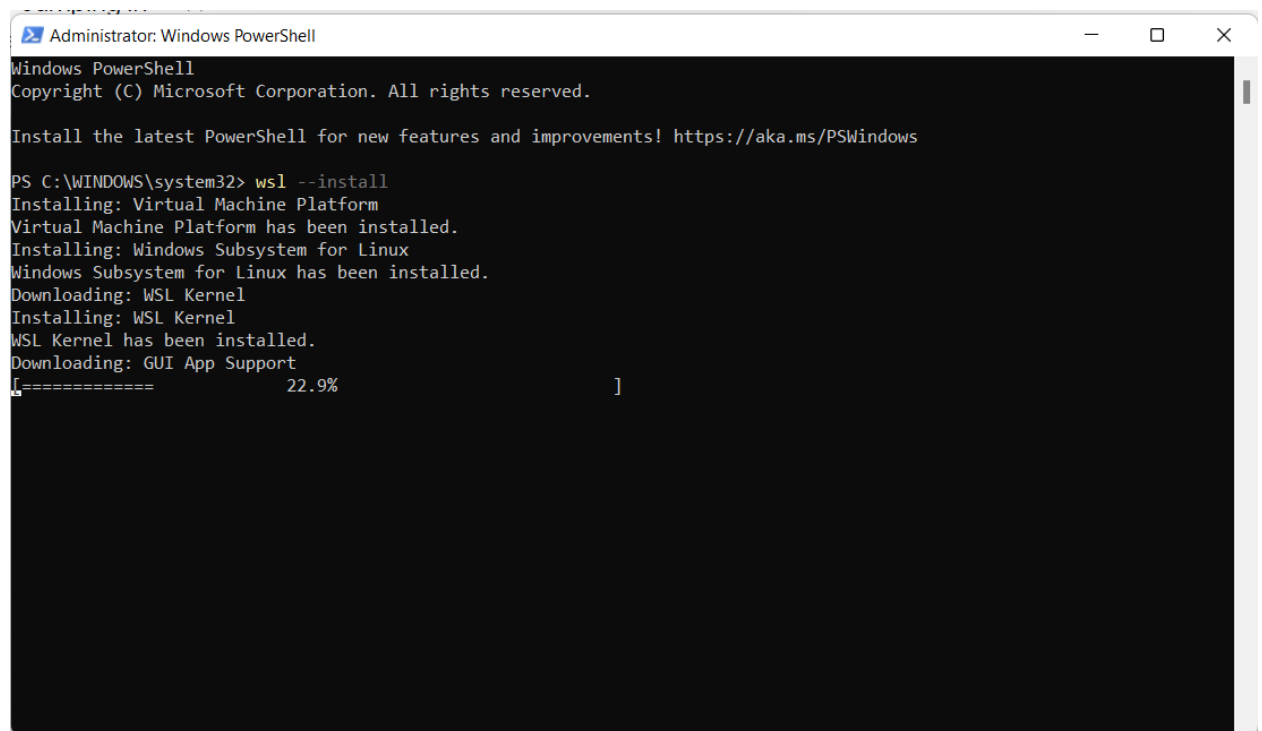


Jaseci Spark AI

Assignment 1 - Jumping In

The objective of this assignment is to have you go through the setup procedure that allows you to develop in JAC.

1. Get a Linux equivalent environment up (WSL Recommended for Windows users)
 - 1.1. On Windows, search for “powershell”
 - 1.2. Right click on “Windows Power Shell” and click on “Run as administrator”
 - 1.3. Type “wsl --install” and hit enter (this will take some time so grab some dinner while you wait..)

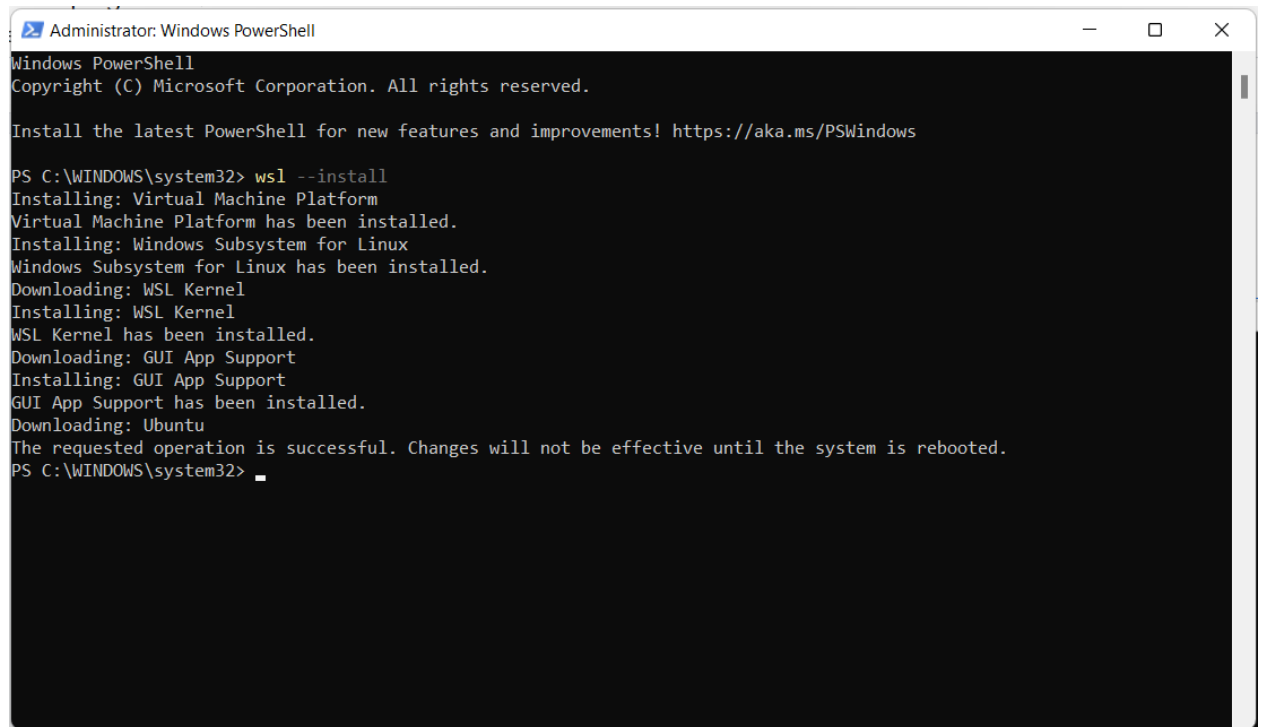


```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\WINDOWS\system32> wsl --install
Installing: Virtual Machine Platform
Virtual Machine Platform has been installed.
Installing: Windows Subsystem for Linux
Windows Subsystem for Linux has been installed.
Downloading: WSL Kernel
Installing: WSL Kernel
WSL Kernel has been installed.
Downloading: GUI App Support
[=====] 22.9%
```

- 1.4. Once the installation is complete, you'll have to reboot your machine..



