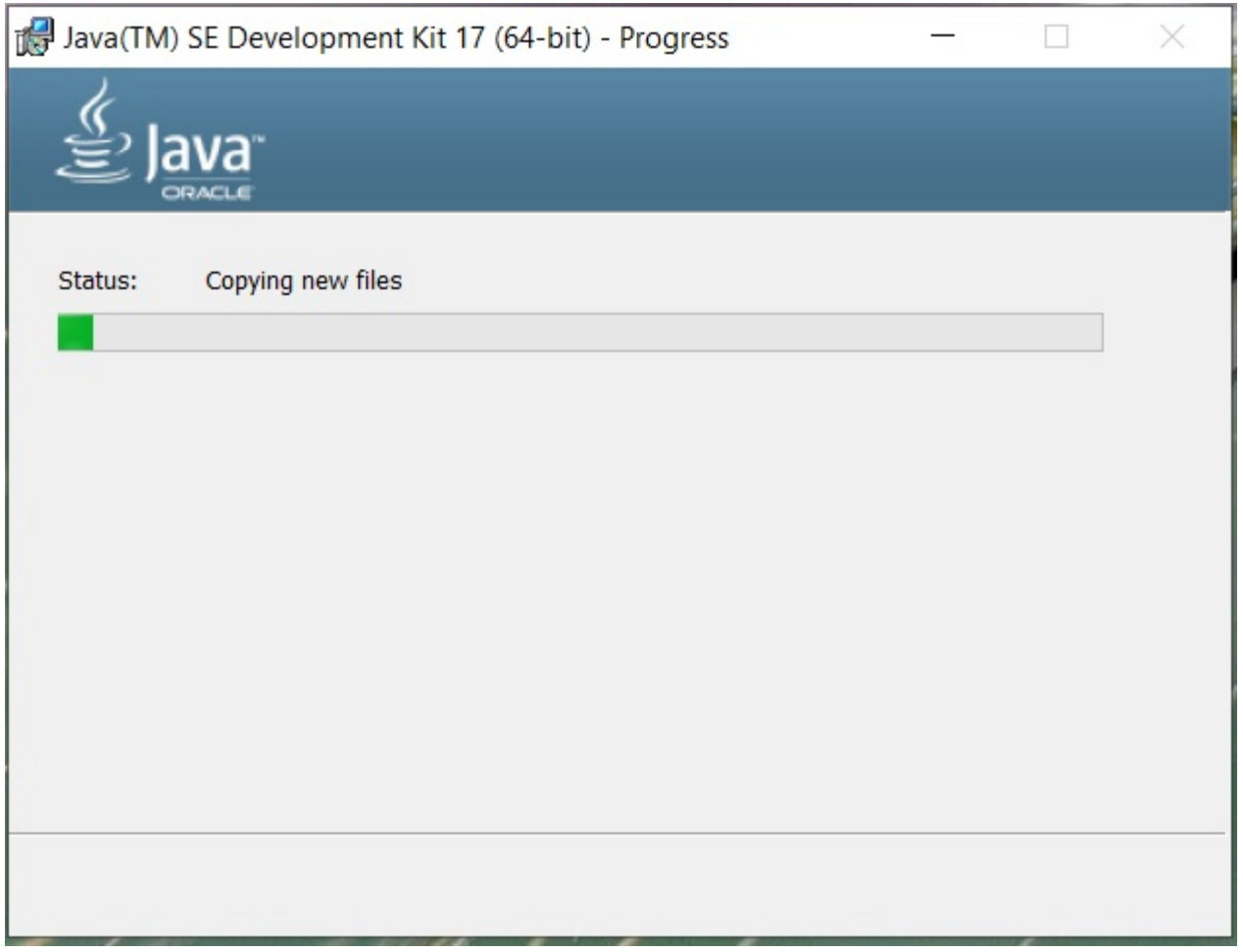

Python 3.9.6 (64-bit) Setup
Setup was successful
New to Python? Start with the online tutorial and documentation. At your terminal, type "py" to launch Python, or search for Python in your Start menu.
See what's new in this release, or find more info about using Python on Windows.
python for windows
Close


Microsoft Windows [Version 10.0.22000.376]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Mohammad>python
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>

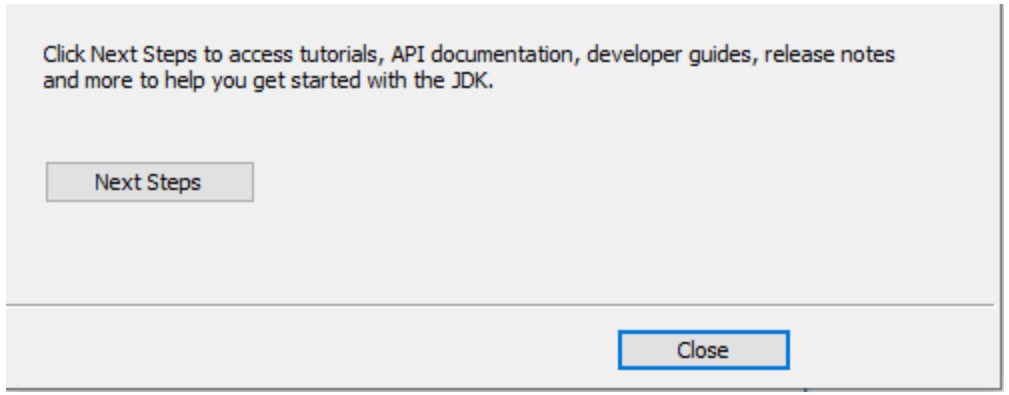
https://www.jetbrains.com/help/pycharm/installation-guide.html#requirements

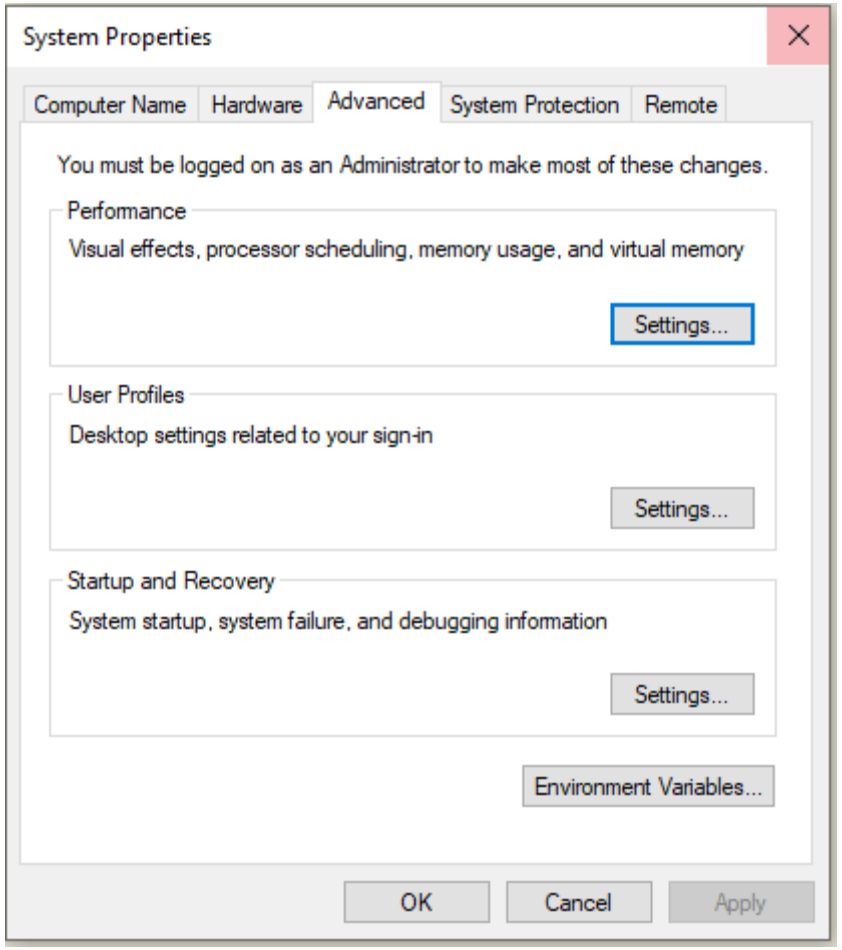
Java(TM) SE Development Kit 17 (64-bit) - Setup
Java
ORACLE
Welcome to the Installation Wizard for Java SE Development Kit 17
This wizard will guide you through the installation process for the Java SE Development Kit 17.
Next >
Cancel

