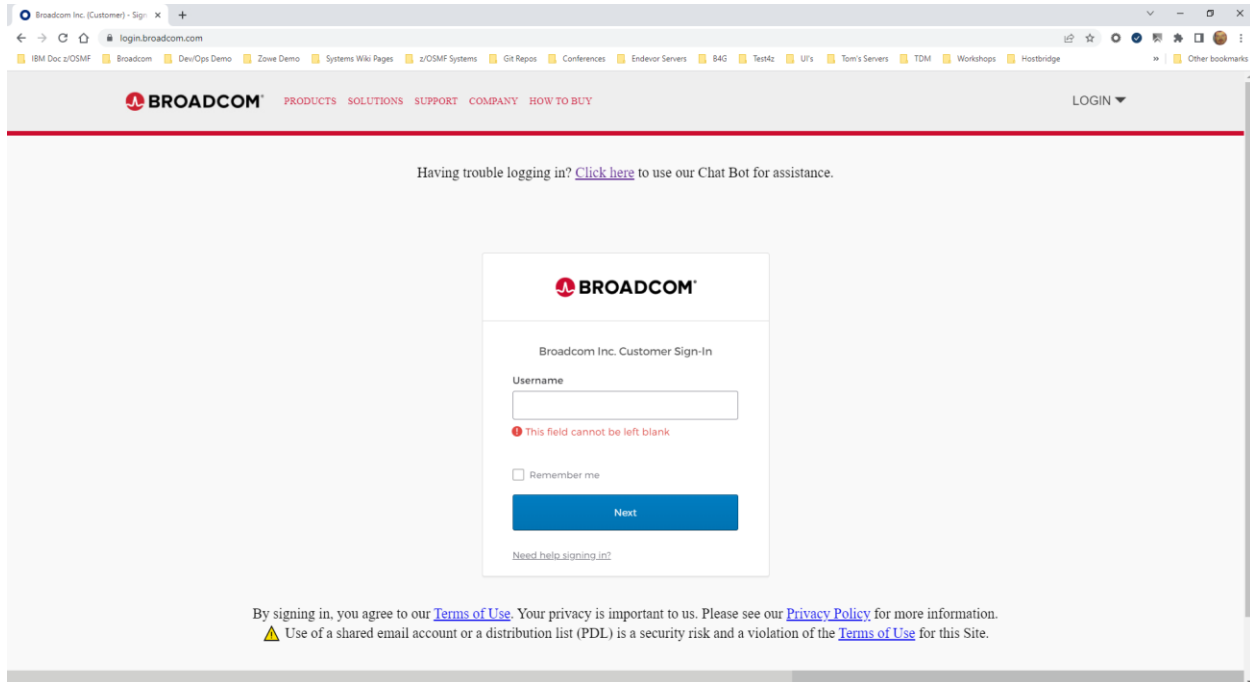


Dev/Ops Workshop – Setup

Start up:

1. Go to <https://login.broadcom.com/>



The screenshot shows a web browser window with the URL login.broadcom.com. The page features a navigation bar with the Broadcom logo and links for PRODUCTS, SOLUTIONS, SUPPORT, COMPANY, and HOW TO BUY. A message at the top states: "Having trouble logging in? [Click here](#) to use our Chat Bot for assistance." The main content area contains a sign-in form titled "Broadcom Inc. Customer Sign-In". The form has a "Username" label and a text input field. Below the field, a red error message reads: "This field cannot be left blank". There is a "Remember me" checkbox and a blue "Next" button. A link "Need help signing in?" is located below the button. At the bottom of the page, a disclaimer states: "By signing in, you agree to our [Terms of Use](#). Your privacy is important to us. Please see our [Privacy Policy](#) for more information. ⚠ Use of a shared email account or a distribution list (PDL) is a security risk and a violation of the [Terms of Use](#) for this Site."

2. In the Username box enter the supplied user id:
mfwsuserXX@demo.broadcom.com. The XX will be the number assigned to you. Then click the Next button.

Broadcom Inc. (Customer) - Sign in

login.broadcom.com

IBM Doc z/OSMF | Broadcom | DevOps Demo | Zowe Demo | Systems Wiki Pages | z/OSMF Systems | Git Repos | Conferences | Endevor Servers | B4G | Test4z | UI's | Tom's Servers | TDM | Workshops | Hostbridge | Other bookmarks

BROADCOM PRODUCTS SOLUTIONS SUPPORT COMPANY HOW TO BUY LOGIN

Having trouble logging in? [Click here](#) to use our Chat Bot for assistance.

BROADCOM

Broadcom Inc. Customer Sign-In

Username

mfwsuser10@demo.broadcom.com

☐ Remember me

Next

[Need help signing in?](#)

By signing in, you agree to our [Terms of Use](#). Your privacy is important to us. Please see our [Privacy Policy](#) for more information.

⚠ Use of a shared email account or a distribution list (PDL) is a security risk and a violation of the [Terms of Use](#) for this Site.

PRODUCTS SOLUTIONS SUPPORT COMPANY HOW TO BUY

Enter the password: Event@Share@2023 then click the Sign In button.

Broadcom Inc. (Customer) - Sign in

login.broadcom.com/signin

IBM Doc z/OSMF | Broadcom | DevOps Demo | Zowe Demo | Systems Wiki Pages | z/OSMF Systems | Git Repos | Conferences | Endevor Servers | B4G | Test4z | UI's | Tom's Servers | TDM | Workshops | Hostbridge | Other bookmarks

BROADCOM PRODUCTS SOLUTIONS SUPPORT COMPANY HOW TO BUY LOGIN

Having trouble logging in? [Click here](#) to use our Chat Bot for assistance.

BROADCOM

Broadcom Inc. Customer Sign-In

Username

mfwsuser10@demo.broadcom.com

Password

☐ Remember me

Sign In

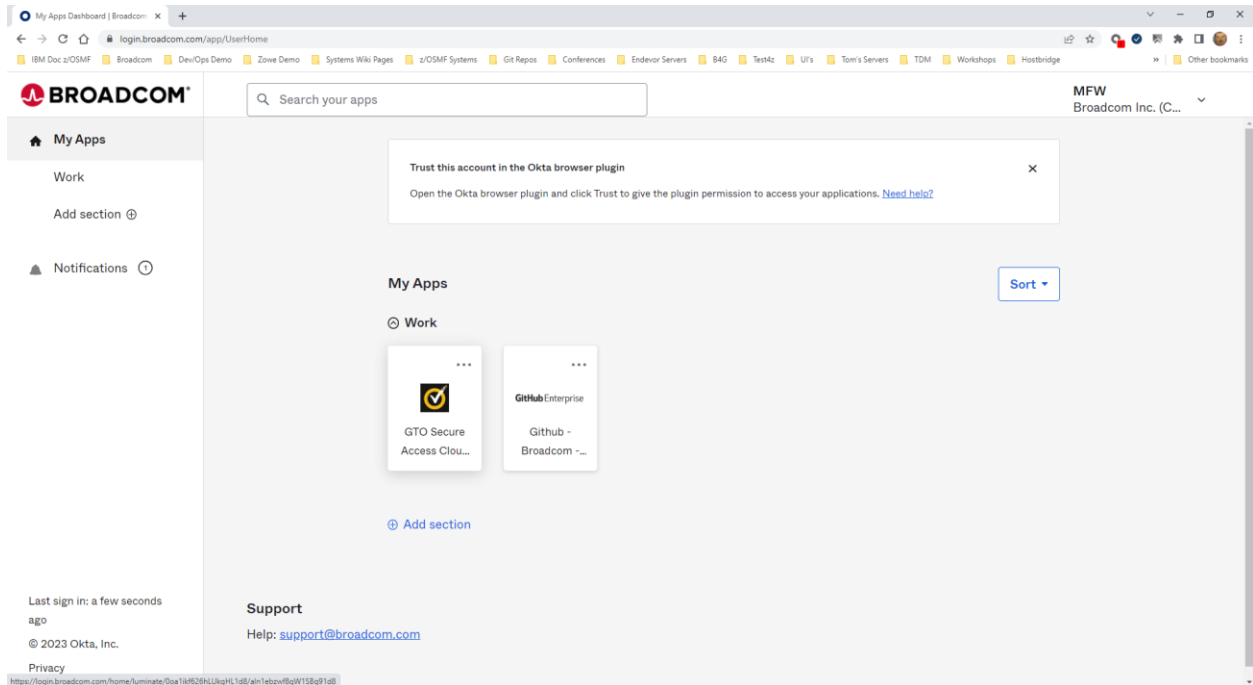
[Need help signing in?](#)

