

Python: installation and basics

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Outline

- 1 Python Installation
- 2 Anaconda Installation
- 3 Jupyter notebook

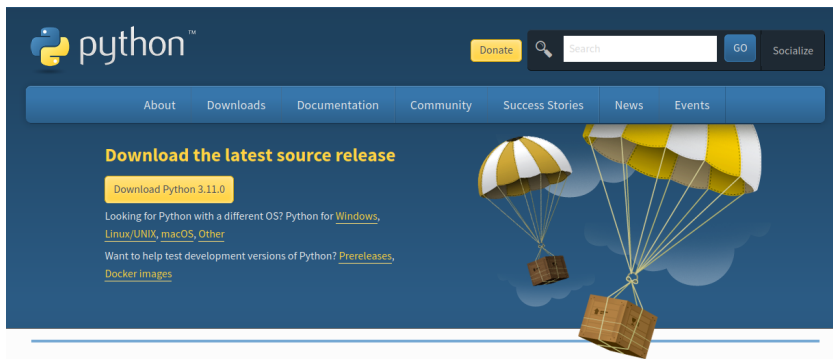
Petlja tutorial

- Useful repository <https://petlja.org/en>
- Library <https://petlja.org/library>

Download python

- Python website <https://www.python.org/>
- Download python <https://www.python.org/downloads/>
- Select the latest version of the python for your OS

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The screenshot shows the Python.org website with a dark blue header. The Python logo is on the left, followed by a navigation bar with links: About, Downloads, Documentation, Community, Success Stories, News, and Events. On the right of the header are a 'Donate' button, a search bar with a magnifying glass icon and a 'GO' button, and a 'Socialize' button. The main content area has a dark blue background with the text 'Download the latest source release' in yellow. Below this is a yellow button labeled 'Download Python 3.11.0'. Further down, there are links for 'Python for Windows', 'Linux/UNIX, macOS, Other', 'Prereleases', and 'Docker images'. On the right side of the main content area is an illustration of two parachutes with yellow and white stripes, each carrying a cardboard box, floating against a blue sky with white clouds.

python™

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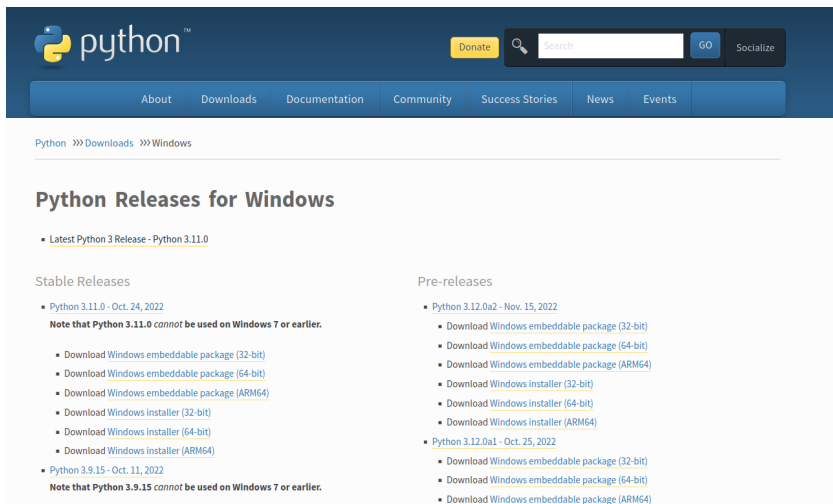
Download the latest source release

Download Python 3.11.0

Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [macOS](#), [Other](#)

Want to help test development versions of Python? [Prereleases](#), [Docker images](#)

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The screenshot shows the Python.org website's 'Downloads' page for Windows. The header features the Python logo, a 'Donate' button, a search bar, and a 'Socialize' button. Below the header is a navigation menu with links to 'About', 'Downloads', 'Documentation', 'Community', 'Success Stories', 'News', and 'Events'. The main content area is titled 'Python Releases for Windows' and includes a breadcrumb trail: 'Python >>> Downloads >>> Windows'. It lists the latest release as Python 3.11.0 and provides links to download Windows embeddable packages and installers for both 32-bit and 64-bit. It also lists pre-releases for Python 3.12.0a2 and Python 3.12.0a1, with similar download links. A note specifies that Python 3.11.0 and 3.9.15 cannot be used on Windows 7 or earlier.

