Installation and Navigation of Visual Studio Code instructions:

Answer the following questions based on your understanding of the Installation and Navigation of Visual Studio Code. Provide detailed explanation and examples where appropriate. Provide screenshots or step by step instruction where applicable.

1.Installation of VS code:

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

Download: Open your web browser and navigate to the official Visual Studio Code website at https://code.visualstudio.com/.
Installer download: To download the installer file, click the "Download for Windows" button.
Open Installer: After the download is finished, find the installer file by double-clicking on it. It should be in your downloads folder. Observe the installation wizard's instructions. During the installation process, you can select where to install VS Code and whether to add it to your path (environment variables). Upon installation, you can use the Start menu to search for "Visual Studio Code" or double-click the shortcut icon on the desktop to open Visual Studio Code.

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 and installations.

1.Theme- selecting an appropriate theme that one is comfortable with.

2.Font settings- setting your preferred for size.

3.Autosaving- ensure that you autosave to ensure your work doesn’t get lost or control c.

Some of the extensions include: Debugger by the use of python as it has got debugging capabilities, Language extensions like python as it provides good support.

Some of the setting include: Customizing your terminal by maybe using a preferred shell example git bash or power shell.

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.

The main components include:

1.Activity bar- provides access to custom extensions and in which it helps one to switch between views example run, explorer.

2.Side bar – Displays different views such as the file explorer and extensions but based on the selection in the activity bar.

3.Editor group- Place where one opens and edits files.

4.Status bar- Provides information about the current file for example the line number or language mode. Has various controls for managing one's workspace.

5.Panel- Used for auxiliary views example terminal or output.

6.Command palette- this helps you to execute a command without leaving the keyboard.

Purposes:

1.Activity bar is used for visibility as it indicates which view is currently active by highlighting the corresponding icon. Used for navigation purposes as it provides icon for quick access to different views like the explorer.

2.Side bar is used for extensions as it allows users to install and browse extensions. Used for searching as it is a good tool within the project.

3.Editor group is used for code editing as it is an area to write and edit code. Used for tabs management since each open file appears as a tab at the top of the editor group hence can switch files very easily.

4.Status bar is used as a workspace info as it indicates the current workspace being worked on. Used for file information as it displays detailed information about the file currently active example the line and column number.

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.

A command palette provides quick access to various commands and functionalities within the editor and can execute any command with having to go through the menus. By accessing it, one can use keyboard shortcuts for example in windows, ‘ctrl+shift+p’ or go to view in the menu bar and select the command palette.

Some of the common tasks performed include:

1.File management that is opening files and save files.

2.Source control that is example ‘git push’ as a command to push the changes made to a remote repository.

3.Debugging by starting to debug by giving a command like ‘debug: start debugging’.

4.Creating a new terminal by a command like ‘terminal: create new integrated terminal’.

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.

Roles:

1.Extensions help in supporting the vs code by adding programming languages like python for maybe debugging.

2.Extensions helps in debugging codes written in various languages.

3.Extensions helps the users in customizing the theme to their liking.

4.Extensions helps the developers to maintain their code quality and streamline their framework.

Find extensions by opening extension views or using the search bar at the top of the extension view. Install extensions by going to the extension page then click install hence will be downloaded or use the command palette. Manage extensions by looking at the installed extensions at the extension view or uninstall an extension if you don’t want it.

Examples

1.Adding a selected theme for different types of files.

2.Adding snippets on the html for quick and easy insertion.

3.For debugging either python code for development framework.

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.

Opening the integrated terminal in vs code can be by going to the menu that is view then click on terminal or use the command palette for windows one presses 'ctrl+shift+p'.

Using the integrated terminal in vs code can be by creating new terminals by clicking '+' , switching terminal by clicking on the dropdown menu, execute commands like git commands directly in the terminal, change the shell by going to settings then resize the terminal panel then adjust appearance.

Advantages:

1.Integrated terminal manages coding and terminal tasks within VS Code thus reducing window switching unlike external terminal which requires window switching.

2.Integrated terminal executes and monitor tests while editing code in the same interface unlike external terminal which requires switching between the terminal and editor to execute and monitor tests.

3.Integrated terminal manages and view the terminal output within the editor unlike external terminal which output management is separate from the editor.

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?