[Back to sign in](#)

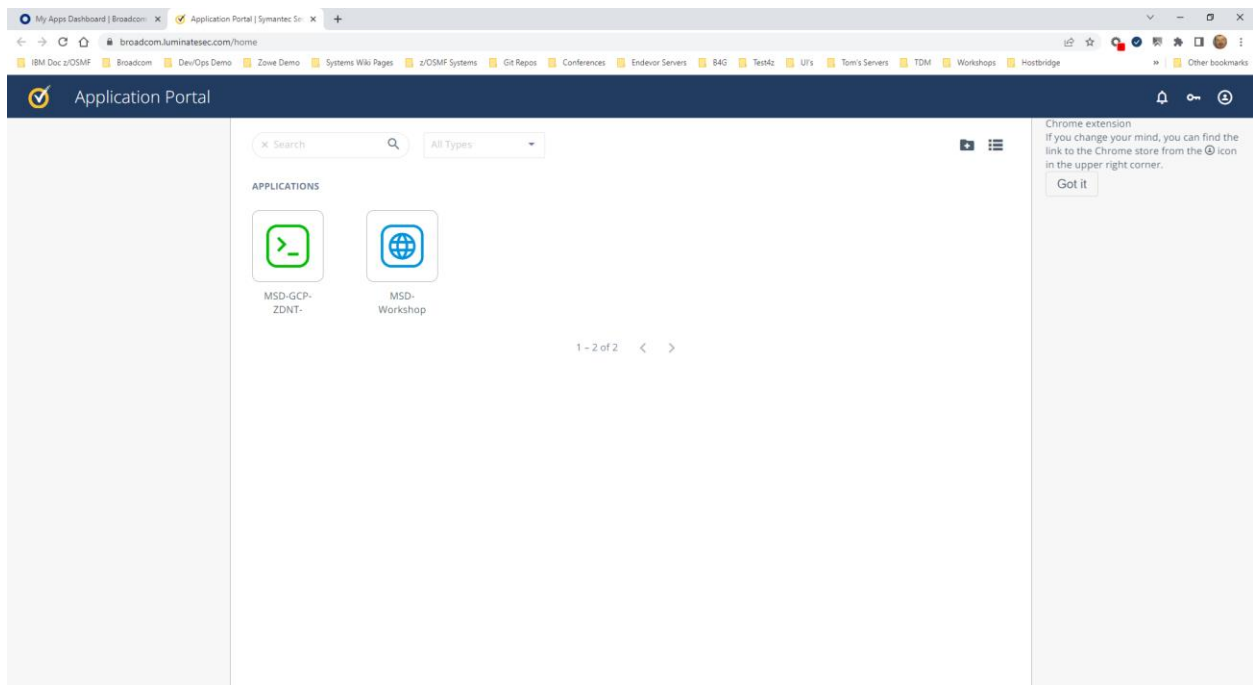
By signing in, you agree to our [Terms of Use](#). Your privacy is important to us. Please see our [Privacy Policy](#) for more information.

⚠ Use of a shared email account or a distribution list (PDL) is a security risk and a violation of the [Terms of Use](#) for this Site.

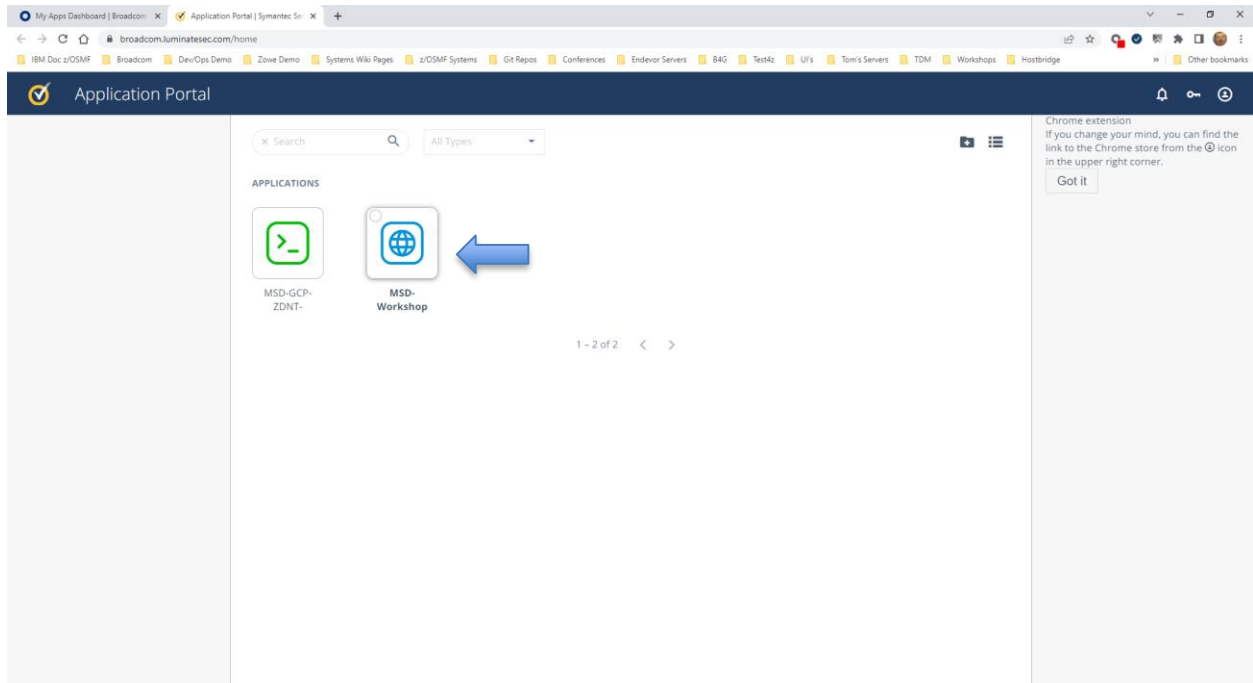
3. Then click the box that says GTO Secure Access Cloud(SAC) – Customers