Python >>> Downloads >>> Windows

Python Releases for Windows

- Latest Python 3 Release - Python 3.11.0

Stable Releases

- [Python 3.11.0 - Oct. 24, 2022](#)
Note that Python 3.11.0 cannot be used on Windows 7 or earlier.
 - Download [Windows embeddable package \(32-bit\)](#)
 - Download [Windows embeddable package \(64-bit\)](#)
 - Download [Windows embeddable package \(ARM64\)](#)
 - Download [Windows installer \(32-bit\)](#)
 - Download [Windows installer \(64-bit\)](#)
 - Download [Windows installer \(ARM64\)](#)
- [Python 3.9.15 - Oct. 11, 2022](#)
Note that Python 3.9.15 cannot be used on Windows 7 or earlier.

Pre-releases

- [Python 3.12.0a2 - Nov. 15, 2022](#)
 - Download [Windows embeddable package \(32-bit\)](#)
 - Download [Windows embeddable package \(64-bit\)](#)
 - Download [Windows embeddable package \(ARM64\)](#)
 - Download [Windows installer \(32-bit\)](#)
 - Download [Windows installer \(64-bit\)](#)
 - Download [Windows installer \(ARM64\)](#)
- [Python 3.12.0a1 - Oct. 25, 2022](#)
 - Download [Windows embeddable package \(32-bit\)](#)
 - Download [Windows embeddable package \(64-bit\)](#)
 - Download [Windows embeddable package \(ARM64\)](#)

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Files

Version	Operating System	Description	MD5 Sum	File Size	GPG	Sigstore
Gzipped source tarball	Source release		c5f77f1ea256dc5bdb0897eeb4d35bb0	26333656	SIG	CRT SIG
XZ compressed source tarball	Source release		fe92acfa0db9b9f5044958edb451d463	19819768	SIG	CRT SIG
macOS 64-bit universal2 installer	macOS	for macOS 10.9 and later	98fa94815780c9330fc2154559365834	42602603	SIG	CRT SIG
Windows embeddable package (32-bit)	Windows		0888959642cc8af087d88da3866490a5	9560053	SIG	CRT SIG
Windows embeddable package (64-bit)	Windows		7df0f4244e5a66760b7caaed58e86c93	10545380	SIG	CRT SIG
Windows embeddable package (ARM64)	Windows		e3dbbd5d63c6cb203adc6c0c8ca5f5f7	9765886	SIG	CRT SIG
Windows installer (32-bit)	Windows		e369a267acaad62487223bd835279bb9	23987136	SIG	CRT SIG
Windows installer (64-bit)	Windows	Recommended	4fe11b2b0bb0c744cf74aff537fcd7f	25157416	SIG	CRT SIG
Windows installer (ARM64)	Windows	Experimental	18e5bd9a4854109adf3b77c7c9dc1ded	24289144	SIG	CRT SIG

Select Windows installer 32-bit or 64-bit depending on your OS

Install python

- Run the executable installer



Install Jupiter notebook

- We will use Anaconda
- <https://www.anaconda.com/products/distribution>

The screenshot displays the 'Anaconda Installers' page. It is organized into three columns for different operating systems: Windows, MacOS, and Linux. Each column lists available Python versions (all are Python 3.9) and the corresponding installer types and sizes.

Operating System	Python Version	Installer Type	Size
Windows	Python 3.9	64-Bit Graphical Installer	621 MB
		64-Bit Command Line Installer	621 MB
MacOS	Python 3.9	64-Bit Graphical Installer	688 MB
		64-Bit Command Line Installer	681 MB
		64-Bit (M1) Graphical Installer	484 MB
		64-Bit (M1) Command Line Installer	472 MB
Linux	Python 3.9	64-Bit (x86) Installer	737 MB
		64-Bit (Power8 and Power9) Installer	360 MB
		64-Bit (AWS Graviton2 / ARM64) Installer	534 MB
		64-bit (Linux on IBM Z & LinuxONE) Installer	282 MB

Anaconda for Windows 32-bit

- <https://docs.anaconda.com/anaconda/install/hashe/wins-3-32/>
- Select the latest version: Anaconda3-2022.05-Windows-x86.exe
- Find and download the file at <https://repo.anaconda.com/archive/>

Anaconda for Windows 32-bit

Anaconda with Python 3 on 32-bit Windows

To verify the file integrity using MD5 or SHA-256, see [cryptographic hash verification](#).