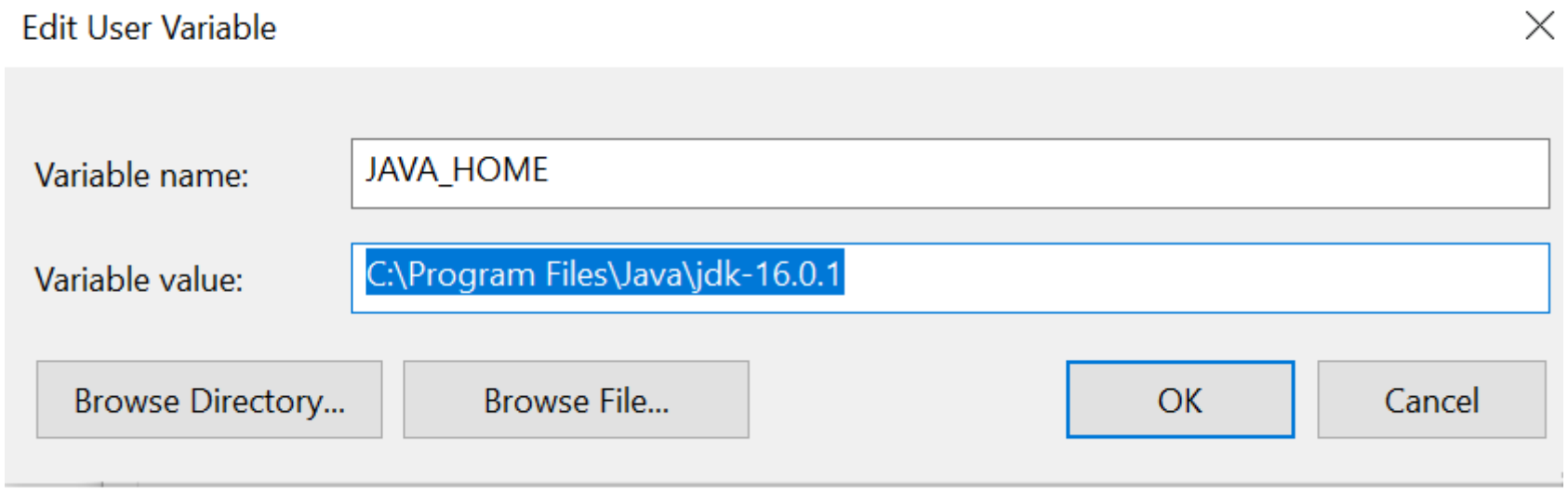
Java(TM) SE Development Kit 17 (64-bit) - Destination Folder
Java
ORACLE
Java(TM) SE Development Kit 17 (64-bit), including a private JRE and src.zip. This will require 420MB on your hard drive. Click the "Change" button to change the installation folder.
Install Java(TM) SE Development Kit 17 (64-bit) to:
C:\java\oracle\jdk-17\
Change...
Back
Next
Cancel

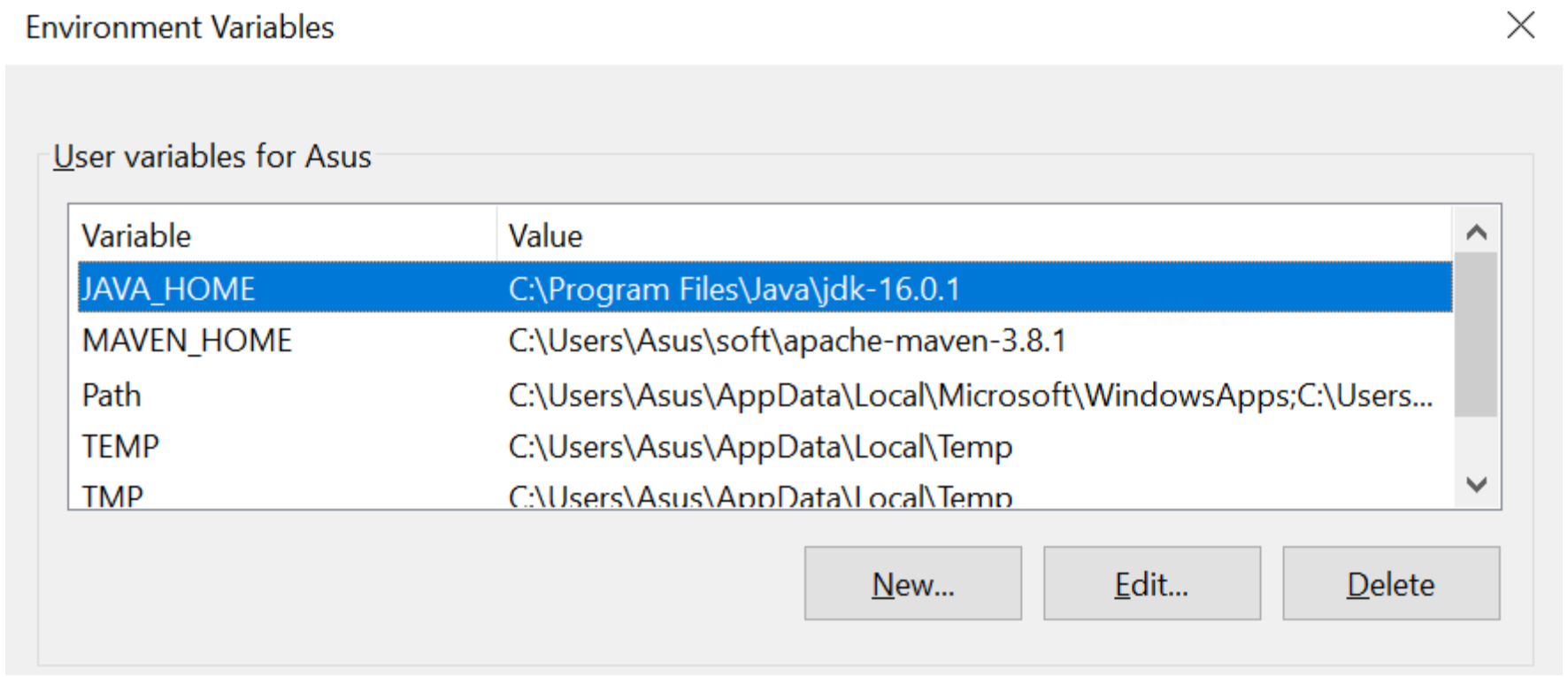

Java(TM) SE Development Kit 17 (64-bit) - Progress
Java
ORACLE
Status:
Copying new files

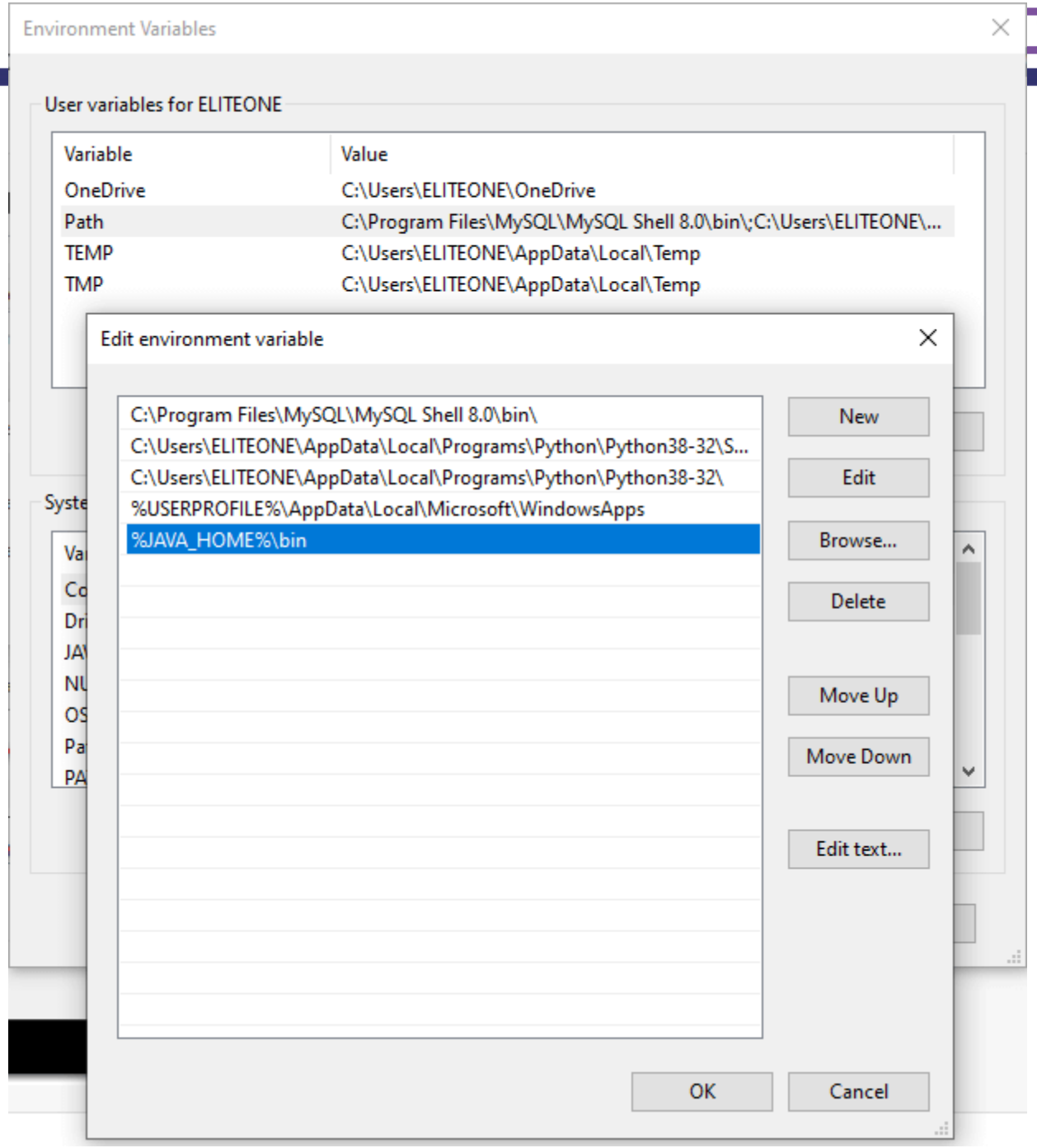
Java(TM) SE Development Kit 17 (64-bit) - Complete
Java
ORACLE
Java(TM) SE Development Kit 17 (64-bit) Successfully Installed
Click Next Steps to access tutorials, API documentation, developer guides, release notes and more to help you get started with the JDK.
Next Steps
Close