Creating files and folders: using the explorer side bar for new file, right click on a folder then 'new file' then enter name then press 'enter'. For new folder, right click on folder then 'new folder' then enter name then press 'enter'.

Opening files and folders: for file click on ‘file’ then ‘open file’, for folder click on ‘file’ then ‘open folder’.

Manage files and folders: when renaming them, right click on file or folder then click ‘rename’ then enter new name then press ‘enter’, when one wants to copy or paste, they can right click the file or folder then click on ‘copy’ or ‘paste’.

To navigate between files and directories efficiently in vs code: use the Quick Open feature ‘Ctrl + P’ to quickly access files by typing their names, use the Explorer side bar to browse and manage files, employing arrow keys for keyboard navigation. Use F12 to go to definitions and ‘Ctrl + Shift + O’ to navigate to symbols. The integrated terminal allows directory changes with cd. The Command Palette ‘Ctrl + Shift + P’ provides quick access to commands.

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 key bindings.

To find settings, one can use the command palette by opening the command palette using ‘ctrl+shift+p’ and type maybe preferences: open settings UI.

Changing the theme:

Going the settings then select theme then the color theme.

Changing font size:

Going to settings then search for ‘font size’ then adjust ‘editor: font size’.

Changing key bindings:

Clicking the gear icon and selecting ‘keyboard shortcuts’. Search for the command and set new key combination.

9.Debugging in VS Code:

Outline the steps to setup and start debugging a simple program in VS Code. What are some key debugging features available in VS Code?

Setting up that is configuring debugging settings in 'launch.json'. Some of the key debugging features include breakpoints, remote debugging and view call stacks. Set up breakpoints by clicking in the gutter next to the number line. Accessing debugging controls is by going to the activity bar. Start the debugging process, inspect the variables, step through the codes and view the call stacks.

10.Using source control:

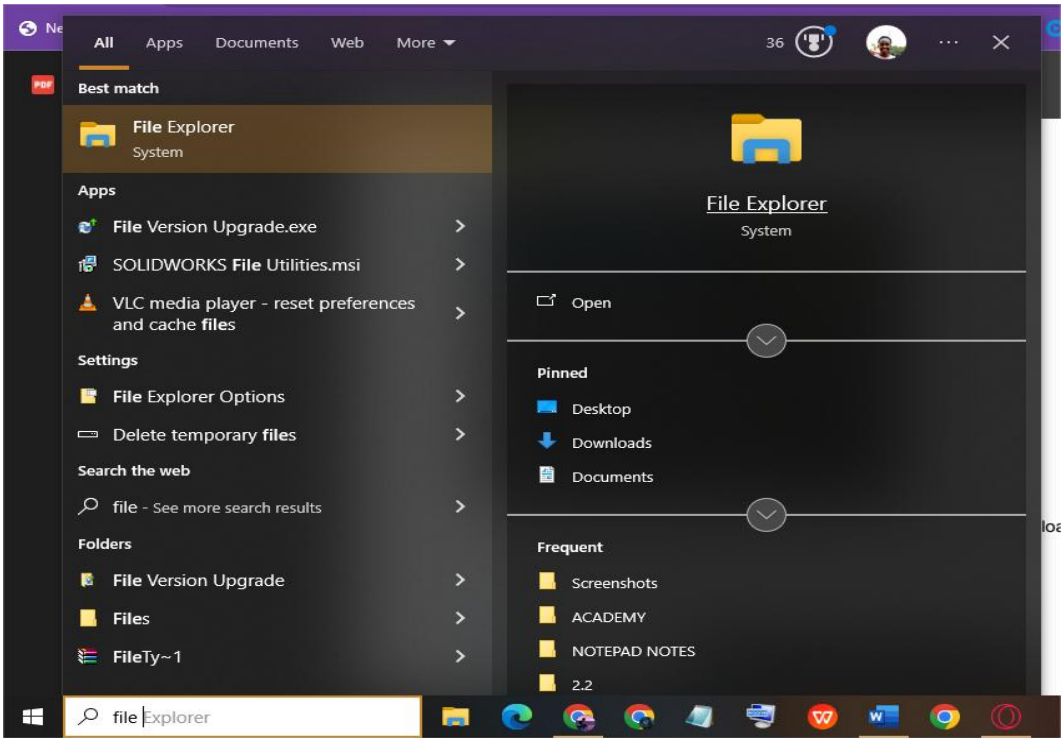
How can users integrate Git with VS code for version control? Describe the process of initializing a repository, making commits and pushing changes to GitHub.

