Day 2, assignment 2.

Student: Emanuel Nguema Oyono Avoro

Installation and Navigation of Visual Studio Code (VS Code) Instructions: Answer the following questions based on your understanding of the installation and navigation of Visual Studio Code (VS Code). Provide detailed explanations and examples where appropriate

Questions:

1. Installation of VS Code:

Describe the steps to download and install Visual Studio Code on Windows 11 operating system. Include any prerequisites that might be needed.

Solution

1.1. Installation requirements:

Hardware Requirements. It is recommended to have minimally:

- 1.6 GHz or faster processor
- 1 GB de RAM

Supported platforms:

- Windows 10 y 11 (64 bit)
- macOS versions compatible with Apple security updates.
- Linux (Debian): Ubuntu desktop 20.04, Debian 10
- Linux (Red Hat): Red Hat Enterprise Linux 8, Fedora 36

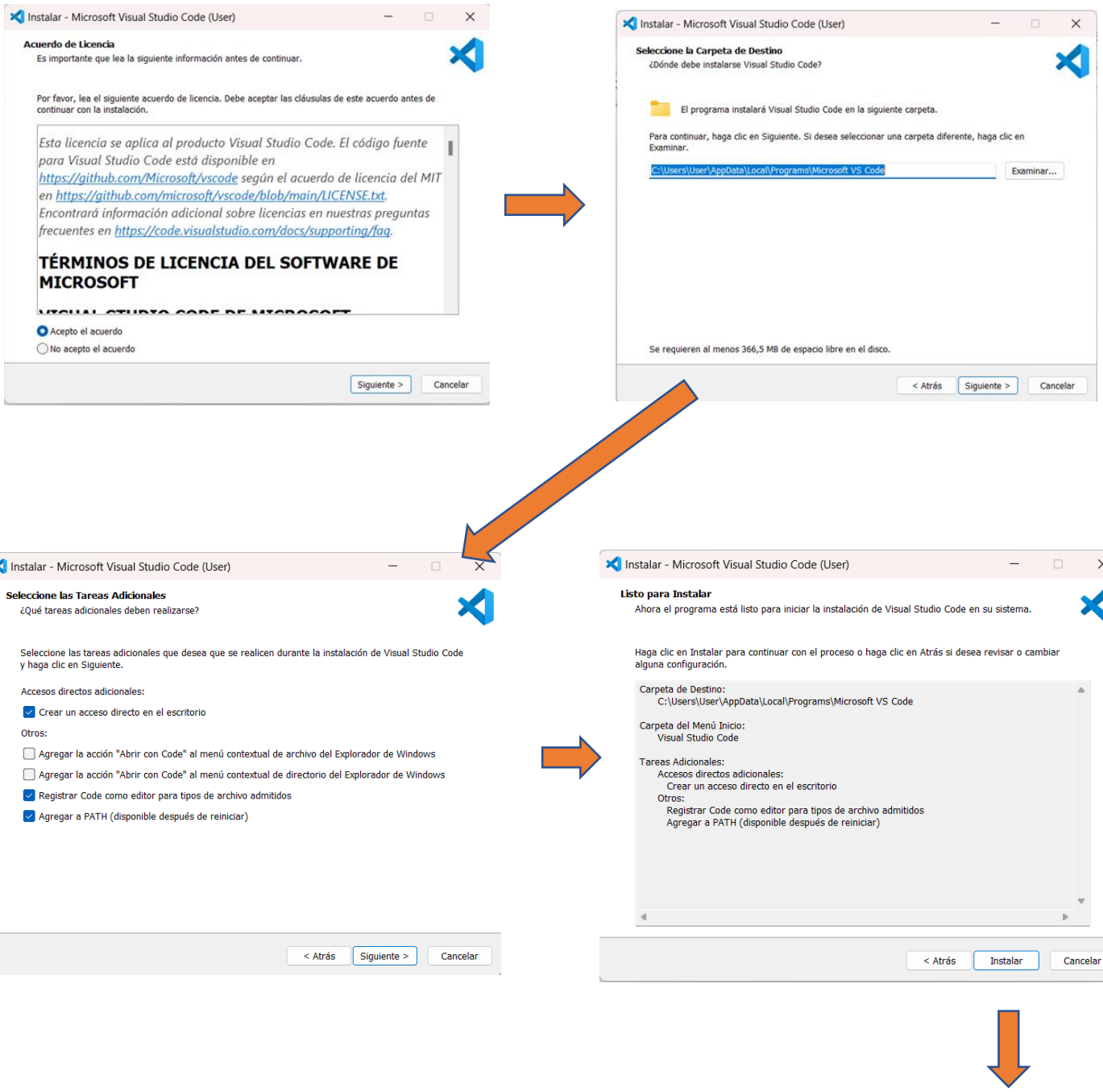
1.2 Download and installation process.

