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Welcome to this session:
Setting up your Environment

The session will start shortly...

Questions? Drop them in the chat.
We'll have dedicated moderators
answering questions.

Cyber Security Session Housekeeping

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly. **(Fundamental British Values: Mutual Respect and Tolerance)**

- No question is daft or silly - **ask them!**

- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. Moderators are going to be answering questions as the session progresses as well.

- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Academic Sessions. You can submit these questions here: **Questions**

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Setting up your Environment

Cyber Security Session Housekeeping

- For all **non-academic questions**, please submit a query:
  www.hyperiondev.com/support

- **Report a safeguarding incident: *www.hyperiondev.com/safeguardreporting***

- We would love your feedback on lectures: Feedback on Lectures

Setting up your Environment

Safeguarding & Welfare

We are committed to all our students and staff feeling safe and happy; we want to make sure there is always someone you can turn to if you are worried about anything.

If you are feeling upset or unsafe, are worried about a friend, student or family member, or you feel like something isn't right, speak to our safeguarding team:

Ian Wyles
Designated Safeguarding Lead

Simone Botes

Rafiq Manan

Charlotte Witcher

Nurhaan Snyman

Ronald Munodawafa

Tevin Pitts

Scan to report a safeguarding concern

or email the Designated Safeguarding Lead:
Ian Wyles
safeguarding@hyperiondev.com

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Objectives

1. **GitHub**
   - Define what GitHub is.
   - Describe how to access content and submit tasks using GitHub.

2. **VSCode**
   - Identify what Visual Studio Code is.
   - Demonstrate the steps to install Visual Studio Code.

3. **Package managers**
   - List the package managers (Chocolatey, Homebrew).
   - Install Python using a package manager for the appropriate operating system (Windows or MacOS/Linux).
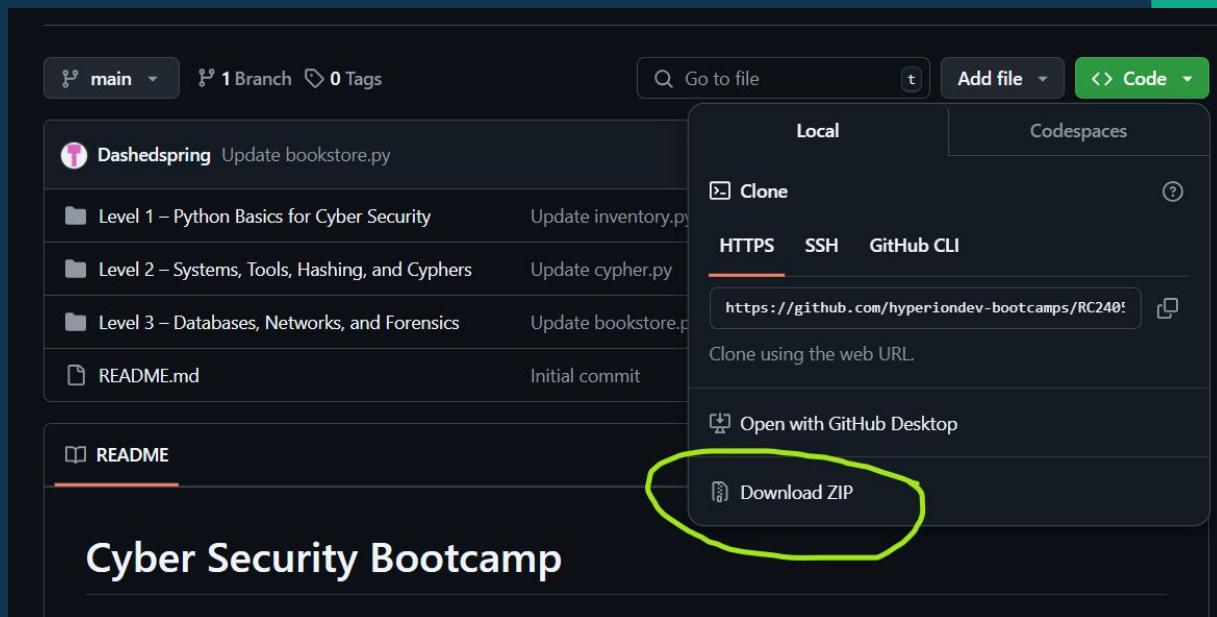
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What is GitHub?