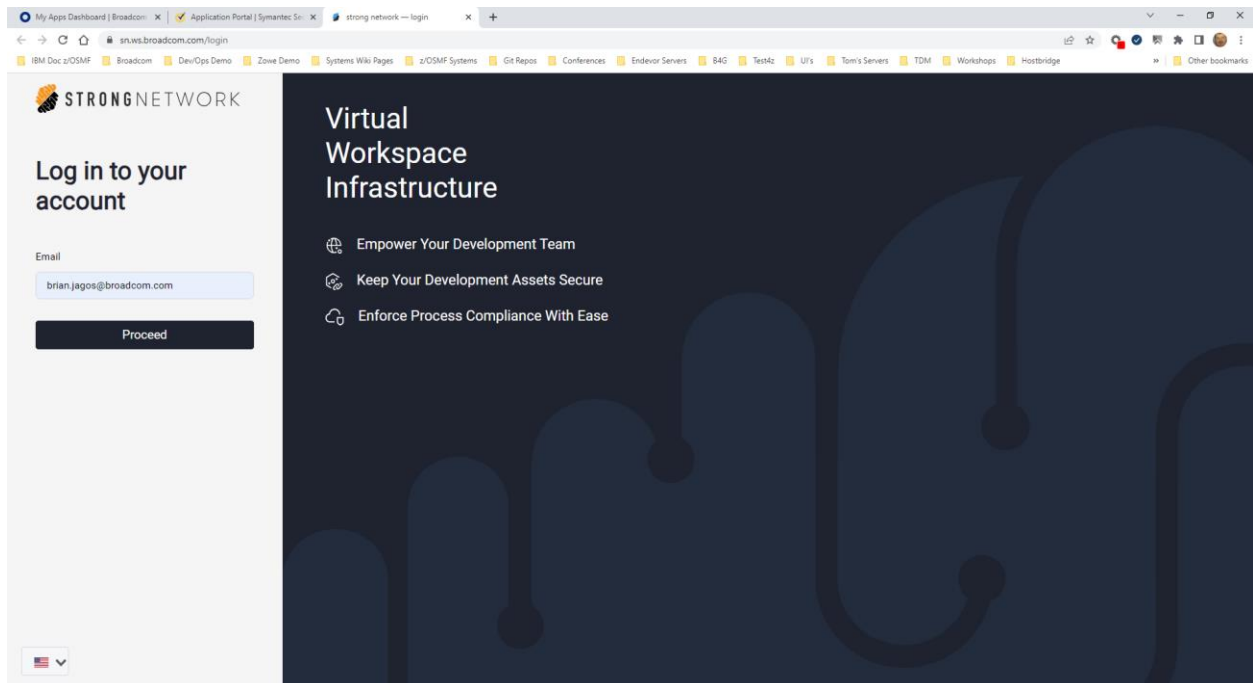
4. You will be brought to the following screen.



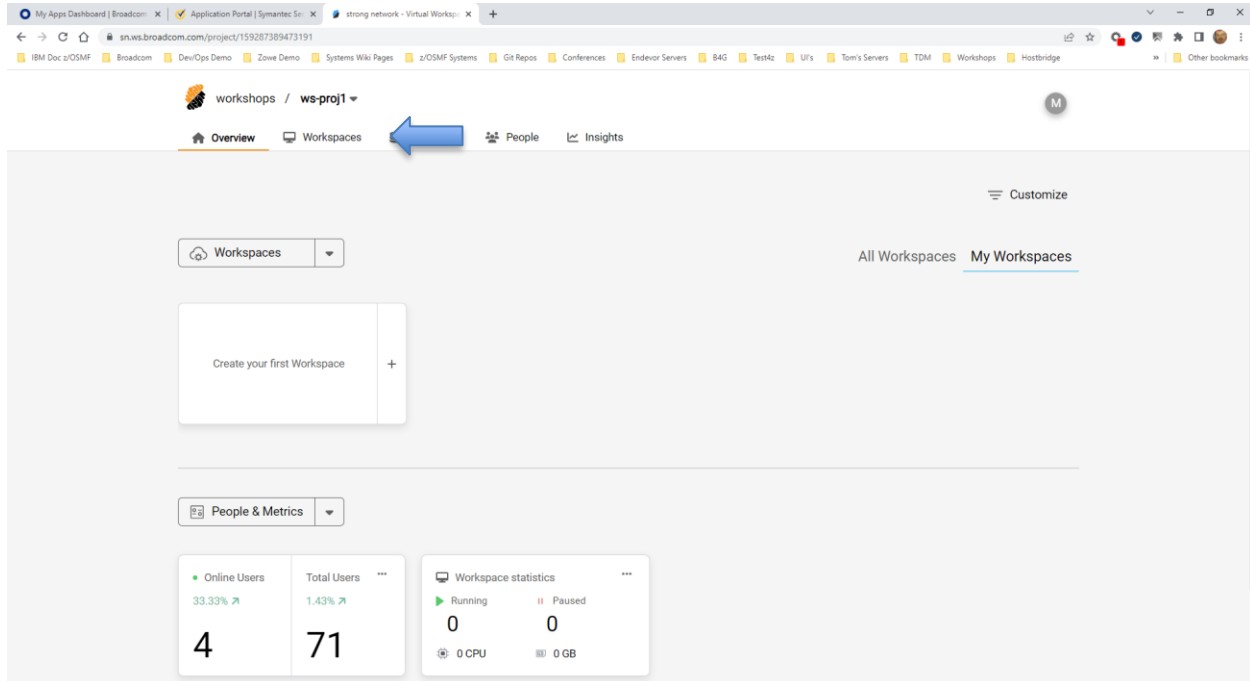
5. Click on the MSD-Workshop button.



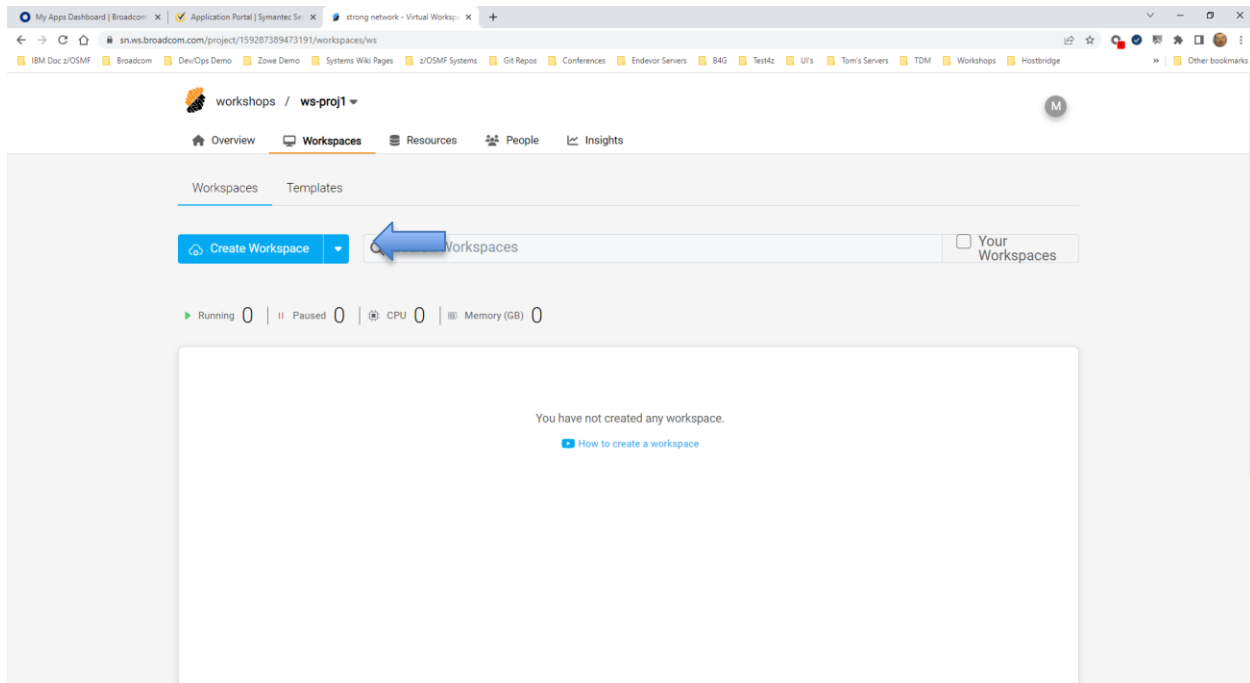
6. You will be brought to the following screen where you need to enter your e – mail address. Click the Proceed button. This screen may not be needed anymore.