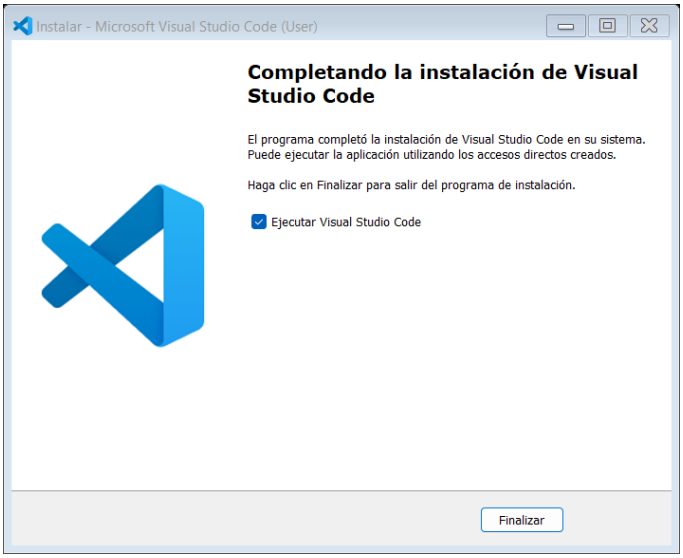
Step 1: Download.

To download Visual Studio Code we go to its official page https://code.visualstudio.com/Download and choose the option depending on our operating system, in my case I use Windows 10.

Step 2: Setting up.

To install Visual Studio Code on our computer, we have to run the downloaded installer by double-clicking on it. This action will start the installation wizard as shown below.





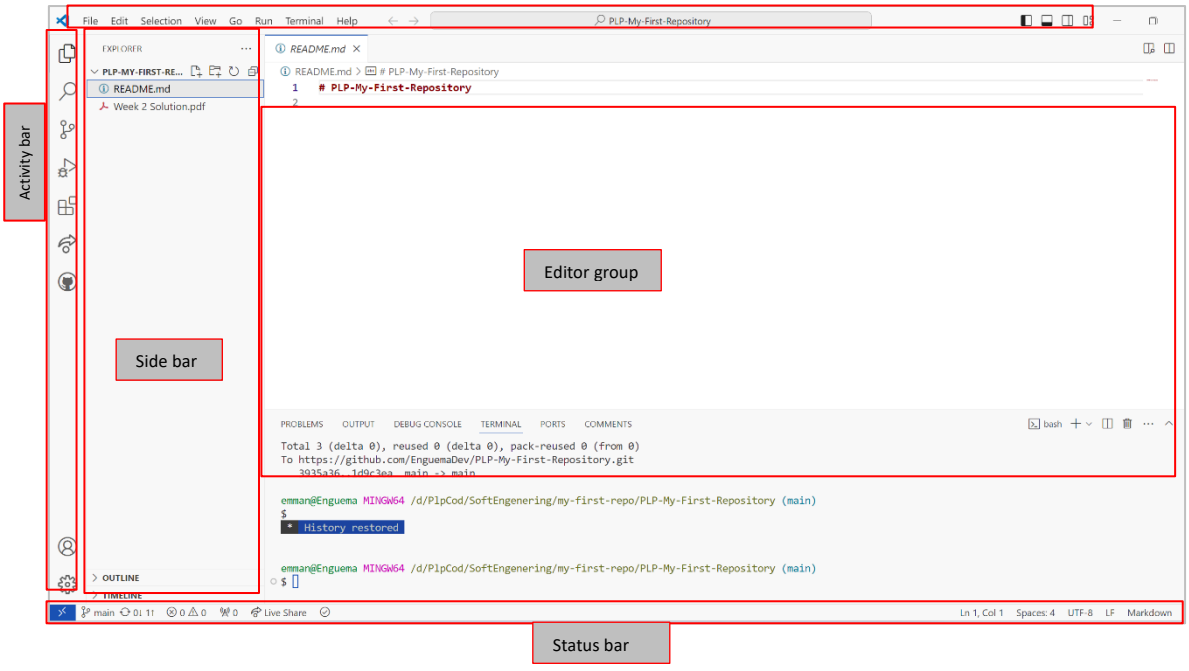
2. First-time Setup: After installing VS Code, what initial configurations and settings should be adjusted for an optimal coding environment? Mention any important settings or extensions.