- https://github.com/

- https://docs.github.com/en

- Access notes and content
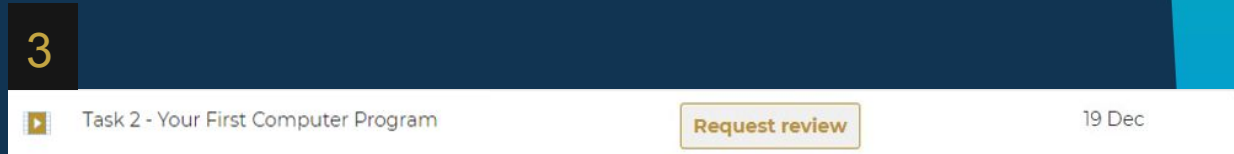
- Upload answer files
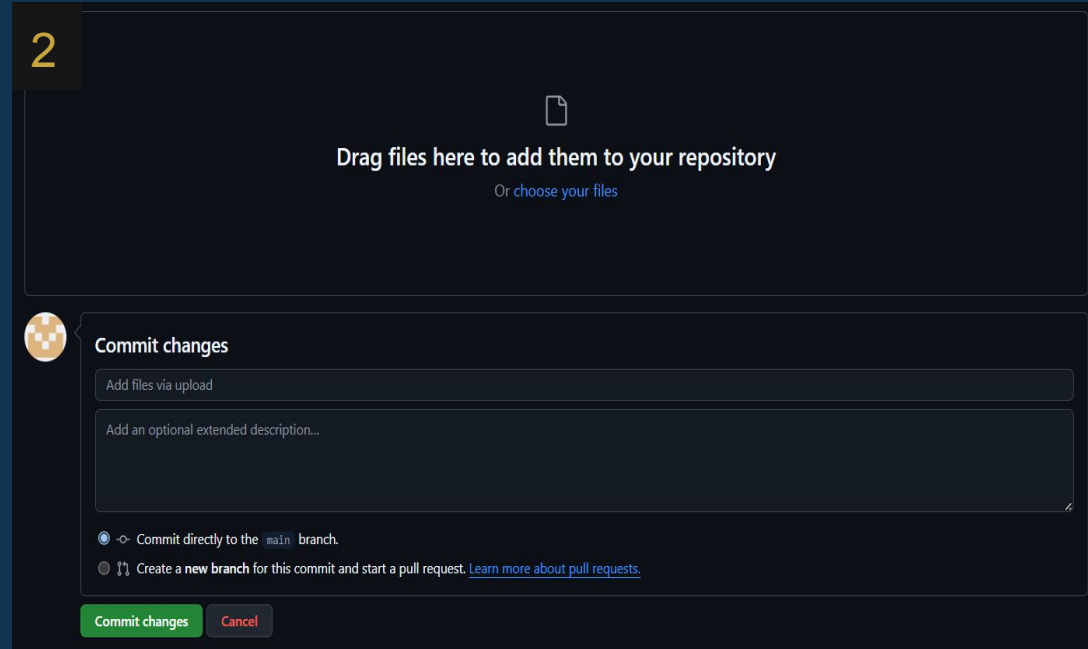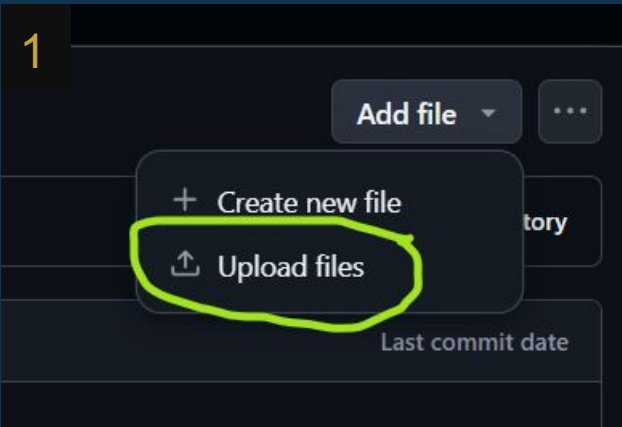