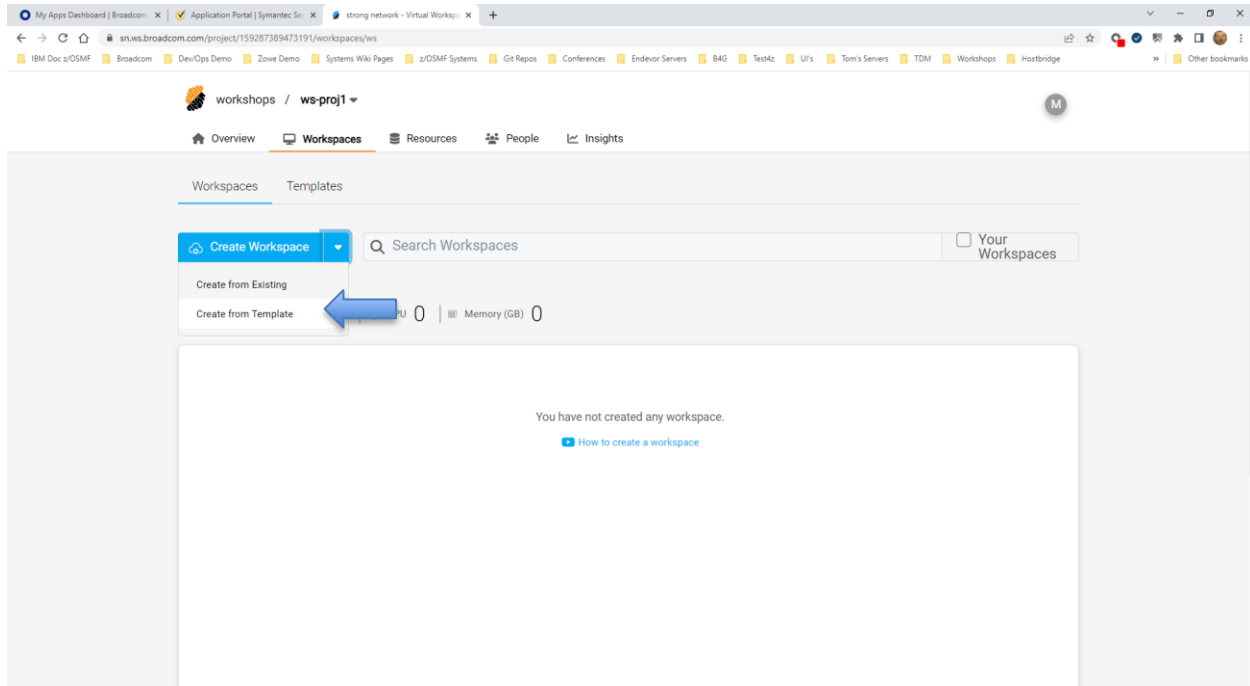
7. The next screen you will need to create your workspace from a template.
Click on the Workspaces tab at the top of the screen.



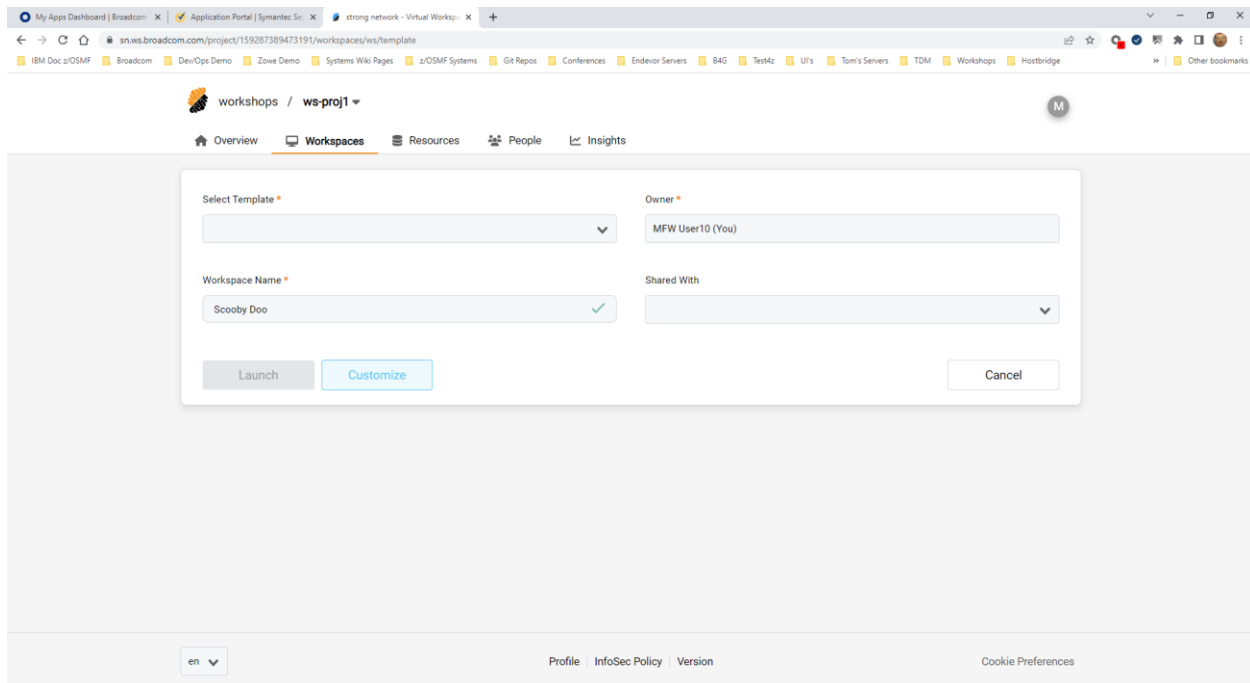
8. Then click the drop down from the Create Workspace box.



