

# Efficient tools and techniques for modern software development

## Visual Studio Code

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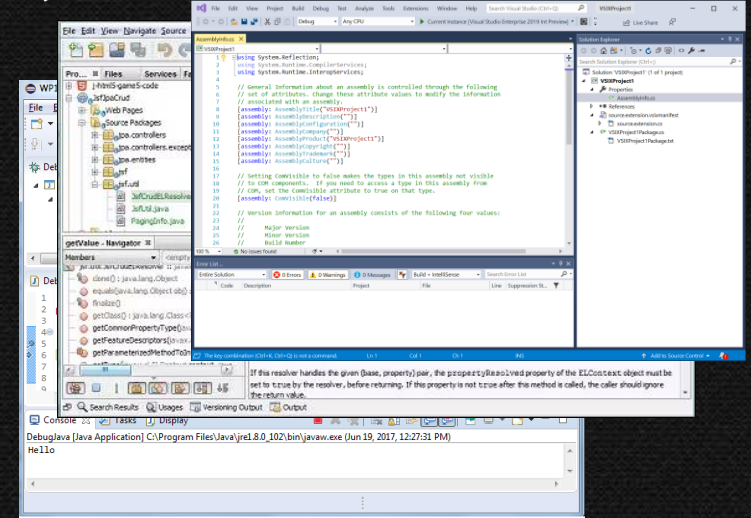
# Agenda

- IDE vs Text Editor – Why VS Code?
- Installation – Launching VS Code
- Basic Editing/Navigation Tricks ★
- The Editor Overview
- Multiple Cursors ★★
- Extensions
- References

# IDE vs Text Editor – Why VS Code?

- IDE(Integrated Development Environment) – Eclipse/Netbeans/IntelliJ/**Visual Studio\***

- Pros:
  - They include compilers and integrated tools to build end to end projects
- Cons:
  - Big in size(around few GBs)
  - Cannot handle large projects
  - Usually Paid and not free/open source

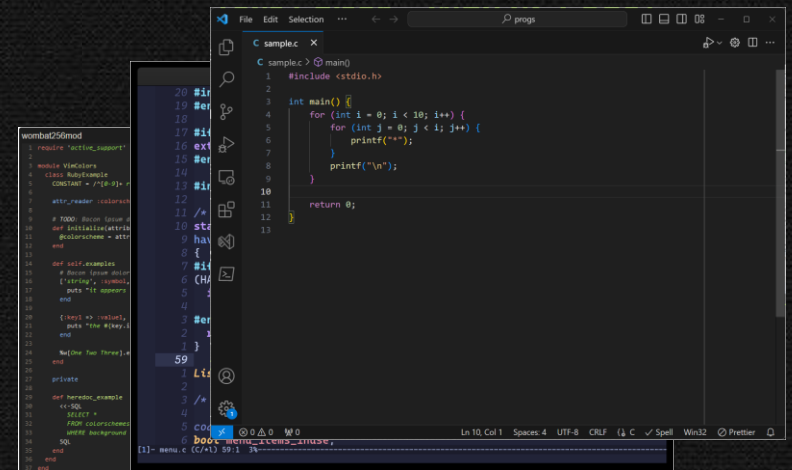


- Text Editors – **Visual Studio Code**/Vim/Emacs

- Pros:
  - **Light weight**(around few MBs).
  - Can handle **large code bases** and very versatile and flexible to customize
  - **Open source** and free of cost
- Cons:
  - Do not include compilers/debuggers.
  - Building end to end projects require working with build systems separately.