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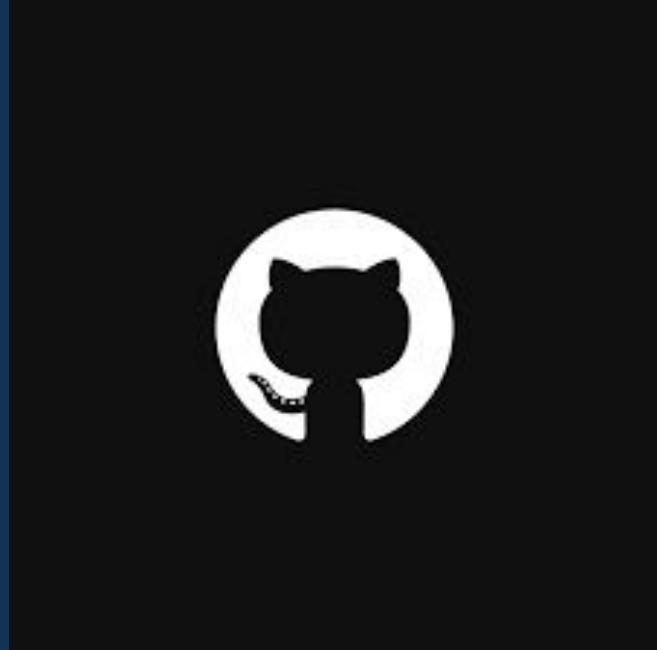
Accessing Your Content

- Content is available on GitHub
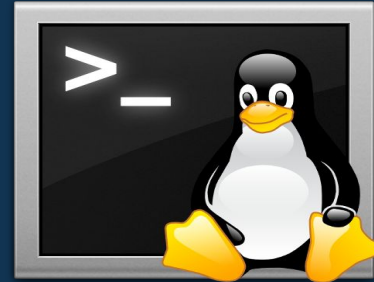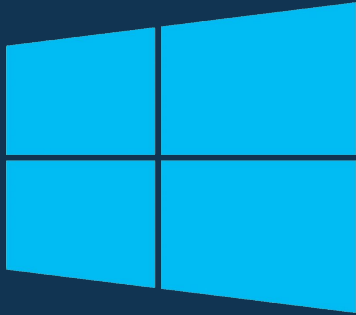
- Download your files

- Skim

- Read

- Study

- Practice

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Submitting Your Answers for Review