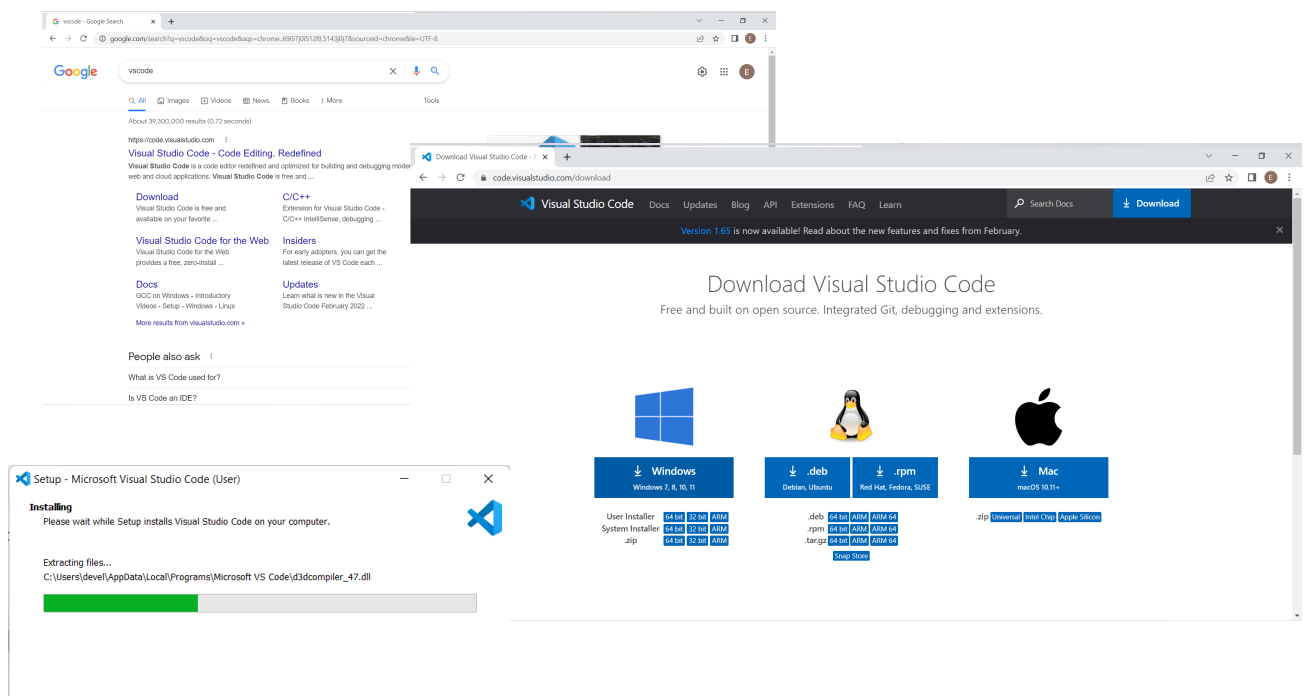
```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.


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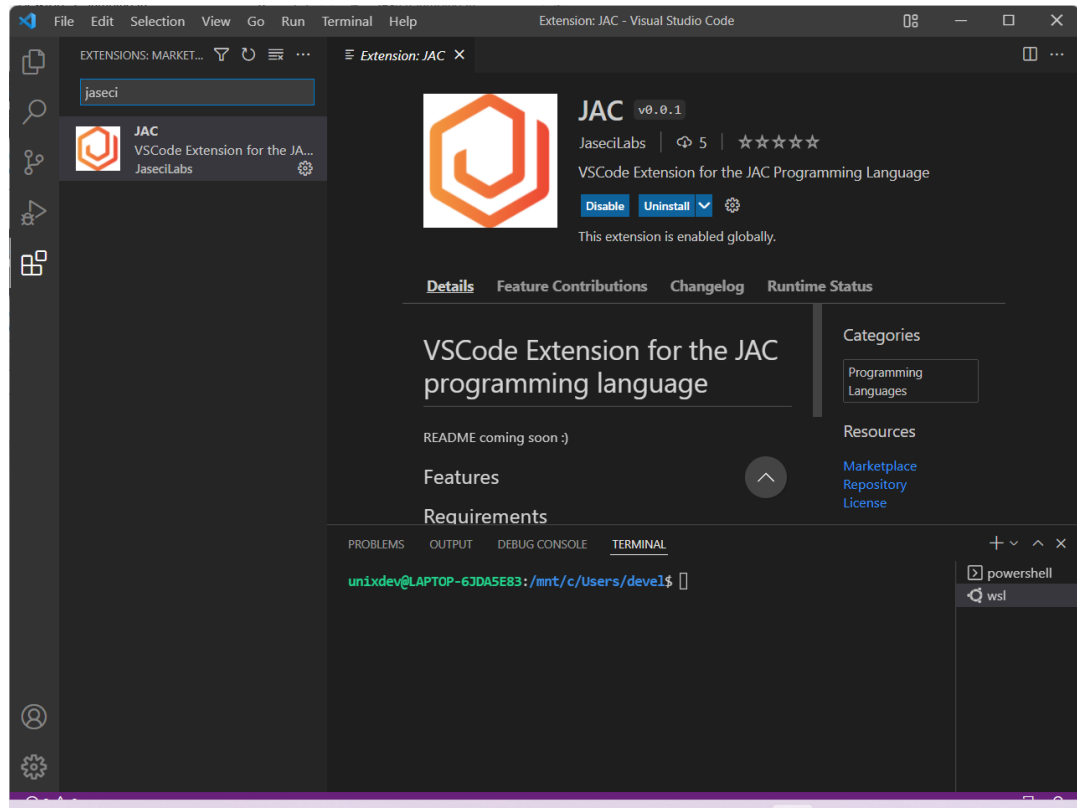
PS C:\WINDOWS\system32> wsl --install
Installing: Virtual Machine Platform
Virtual Machine Platform has been installed.
Installing: Windows Subsystem for Linux
Windows Subsystem for Linux has been installed.
Downloading: WSL Kernel
Installing: WSL Kernel
WSL Kernel has been installed.
Downloading: GUI App Support
Installing: GUI App Support
GUI App Support has been installed.
Downloading: Ubuntu
The requested operation is successful. Changes will not be effective until the system is rebooted.
PS C:\WINDOWS\system32>
```

