

A woman with brown hair is peeking over a white surface, looking directly at the camera. The background is a colorful, abstract, and pixelated pattern.

# Exploring GitHub Copilot

## For Java Development

**Bryan San Juan**

April 2024



do your thing

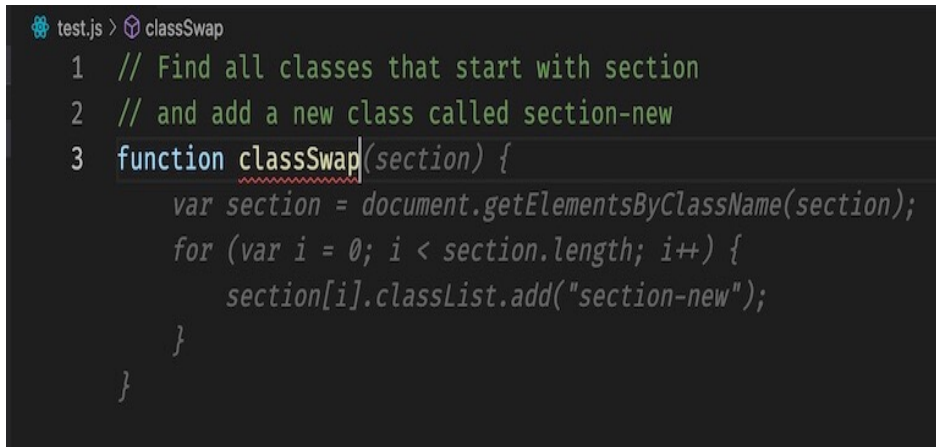
# Agenda

- **What** is GitHub Copilot?
- **How** does GitHub Copilot work?
- Hands-on **Demo**:
  - **Create an** Address Book Spring Boot **application**
    - Introduce Copilot sidebar & chat
    - Prompt via single line comment
    - Prompt via method name
    - Introduce predefined functions via right click
  - Create **Test**
    - Generate Test for service implementation
  - Containerize & **Deploy** the application in a local Kubernetes cluster
- **Q&A**

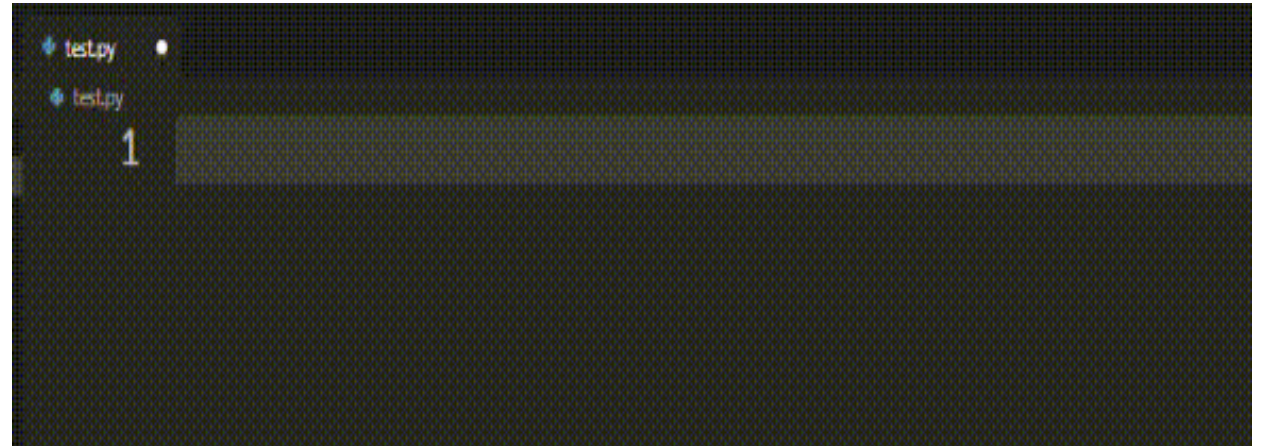


# What is GitHub Copilot?

GitHub Copilot is an **AI coding assistant** that helps you write code faster and with less effort, allowing you to focus more energy on problem solving and collaboration. Copilot **offers coding suggestions** as you type: sometimes the **completion** of the **current line**, sometimes a **whole new block of code**. You can accept all, or part, of a suggestion, or you can ignore the suggestion and keep typing.



```
test.js > classSwap
1 // Find all classes that start with section
2 // and add a new class called section-new
3 function classSwap(section) {
    var section = document.getElementsByClassName(section);
    for (var i = 0; i < section.length; i++) {
        section[i].classList.add("section-new");
    }
}
```



```
test.py
test.py
1
```