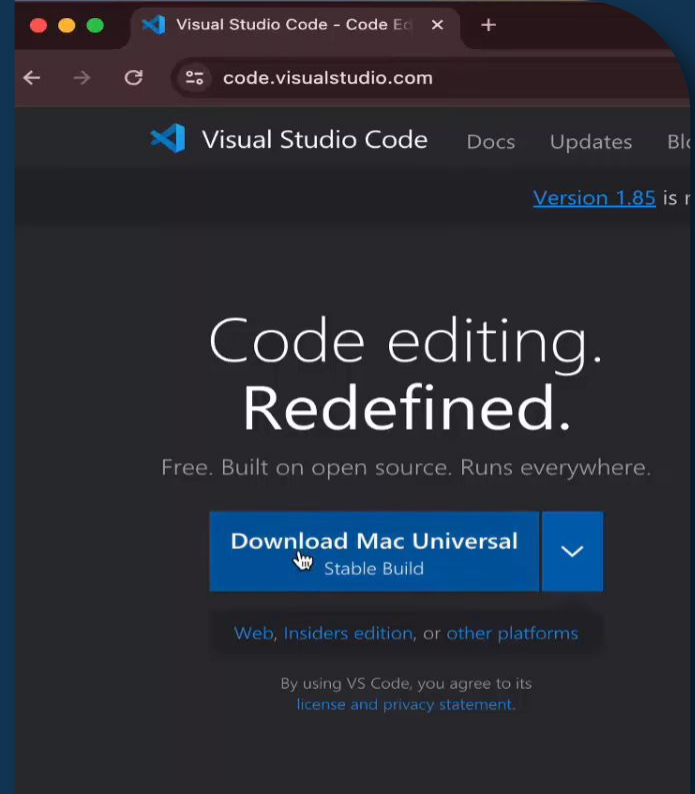- Navigate to the task

- Click on "Add file"

- Upload your answer

2

Drag files here to add them to your repository

Or choose your files

Commit changes

Add files via upload

Add an optional extended description...

○ Commit directly to the `main` branch.

○ Create a **new branch** for this commit and start a pull request. Learn more about pull requests.

Commit changes   Cancel

1

Add file ▾   ...

+ Create new file

⬆ Upload files   tory

Last commit date

3

▶ Task 2 - Your First Computer Program   Request review   19 Dec

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Operating Systems

Which operating system do you use?

Visual Studio Code

Installing VSCode

- https://code.visualstudio.com/

- https://code.visualstudio.com/docs

  - Intro Videos

  - Setup

  - User Interface

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VSCode › Docs

code.visualstudio.com/docs

Visual Studio Code   Docs   Updates   Blog   API   Extensions   FAQ

Version 1.93 is now available! Read about the new features and fixes from August.

- Overview
- SETUP
- GET STARTED
- USER GUIDE
- SOURCE CONTROL
- TERMINAL
- GITHUB COPILOT
- LANGUAGES
- NODE.JS / JAVASCRIPT
- TYPESCRIPT
- PYTHON

Getting Started

Visual Studio Code is a lightweight but powerful source code editor which runs on your desktop and is available for Windows, macOS and Linux. It comes with built-in support for JavaScript, TypeScript and Node.js and has a rich ecosystem of extensions for other languages and runtimes (such as C++, C#, Java, Python, PHP, Go, .NET). Begin your journey with VS Code with these introductory videos.

First Steps

To get the most out of Visual Studio Code, start by reviewing a few introductory topics:

Intro Videos - Begin your journey with VS Code through these introductory videos.

Setup - Install VS Code for your platform and configure the tool set for your development needs.

User Interface - Introduction to the basic UI, commands, and features of the VS Code editor.

VSCode › Windows

✕ Visual Studio Code

Docs   Updates   Blog   API   Extensions   FAQ   🔍 Search

Linux

macOS

Windows

Raspberry Pi

Network

Additional Components

Enterprise

Uninstall

GET STARTED

USER GUIDE

SOURCE CONTROL

TERMINAL

GITHUB COPILOT

LANGUAGES

User setup versus system setup

VS Code provides both Windows **user** and **system** level setups.

The user setup does not require Administrator privileges to run as the location will be under your user Local AppData (LOCALAPPDATA) folder. Since it requires no elevation, the user setup is able to provide a smoother background update experience. This is the preferred way to install VS Code on Windows.

> **Note:** When running VS Code as Administrator in a user setup installation, updates will be disabled.

The system setup requires elevation to Administrator privileges to run and will place the installation under the system's Program Files. The in-product update flow will also require elevation, making it less streamlined than the user setup. On the other hand, installing VS Code using the system setup means that it will be available to all users in the system.

See the Download Visual Studio Code page for a complete list of available installation options.

VSCode > MacOS

Visual Studio Code   Docs   Updates   Blog   API   Extensions   FAQ   Search

Overview

SETUP

Overview

Linux

macOS

Windows

Raspberry Pi

Network

Additional
Components

Enterprise

Uninstall

GET STARTED

USER GUIDE

SOURCE CONTROL

Launching from the command line

You can also run VS Code from the terminal by typing 'code' after adding it to the path:

- Launch VS Code.
- Open the **Command Palette** (`Cmd+Shift+P`) and type 'shell command' to find the **Shell Command: Install 'code' command in PATH** command.