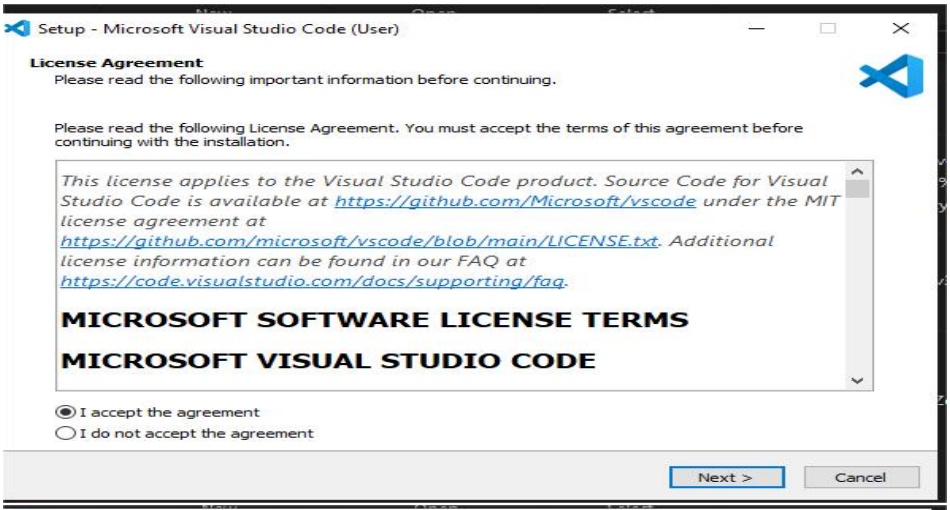
To integrate Git with VS Code for version control, first ensure Git is installed and configure your username and email. Open your project folder in VS Code, then initialize a Git repository or clone an existing one using the Source Control view 'Ctrl+Shift+G'. Use the Source Control view to stage, commit, and push changes, manage branches, and view file history and diffs. For advanced Git capabilities, install the Git lens extension. Familiarize yourself with Git keyboard shortcuts and customize Git settings through the .gitconfig file for an efficient workflow.

Describing the process:

Open your projector file in vs code and initialize the repository by opening the source control view and click 'initialize repository'. Make changes to your files then stage the changes in the source control view by clicking the '+' icon next to each file. Enter a commit message and click the check icon. To push changes to git hub, open the terminal in vs code, add the remote repository with ' git remote add origin https://github.com/your-username/your-repository.git' and then push the changes using 'git push -u origin master' and you are set.

