Code Nation

Back-End Development

Command Line & Git

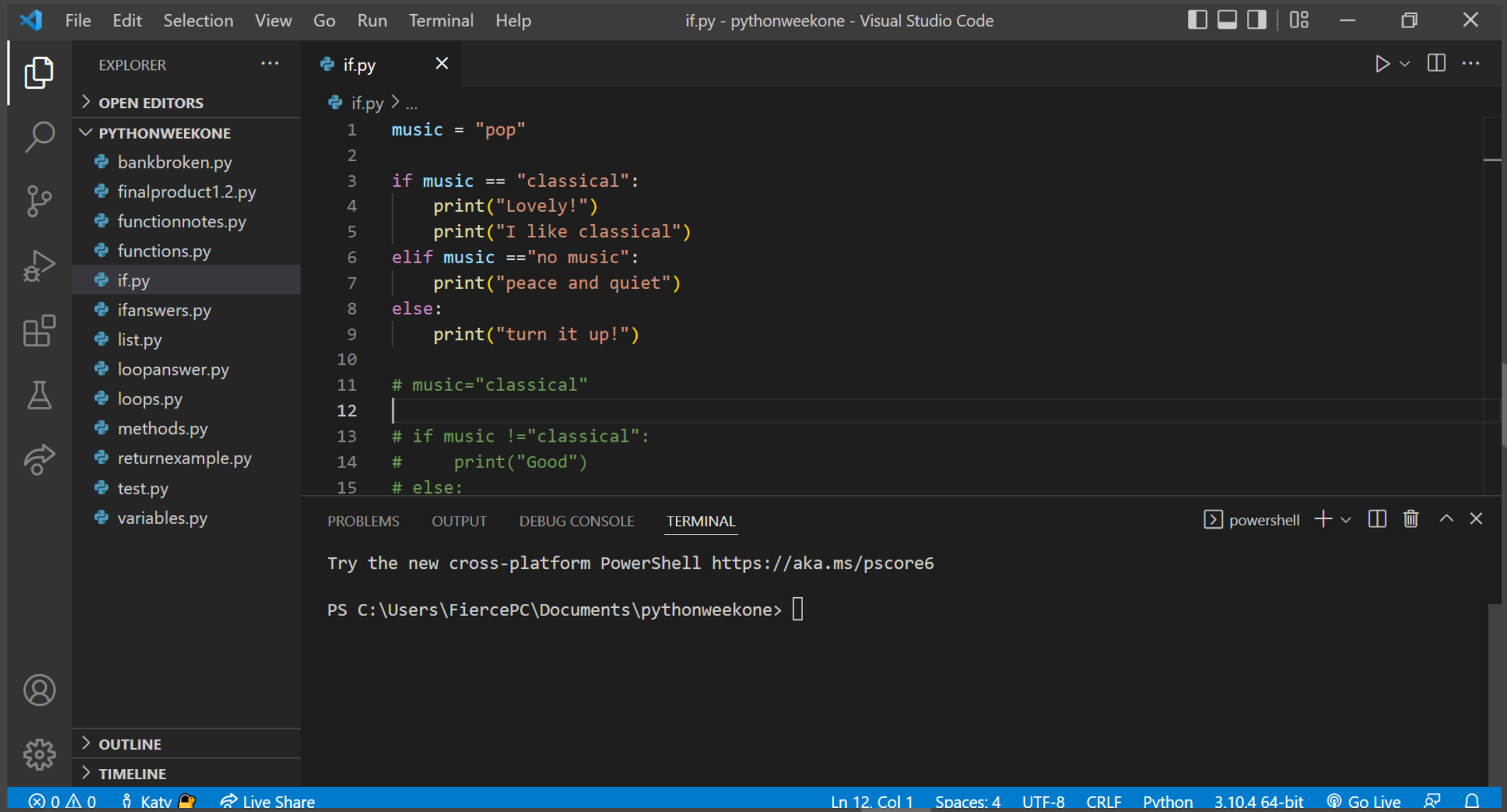
{codenation}®

Learning Objectives

- To develop a basic understanding of command line and be able to successfully navigate a directory within the terminal.
- To understand the importance of Git for both version control and project management.

Requirements

- Visual Studio Code
- Git
- GitHub Account


File Edit Selection View Go Run Terminal Help
if.py - pythonweekone - Visual Studio Code
EXPLORER
OPEN EDITORS
PYTHONWEEKONE
bankbroken.py
finalproduct1.2.py
functionnotes.py
functions.py
if.py
ifanswers.py
list.py
loopanswer.py
loops.py
methods.py
returnexample.py
test.py
variables.py
OUTLINE
TIMELINE
if.py
if.py > ...
1 music = "pop"
2
3 if music == "classical":
4 print("Lovely!")
5 print("I like classical")
6 elif music =="no music":
7 print("peace and quiet")
8 else:
9 print("turn it up!")
10
11 # music="classical"
12
13 # if music !="classical":
14 # print("Good")
15 # else:
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
powershell
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\FiercePC\Documents\pythonweekone>
0 0 Katy Live Share
Ln 12, Col 1 Spaces: 4 UTF-8 CRLF Python 3.10.4 64-bit Go Live

What is Command Line?

- Command Line is the traditional approach to interacting with a computer without the use of a Graphical User Interface (GUI).
- 100% text-based and 100% more powerful.

Why use Command Line?

- Allows the use of CLI Tools.
- Not all commands can be accessed via a GUI.
- Some GUIs can be difficult to navigate.
- Command Line can be very customisable and faster for developers (with practise!).