2. Get an IDE Ready (VSCode is strongly recommended)

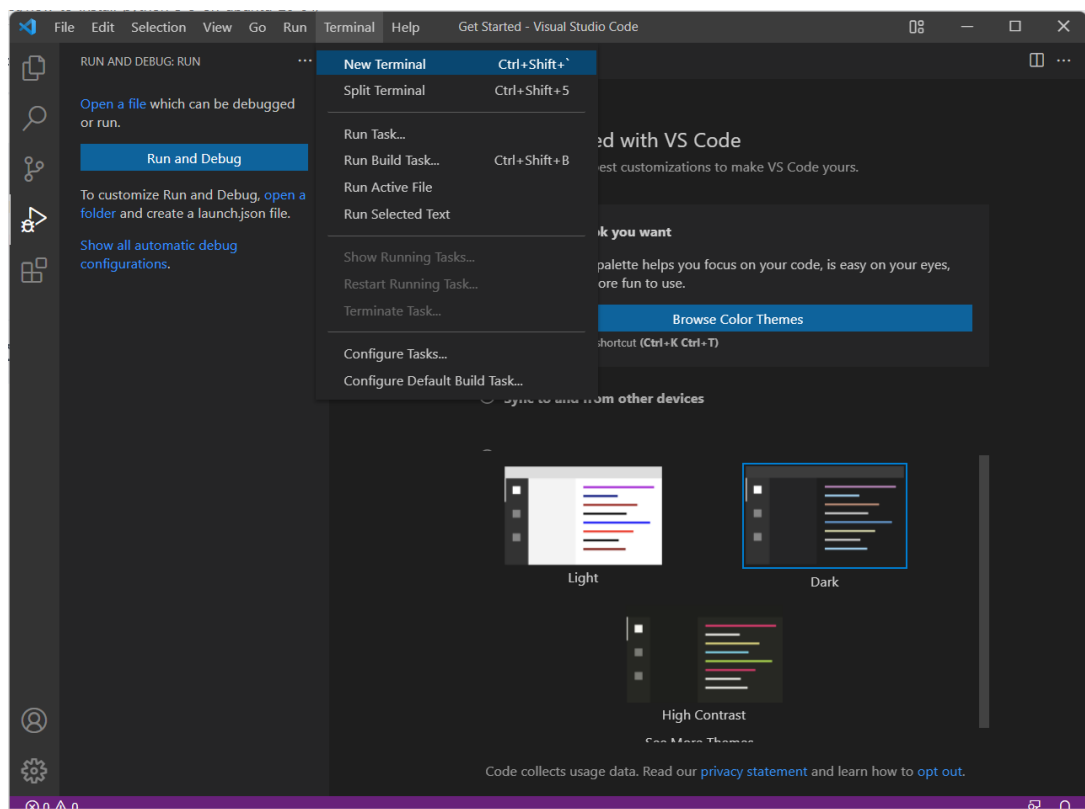
- 2.1. Google “VSCode”, download and install it...



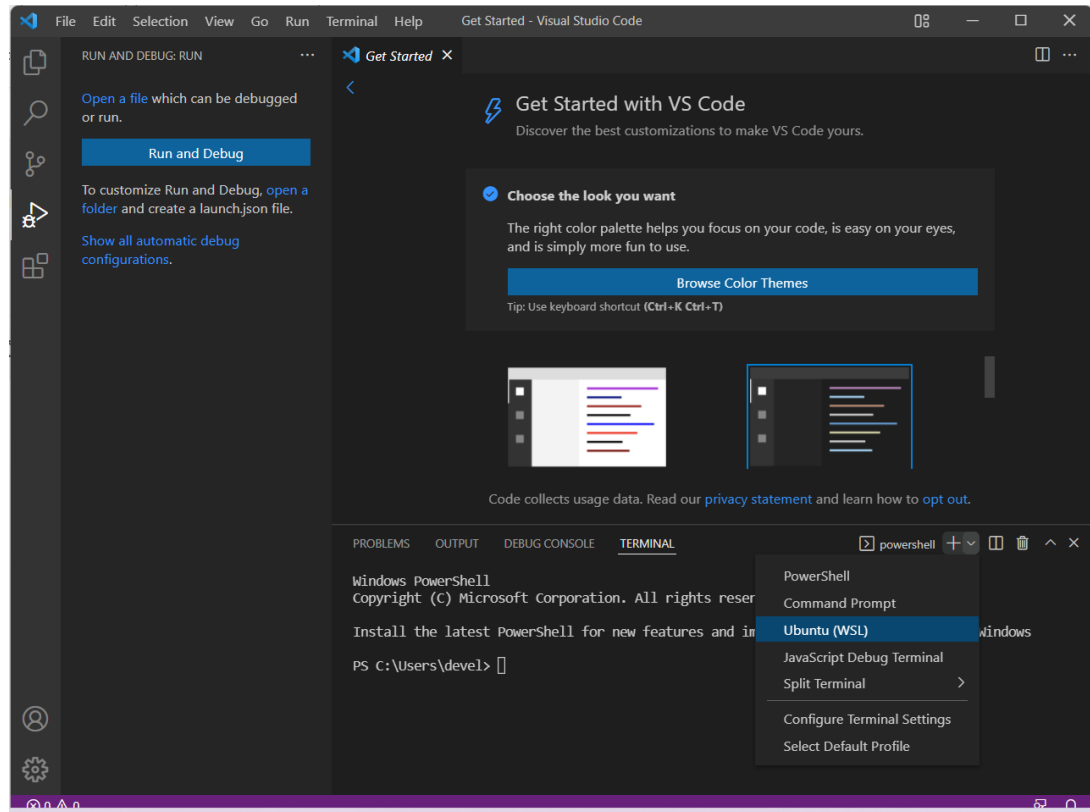
- 2.2. Once installed, fire it up, click on Extensions Icon  search for “jaseci” and install the JAC extension.



