

SWCON104  
Web & Python Programming

# Debugging with Microsoft Visual Code

Department of Software Convergence



# Today

---

- Video Clip



# Practice

---

- Codes in video



# Video Clip

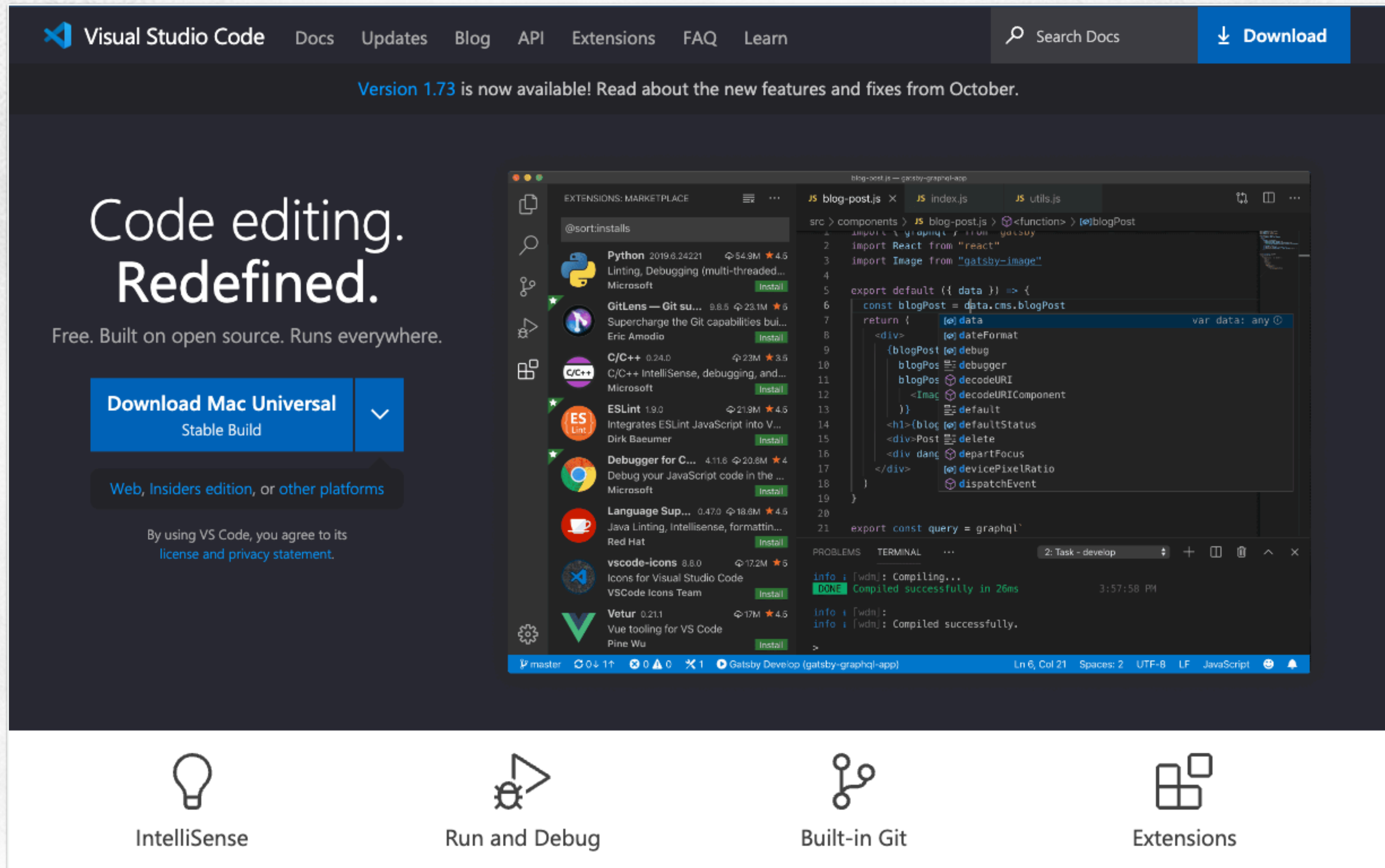
---

- Watching via eCampus [ 이캠퍼스 영상을 시청함 ]