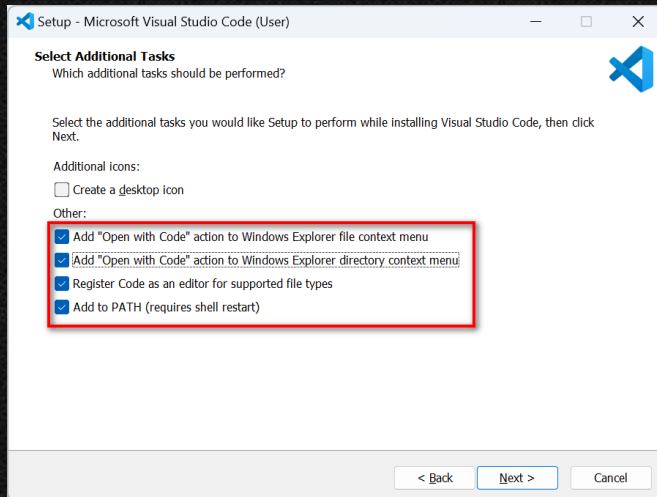
- Please do not use Notepad/Notepad++ 😊

\***Visual Studio** is different from **Visual Studio Code**

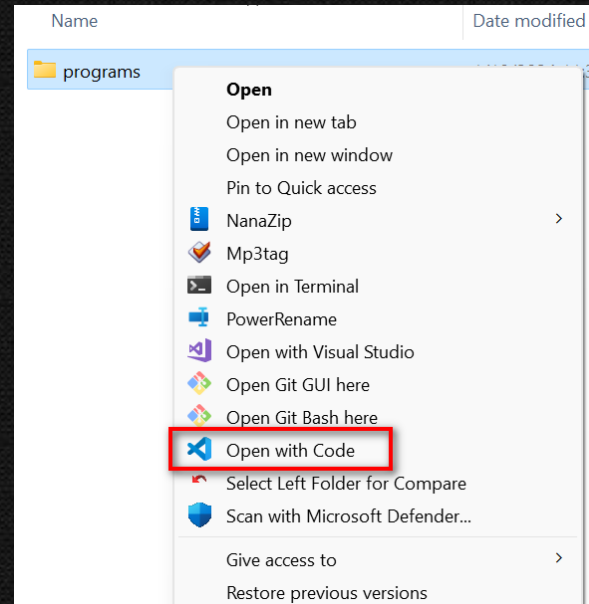


# Installation – Launching VS Code

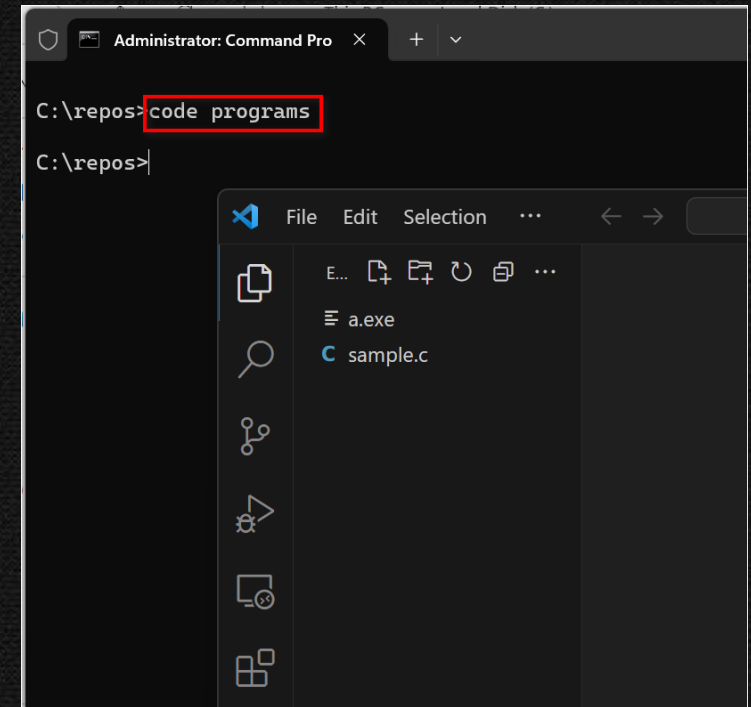
<https://code.visualstudio.com/download>