Solution

For an optimal coding environment, having some extensions that make work easier and a personalized configuration are essential.

3. User Interface Overview: Explain the main components of the VS Code user interface. Identify and describe the purpose of the Activity Bar, Side Bar, Editor Group, and Status Bar.

Solution



The main components of the visual studio interface are:

Activity bar: located on the left side of the screen and allows quick access to; browser, search, extensions, source control.

Status bar: shows the selected view in the activity bar, for example, file explorer, extensions, etc.

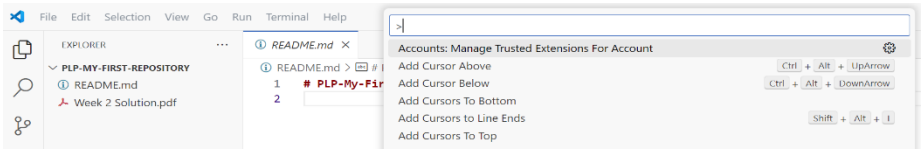
Status bar: The status bar is located at the bottom of the VS Code window and shows relevant information about the open file and the project in general such as: git branch information, errors and warnings, file language, etc.

Editor group: It is the central part of VS Code where you open and edit the code. Some editor features include bookmarks and editor splitting.

4. Command Palette: What is the Command Palette in VS Code, and how can it be accessed? Provide examples of common tasks that can be performed using the Command Palette.

Solution

The Command Palette is a VS Code tool that allows you to access and execute a wide range of editor functions and features such as; execute commands, install extensions, search and open files, etc.
The command palette can be accessed using a keyboard shortcut (Ctrl+Shift+P) in Windows or (Cmd+Shift+P) in mOS and from the navigation menu (View > Command Palette).