Basic Command Line

Action	Command
Print working directory	pwd
List current directory	ls
Change directory	cd <__>
Change up a directory	cd ..
Make a new directory	mkdir
Print command	echo <__> | <__>
Preview	cat <__>
Remove	rm -r <__>

What is Git?

- Git is a version control tool, created by Linus Torvalds in 2005 for developing the Linux Kernel.
- Today it’s used as the primary version control tool of almost all developers.
- Git allows developers to track changes in projects, create branches and revert to previously saved states.

Why use Git?

- Git is free and open-source.
- Easy to integrate with GitHub, GitLab and Bitbucket.
- Enhances both individual and collaborative development.
- Almost all developer job roles will require an understanding of Git or experience using it.

Basic Git Commands

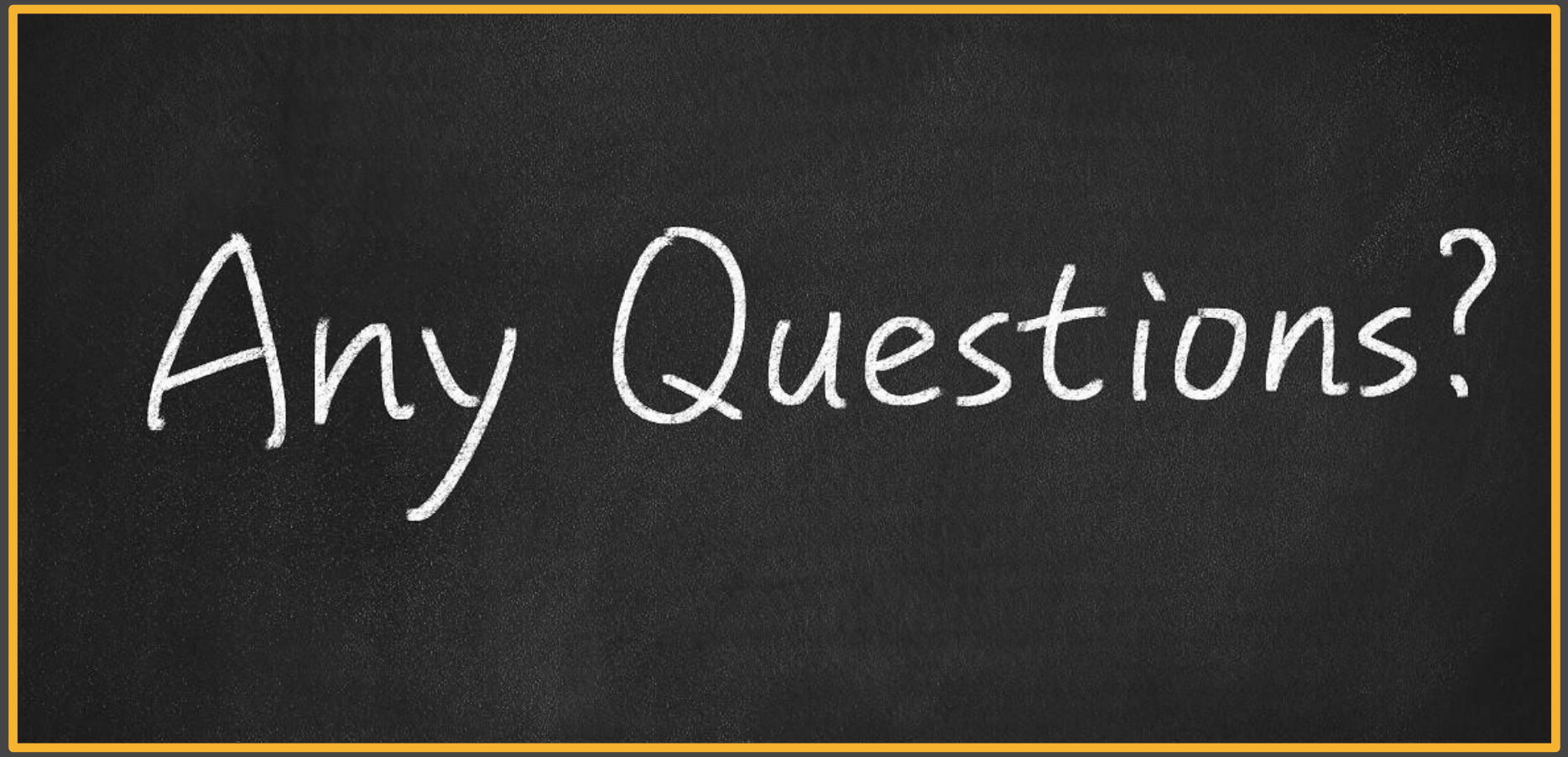
Action	Command
Initialise Git	git init <__>
Set Name	git config –global user.name “<__>”
Set Email	git config –global user.email “<__>”
Add to staging area	git add <__>
Commit changes	git commit -m “<__>”
List Branches	git branch -a
New Branch	git branch <__>
Merge Branches	git merge <__>
Check staging area	git status
Check logs	git log
Push to GitHub	git push -u <__> <__>

GitHub CLI

- Official CLI Tool for GitHub.
- Allows Git to be easily linked to a GitHub account.
- Allows repositories to be created in Command Line.

GitHub CLI Commands

Action	Command
Initial set-up	gh auth login
Create Repository	gh repo create <__> [—flags]
Search Repository	gh search repos <__> [—flags]


Any Questions?

Task

- Using GitHub CLI, Git and Command Line, create a repository for your GitHub account.
- The repository needs to be public and should be named something along the lines of “innovate-portfolio”.

- ★ [stretch] - Create a “readme.md” file within the repository to be displayed on the repo’s GitHub page. Add a description to this file.