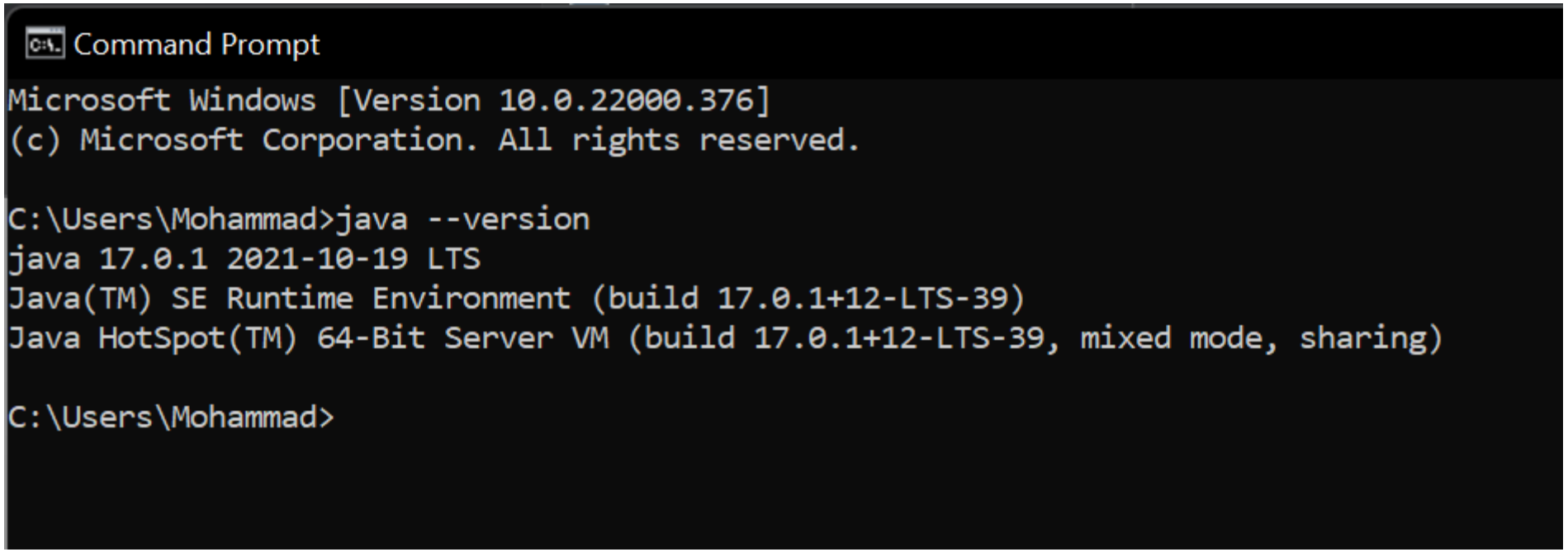

Click Next Steps to access tutorials, API documentation, developer guides, release notes and more to help you get started with the JDK.
Next Steps
Close


System Properties
Computer Name
Hardware
Advanced
System Protection
Remote
You must be logged on as an Administrator to make most of these changes.
Performance
Visual effects, processor scheduling, memory usage, and virtual memory
Settings...
User Profiles
Desktop settings related to your sign-in
Settings...
Startup and Recovery
System startup, system failure, and debugging information
Settings...
Environment Variables...
OK
Cancel
Apply


Edit User Variable
Variable name:
JAVA_HOME
Variable value:
C:\Program Files\Java\jdk-16.0.1
Browse Directory...
Browse File...
OK
Cancel


Environment Variables
User variables for Asus
Variable
Value
JAVA_HOME
C:\Program Files\Java\jdk-16.0.1
MAVEN_HOME
C:\Users\Asus\soft\apache-maven-3.8.1
Path
C:\Users\Asus\AppData\Local\Microsoft\WindowsApps;C:\Users...
TEMP
C:\Users\Asus\AppData\Local\Temp
TMP
C:\Users\Asus\AppData\Local\Temp
New...
Edit...
Delete


Environment Variables
User variables for ELITEONE
Variable
Value
OneDrive
C:\Users\ELITEONE\OneDrive
Path
C:\Program Files\MySQL\MySQL Shell 8.0\bin\;C:\Users\ELITEONE\...
TEMP
C:\Users\ELITEONE\AppData\Local\Temp
TMP
C:\Users\ELITEONE\AppData\Local\Temp
Edit environment variable
C:\Program Files\MySQL\MySQL Shell 8.0\bin\
C:\Users\ELITEONE\AppData\Local\Programs\Python\Python38-32\S...
C:\Users\ELITEONE\AppData\Local\Programs\Python\Python38-32\
%USERPROFILE%\AppData\Local\Microsoft\WindowsApps
%JAVA_HOME%\bin
New
Edit
Browse...
Delete
Move Up
Move Down
Edit text...
OK
Cancel


Command Prompt
Microsoft Windows [Version 10.0.22000.376]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Mohammad>java --version
java 17.0.1 2021-10-19 LTS
Java(TM) SE Runtime Environment (build 17.0.1+12-LTS-39)
Java HotSpot(TM) 64-Bit Server VM (build 17.0.1+12-LTS-39, mixed mode, sharing)
C:\Users\Mohammad>

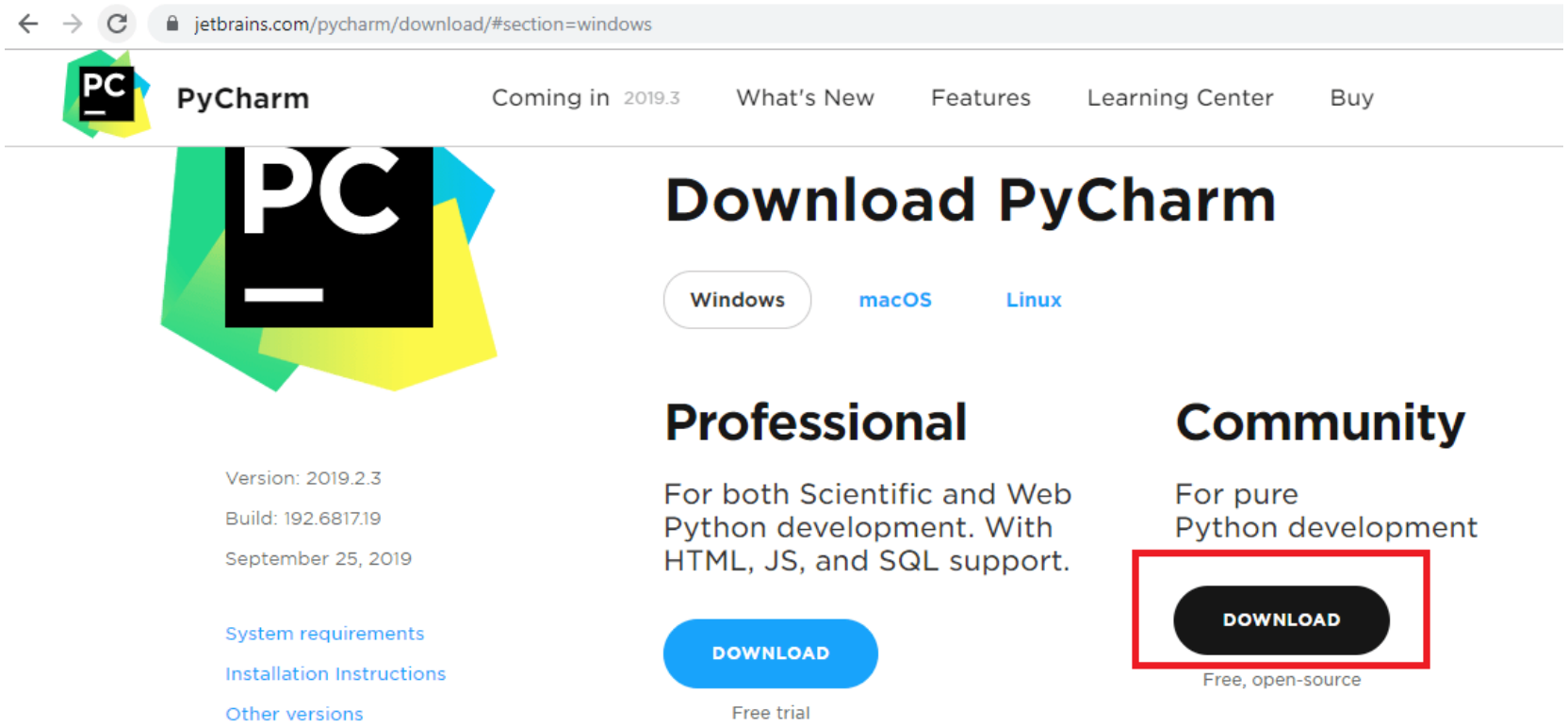
PyCharm IDE V2021.1.1 is a cross-platform, professional-level Integrated Development Environment (IDE) developed by JetBrains and designed specifically for professional Python developers.