- Hashes for Anaconda3-2022.05-Windows-x86.exe
- Hashes for Anaconda3-2021.11-Windows-x86.exe
- Hashes for Anaconda3-2021.05-Windows-x86.exe
- Hashes for Anaconda3-2021.04-Windows-x86.exe
- Hashes for Anaconda3-2020.11-Windows-x86.exe

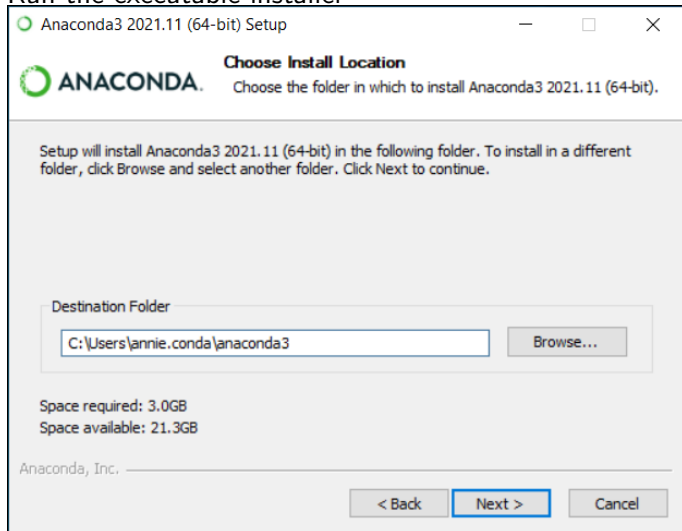
Anaconda for Windows 32-bit

Index of /

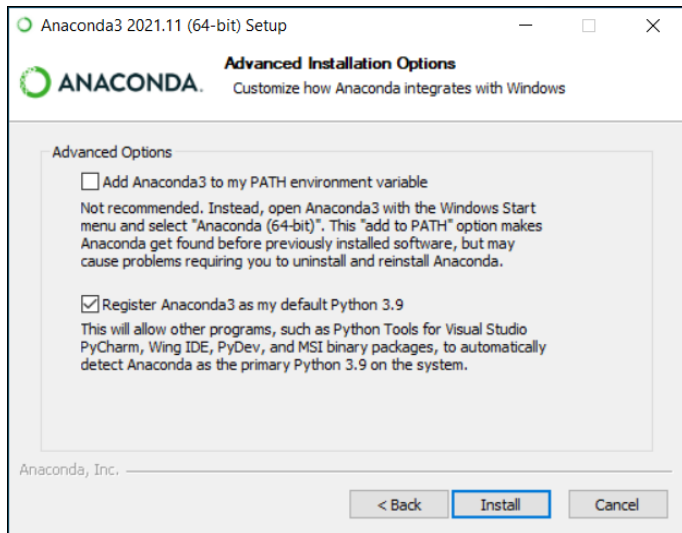
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Anaconda3-2022.05-MacOSX-arm64.pkg	316.4M	2022-06-07 12:40:24	0140970944a3e6088be5995ef7ce8525c1b2f8d5080e317423b3671f38a0460e
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Anaconda3-2021.11-Windows-x86_64.exe	510.3M	2021-11-17 12:08:45	1b3d593d1deb22b835be5c68897075e0fc9dea240ab4191c55674aba259a78ff