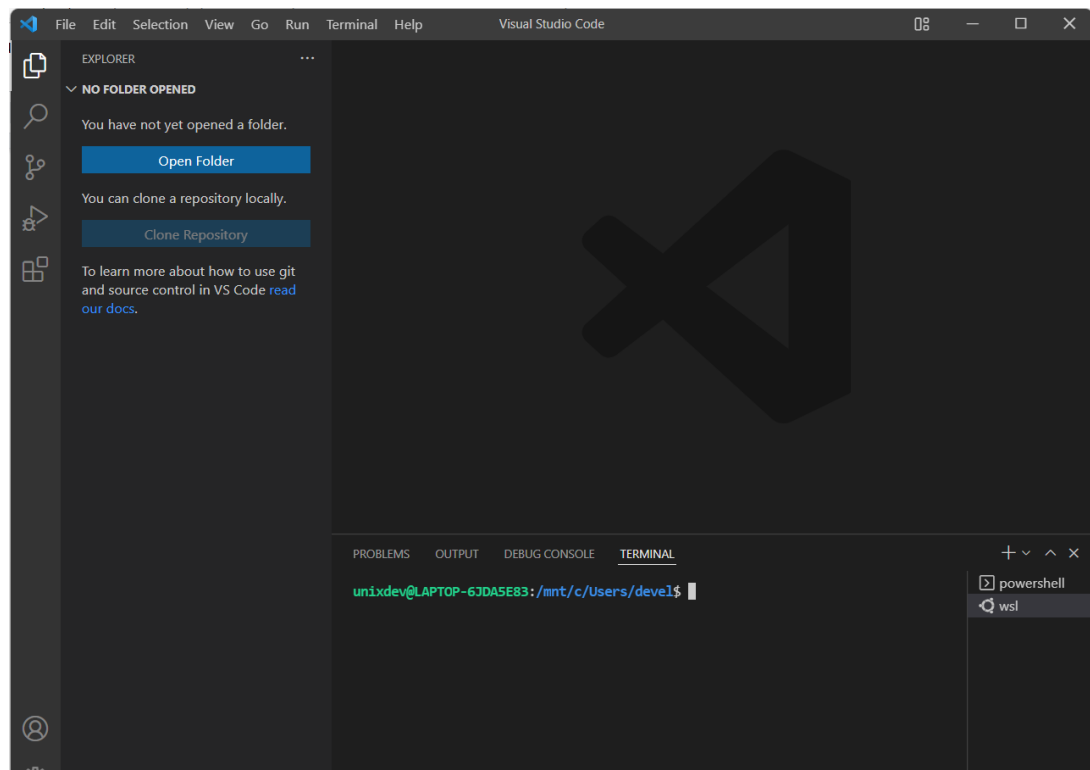
- 2.3. Next, choose “Terminal” > “New Terminal”



- 2.4. The terminal should pop up from below as shown. Click on the “+” near “powershell” and choose “Ubuntu (WSL)”

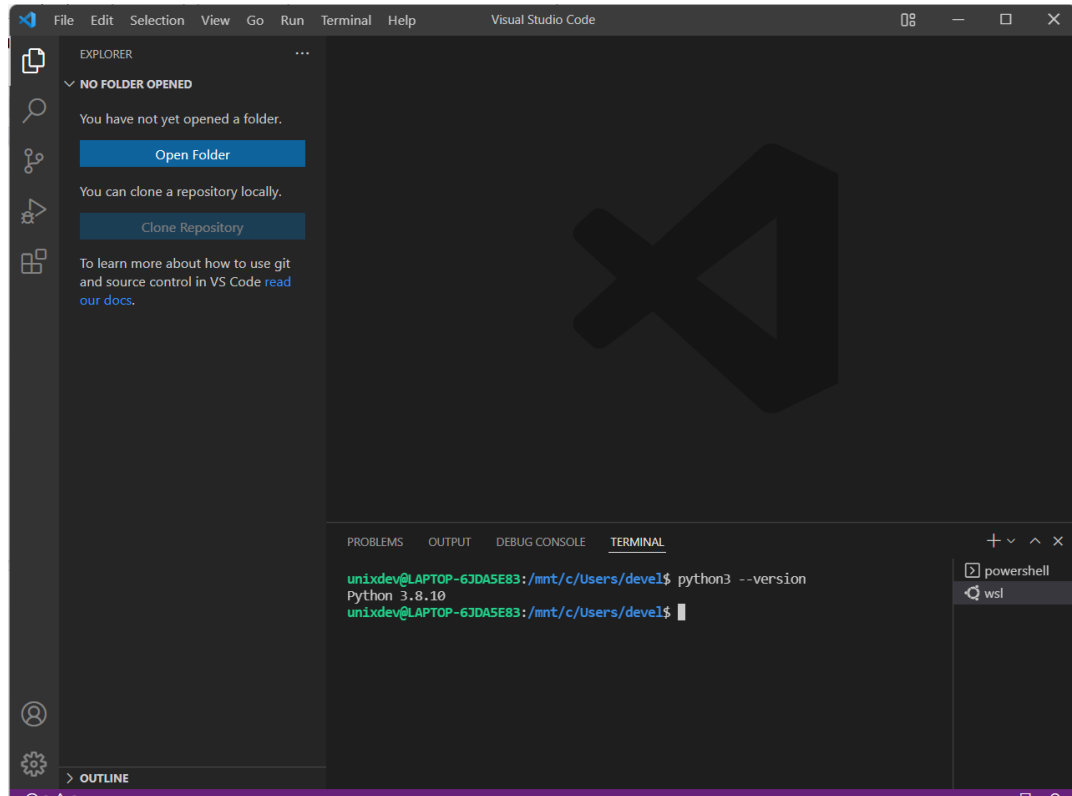


- 2.5. Once WSL is selected, the terminal should show a prompt similar to the one shown below...



3. Install Python 3.8 or higher

- 3.1. In the WSL terminal, type “python3 --version” and hit Enter. If you are shown a version of Python that is 3.8 or higher, then proceed to step 4. Otherwise, continue through the next few steps to install Python3.9.