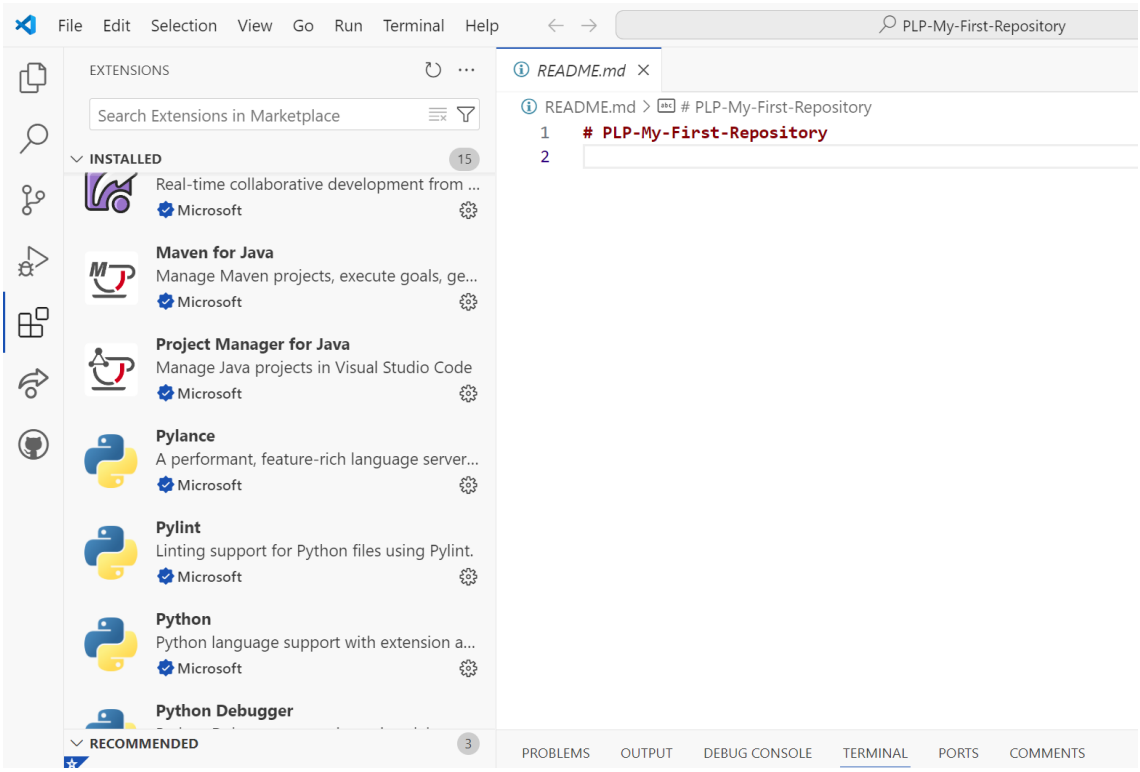


5. Extensions in VS Code: Discuss the role of extensions in VS Code. How can users find, install, and manage extensions? Provide examples of essential extensions for web development.

Solution

Extensions allow us to add other tools to the default features of VS Code, these tools serve to support your software development workflow.

It's very easy, find and install extensions in VS Code. Simply go to the extensions tab in the activity bar and a list of them will appear, you can filter according to need.



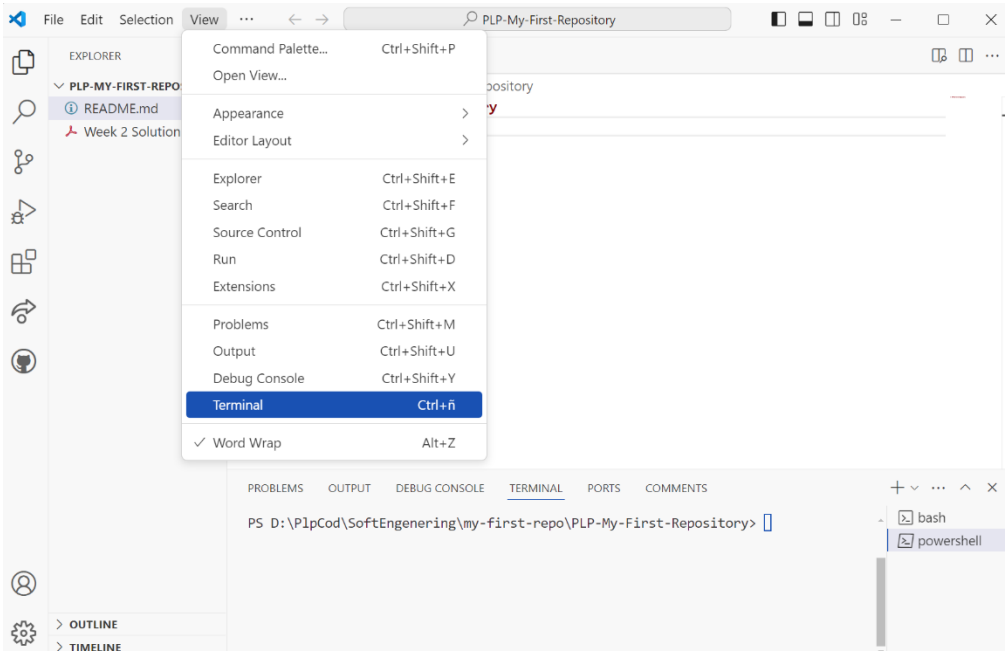
Some examples of essential extensions for web development:

- Live Server:
- Prettier:
- Css peek
- GitLens
- ESLint

6. Integrated Terminal: Describe how to open and use the integrated terminal in VS Code. What are the advantages of using the integrated terminal compared to an external terminal?

Solution

To use the terminal integrated in VS Code we can proceed in two ways: access the view tab and then the terminal option or, if applicable, apply the keyboard combination Ctrl+ñ.