# Reference

- Visual Studio Code Homepage
  - <https://code.visualstudio.com/>





# Reference

## ● Getting Started with Python in VS Code [ Tutorial ]

● <https://code.visualstudio.com/docs/python/python-tutorial>

The screenshot shows the Visual Studio Code documentation website. The top navigation bar includes links for Visual Studio Code, Docs, Updates, Blog, API, Extensions, FAQ, and Learn. A search bar and a 'Download' button are also present. A banner below the navigation bar announces 'Version 1.73 is now available!'. The main content area is titled 'Getting Started with Python in VS Code' with an 'Edit' button. The left sidebar contains a table of contents with categories like Overview, SETUP, GET STARTED, USER GUIDE, SOURCE CONTROL, TERMINAL, LANGUAGES, NODE.JS / JAVASCRIPT, TYPESCRIPT, and PYTHON. The PYTHON section is expanded, showing 'Tutorial' as the selected item. The main text describes the tutorial's goal: to create a 'Hello World' application using Python 3 in VS Code. It lists tasks such as writing, running, and debugging a Python application, installing packages, and writing a simple script. It also mentions that the tutorial is not intended to teach Python itself but to guide users through the VS Code environment. A 'Prerequisites' section lists 'Python 3' and 'VS Code application'. The right sidebar, titled 'IN THIS ARTICLE', lists the steps of the tutorial: Prerequisites, Install Visual Studio Code and the Python Extension, Install a Python interpreter, Verify the Python installation, Start VS Code in a project (workspace) folder, Select a Python interpreter, Create a Python Hello World source code file, Run Hello World, Configure and run the debugger, Install and use packages, and Next steps. At the bottom of the right sidebar, there are social media links for Twitter, RSS, GitHub, and YouTube.

Visual Studio Code Docs Updates Blog API Extensions FAQ Learn

Search Docs Download

Version 1.73 is now available! Read about the new features and fixes from October.

## Getting Started with Python in VS Code [Edit](#)

In this tutorial, you use Python 3 to create the simplest Python "Hello World" application in Visual Studio Code. By using the Python extension, you make VS Code into a great lightweight Python IDE (which you may find a productive alternative to PyCharm).

This tutorial introduces you to VS Code as a Python environment, primarily how to edit, run, and debug code through the following tasks:

- Write, run, and debug a Python "Hello World" Application
- Learn how to install packages by creating Python virtual environments
- Write a simple Python script to plot figures within VS Code

This tutorial is not intended to teach you Python itself. Once you are familiar with the basics of VS Code, you can then follow any of the [programming tutorials on python.org](#) within the context of VS Code for an introduction to the language.

If you have any problems, feel free to file an issue for this tutorial in the [VS Code documentation repository](#).

### Prerequisites

To successfully complete this tutorial, you need to first setup your Python development environment. Specifically, this tutorial requires:

- Python 3
- VS Code application

#### IN THIS ARTICLE

- Prerequisites
- Install Visual Studio Code and the Python Extension
- Install a Python interpreter
- Verify the Python installation
- Start VS Code in a project (workspace) folder
- Select a Python interpreter
- Create a Python Hello World source code file
- Run Hello World
- Configure and run the debugger
- Install and use packages
- Next steps

- [Tweet this link](#)
- [Subscribe](#)
- [Ask questions](#)
- [Follow @code](#)
- [Request features](#)
- [Report issues](#)
- [Watch videos](#)



# Reference

## ● Debugging in Visual Studio Code

● <https://code.visualstudio.com/docs/editor/debugging>

Visual Studio Code Docs Updates Blog API Extensions FAQ Learn

Version 1.73 is now available! Read about the new features and fixes from October.

## Debugging

One of the key features of Visual Studio Code is its great debugging support. VS Code's built-in debugger helps accelerate your edit, compile, and debug loop.

**Start debugging** **Pause, step over, step in/out, restart, stop**

**Launch Program**

**DEBUG CONSOLE**

**Debug console panel**

**Debug side bar**

**IN THIS ARTICLE**

- Debugger extensions
- Start debugging
- Run and Debug view
- Run menu
- Launch configurations
- Debug actions
- Breakpoints
- Logpoints
- Data inspection
- Launch.json attributes
- Variable substitution
- Platform-specific properties
- Global launch configuration
- Advanced breakpoint topics
- Debug Console REPL
- Redirect input/output to/from the debug target
- Multi-target debugging
- Remote debugging
- Automatically open a URI when debugging a server program
- Next steps



**Thank you**



**경희대학교**  
KYUNG HEE UNIVERSITY