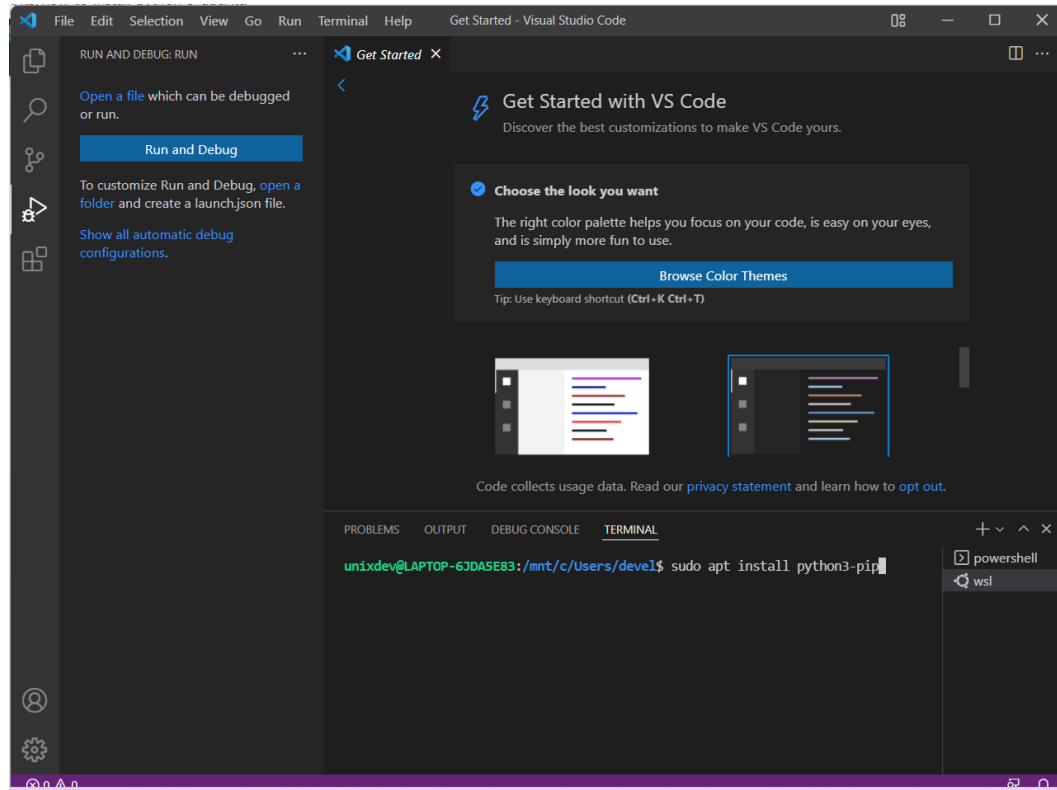


- 3.2. To install Python3.9, run the following commands in sequence, hitting Enter after each one:

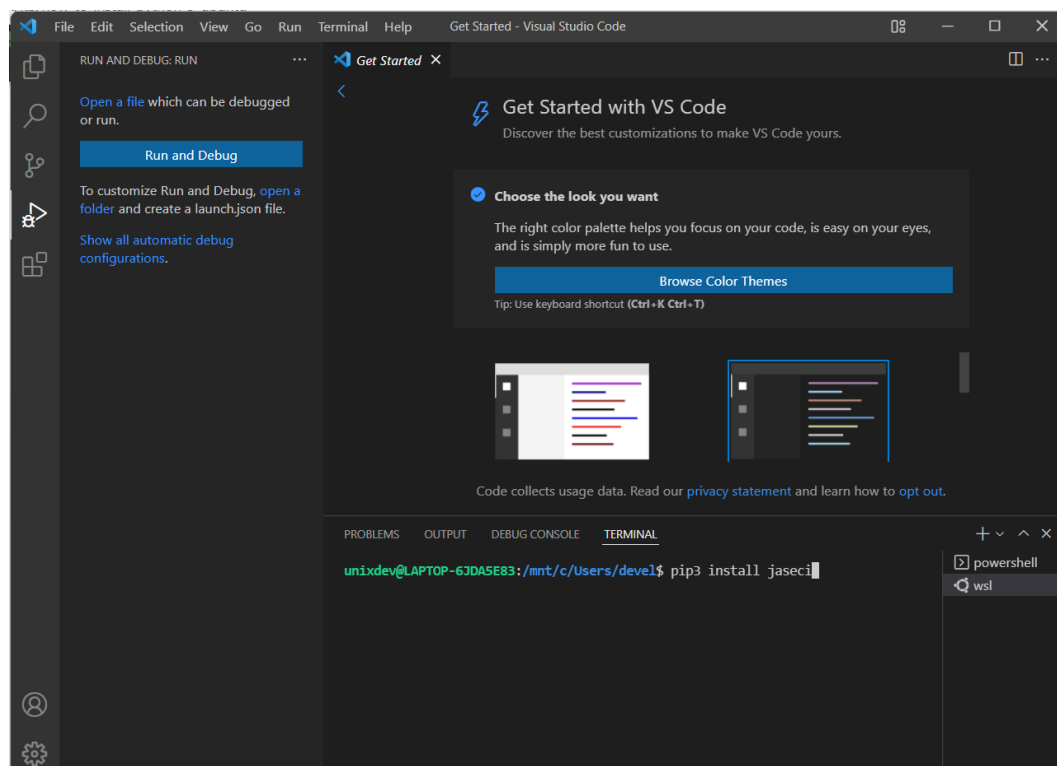
- 3.2.1. `sudo apt update`
- 3.2.2. `sudo apt install software-properties-common`
- 3.2.3. `sudo add-apt-repository ppa:deadsnakes/ppa`
- 3.2.4. `sudo apt install python3.9`

4. Install Jaseci

- 4.1. To install Jaseci, we'll need to first install pip3; at the command prompt, type “`sudo apt install python3-pip`” and hit Enter.