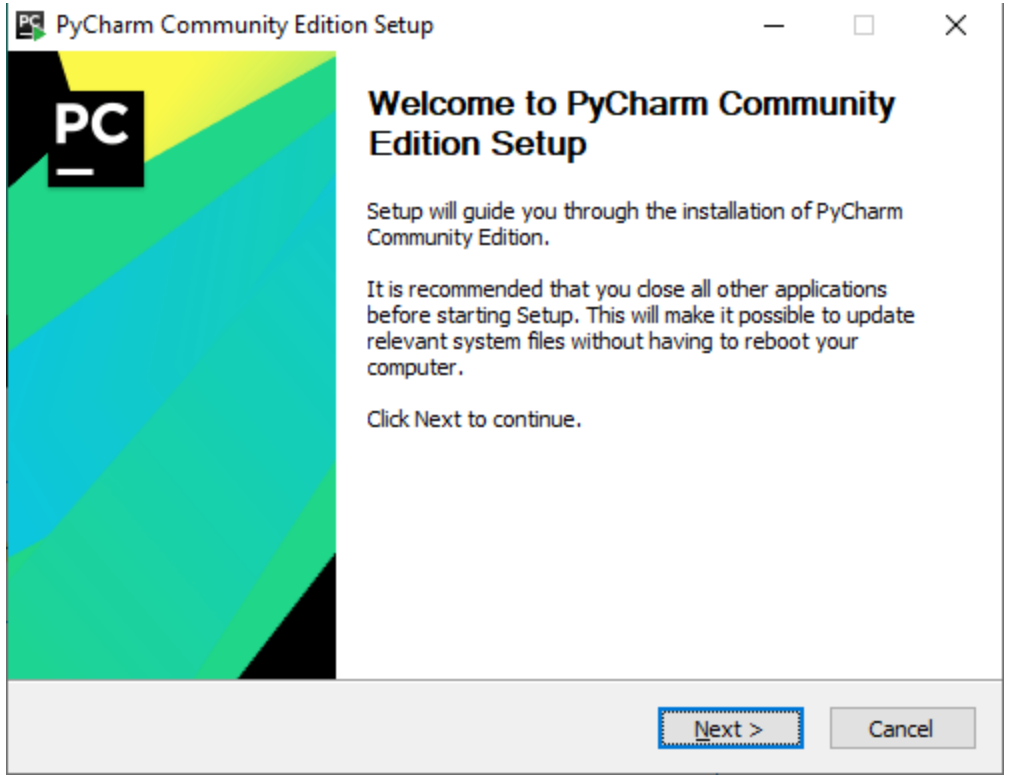
It is pretty famous for Python development and comes in three different editions.

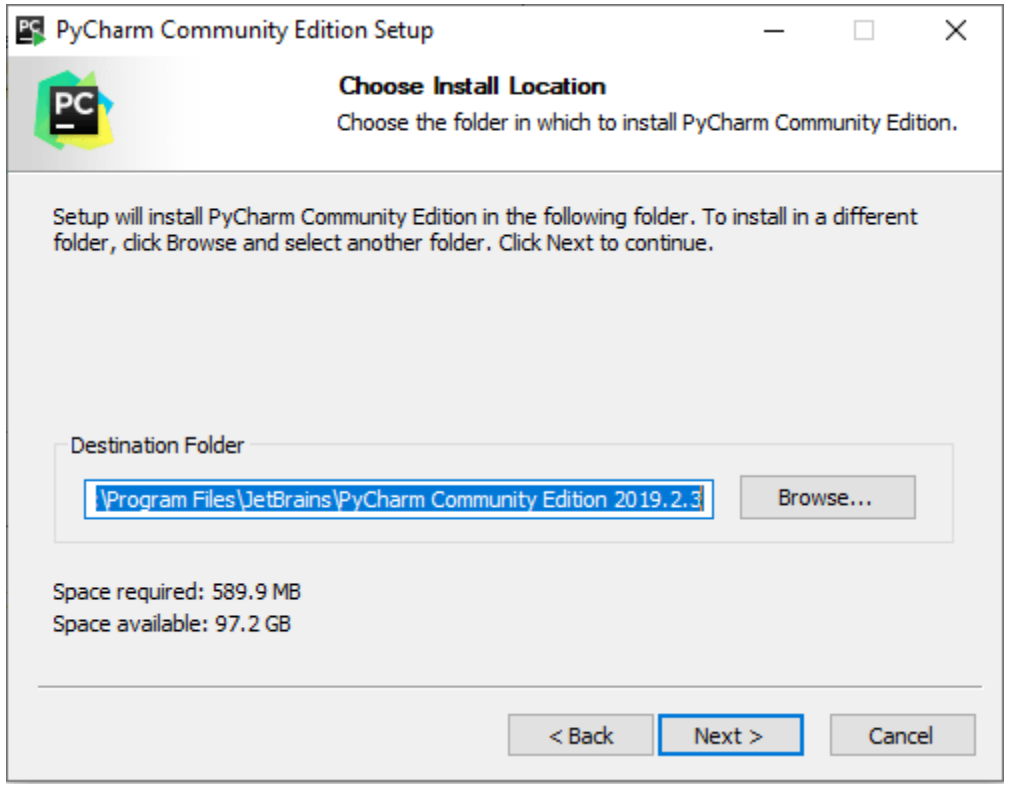
PyCharm professional edition - A complete commercial stack with useful tools and features. it's paid and 30 days trial version is available.

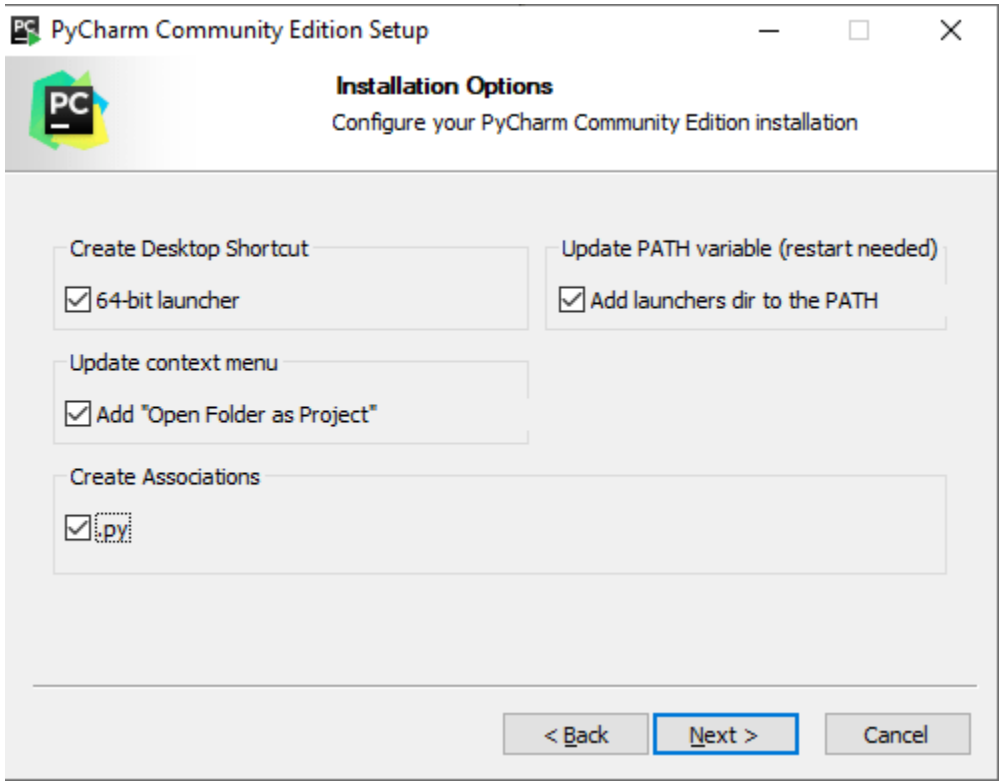
PyCharm community edition - It's free and open-source, Comes with limited features but enough to develop Python applications.