Regarding the advantages of the internal terminal compared to the external one, the following stand out:

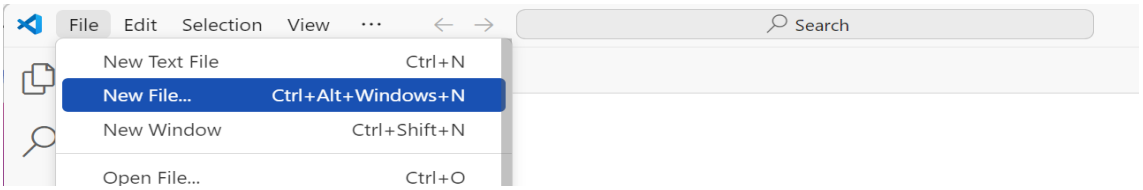
- Quick access.
- Many VS Code extensions integrate with the internal terminal
- It is optimized for use in VS Code which favors performance and efficient use of resources.

7. File and Folder Management: Explain how to create, open, and manage files and folders in VS Code. How can users navigate between different files and directories efficiently?

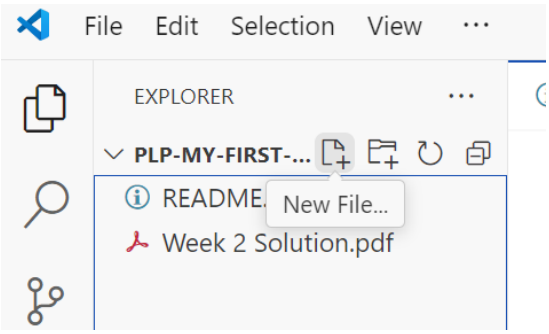
Solution

Creating files in VS Code is very simple and can be done in several ways:

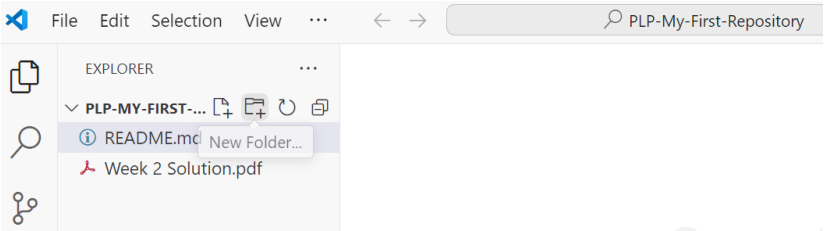
- Go to the file > new file tab, then select whereWe want to locate the file and finally we give it a name.



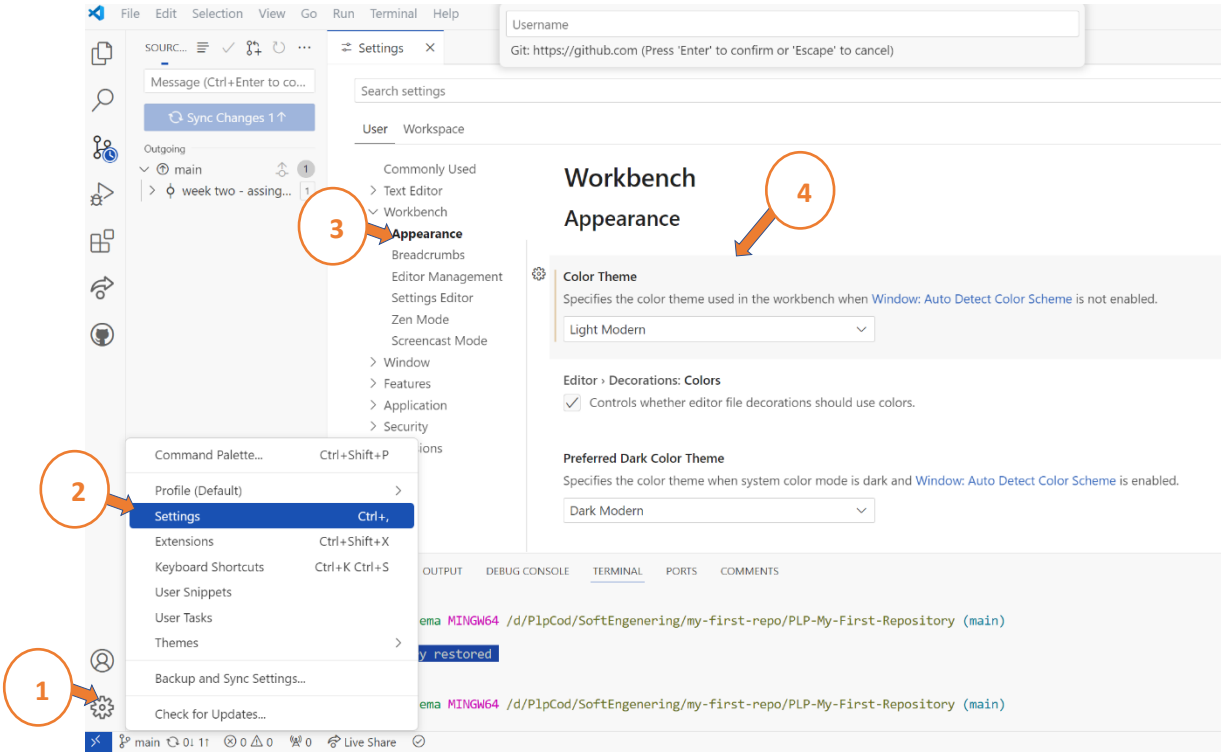
- Or if we already have a project folder created, creating a file becomes much easier.