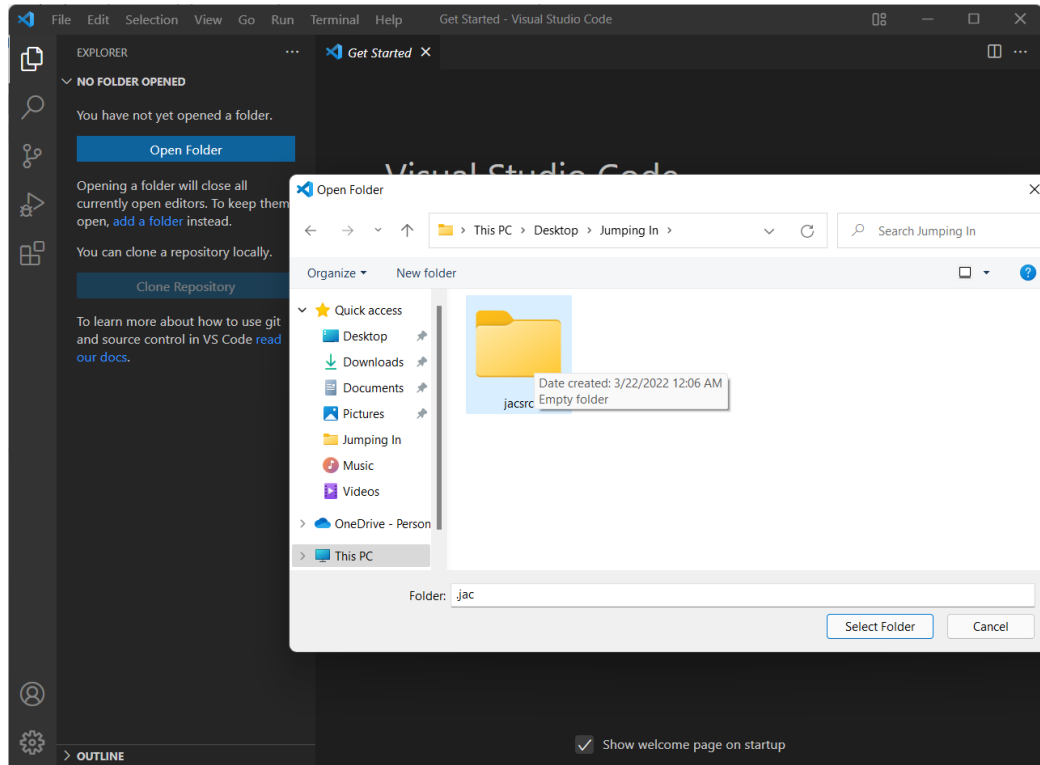


- 4.2. Once the installation completes successfully, you're now ready to install Jaseci. Type “`pip3 install jaseci`” and hit Enter.

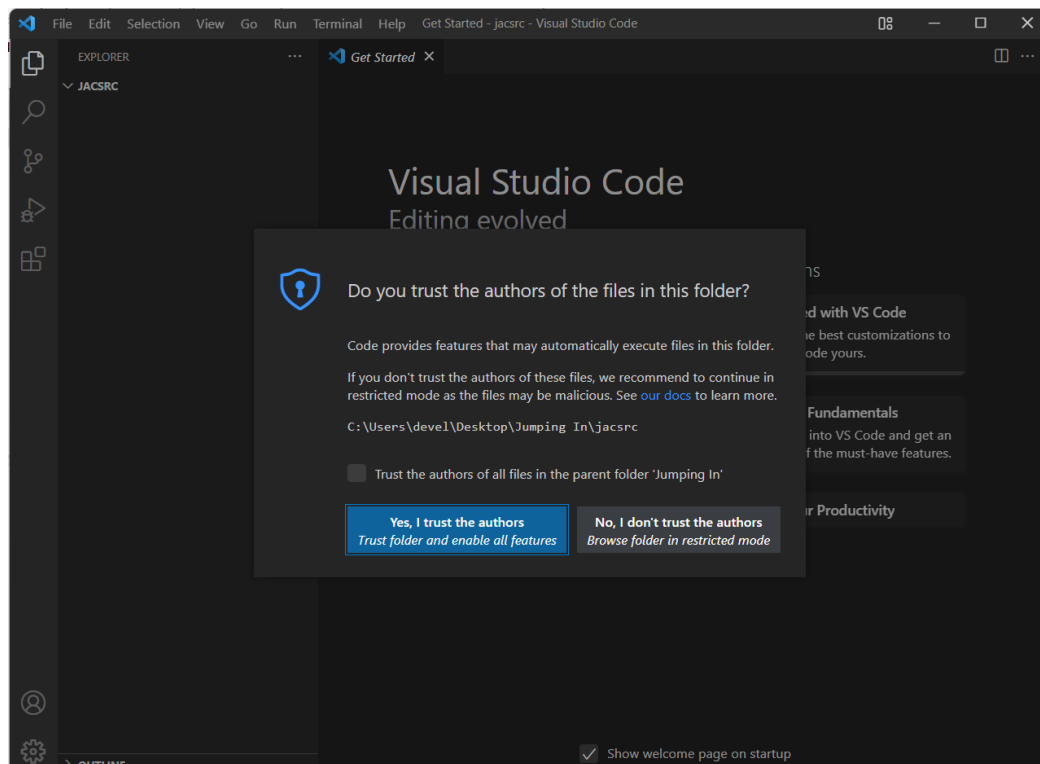


5. Run “Hello World” in Jac

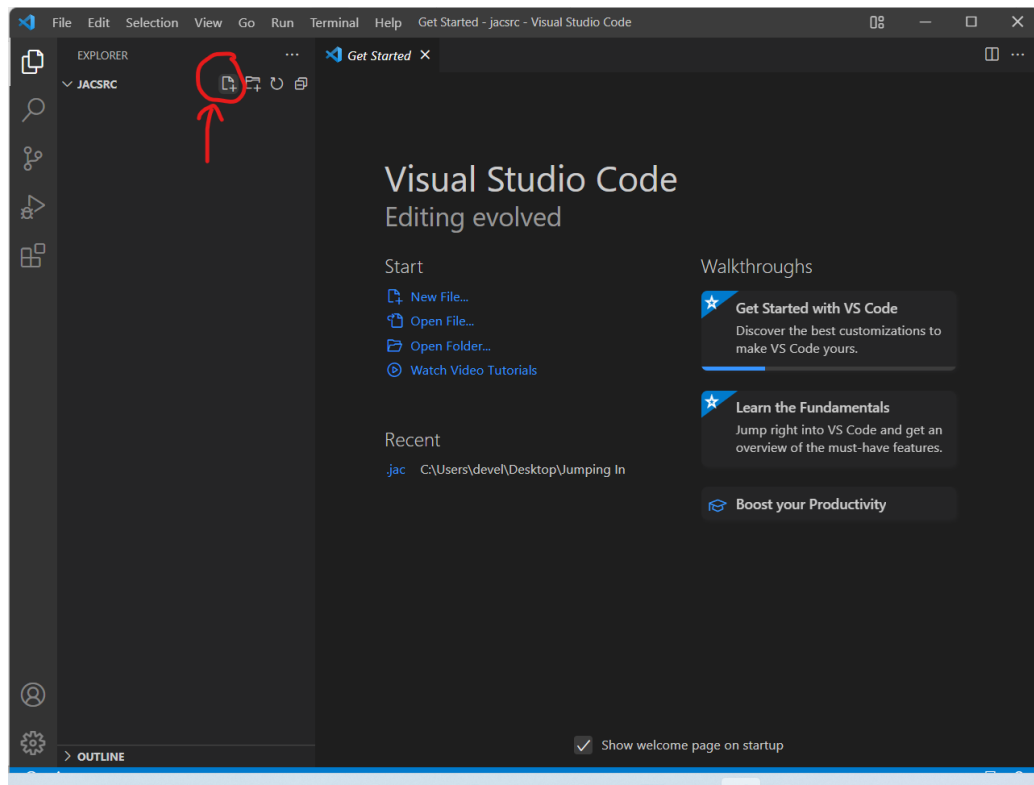
- 5.1. Create a new folder, we can call it “jacsrc”
- 5.2. In VSCode, choose “Open Folder”, then navigate to the folder you created and select it. This will be your jac project folder.