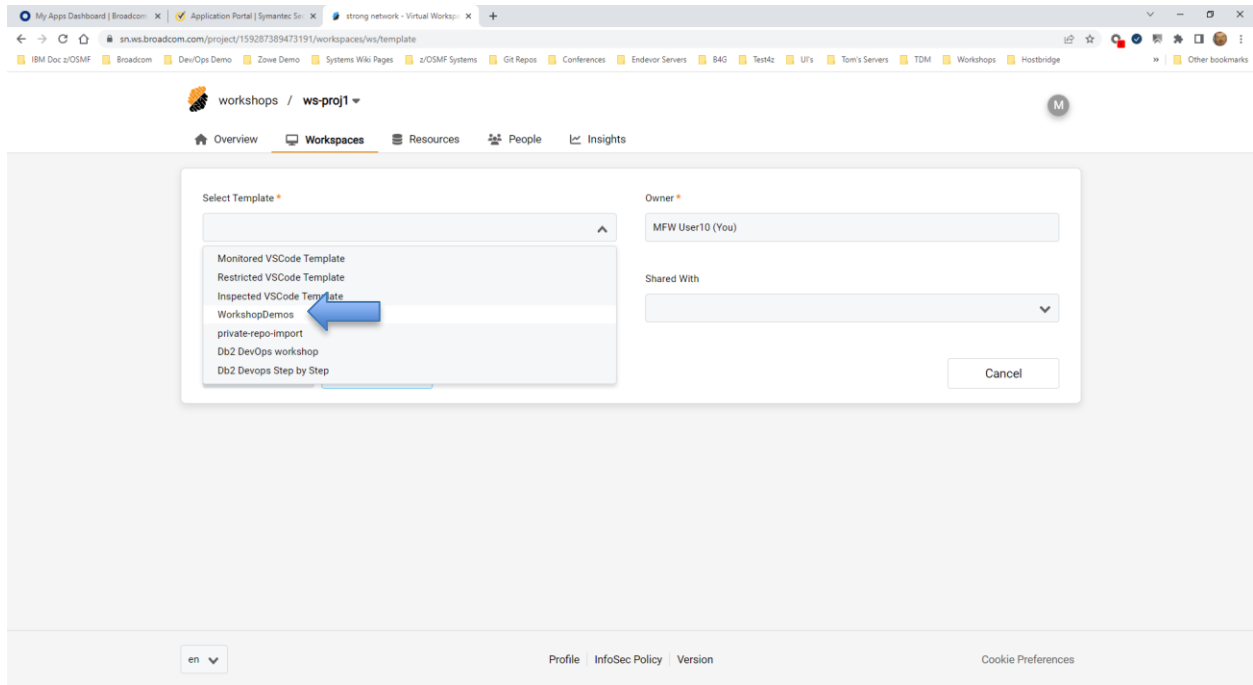
9. Then click on Create from Template.



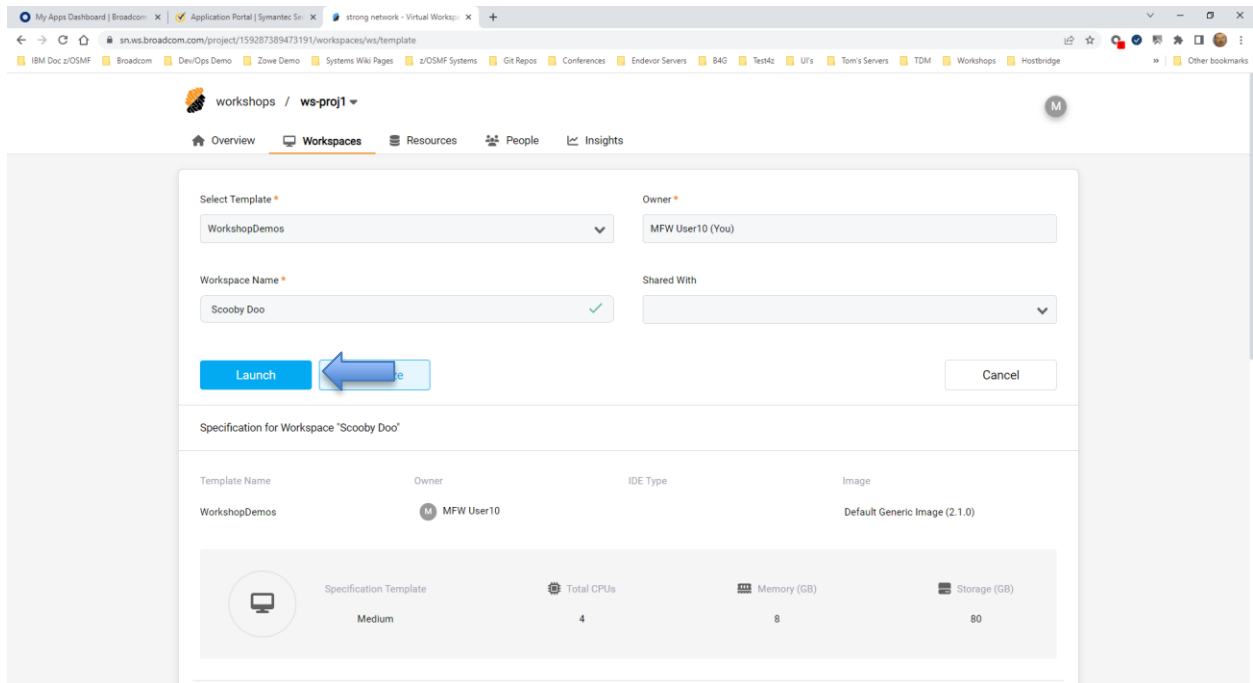
10. On the following screen click on the Select Template* drop down



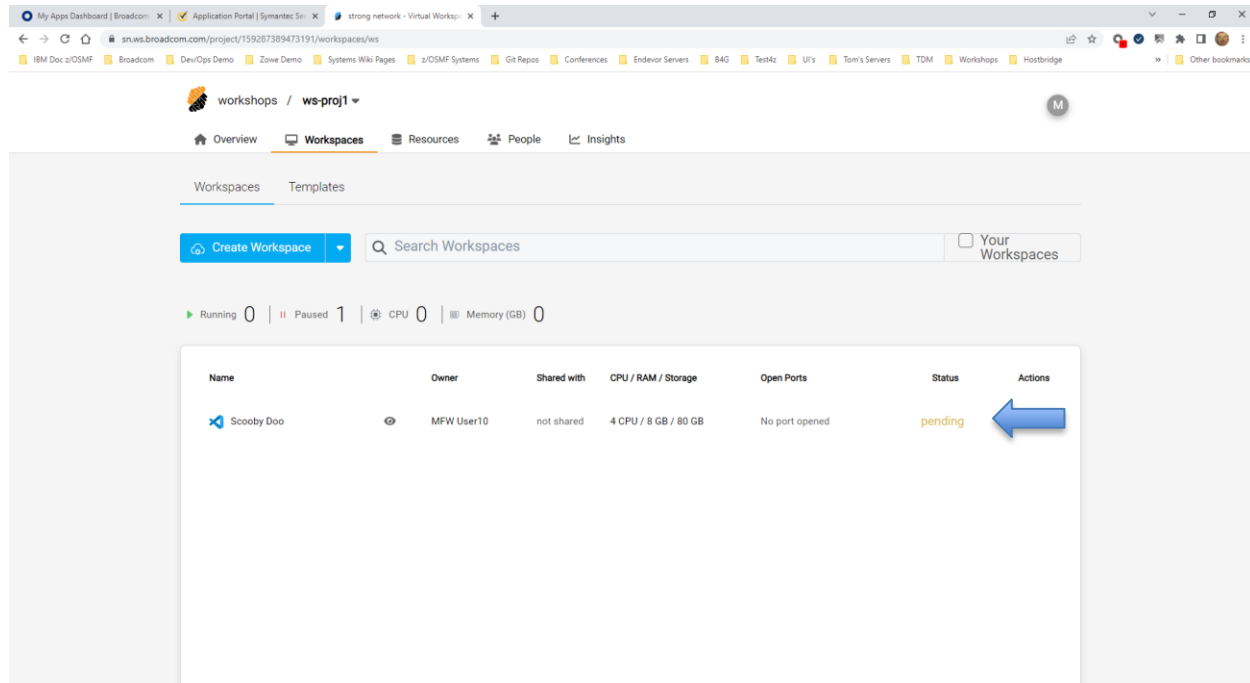
11. Select WorkshopDemos from the drop down.