Various Screenshots of the above questions




Setup - Microsoft Visual Studio Code (User)
License Agreement
Please read the following important information before continuing.
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.
This license applies to the Visual Studio Code product. Source Code for Visual Studio Code is available at https://github.com/Microsoft/vscode under the MIT license agreement at https://github.com/microsoft/vscode/blob/main/LICENSE.txt. Additional license information can be found in our FAQ at https://code.visualstudio.com/docs/supporting/faq.
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I accept the agreement
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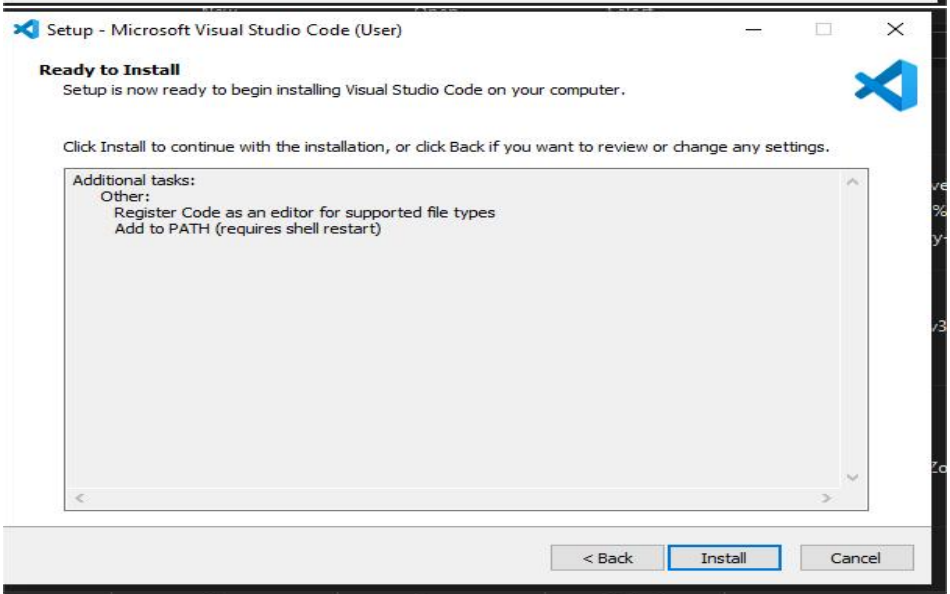
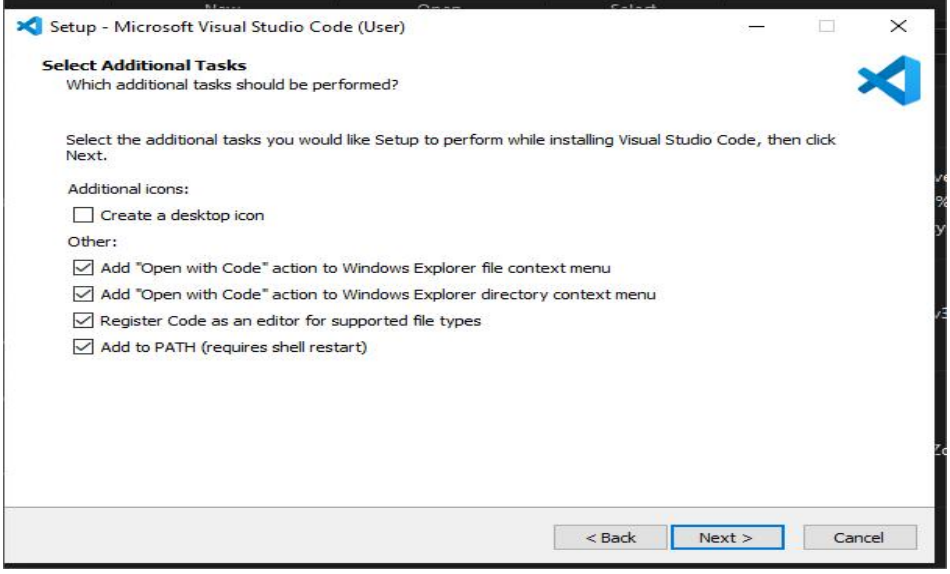
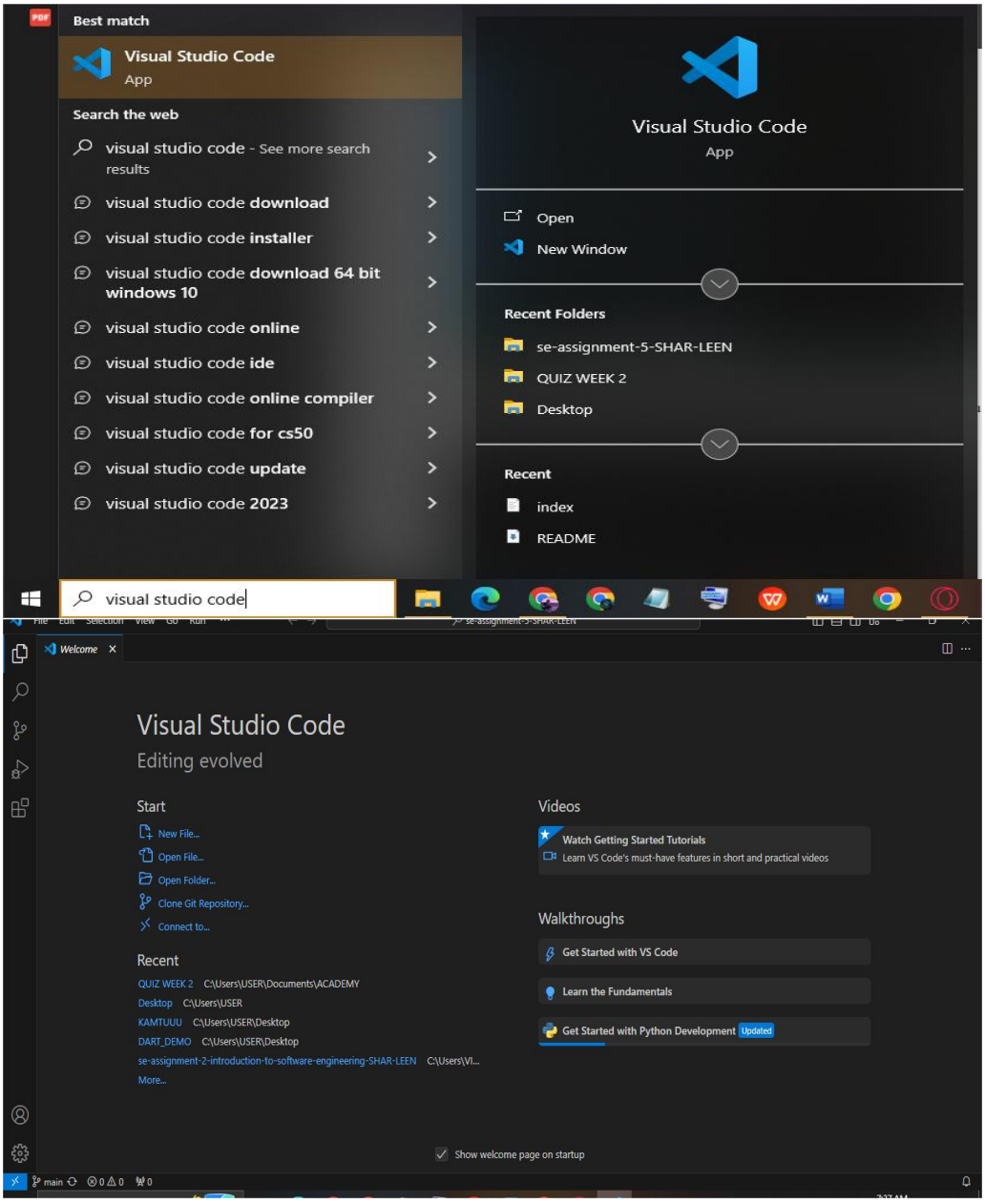