Via Explorer Context Menu



Via Command line – Code.exe



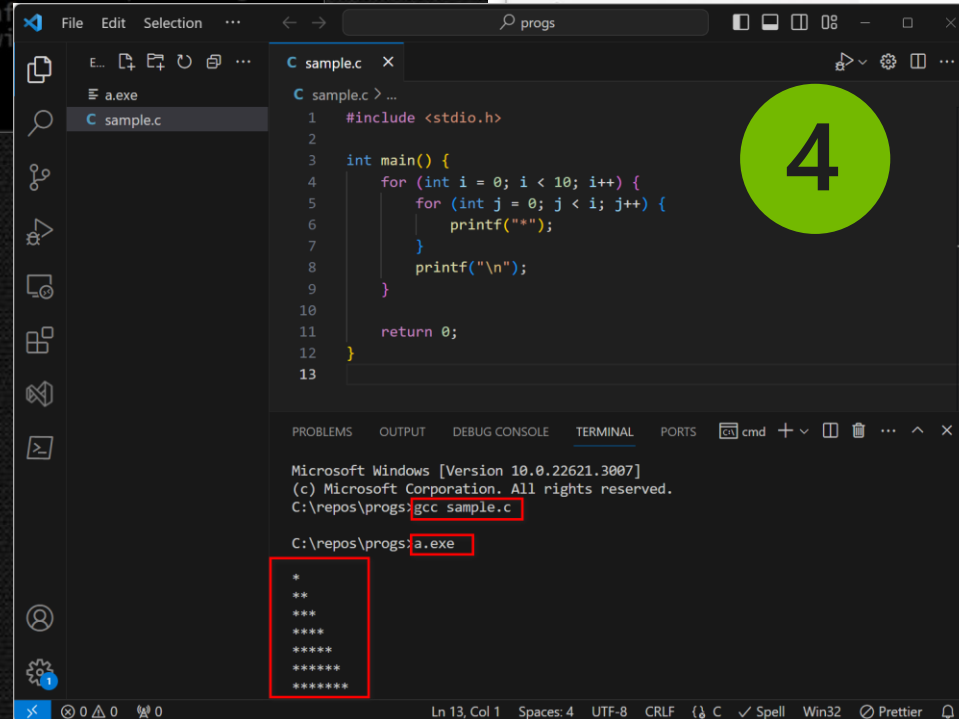
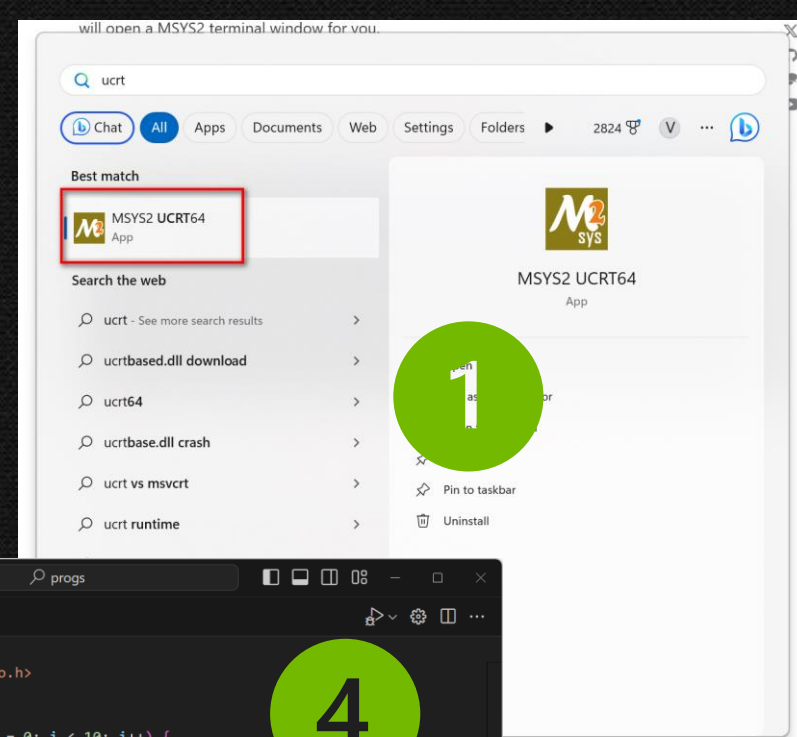
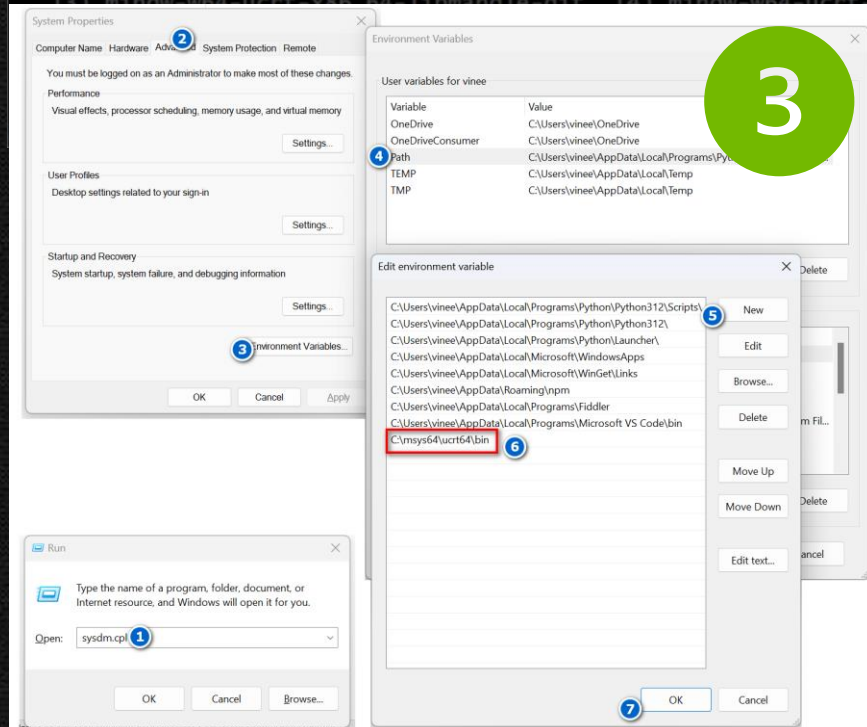