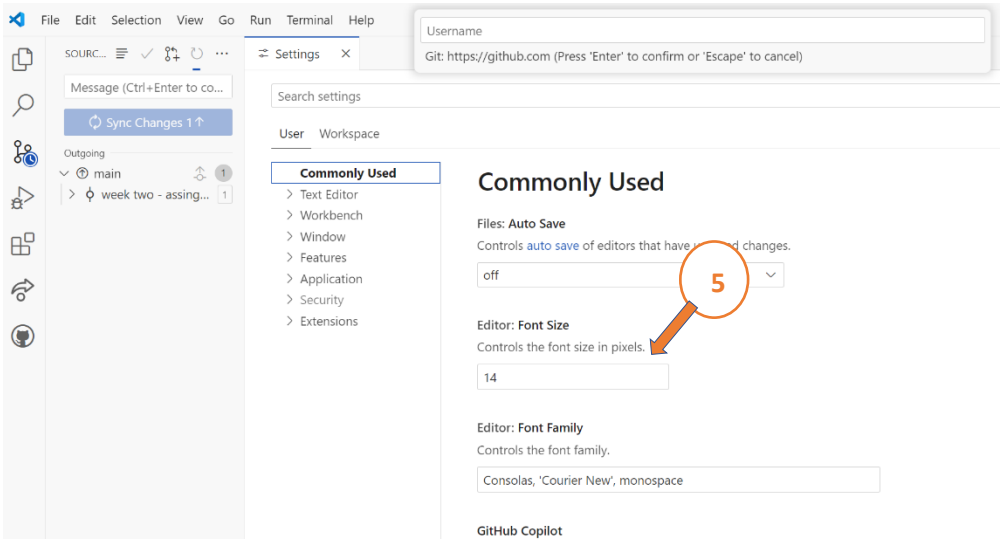


- For creating folders; We go to the file explorer, go to the desired location and create the new folder.



8 Settings and Preferences: Where can users find and customize settings in VS Code? Provide examples of how to change the theme, font size, and keybindings