Setup - Microsoft Visual Studio Code (User)
Ready to Install
Setup is now ready to begin installing Visual Studio Code on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Additional tasks:
Other:
Register Code as an editor for supported file types
Add to PATH (requires shell restart)
< Back
Install
Cancel


Setup - Microsoft Visual Studio Code (User)
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing Visual Studio Code, then click Next.
Additional icons:
Create a desktop icon
Other:
Add "Open with Code" action to Windows Explorer file context menu
Add "Open with Code" action to Windows Explorer directory context menu
Register Code as an editor for supported file types
Add to PATH (requires shell restart)
< Back
Next >
Cancel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New Window
Recent Folders
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QUIZ WEEK 2
Desktop
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README
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Welcome
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Editing evolved
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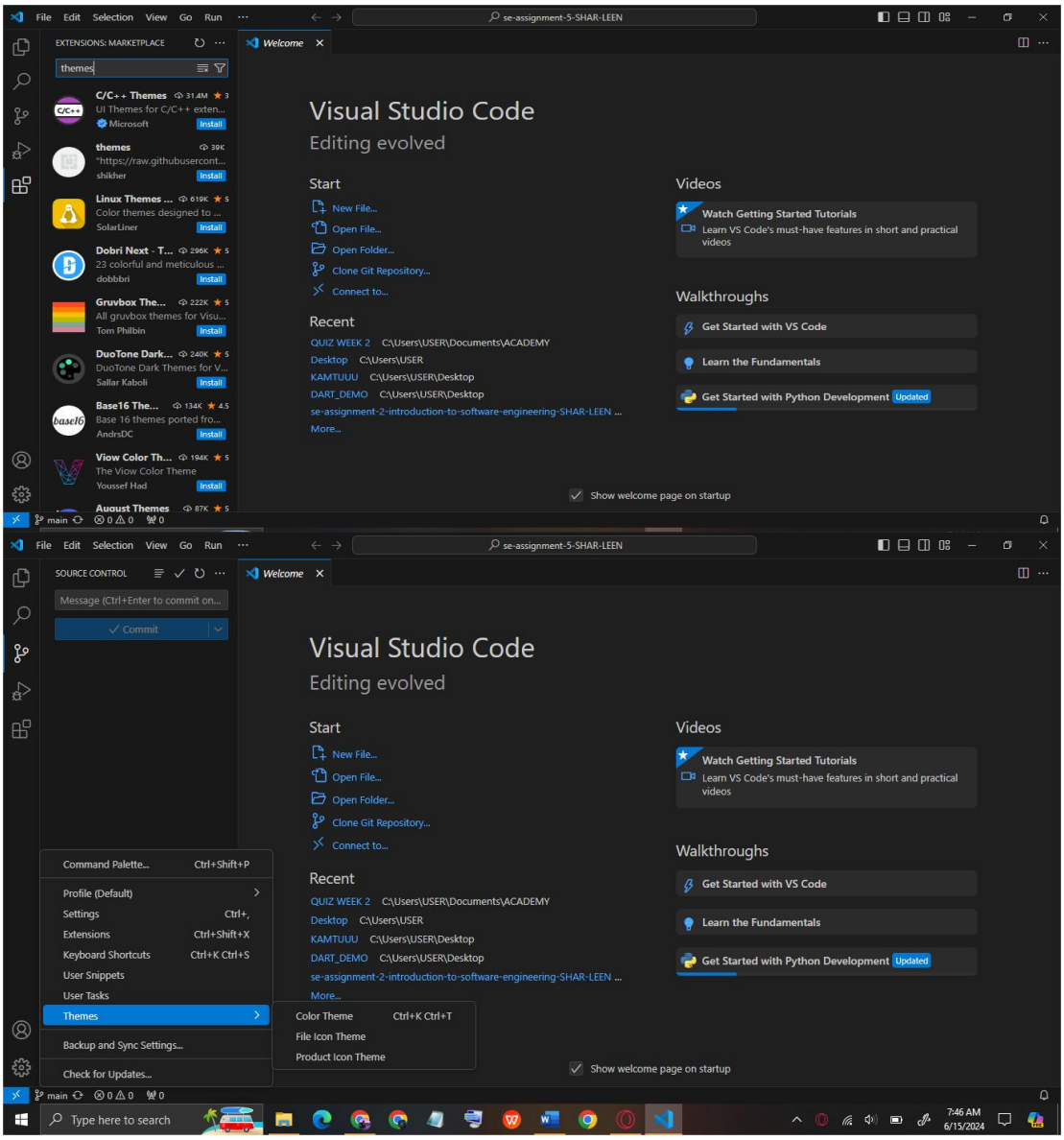
File Edit Selection View Go Run
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EXTENSIONS: MARKETPLACE
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Microsoft
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Linux Themes ...
Color themes designed to ...
SolarLiner
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Gruvbox The...
All gruvbox themes for Visu...
Tom Philbin
DuoTone Dark...
DuoTone Dark Themes for V...