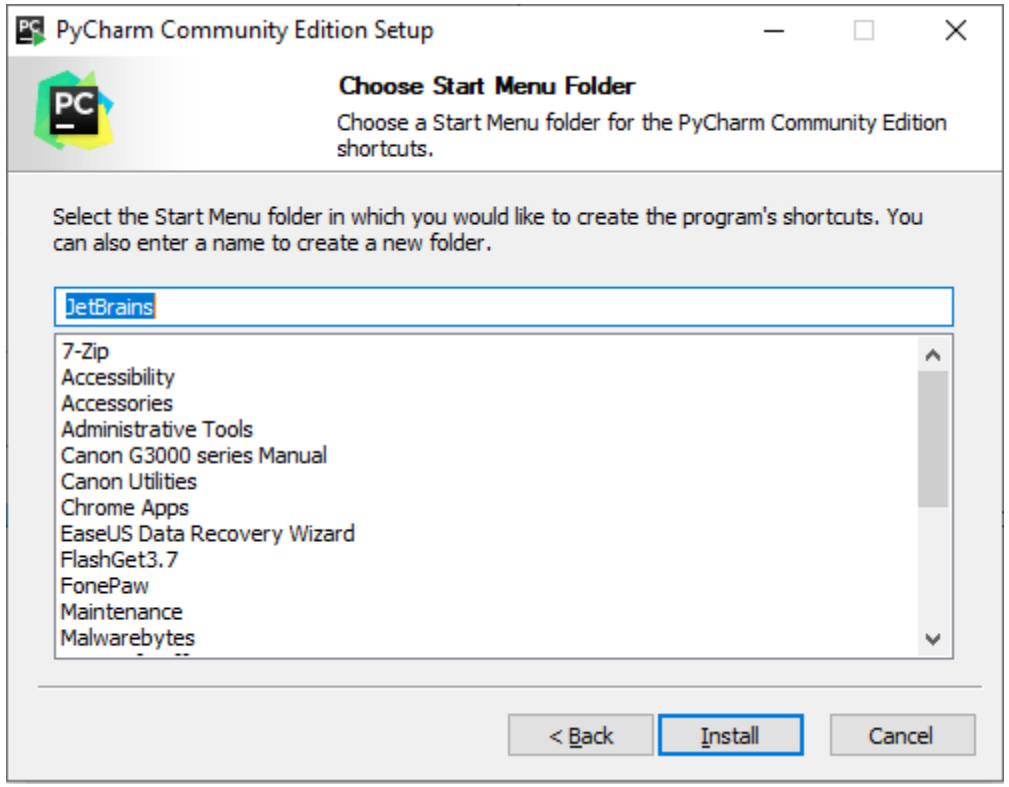
PyCharm Edu edition - Free version for students, which provides courses and helps you to learn Python.

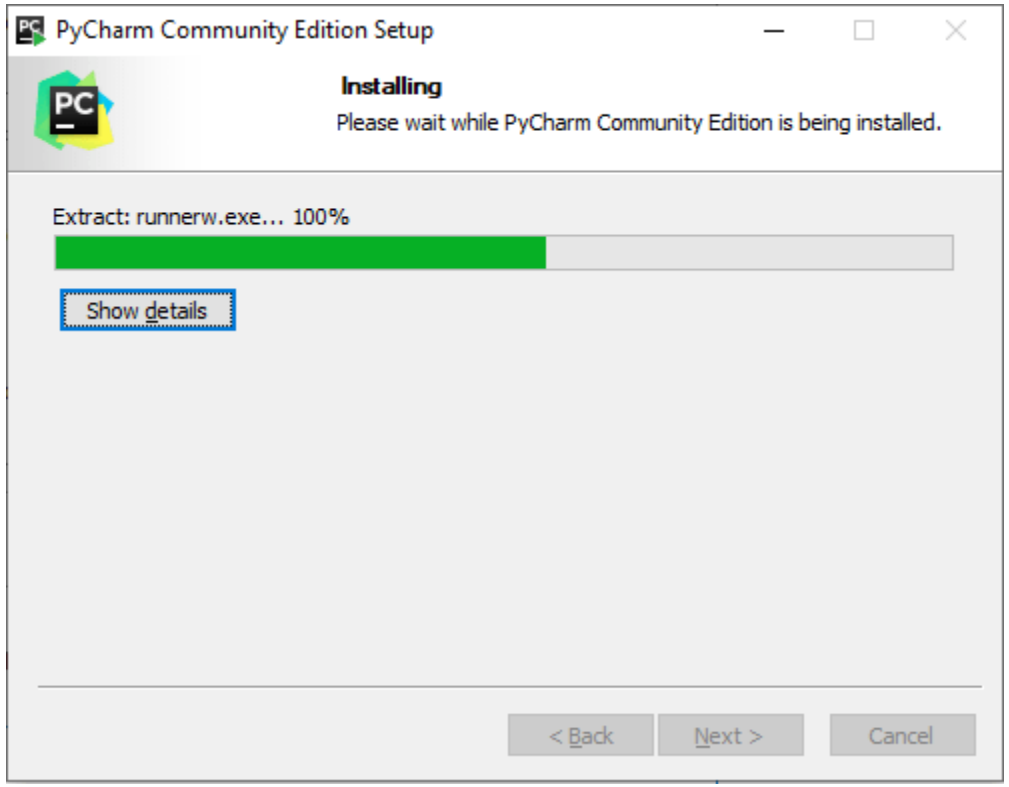

jetbrains.com/pycharm/download/#section=windows
PyCharm
Coming in 2019.3
What's New
Features
Learning Center
Buy
Download PyCharm
Windows
macOS
Linux
Professional
For both Scientific and Web Python development. With HTML, JS, and SQL support.
DOWNLOAD
Free trial
Community
For pure Python development
DOWNLOAD
Free, open-source
Version: 2019.2.3
Build: 192.6817.19
September 25, 2019
System requirements
Installation Instructions
Other versions

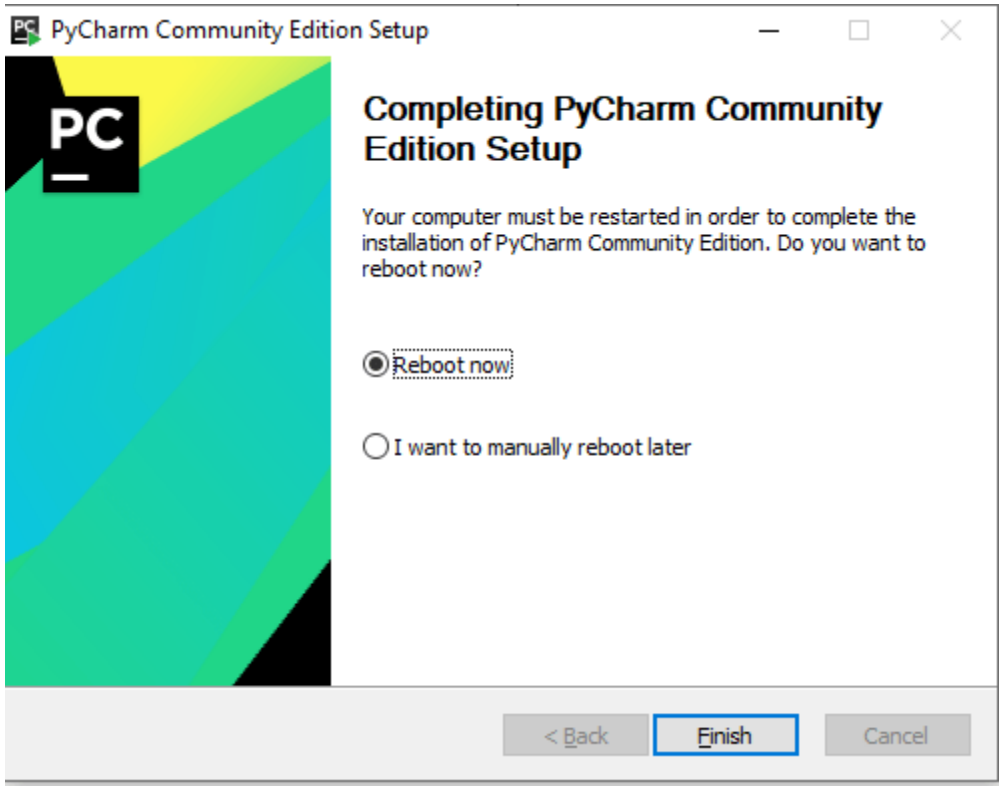

PyCharm Community Edition Setup
PC
Welcome to PyCharm Community Edition Setup
Setup will guide you through the installation of PyCharm Community Edition.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel

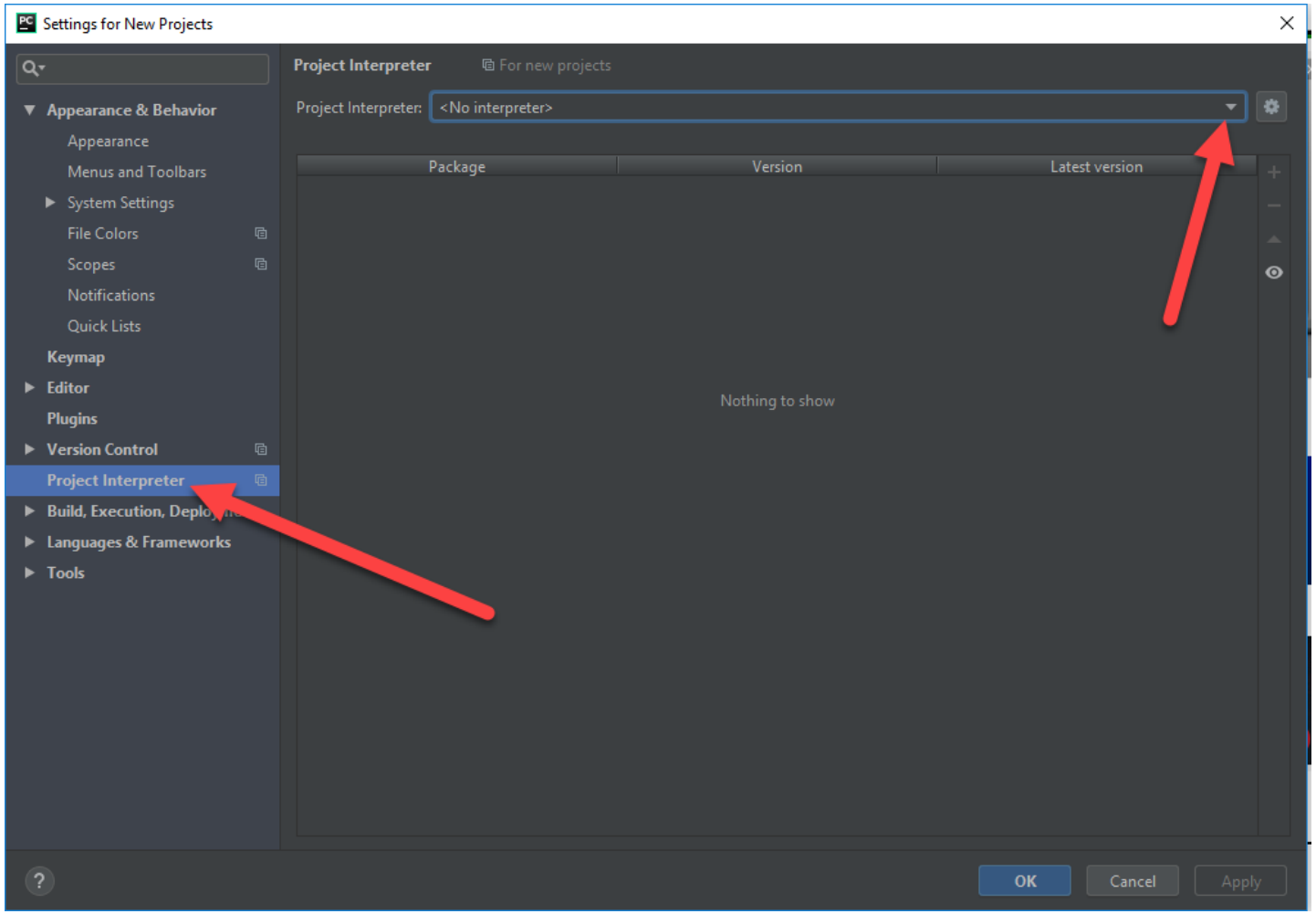

PyCharm Community Edition Setup
Choose Install Location
Choose the folder in which to install PyCharm Community Edition.
Setup will install PyCharm Community Edition in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.
Destination Folder
\Program Files\JetBrains\PyCharm Community Edition 2019.2.3
Browse...
Space required: 589.9 MB
Space available: 97.2 GB
< Back
Next >
Cancel

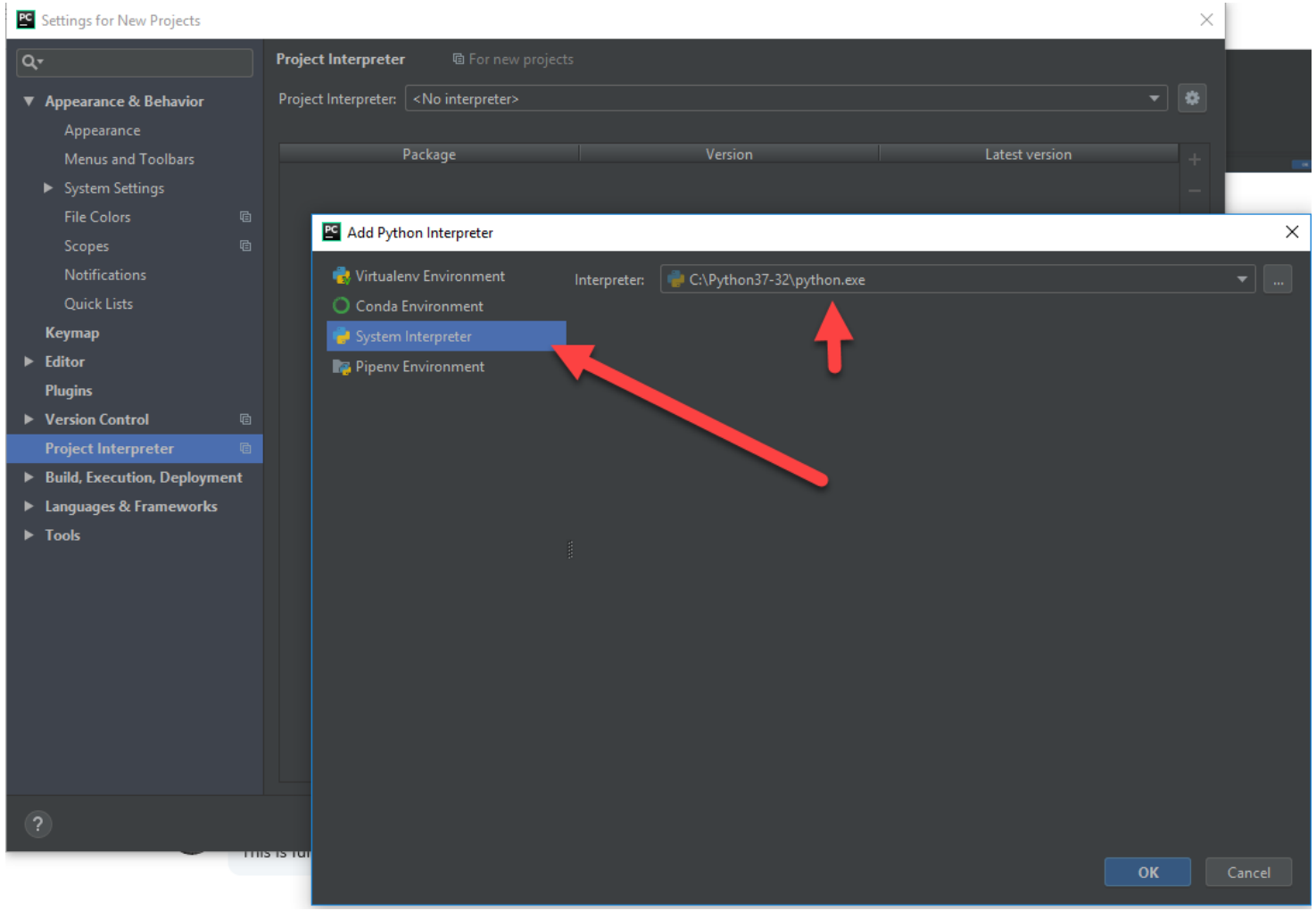

PyCharm Community Edition Setup
Installation Options
Configure your PyCharm Community Edition installation
Create Desktop Shortcut
64-bit launcher
Update PATH variable (restart needed)
Add launchers dir to the PATH
Update context menu
Add "Open Folder as Project"
Create Associations
.py
< Back
Next >
Cancel