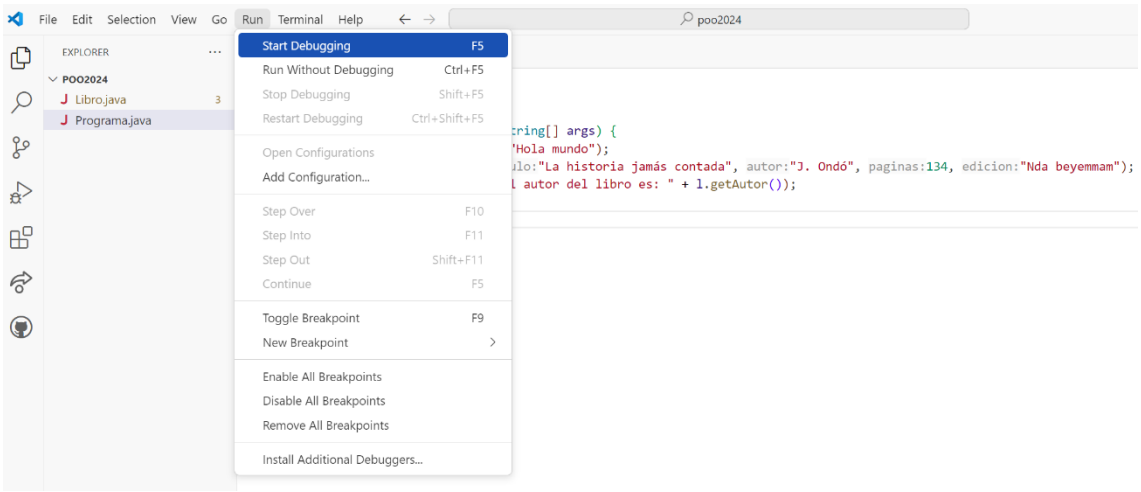




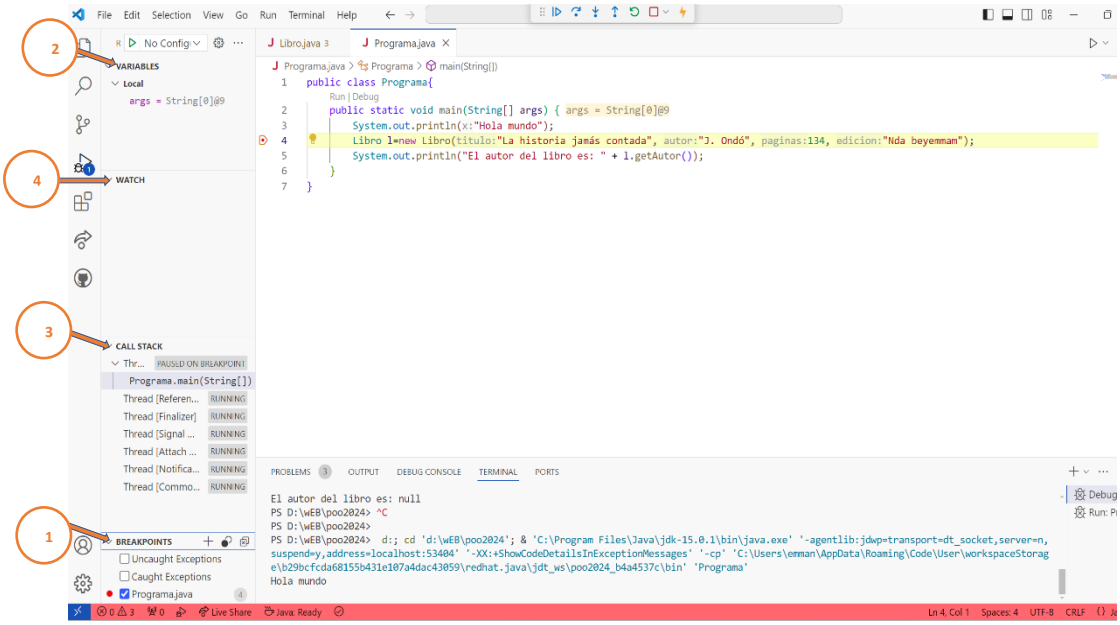
9. Debugging in VS Code: Outline the steps to set up and start debugging a simple program in VS Code. What are some key debugging features available in VS Code?

Solution

To run or debug a simple application in VS Code, select Run and Debug in the Debug Home view or press F5 and VS Code will attempt to run your currently active file.



Regarding some debugging functions available in Visual Studio Code we find:



1 Breakpoints: allows adding and removing breakpoint varieties and breakpoint conditions.

2 Variables panel: allows you to see local and global variables, as well as the values they store.

3 Call panel: It allows us to see in detail the sequence of function calls that led to the current point in the program.

4 Watch panel

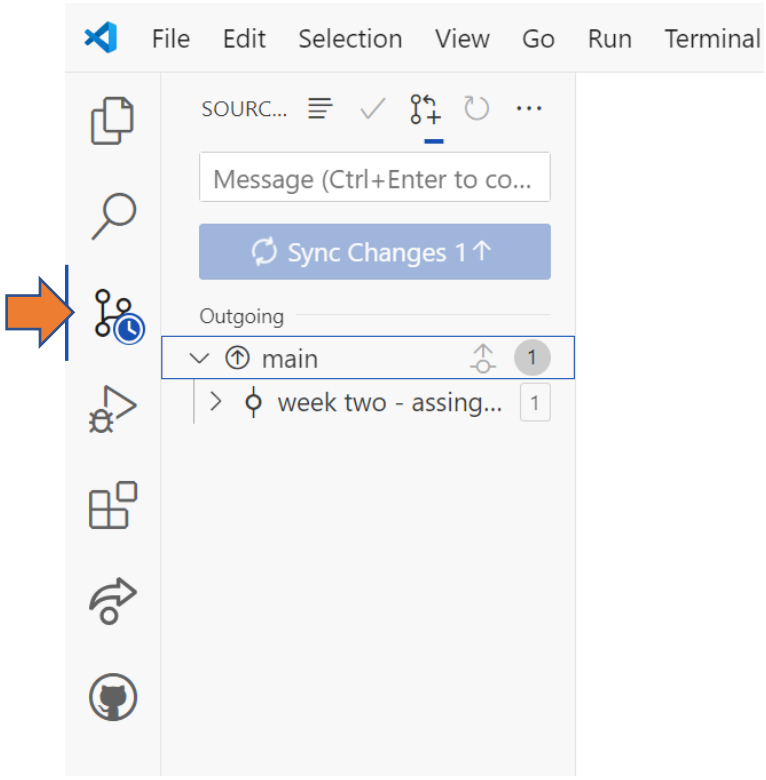
10. Using Source Control: How can users integrate Git with VS Code for version control? Describe the process of initializing a repository, making commits, and pushing changes to GitHub.

Solution

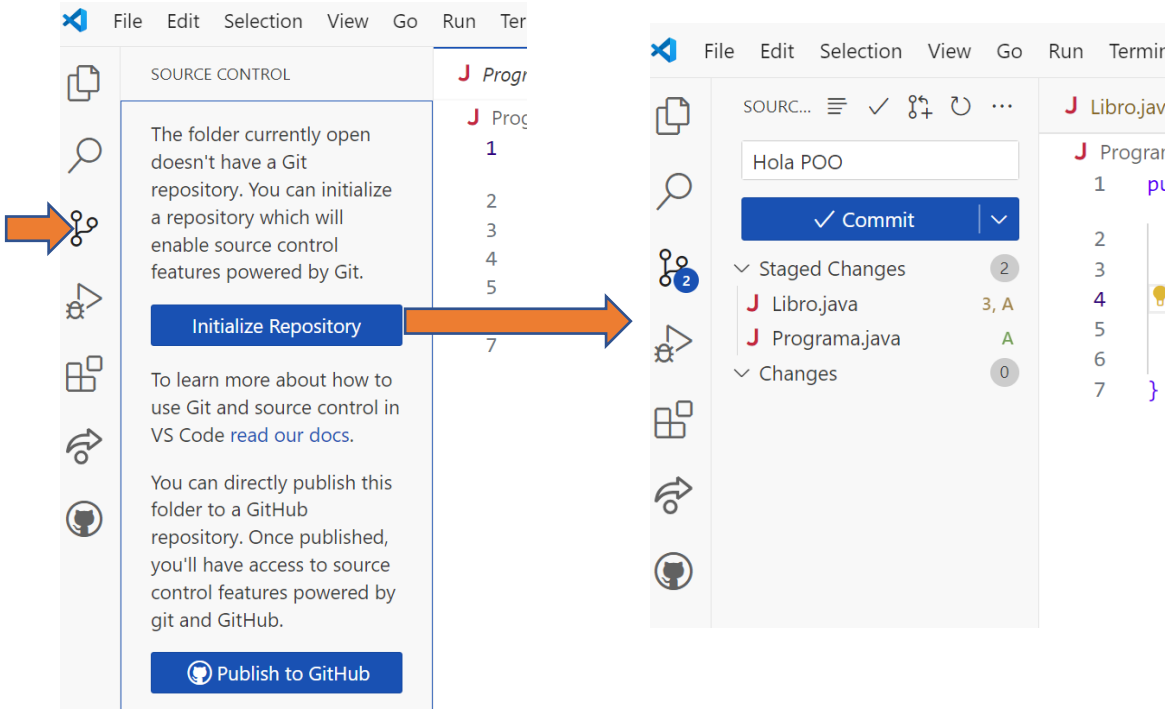
To integrate VS Code for version control, we must first have Git installed on our machine and then also install the Git extension for VS Code.

For integration:

- If we already have an existing git repository: we simply have to open it with VS Code and it will automatically detect it.



- If we still do not have a git repository: in this case we initialize a new one from our project folder opened in VS Code.



INFORMATION SOURCES:

https://code.visualstudio.com/docs