# How to write and execute programs?

- Install **MSYS2**

```
pacman -S --needed base-devel mingw-w64-ucrt-x86_64-toolchain
warning: base-devel-2022.12-2 is up to date -- skipping
:: There are 19 members in group mingw-w64-ucrt-x86_64-toolchain:
:: Repository ucrt64
 1) mingw-w64-ucrt-x86_64-binutils  2) mingw-w64-ucrt-x86_64-crt-git
 3) mingw-w64-ucrt-x86_64-gcc      4) mingw-w64-ucrt-x86_64-gcc-ada
 5) mingw-w64-ucrt-x86_64-gcc-fortran 6) mingw-w64-ucrt-x86_64-gcc-libgfortran
 7) mingw-w64-ucrt-x86_64-gcc-libs  8) mingw-w64-ucrt-x86_64-gcc-objc
 9) mingw-w64-ucrt-x86_64-gdb      10) mingw-w64-ucrt-x86_64-gdb-multiarch
11) mingw-w64-ucrt-x86_64-headers-git 12) mingw-w64-ucrt-x86_64-libgccjit
13) mingw-w64-ucrt-x86_64-libmangle-git 14) mingw-w64-ucrt-x86_64-libwinpthread-git
```

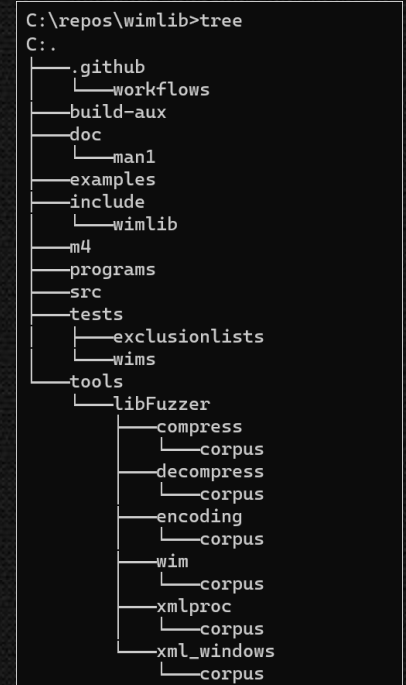
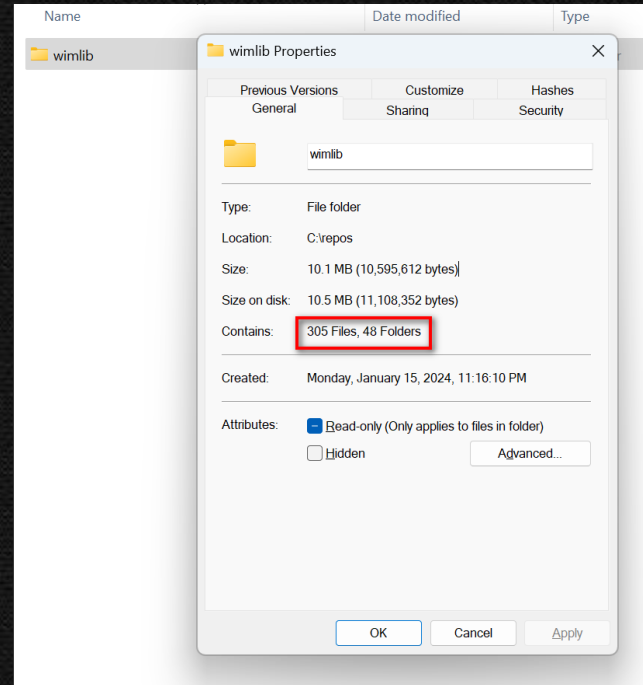
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# The Editor Overview