> shell command

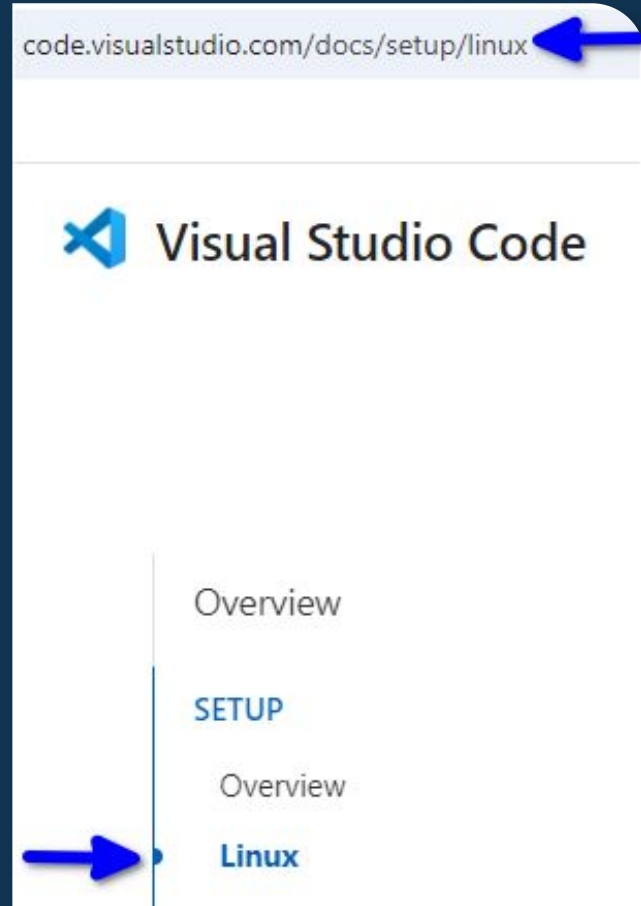**Shell Command**: Install 'code' command in PATH
Shell Command: Uninstall 'code' command from PATH

- Restart the terminal for the new `$PATH` value to take effect. You'll be able to type 'code .' in any folder to start editing files in that folder.

Note: If you still have the old `code` alias in your `.bash_profile` (or equivalent) from an early VS Code version, remove it and replace it by executing the **Shell Command: Install 'code' command in PATH** command.

VSCode > Linux

- **Docs** > **Setup** > **Linux**

  - Debian & Ubuntu

  - RHEL, Fedora & CentOS

  - openSUSE

  - Arch

code.visualstudio.com/docs/setup/linux

Visual Studio Code

Overview

SETUP

Overview

Linux

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Stay Safe Series:

Mastering Online Safety One week at a Time

While the digital world can be a wonderful place to make education and learning accessible to all, it is unfortunately also a space where harmful threats like online radicalization, extremist propaganda, phishing scams, online blackmail and hackers can flourish.

As a component of this BootCamp the *Stay Safe Series* will guide you through essential measures in order to protect yourself & your community from online dangers, whether they target your privacy, personal information or even attempt to manipulate your beliefs.

Keep it Secret, Keep it Safe: Why Passwords Should Stay Private

- Use a password with 15 to 20 characters including letters and numbers.
- Do **not** share your password with other people.
- Use a password manager.
- Use multi-factor authentication.

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Package Managers

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Package Managers

- **Windows** ↔ Chocolatey
  https://chocolatey.org/install

- **MacOS** (and **Linux**) ↔ Homebrew
- https://brew.sh/

Package Managers

Install Chocolatey for Individual Use:

1. First, ensure that you are using an **_administrative shell_** - you can also install as a non-admin, check out Non-Administrative Installation.