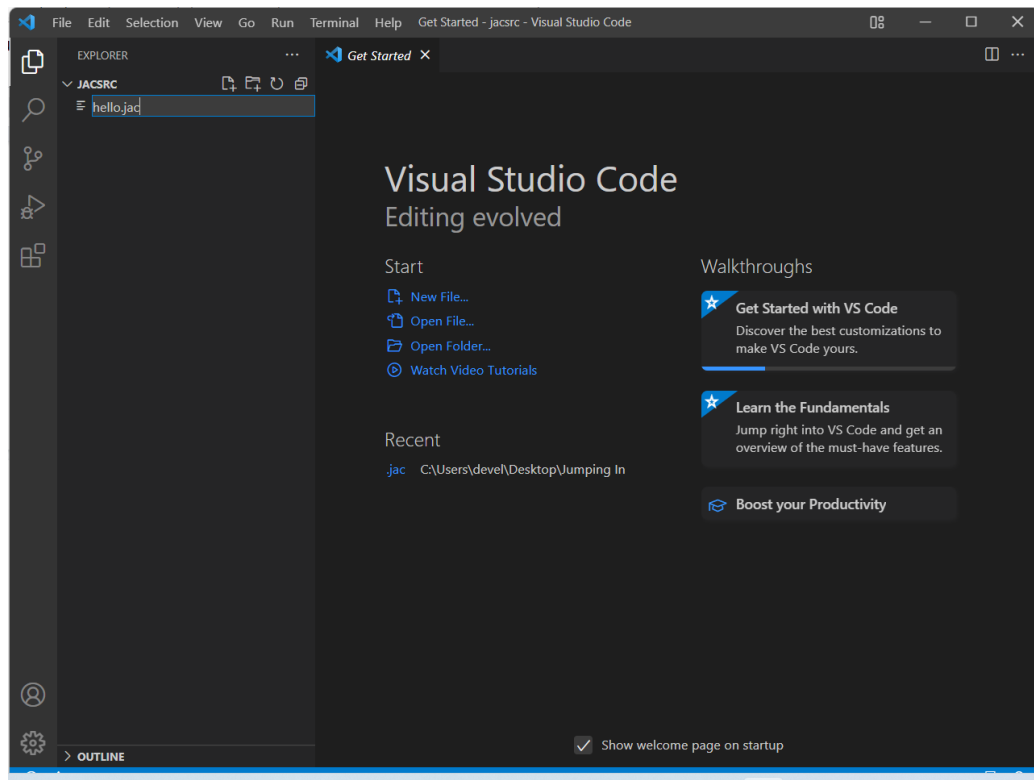
- 5.3. If you are prompted as shown, select “Yes, I Trust the Authors” and proceed.



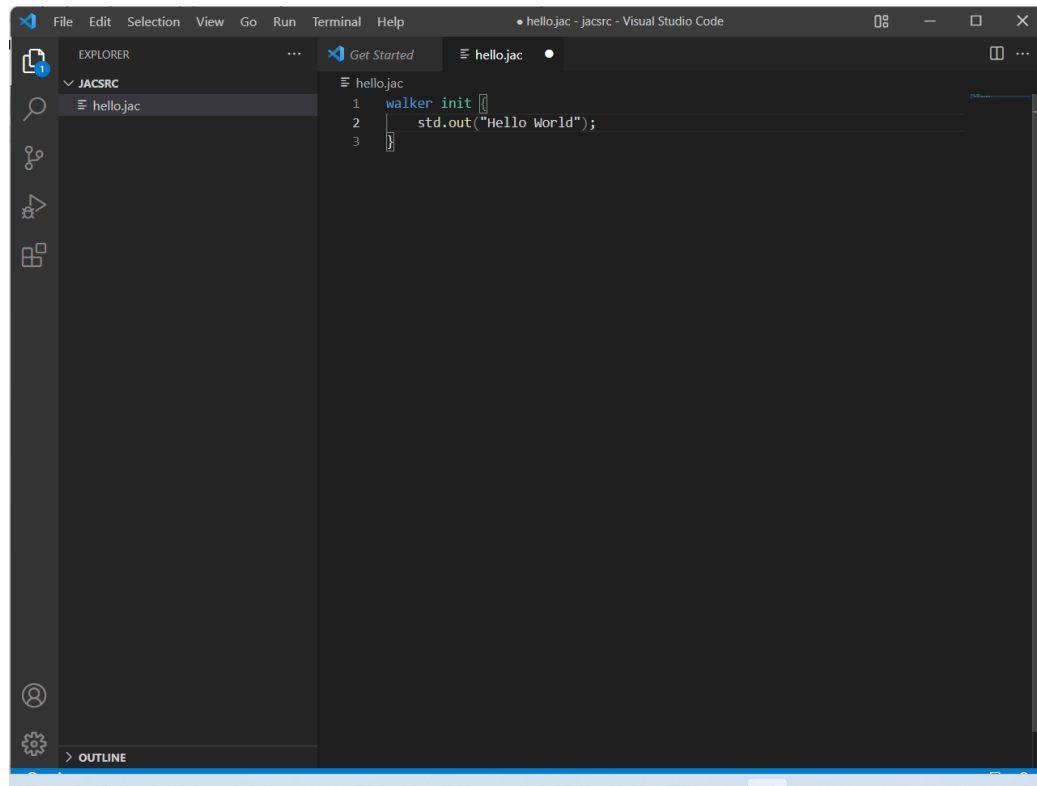
5.4. Once you have selected the folder, click on the “New File” option as shown below