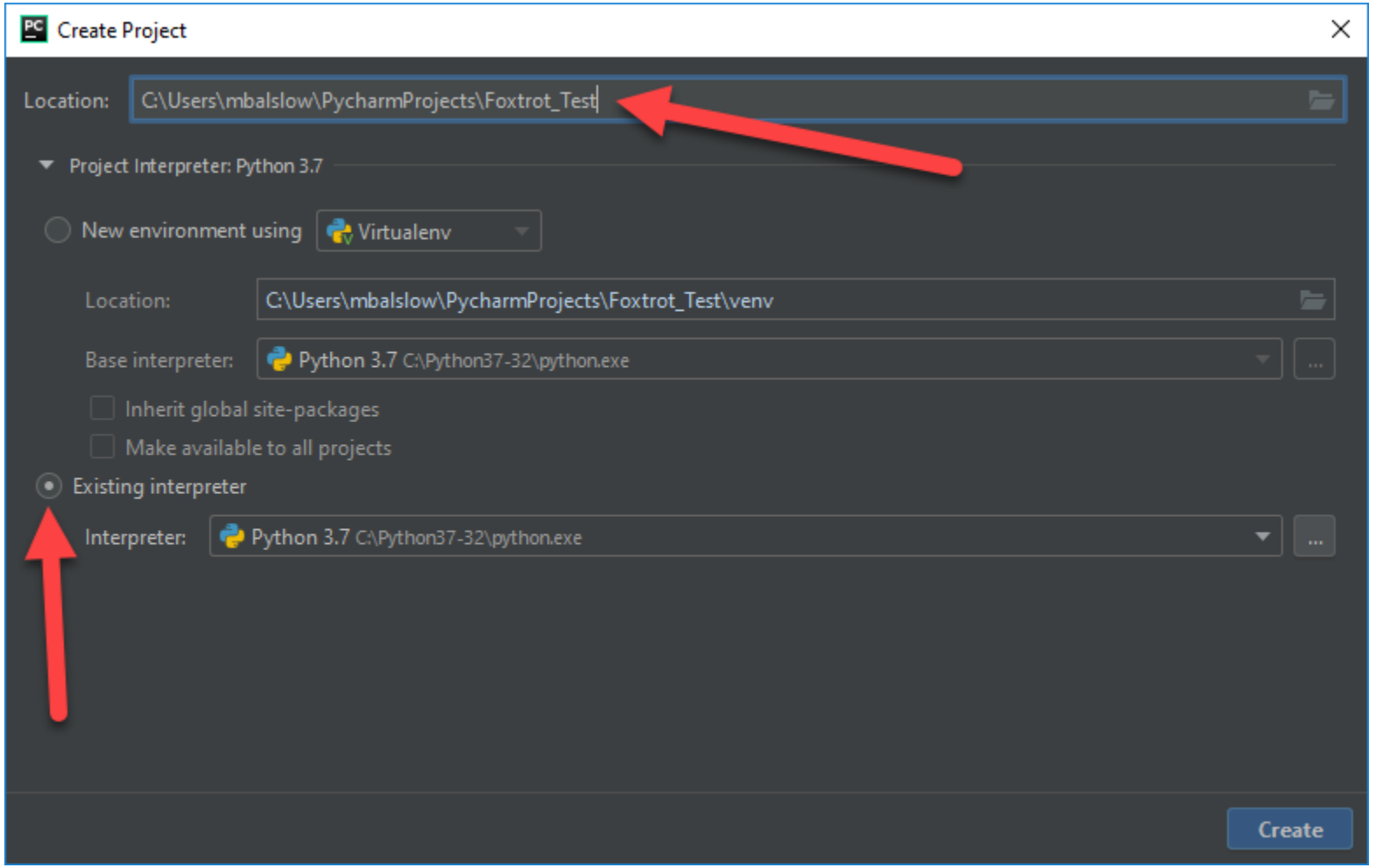

PyCharm Community Edition Setup
Choose Start Menu Folder
Choose a Start Menu folder for the PyCharm Community Edition shortcuts.
Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.
JetBrains
7-Zip
Accessibility
Accessories
Administrative Tools
Canon G3000 series Manual
Canon Utilities
Chrome Apps
EaseUS Data Recovery Wizard
FlashGet3.7
FonePaw
Maintenance
Malwarebytes
< Back
Install
Cancel

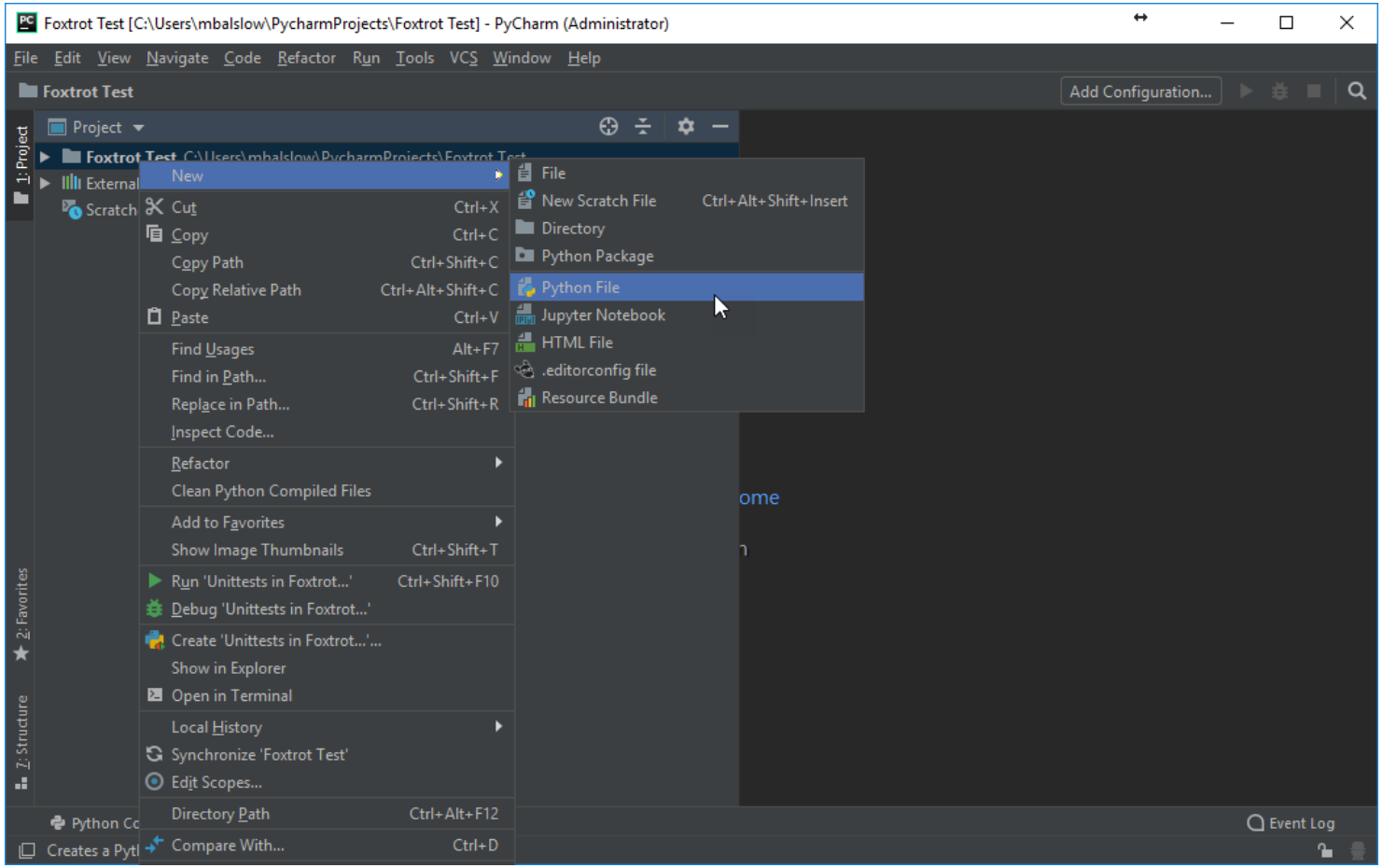

PyCharm Community Edition Setup
Installing
Please wait while PyCharm Community Edition is being installed.
Extract: runnerw.exe... 100%
Show details
< Back
Next >
Cancel

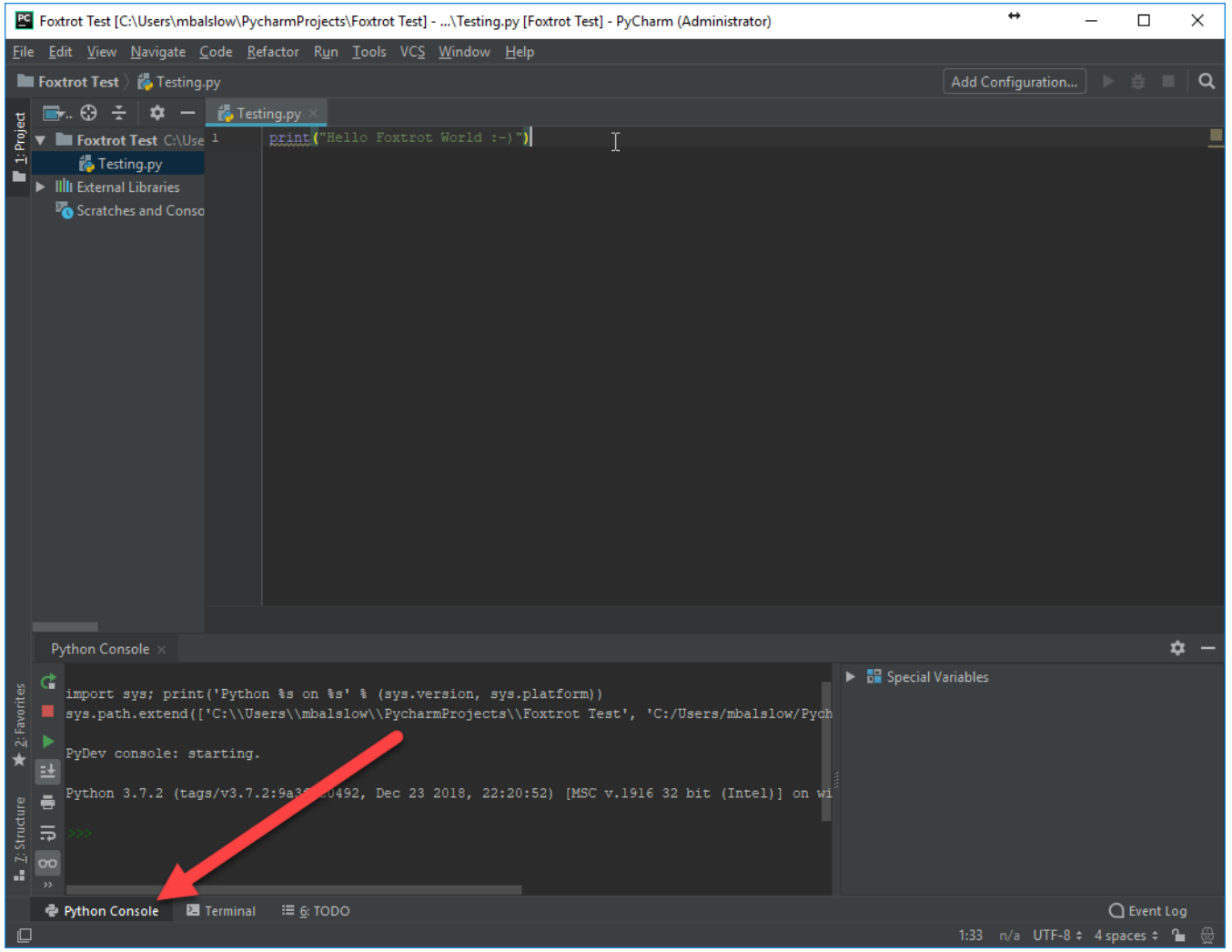

PyCharm Community Edition Setup
PC
Completing PyCharm Community Edition Setup
Your computer must be restarted in order to complete the installation of PyCharm Community Edition. Do you want to reboot now?
Reboot now
I want to manually reboot later
< Back
Finish
Cancel