2. Install with powershell.exe

> **ℹ NOTE**
>
> Please inspect https://community.chocolatey.org/install.ps1 prior to running any of these scripts to ensure safety. We already know it's safe, but you should verify the security and contents of **_any_** script from the internet you are not familiar with. All of these scripts download a remote PowerShell script and execute it on your machine. We take security very seriously. Learn more about our security protocols.

With PowerShell, you must ensure Get-ExecutionPolicy is not Restricted. We suggest using `Bypass` to bypass the policy to get things installed or `AllSigned` for quite a bit more security.

- Run `Get-ExecutionPolicy`. If it returns `Restricted`, then run `Set-ExecutionPolicy AllSigned` or `Set-ExecutionPolicy Bypass -Scope Process`.

Now run the following command:

```
> Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::SecurityProtocol = [System.Net.ServicePointManager]::SecurityProtocol -bor 3072; ie
```

3. Paste the copied text into your shell and press Enter.

4. Wait a few seconds for the command to complete.

5. If you don't see any errors, you are ready to use Chocolatey! Type `choco` or `choco -?` now, or see Getting Started for usage instructions.

```
tem.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex ((New-Object System.Net.WebClient).DownloadString('https://community.
chocolatey.org/install.ps1'))                                              Forcing web requests to allow TLS
 v1.2 (Required for requests to Chocolatey.org)              Getting latest version of the Chocolatey pac
kage for download.                                        Not using proxy.
                              Getting Chocolatey from https://community.chocolatey.org/api/v2/pa
ckage/chocolatey/2.3.0.                    Downloading https://community.chocolatey.org/api/v2/package/chocolatey/2.3.0
to C:\Users\kayle\AppData\Local\Temp\chocolatey\chocoInstall\chocolatey.zip
Not using proxy.
Extracting C:\Users\kayle\AppData\Local\Temp\chocolatey\chocoInstall\chocolatey.zip to C:\Users\kayle\AppData\Local\Temp\chocolatey
\chocoInstall
Installing Chocolatey on the local machine
Creating ChocolateyInstall as an environment variable (targeting 'Machine')
  Setting ChocolateyInstall to 'C:\ProgramData\chocolatey'
WARNING: It's very likely you will need to close and reopen your shell
  before you can use choco.
Restricting write permissions to Administrators
We are setting up the Chocolatey package repository.
The packages themselves go to 'C:\ProgramData\chocolatey\lib'
  (i.e. C:\ProgramData\chocolatey\lib\yourPackageName).
A shim file for the command line goes to 'C:\ProgramData\chocolatey\bin'
  and points to an executable in 'C:\ProgramData\chocolatey\lib\yourPackageName'.

Creating Chocolatey CLI folders if they do not already exist.

chocolatey.nupkg file not installed in lib.
 Attempting to locate it from bootstrapper.
PATH environment variable does not have C:\ProgramData\chocolatey\bin in it. Adding...
WARNING: Not setting tab completion: Profile file does not exist at 'C:\Users\kayle\OneDrive\Documents\WindowsPowerShell\Microsoft.
PowerShell_profile.ps1'.
Chocolatey CLI (choco.exe) is now ready.
You can call choco from anywhere, command line or powershell by typing choco.
Run choco /? for a list of functions.
You may need to shut down and restart powershell and/or consoles
 first prior to using choco.
Ensuring Chocolatey commands are on the path
Ensuring chocolatey.nupkg is in the lib folder
PS C:\Windows\system32> choco
Chocolatey v2.3.0
Please run 'choco -?' or 'choco <command> -?' for help menu.
```
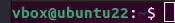
Windows > Chocolatey
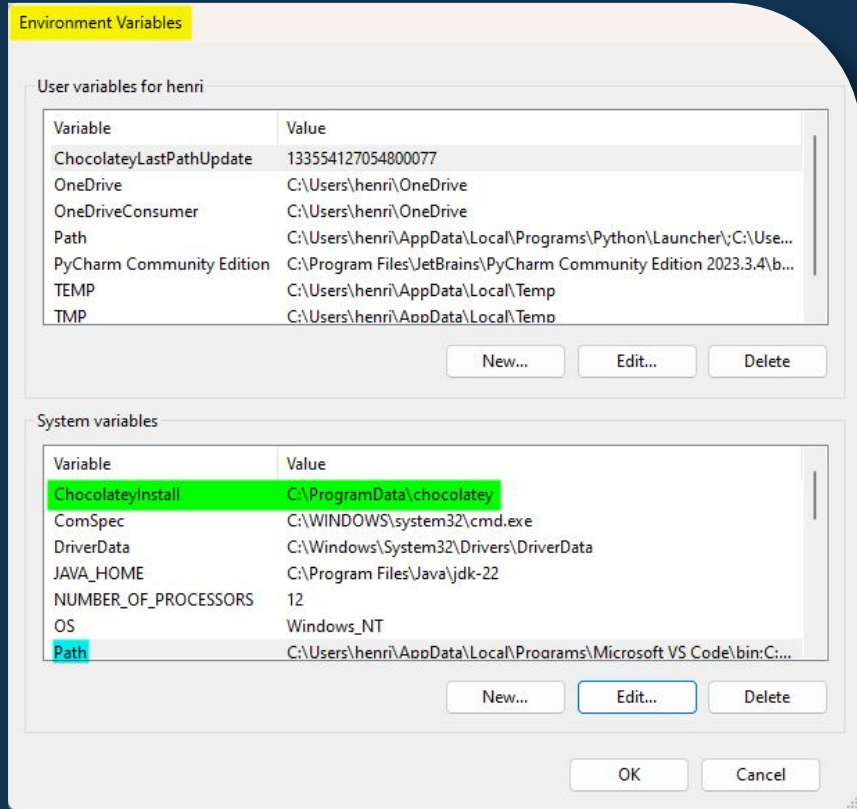
YouTube Video: 📚