# How does GitHub Copilot work?

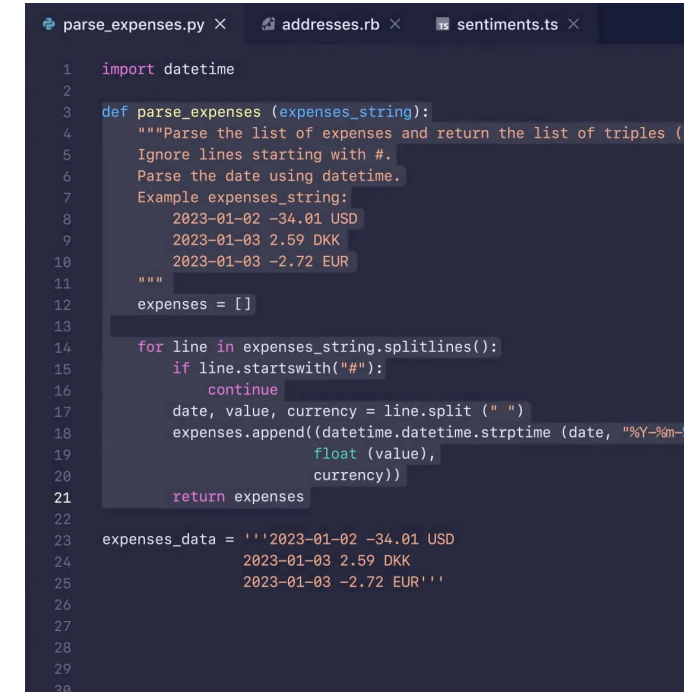


Open AI LLM



Context

Suggestions

A screenshot of a code editor with three tabs: 'parse\_expenses.py', 'addresses.rb', and 'sentiments.ts'. The 'parse\_expenses.py' tab is active, showing Python code. The code defines a function 'parse\_expenses' that takes an 'expenses\_string' and returns a list of triples. It includes a docstring with an example input string and a list of expenses. The code uses 'datetime' to parse dates and 'float' to parse values. The example input string is '2023-01-02 -34.01 USD\n2023-01-03 2.59 DKK\n2023-01-03 -2.72 EUR'. The output is a list of triples: [('2023-01-02', -34.01, 'USD'), ('2023-01-03', 2.59, 'DKK'), ('2023-01-03', -2.72, 'EUR')].

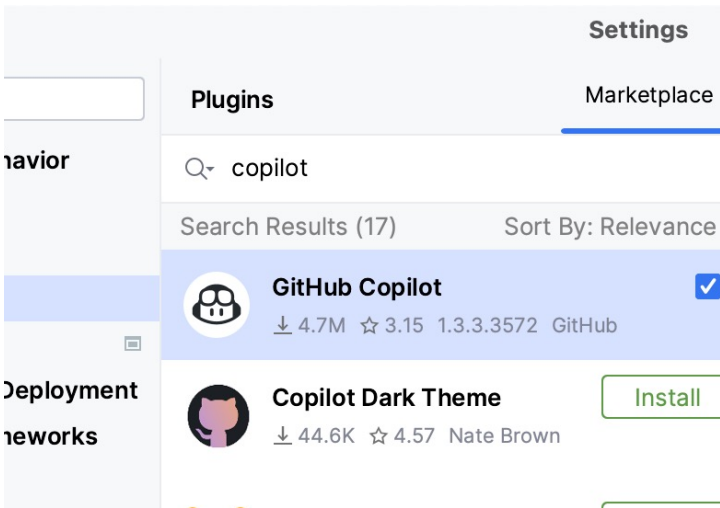
```
1 import datetime
2
3 def parse_expenses (expenses_string):
4     """Parse the list of expenses and return the list of triples (
5     Ignore lines starting with #.
6     Parse the date using datetime.
7     Example expenses_string:
8         2023-01-02 -34.01 USD
9         2023-01-03 2.59 DKK
10        2023-01-03 -2.72 EUR
11    """
12    expenses = []
13
14    for line in expenses_string.splitlines():
15        if line.startswith("#"):
16            continue
17        date, value, currency = line.split(" ")
18        expenses.append((datetime.datetime.strptime (date, "%Y-%m-
19                        float (value),
20                        currency))
21    return expenses
22
23 expenses_data = '''2023-01-02 -34.01 USD
24                  2023-01-03 2.59 DKK
25                  2023-01-03 -2.72 EUR'''
26
27
28
29
30
```

# Setup GitHub Copilot

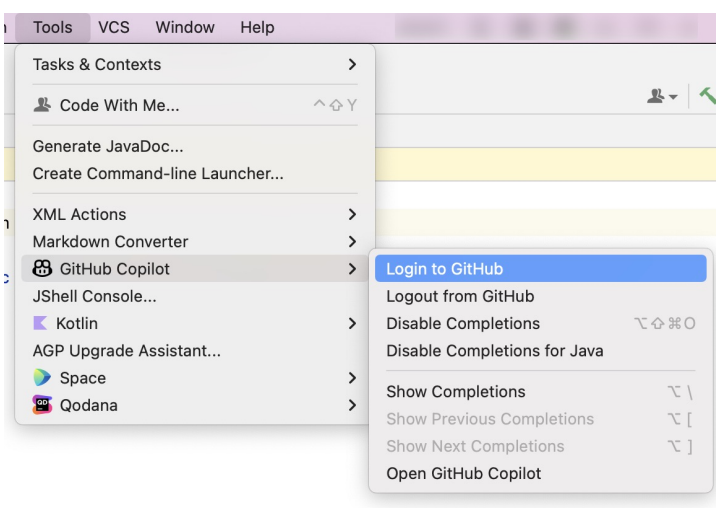
## 1. Get Subscription



## 2. Install extension to supported IDE



## 3. Login



## 4. Familiarize with keyboard shortcuts

OS	Accept suggestion	See next suggestion	See previous suggestion	Accept next word	Accept next line
macOS	tab	Option + ]	Option + [	Command + →	Command + Control + →
Windows	tab	Alt + ]	Alt + [	Control + →	Control + Alt + →
Linux	tab	Alt + ]	Alt + [	Control + →	Control + Alt + →

**DEMO TIME**



[Linkedin.com/company/ing-hubs-philippines/](https://www.linkedin.com/company/ing-hubs-philippines/)



[Facebook.com/INGHubsPhilippines](https://www.facebook.com/INGHubsPhilippines)



<https://www.ing.jobs/Philippines/home.htm>

# Feedback, Questions & Answers



[Linkedin.com/company/ing-hubs-philippines/](https://www.linkedin.com/company/ing-hubs-philippines/)



[Facebook.com/INGHubsPhilippines](https://www.facebook.com/INGHubsPhilippines)



<https://www.ing.jobs/Philippines/home.htm>



do your thing