- **Ctrl + Shift + P** – Open Command Palette
- **Ctrl + P** – Open File from workspace(?)
- Explorer
  - Create files with multiple sub directories deep
  - Compare Files
- Editor tabs – Copy Path
- 80/100 Column Guides
- Indent Guides
- **Ctrl + F/H** – Find/Replace in current file
- Scroll bar search highlights
- **Ctrl + Shift + F/H** – Find/Replace in workspace
- **Ctrl + \** - Splits
- Sticky Scroll

- **Ctrl + Shift + \** - Find the matching brace
- **Alt + Left/Right** – Navigation history
- Remove blank lines



# Basic Editing/Navigation Tricks

**Left/Right** – Navigate each character left/right

**Ctrl** – Jump b/w words

**Home/End** – Move to beginning and end of the line

**Shift** – Selection character

**Delete/Backspace** – deletes the next/previous character

**Ctrl+A** – Select all text

## VS Code Specific

- Line Operations(no selection)
  - **Ctrl + C** – Copy entire line
  - **Ctrl + X** – Cut Line
- **Alt + Down/Up** – Move lines

```
1 Register a preview feature in your Azure subscription
2 functionality for a resource provider. Some preview
3
4 Ffeat require approval, the state is Registered. If
5 a preview feature requires approval, the registration
6 request approval from the Azure service offering the
7 you request access through a support ticket. To requ
8 Azure support request. After the registration is app
9 state changes to Registered.
```

**Ctrl+A**

# Basic editing walkthrough



# Multiple Cursor

Ctrl + D – Create Multiple cursor at next occurrence – **Search Method**

Ctrl + Alt + Down/Up – Create Multiple cursors on each line – **Drag Method**

Ctrl + Shift + I – Create Multiple Cursors on all selected lines – **Select Lines Method**

Ctrl+F > Search > Alt+Enter – Create multiple cursor on all occurrences - **Find All Method**

---

```
1 Register a preview feature in your Azure subscription to expose more
2 functionality for a resource provider. Some preview features require
3 approval.
4
5 For a preview feature that doesn't require approval, the state is
6 Registered. If a preview feature requires approval, the registration
7 state is Pending. You must request approval from the Azure service
8 offering the preview feature. Usually, you request access through a
9 support ticket. To request approval, submit an Azure support request.
10 After the registration is approved, the preview feature's state changes
11 to Registered.
12
```

# Multiple Cursors Walkthrough

# Extensions

- Align
- Case conversion(Transform)
- Text Pastry - 1 to X
- Delete trailing spaces
- Commenting flow – **Alt + Q**
- Prettier – Code formatter – **Shift + Alt + F**
- VSCode-PDF extension
- Rainbow CSV extension

# Extensions Walkthrough



# References

- <https://github.com/vineelkovvuri/gvpcoe-sessions-2024/blob/master/VSCode>
- <https://stackoverflow.com/>
- <https://www.youtube.com/@code/shorts>
- <https://code.visualstudio.com/docs>

# Thank You



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