*How to Check Environment Variables in Windows 11* (Royal Technology)

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Homebrew

The missing package manager for macOS (or Linux)

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Install Homebrew

```
$ /bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```
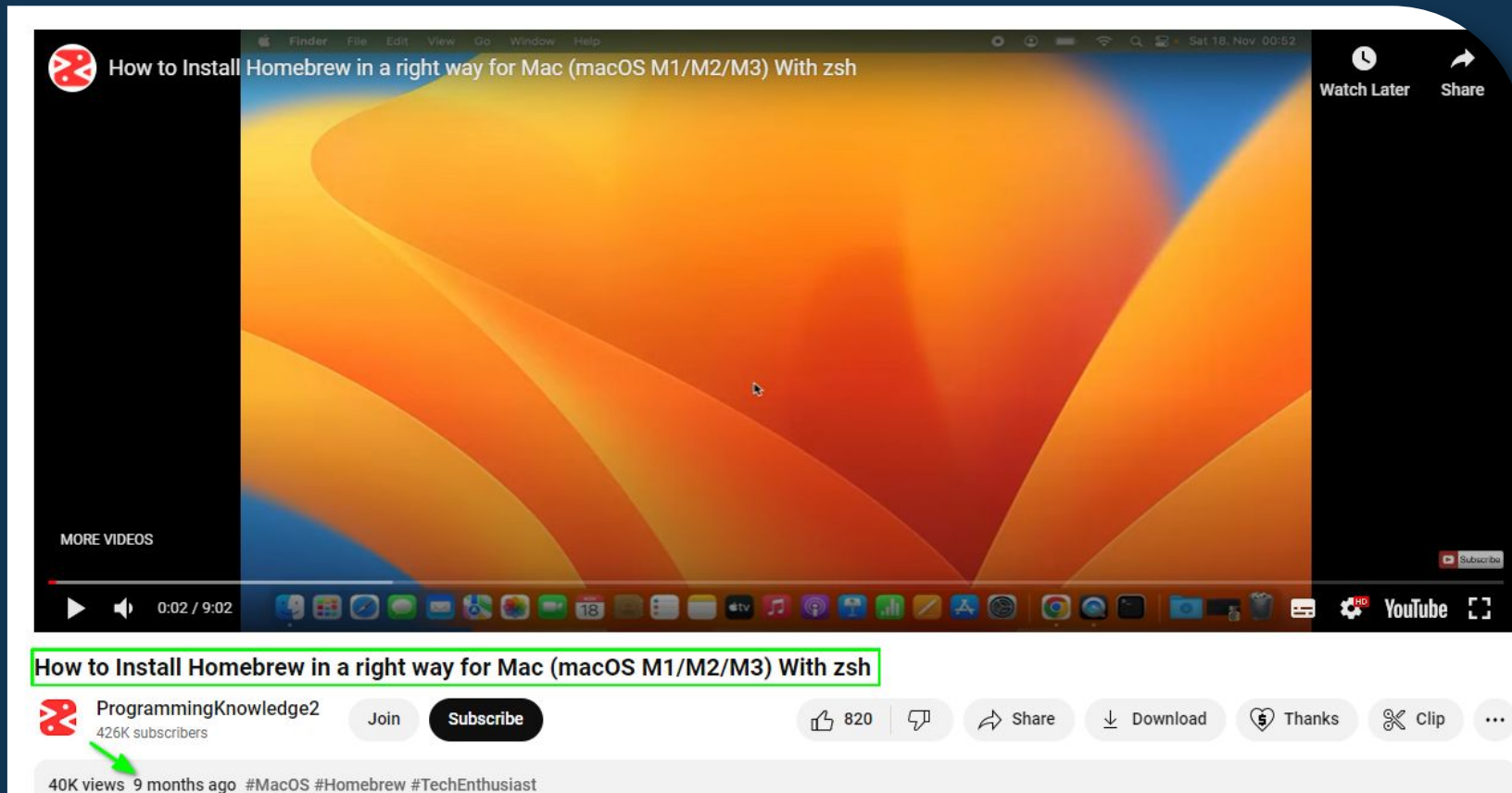
Paste that in a macOS Terminal or Linux shell prompt.

The script explains what it will do and then pauses before it does it. Read about other **installation options**.

If you're on macOS, try our new `.pkg` installer.

Download it from **Homebrew's latest GitHub release**.

What Does Homebrew Do?

Homebrew installs **the stuff you need** that Apple (or your Linux system) didn't.

```
$ brew install wget
```

MacOS > Brew Install

How to Install Homebrew in a right way for Mac (macOS M1/M2/M3) With zsh

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Try it out!

Chocolatey (Windows)

Let's install notepadplusplus using Chocolatey.

1. Open PowerShell as administrator.

2. Please run the following command:

```
choco install notepadplusplus
```

3. Wait for the installation to complete

4. Once installed, verify by opening Notepad++ from the start menu.

Homebrew (MacOS and Linux)

Let's install Firefox using Homebrew.

1. Use Cmd + Space, type "Terminal," and press Enter.

2. Please run the following command:

```
brew install --cask firefox
```

3. Wait for the installation to complete

4. Once installed, verify by running Firefox in the Terminal.

Python 3

Python 3 › Official Website

python.org/downloads/

Download the latest version for Windows

Download Python 3.12.6

Looking for Python with a different OS? Python for Windows, Linux/UNIX, macOS, Other

Want to help test development versions of Python 3.13? Prereleases, Docker images

Python 3 (Chocolatey)

community.chocolatey.org/packages/python312

Deployment Method: Individual Install, Upgrade, & Uninstall

Install   Upgrade   Uninstall

To install Python 3.12, run the following command from the command line or from PowerShell:

```
> choco install python312
```

Python 3 (Chocolatey) › Summary

- Open **Powershell** as **<u>Administrator</u>**

- choco install python312

- python --version   OR   python3 --version

- which python3

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Python 3 (brew)

- Open the **Terminal**

- brew install python

- python --version   OR   python3 --version

- which python3

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Useful Bookmarks

- Student Dashboard

- GitHub profile

- Calendar invites – Lectures

- VS Code documentation

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Thank you
for attending

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