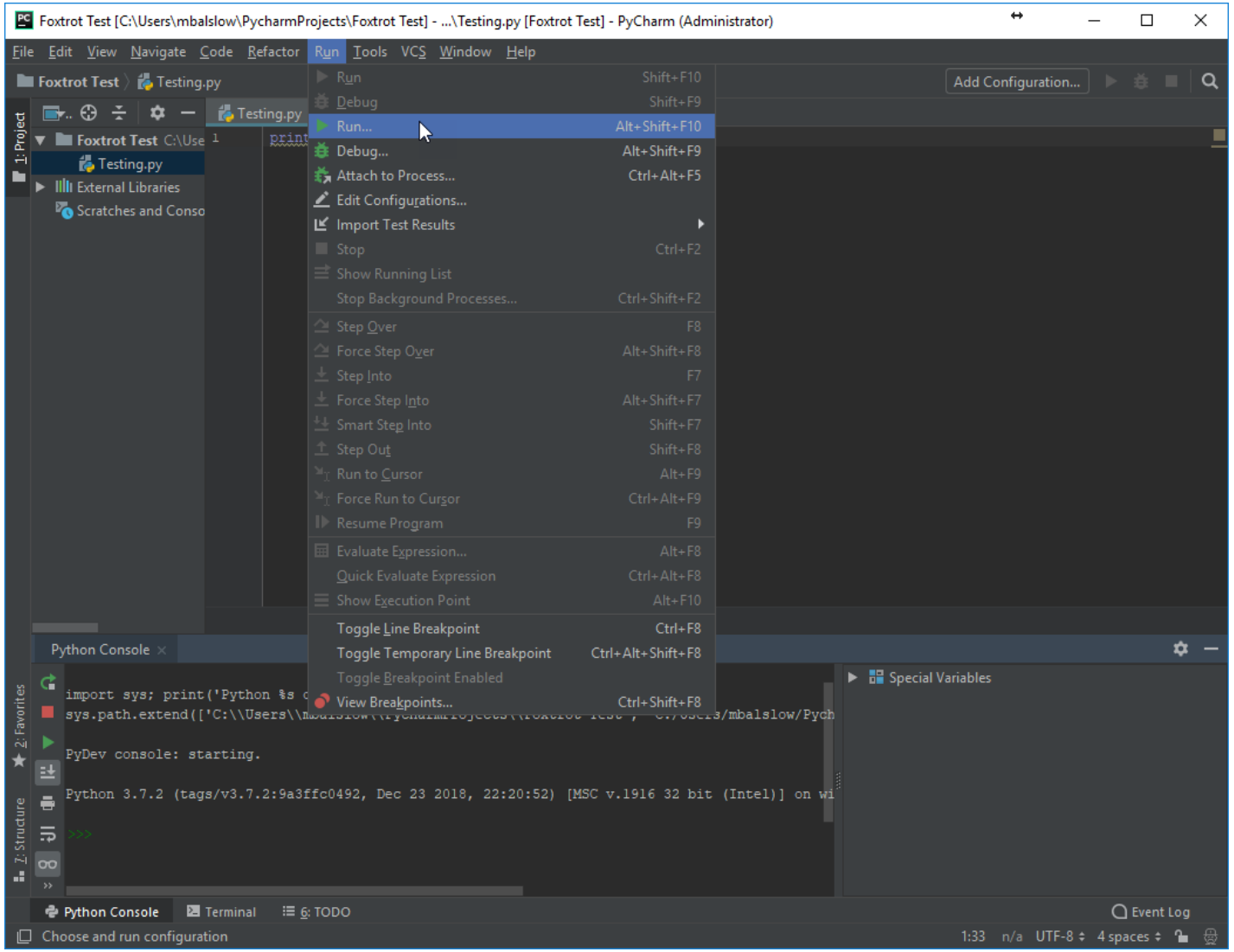

Settings for New Projects
Project Interpreter
For new projects
Project Interpreter:
<No interpreter>
Package
Version
Latest version
Nothing to show
Appearance & Behavior
Appearance
Menus and Toolbars
System Settings
File Colors
Scopes
Notifications
Quick Lists
Keymap
Editor
Plugins
Version Control
Project Interpreter
Languages & Frameworks
Tools
OK
Cancel
Apply


Settings for New Projects
Project Interpreter
For new projects
Project Interpreter: <No interpreter>
Package
Version
Latest version
Appearance & Behavior
Appearance
Menus and Toolbars
System Settings
File Colors
Scopes
Notifications
Quick Lists
Keymap
Editor
Plugins
Version Control
Project Interpreter
Build, Execution, Deployment
Languages & Frameworks
Tools
Add Python Interpreter
Virtualenv Environment
Conda Environment
System Interpreter
Pipenv Environment
Interpreter: C:\Python37-32\python.exe
OK
Cancel


Create Project
Location:
C:\Users\mbalslow\PycharmProjects\Foxtrot_Test
Project Interpreter: Python 3.7
New environment using
Virtualenv
Location:
C:\Users\mbalslow\PycharmProjects\Foxtrot_Test\venv
Base interpreter:
Python 3.7 C:\Python37-32\python.exe
Inherit global site-packages
Make available to all projects
Existing interpreter
Interpreter:
Python 3.7 C:\Python37-32\python.exe
Create


Foxtrot Test [C:\Users\mbalslow\PycharmProjects\Foxtrot Test] - PyCharm (Administrator)
File Edit View Navigate Code Refactor Run Tools VCS Window Help
Foxtrot Test
Add Configuration...
Project
1: Project
2: Favorites
7: Structure
New
Cut Ctrl+X
Copy Ctrl+C
Copy Path Ctrl+Shift+C
Copy Relative Path Ctrl+Alt+Shift+C
Paste Ctrl+V
Find Usages Alt+F7
Find in Path... Ctrl+Shift+F
Replace in Path... Ctrl+Shift+R
Inspect Code...
Refactor
Clean Python Compiled Files
Add to Favorites
Show Image Thumbnails Ctrl+Shift+T
Run 'Unittests in Foxtrot...' Ctrl+Shift+F10
Debug 'Unittests in Foxtrot...'
Create 'Unittests in Foxtrot...'...
Show in Explorer
Open in Terminal
Local History
Synchronize 'Foxtrot Test'
Edit Scopes...
Directory Path Ctrl+Alt+F12
Compare With... Ctrl+D
File
New Scratch File Ctrl+Alt+Shift+Insert
Directory
Python Package
Python File
Jupyter Notebook
HTML File
.editorconfig file
Resource Bundle
Event Log


Foxtrot Test [C:\Users\mbalslow\PycharmProjects\Foxtrot Test] - ...\Testing.py [Foxtrot Test] - PyCharm (Administrator)
File Edit View Navigate Code Refactor Run Tools VCS Window Help
Foxtrot Test
Testing.py
Add Configuration...
1: Project
Testing.py
Foxtrot Test C:\Use
Testing.py
External Libraries
Scratches and Conso
print("Hello Foxtrot World :-)")
Python Console
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['C:\\Users\\mbalslow\\PycharmProjects\\Foxtrot Test', 'C:/Users/mbalslow/Pych
PyDev console: starting.
Python 3.7.2 (tags/v3.7.2:9a3
0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on wi
>>>
Special Variables
2: Favorites
7: Structure
Python Console
Terminal
6: TODO
Event Log
1:33 n/a UTF-8 4 spaces


Foxtrot Test [C:\Users\mbalslow\PycharmProjects\Foxtrot Test] - ...\Testing.py [Foxtrot Test] - PyCharm (Administrator)
File Edit View Navigate Code Refactor Run Tools VCS Window Help
Foxtrot Test
Testing.py
Add Configuration...
1: Project
Foxtrot Test C:\Use
Testing.py
External Libraries
Scratches and Conso
Run Shift+F10
Debug Shift+F9
Run... Alt+Shift+F10
Debug... Alt+Shift+F9
Attach to Process... Ctrl+Alt+F5
Edit Configurations...
Import Test Results
Stop Ctrl+F2
Show Running List
Stop Background Processes... Ctrl+Shift+F2
Step Over F8
Force Step Over Alt+Shift+F8
Step Into F7
Force Step Into Alt+Shift+F7
Smart Step Into Shift+F7
Step Out Shift+F8
Run to Cursor Alt+F9
Force Run to Cursor Ctrl+Alt+F9
Resume Program F9
Evaluate Expression... Alt+F8
Quick Evaluate Expression Ctrl+Alt+F8
Show Execution Point Alt+F10
Toggle Line Breakpoint Ctrl+F8
Toggle Temporary Line Breakpoint Ctrl+Alt+Shift+F8
Toggle Breakpoint Enabled
View Breakpoints... Ctrl+Shift+F8
Python Console
Special Variables
PyDev console: starting.
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit (Intel)] on wi
2: Favorites
7: Structure
Python Console
Terminal
6: TODO
Event Log
Choose and run configuration
1:33 n/a UTF-8 4 spaces