5.5. Enter “hello.jac” as the full name of your new Jac source file.



5.6. In the code editor, transcribe the code as shown then save your Jac file

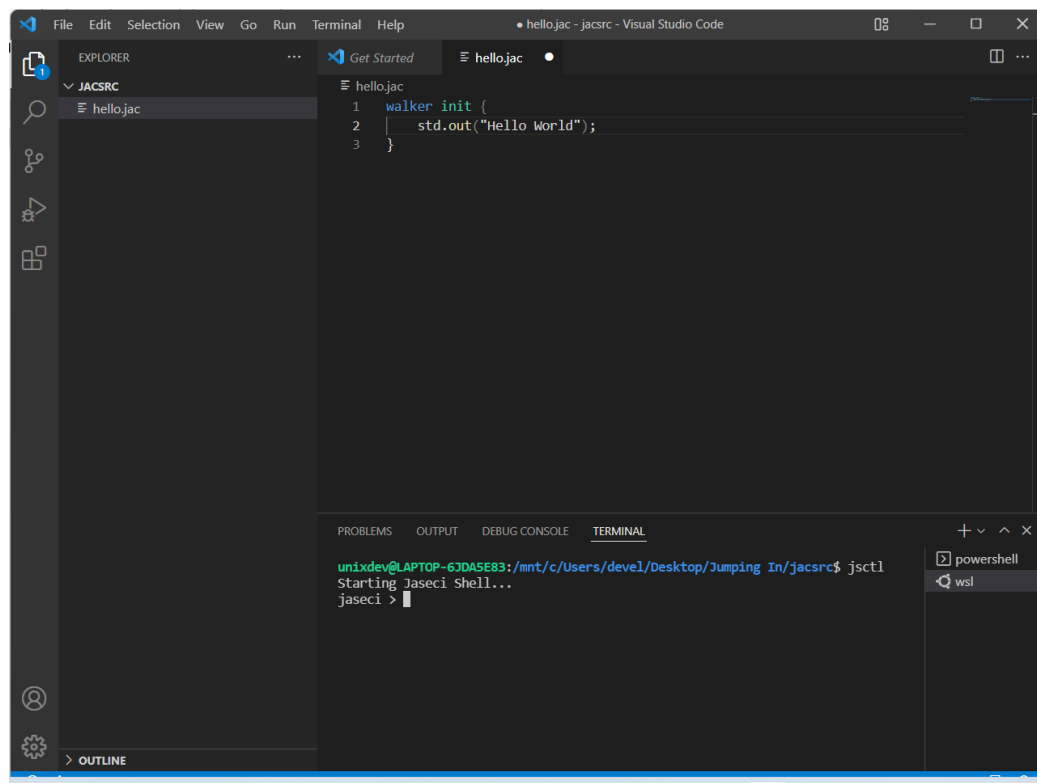


```
File Edit Selection View Go Run Terminal Help
hello.jac - jacsrc - Visual Studio Code

EXPLORER
JACSRC
hello.jac

Get Started hello.jac
1 walker init {
2 | std.out("Hello World");
3 }
```

5.7. Now it's time to run your code. Bring up your WSL terminal as before and type in "jsctl" to launch the Jaseci shell



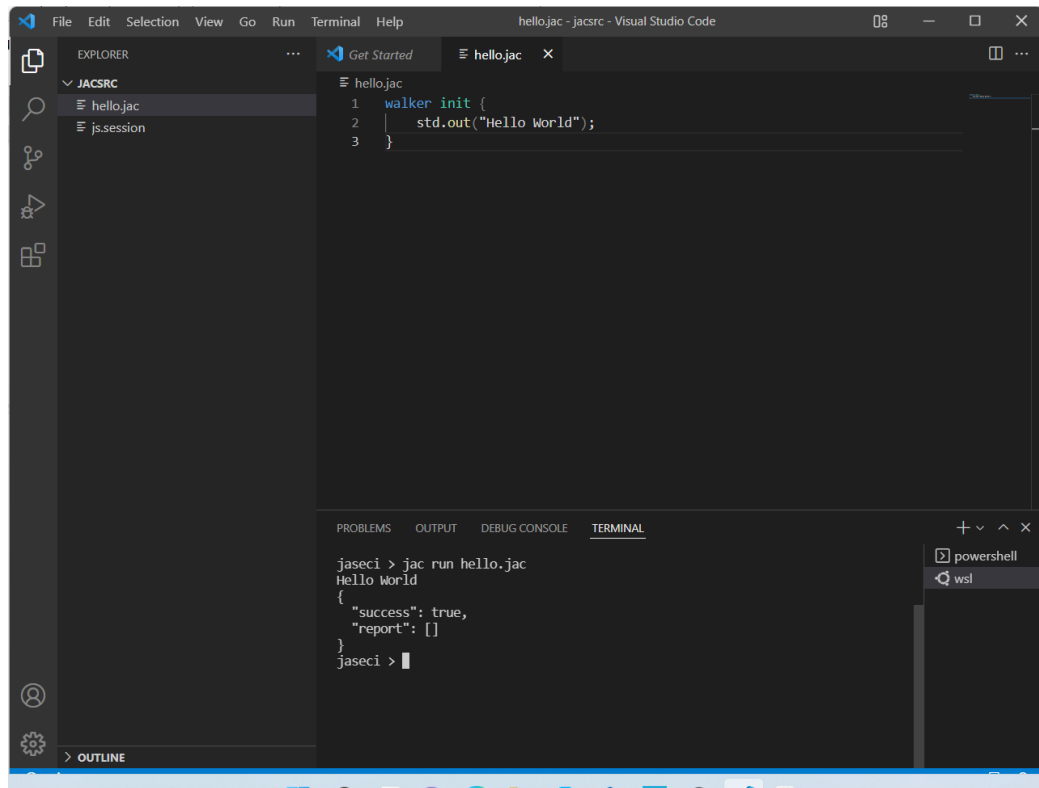
```
File Edit Selection View Go Run Terminal Help
hello.jac - jacsrc - Visual Studio Code

EXPLORER
JACSRC
hello.jac

Get Started hello.jac
1 walker init {
2 | std.out("Hello World");
3 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
unixdev@LAPTOP-63DA5E83:/mnt/c/Users/devel/Desktop/Jumping In/jacsrc$ jsctl
Starting Jaseci Shell...
jaseci >
```

5.8. At the prompt, type “jac run hello.jac” and hit Enter...”Hello World” should appear.



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left shows a project named 'JACSRC' with files 'hello.jac' and 'js.session'. The main editor window displays the content of 'hello.jac', which is a Java program:

```
1 walker init {  
2 |   std.out("Hello World");  
3 | }
```

The Terminal panel at the bottom shows the command 'jac run hello.jac' being executed in a 'jaseci' shell. The output is 'Hello World' followed by a JSON object: {'success': true, 'report': []}.

```
jaseci > jac run hello.jac  
Hello World  
{  
  "success": true,  
  "report": []  
}  
jaseci > |
```

On the right side of the terminal, there are buttons for 'powershell' and 'wsl'.

- END -