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.

**ANSWER:**

To download and install Visual Studio Code (VS Code) on Windows 11, I follow these steps:

Prerequisites

1. Operating System: Ensure you are running Windows 11.

2. Administrative Rights: You may need administrator privileges to install software.

Steps to Download and Install VS Code

1. Download VS Code Installer\*\*:

- Open your web browser and go to the [Visual Studio Code website](https://code.visualstudio.com/).

- Click on the Download for Windows button. This will download the installer for Windows.

2. Run the Installer:

- Locate the downloaded installer file (`VSCodeSetup-x64-x.y.z.exe` where x.y.z is the version number) in your Downloads folder.

- Double-click the installer file to run it.

3. Install VS Code:

- The setup wizard will start. Follow the prompts:

- License Agreement: Read and accept the license agreement, then click Next.

- Select Destination Location: Choose the destination folder for the installation or leave it as default, then click Next.

- Select Start Menu Folder: Choose the Start Menu folder for the program's shortcuts or leave it as default, then click Next.

- Select Additional Tasks: Choose additional tasks (e.g., creating a desktop icon, adding to PATH), then click Next.

- Ready to Install: Click Install to start the installation process.

4. Complete the Installation:

- Wait for the installation to complete.

- Once finished, you can choose to launch Visual Studio Code immediately by checking the corresponding box.

- Click Finish.

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.

**ANSWERS:**

After installing Visual Studio Code (VS Code), you can optimize your coding environment by adjusting various settings and installing key extensions. Here are some initial configurations and settings to consider:

Initial Configurations

2. Auto Save:

- Enable auto save to automatically save changes.

3. Format on Save:

- Ensure your code is formatted every time you save.

Key Extensions to Install

1. Language Support:

- Python: For Python development.

- JavaScript/TypeScript: For web development.

- C/C++: For system-level programming.

2. Linting and Formatting:

- ESLint: Linter for JavaScript and TypeScript.

- Prettier - Code formatter: Code formatter for multiple languages.

- Python: Comes with Pylint for linting.

3. Version Control:

- GitLens: Supercharges the Git capabilities built into VS Code.

- GitHub Pull Requests and Issues: Allows you to manage GitHub pull requests and issues.

4. Productivity Tools:

- IntelliSense: Typically included with language support extensions, providing autocompletion.

- Live Server: Launch a local development server with live reload for static and dynamic pages.

- Debugger for Chrome: Debug your JavaScript code in the Chrome browser, or other targets that support the Chrome Debugger protocol.

5. Snippet Extensions:

- JavaScript (ES6) code snippets: For JavaScript snippets.

- Python Snippets: For Python snippets.

- HTML Snippets: For HTML snippets.

Additional Useful Settings

1. Terminal Integration:

- Integrate your terminal by customizing the terminal shell path.

2. Explorer Settings:

- Customize the file explorer view.

3. Code Folding:

- Enable code folding to manage large file.

4. Emmet Abbreviations:

- Enhance HTML and CSS workflow by enabling Emmet.

Configuring Extensions

1. Python:

- Install the Python extension and configure it to use your preferred Python interpreter.

3. Prettier:

- Configure Prettier as the default formatter.

By adjusting these settings and installing the recommended extensions, you can create an efficient and comfortable development environment tailored to your specific needs.

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.

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.

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.

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?

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?

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?

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.

Submission Guidelines:

- Your answers should be well-structured, concise, and to the point.

- Provide screenshots or step-by-step instructions where applicable.

- Cite any references or sources you use in your answers.

- Submit your completed assignment by 1st July