Install Anaconda

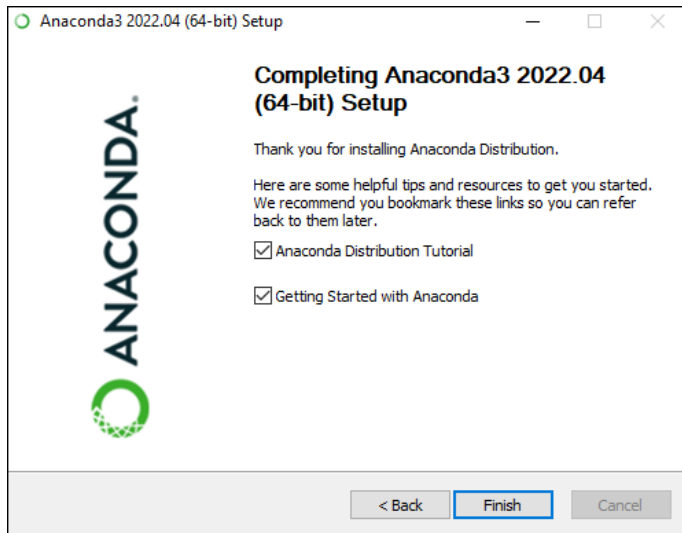
Run the executable installer



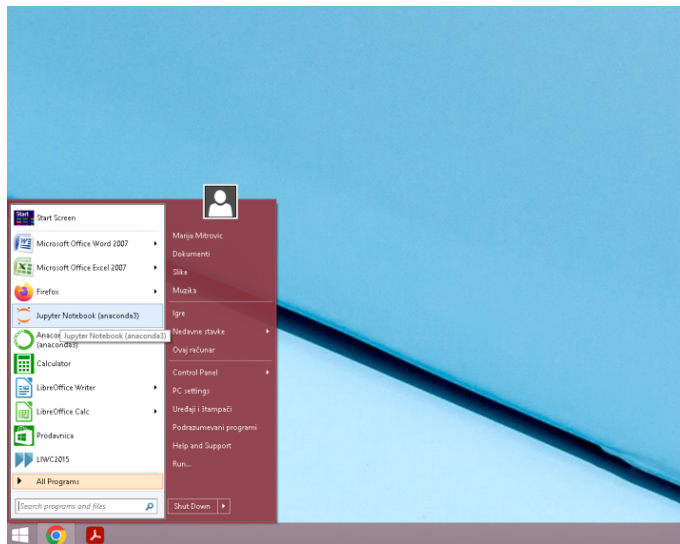
Install Anaconda



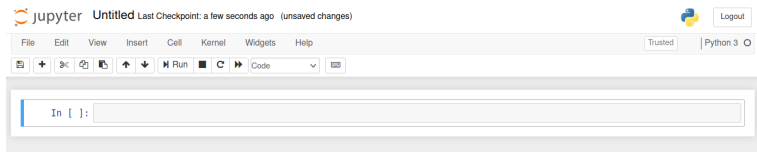
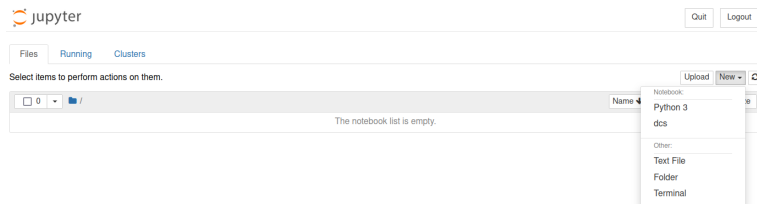
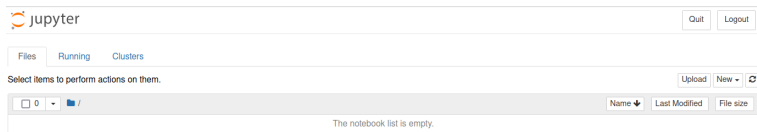
Install Anaconda



Run jupyter notebook



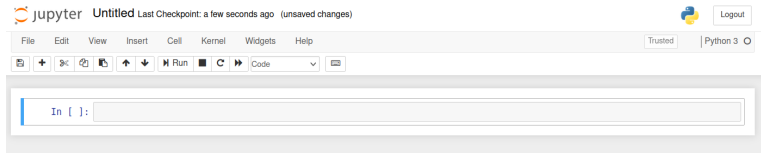
Jupyter notebook



Jupyter notebook - basics

Jupyter consists of cells

Cell can contain: text, mathematical phrase, python command.



Cell manipulation