Sallar Kaboli
Base16 The...
Base 16 themes ported fro...
AndrsDC
Viow Color Th...
The Viow Color Theme
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main
SOURCE CONTROL
Message (Ctrl+Enter to commit on...
Commit
Command Palette... Ctrl+Shift+P
Profile (Default)
Settings Ctrl+,
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Keyboard Shortcuts Ctrl+K Ctrl+S
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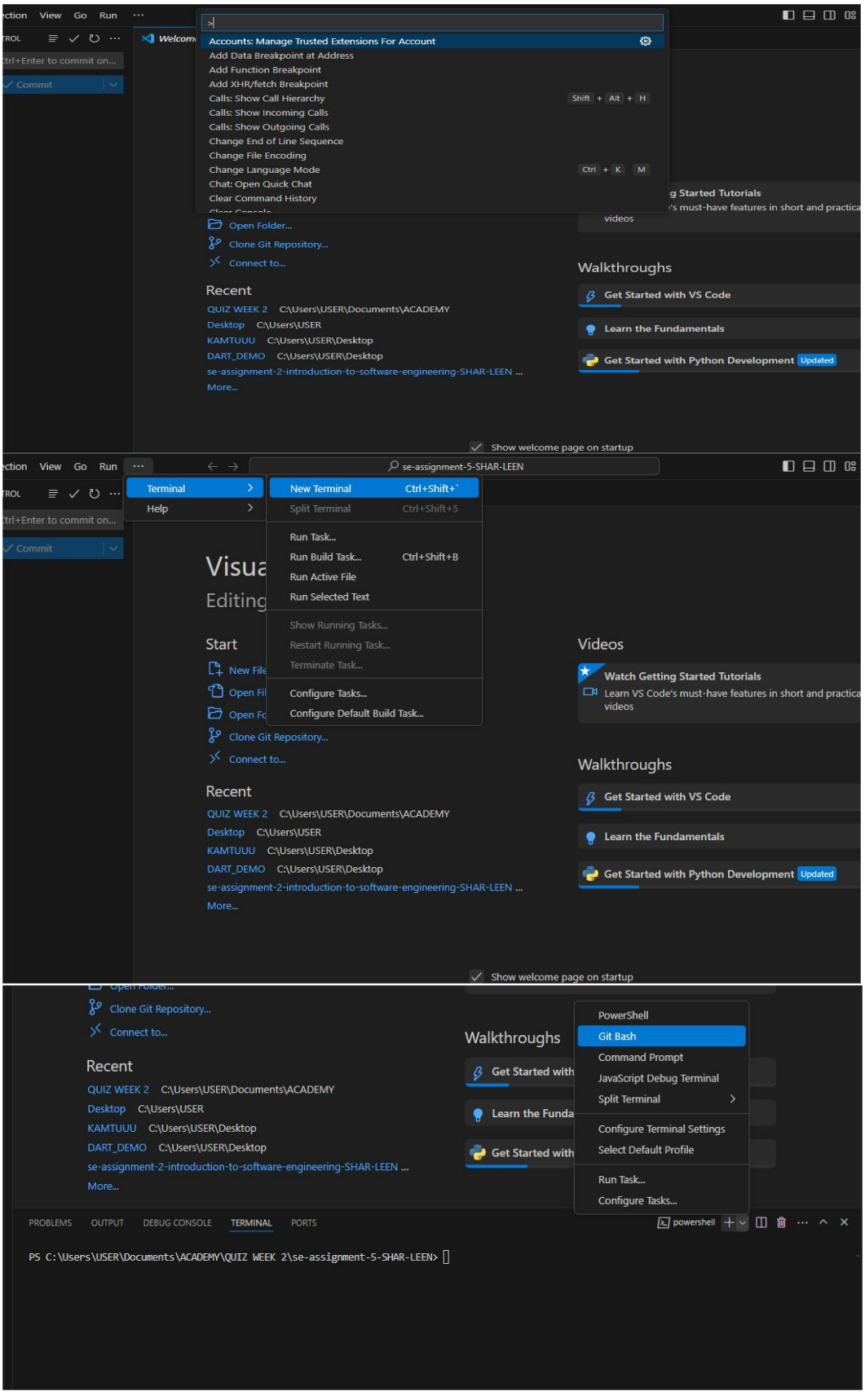
View
Go
Run
Accounts: Manage Trusted Extensions For Account
Add Data Breakpoint at Address
Add Function Breakpoint
Add XHR/fetch Breakpoint
Calls: Show Call Hierarchy
Shift + Alt + H
Calls: Show Incoming Calls
Calls: Show Outgoing Calls
Change End of Line Sequence
Change File Encoding
Change Language Mode
Ctrl + K M
Chat: Open Quick Chat
Clear Command History
Open Folder...
Clone Git Repository...
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Show welcome page on startup
Terminal
Help
New Terminal Ctrl+Shift+`
Split Terminal Ctrl+Shift+5
Run Task...
Run Build Task... Ctrl+Shift+B
Run Active File
Run Selected Text
Show Running Tasks...
Restart Running Task...
Terminate Task...
Configure Tasks...
Configure Default Build Task...
Videos
Watch Getting Started Tutorials
Learn VS Code's must-have features in short and practica
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PowerShell
Git Bash
Command Prompt
JavaScript Debug Terminal
Split Terminal
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Select Default Profile
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DEBUG CONSOLE
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