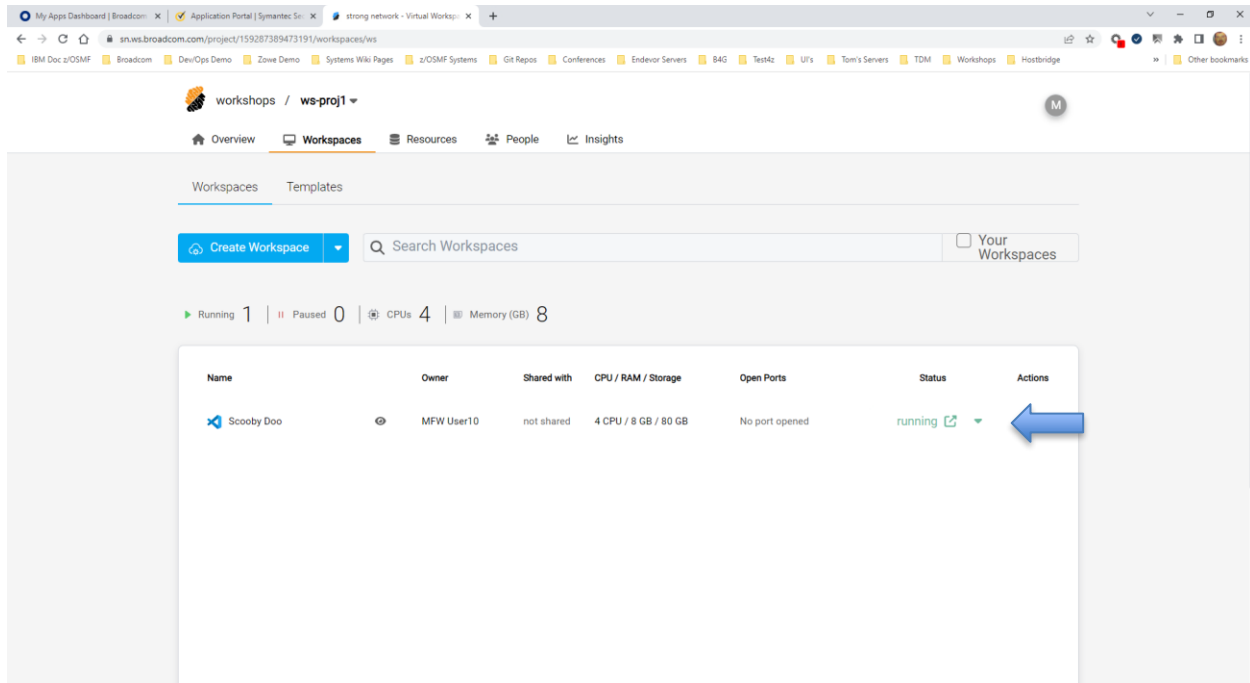
12. Then select the Launch button.



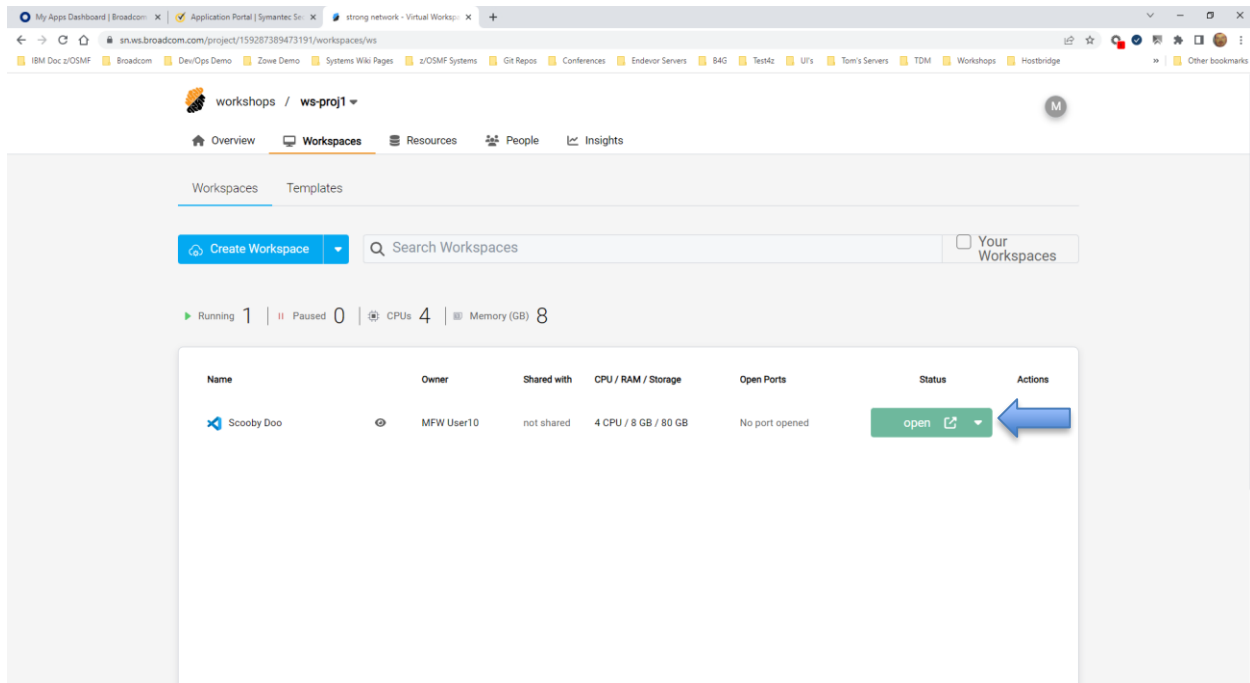
13. You will be brought to the following screen. Notice under the column Status it states “pending”. This means the workspace is being generated. This can take a few minutes.



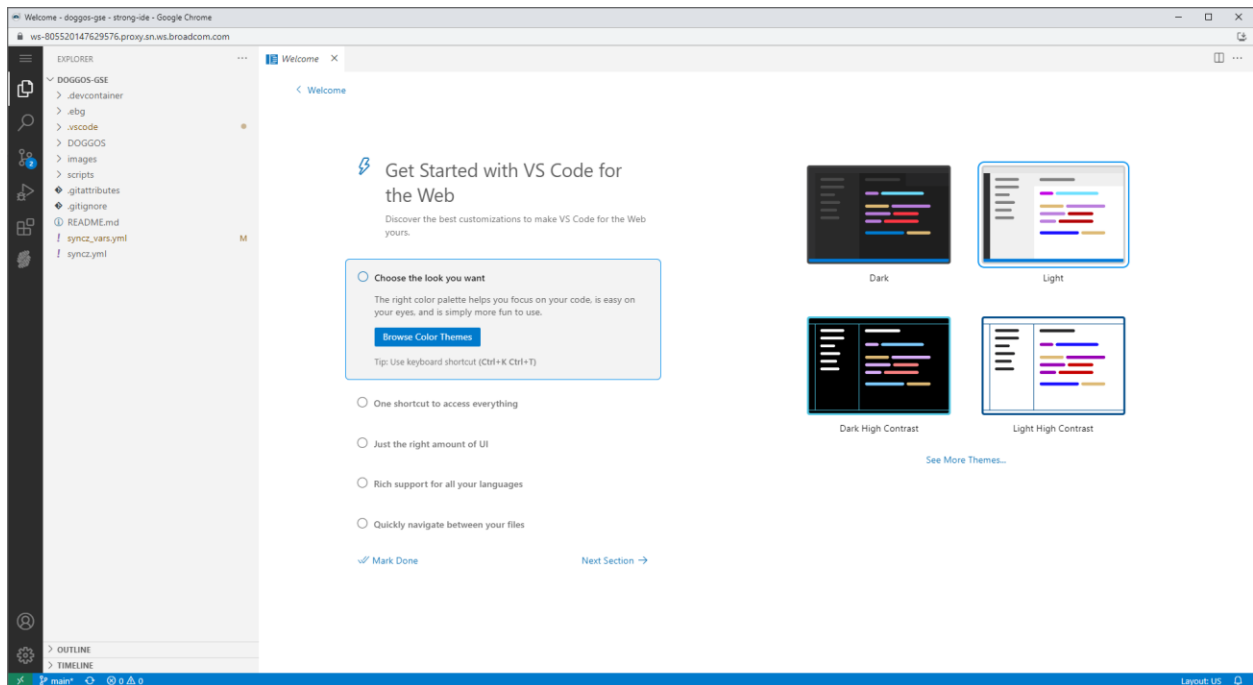
14. After waiting a few minutes, click the refresh button or F5 to refresh the web page. Notice under the Status column it now states “running”



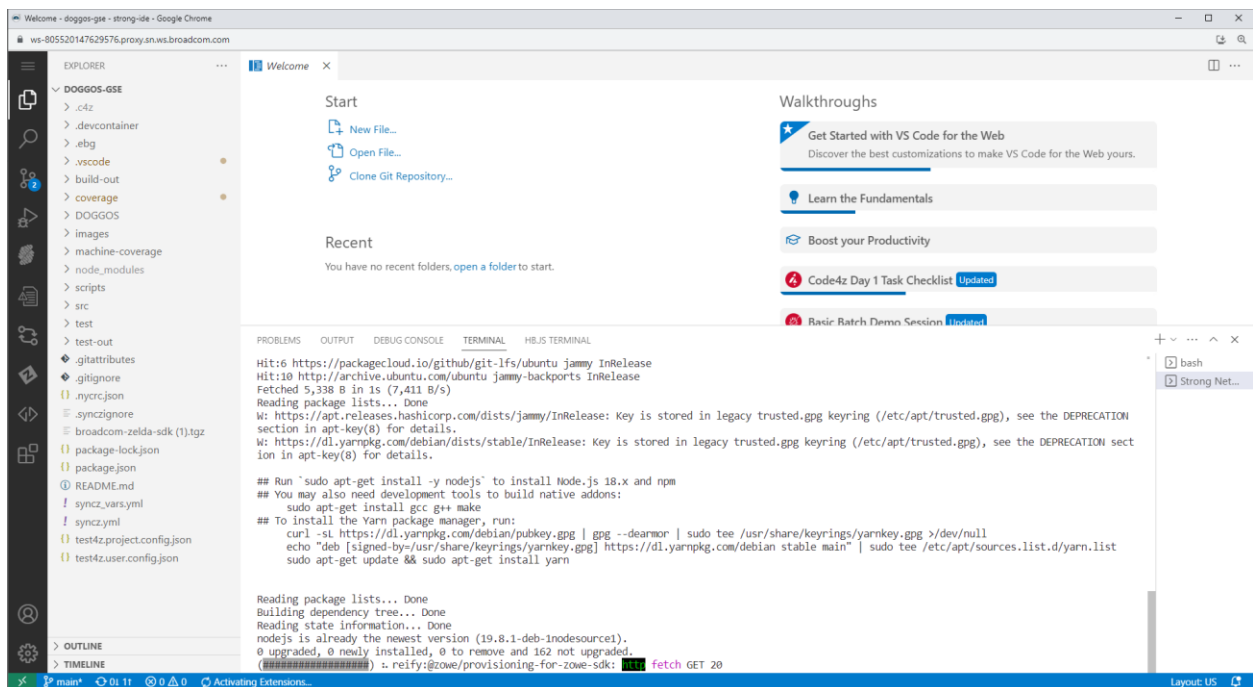
15. Move the mouse so it is over the “running” and it will change to “open”.
Click it.



16. At this point you are now in your workspace in a VS Code session.



17. As the terminal start notice at the bottom in the TERMINAL tab. If you are not seeing it You are looking for the following messages: Startup script finished



18. Here is the complete message log from the terminal, remember to be looking for “**Startup scripted finished**”.

```
developer@ws-805520147629576-0:~/doggos-gse$ strongcli startupScript
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
curl is already the newest version (7.81.0-1ubuntu1.10).
0 upgraded, 0 newly installed, 0 to remove and 3 not upgraded.
tput: unknown terminal "unknown"

## Installing the NodeSource Node.js 18.x repo...

## Populating apt-get cache...

+ apt-get update
Get:1 https://deb.nodesource.com/node_19.x jammy InRelease [4,563 B]
Get:2 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Hit:3 https://dl.yarnpkg.com/debian stable InRelease
Get:4 https://apt.releases.hashicorp.com jammy InRelease [12.9 kB]
Get:5 https://packages.microsoft.com/repos/azure-cli jammy InRelease [3,575 B]
Hit:6 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:9 https://apt.releases.hashicorp.com jammy/main amd64 Packages [115 kB]
Get:10 https://packages.microsoft.com/repos/azure-cli jammy/main amd64 Packages [922 B]
Get:11 https://deb.nodesource.com/node_19.x jammy/main amd64 Packages [773 B]
Get:12 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:13 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [979 kB]
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [49.9 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1,235 kB]
Get:8 https://packagecloud.io/github/git-lfs/ubuntu jammy InRelease [25.8 kB]
Get:16 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [44.0 kB]
Get:17 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [849 kB]
Get:18 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [834 kB]
Get:19 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1,103 kB]
Get:20 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [864 kB]
Get:21 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [49.2 kB]
Get:22 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [25.6 kB]
Get:23 https://packagecloud.io/github/git-lfs/ubuntu jammy/main amd64 Packages [1,461 B]
Fetched 6,536 kB in 1s (5,957 kB/s)
Reading package lists... Done
W: https://dl.yarnpkg.com/debian/dists/stable/InRelease: Key is stored in legacy trusted.gpg keyring
(/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.
W: https://apt.releases.hashicorp.com/dists/jammy/InRelease: Key is stored in legacy trusted.gpg keyring
(/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.

## Confirming "jammy" is supported...

+ curl -sLf -o /dev/null 'https://deb.nodesource.com/node_18.x/dists/jammy/Release'

## Adding the NodeSource signing key to your keyring...
```

```
+ curl -s https://deb.nodesource.com/gpgkey/nodesource.gpg.key | gpg --dearmor | tee
/usr/share/keyrings/nodesource.gpg >/dev/null
```

```
## Creating apt sources list file for the NodeSource Node.js 18.x repo...
```

```
+ echo 'deb [signed-by=/usr/share/keyrings/nodesource.gpg] https://deb.nodesource.com/node_18.x jammy main'
> /etc/apt/sources.list.d/nodesource.list
+ echo 'deb-src [signed-by=/usr/share/keyrings/nodesource.gpg] https://deb.nodesource.com/node_18.x jammy
main' >> /etc/apt/sources.list.d/nodesource.list
```

```
## Running `apt-get update` for you...
```

```
+ apt-get update
Hit:1 https://apt.releases.hashicorp.com jammy InRelease
Hit:2 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:3 https://dl.yarnpkg.com/debian stable InRelease
Get:4 https://deb.nodesource.com/node_18.x jammy InRelease [4,563 B]
Hit:5 https://packages.microsoft.com/repos/azure-cli jammy InRelease
Hit:7 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:8 https://deb.nodesource.com/node_18.x jammy/main amd64 Packages [775 B]
Hit:9 http://archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:6 https://packagecloud.io/github/git-lfs/ubuntu jammy InRelease
Hit:10 http://archive.ubuntu.com/ubuntu jammy-backports InRelease
Fetched 5,338 B in 1s (7,411 B/s)
Reading package lists... Done
W: https://apt.releases.hashicorp.com/dists/jammy/InRelease: Key is stored in legacy trusted.gpg keyring
(/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.
W: https://dl.yarnpkg.com/debian/dists/stable/InRelease: Key is stored in legacy trusted.gpg keyring
(/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.
```

```
## Run `sudo apt-get install -y nodejs` to install Node.js 18.x and npm
```

```
## You may also need development tools to build native addons:
```

```
sudo apt-get install gcc g++ make
```

```
## To install the Yarn package manager, run:
```

```
curl -sL https://dl.yarnpkg.com/debian/pubkey.gpg | gpg --dearmor | sudo tee /usr/share/keyrings/yarnkey.gpg
>/dev/null
echo "deb [signed-by=/usr/share/keyrings/yarnkey.gpg] https://dl.yarnpkg.com/debian stable main" | sudo tee
/etc/apt/sources.list.d/yarn.list
sudo apt-get update && sudo apt-get install yarn
```

```
Reading package lists... Done
```

```
Building dependency tree... Done
```

```
Reading state information... Done
```

```
nodejs is already the newest version (19.8.1-deb-1nodesource1).
```

```
0 upgraded, 0 newly installed, 0 to remove and 162 not upgraded.
```

```
added 282 packages in 11s
```

```
13 packages are looking for funding
```

```
run `npm fund` for details
```

```
npm notice
```

```
npm notice New minor version of npm available! 9.6.2 -> 9.8.1
```

```
npm notice Changelog: https://github.com/npm/cli/releases/tag/v9.8.1
```

```
npm notice Run npm install -g npm@9.8.1 to update!
```

npm notice

Plug-ins within the Imperative CLI Framework can legitimately gain control of the zowe CLI application during the execution of every command. Install 3rd party plug-ins at your own risk.

Registry = <https://registry.npmjs.org/>

Installed plugin name = '@zowe/cics-for-zowe-cli'

_____ Validation results for plugin '@zowe/cics-for-zowe-cli' _____
This plugin was successfully validated. Enjoy the plugin.

Installed plugin name = '@zowe/db2-for-zowe-cli'

_____ Validation results for plugin '@zowe/db2-for-zowe-cli' _____
This plugin was successfully validated. Enjoy the plugin.

Installed plugin name = '@zowe/ims-for-zowe-cli'

_____ Validation results for plugin '@zowe/ims-for-zowe-cli' _____
This plugin was successfully validated. Enjoy the plugin.

Installed plugin name = '@zowe/mq-for-zowe-cli'

_____ Validation results for plugin '@zowe/mq-for-zowe-cli' _____
This plugin was successfully validated. Enjoy the plugin.

Installed plugin name = '@zowe/zos-ftp-for-zowe-cli'

_____ Validation results for plugin '@zowe/zos-ftp-for-zowe-cli' _____
This plugin was successfully validated. Enjoy the plugin.

Unexpected Command Error:

Please review the message and stack below.

Contact the creator of handler:

"/usr/lib/node_modules/@zowe/cli/node_modules/@zowe/imperative/lib/imperative/src/config/cmd/init/init.handler"

Message:

[keyring] "glib" library returned an error:

"\"Cannot autolaunch D-Bus without X11 \$DISPLAY\""

Stack:

Error: [keyring] "glib" library returned an error:

"\"Cannot autolaunch D-Bus without X11 \$DISPLAY\""

Data set deleted successfully.

Data set deleted successfully.

\$ rm: FSUM9195 cannot unlink entry "/u/users/cust010/doggos": EDC5129I No such file or directory.

Command Error:

z/OSMF REST API Error:

Rest API failure with HTTP(S) status 404

category: 4

rc: 8
reason: 0
message: LMERASE error
details:
- ISRZ002 Data set not cataloged - 'CUST010.DOGGOS.COPYBOOK' was not found in catalog.

Error Details:
HTTP(S) error status "404" received.
Review request details (resource, base path, credentials, payload) and ensure correctness.

Protocol: https
Host: 10.1.2.73
Port: 10443
Base Path:
Resource: /zosmf/restfiles/ds/CUST010.DOGGOS.COPYBOOK
Request: DELETE
Headers: [{"Accept-Encoding":"gzip"}, {"X-CSRF-ZOSMF-HEADER":true}]
Payload: undefined
Command Error:
z/OSMF REST API Error:
Rest API failure with HTTP(S) status 404
category: 4
rc: 8
reason: 0
message: LMERASE error
details:
- ISRZ002 Data set not cataloged - 'CUST010.PUBLIC.LOADLIB' was not found in catalog.

Error Details:
HTTP(S) error status "404" received.
Review request details (resource, base path, credentials, payload) and ensure correctness.

Protocol: https
Host: 10.1.2.73
Port: 10443
Base Path:
Resource: /zosmf/restfiles/ds/CUST010.PUBLIC.LOADLIB
Request: DELETE
Headers: [{"Accept-Encoding":"gzip"}, {"X-CSRF-ZOSMF-HEADER":true}]
Payload: undefined
Command Error:
z/OSMF REST API Error:
Rest API failure with HTTP(S) status 404
category: 4
rc: 8
reason: 0
message: LMERASE error
details:
- ISRZ002 Data set not cataloged - 'CUST010.PUBLIC.PROFLIB' was not found in catalog.

Error Details:
HTTP(S) error status "404" received.
Review request details (resource, base path, credentials, payload) and ensure correctness.

Protocol: https
Host: 10.1.2.73
Port: 10443
Base Path:
Resource: /zosmf/restfiles/ds/CUST010.PUBLIC.PROFLIB
Request: DELETE
Headers: [{"Accept-Encoding":"gzip"}, {"X-CSRF-ZOSMF-HEADER":true}]
Payload: undefined
Command Error:
z/OSMF REST API Error:
Rest API failure with HTTP(S) status 500
category: 1
rc: 8
reason: 9
message: IDCAMS completed with return code=8
details:
- DELETE -
- CUST010.PUBLIC.PROTSYM -
- CLUSTER -
- NOERASE -
- NOPURGE
- IDC3012I ENTRY CUST010.PUBLIC.PROTSYM NOT FOUND
- IDC3009I ** VSAM CATALOG RETURN CODE IS 8 - REASON CODE IS IGG0CLA3-42
- IDC0551I ** ENTRY CUST010.PUBLIC.PROTSYM NOT DELETED
- IDC0001I FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS 8
- IDC0002I IDCAMS PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS 8

Error Details:
HTTP(S) error status "500" received.
Review request details (resource, base path, credentials, payload) and ensure correctness.

Protocol: https
Host: 10.1.2.73
Port: 10443
Base Path:
Resource: /zosmf/restfiles/ams
Request: PUT
Headers: [{"Content-Type":"application/json"}, {"Content-Length":"83"}, {"Accept-Encoding":"gzip"}, {"X-CSRF-ZOSMF-HEADER":true}]
Payload: {
 input: [
 'DELETE -',
 'CUST010.PUBLIC.PROTSYM -',
 'CLUSTER -',
 'NOERASE -',
 'NOPURGE'
]
}
Data set created successfully.
success: true
from: /home/developer/doggos-gse/scripts/files/tmp/DBGDOG.jcl
to: CUST010.PUBLIC.JCL(DBGDOG)

success: true

```
from: /home/developer/doggos-gse/scripts/files/tmp/LSTPRF.jcl
to: CUST010.PUBLIC.JCL(LSTPRF)

success: true
from: /home/developer/doggos-gse/scripts/files/tmp/RUNDOG.jcl
to: CUST010.PUBLIC.JCL(RUNDOG)

file_to_upload: 3
success: 3
error: 0
skipped: 0

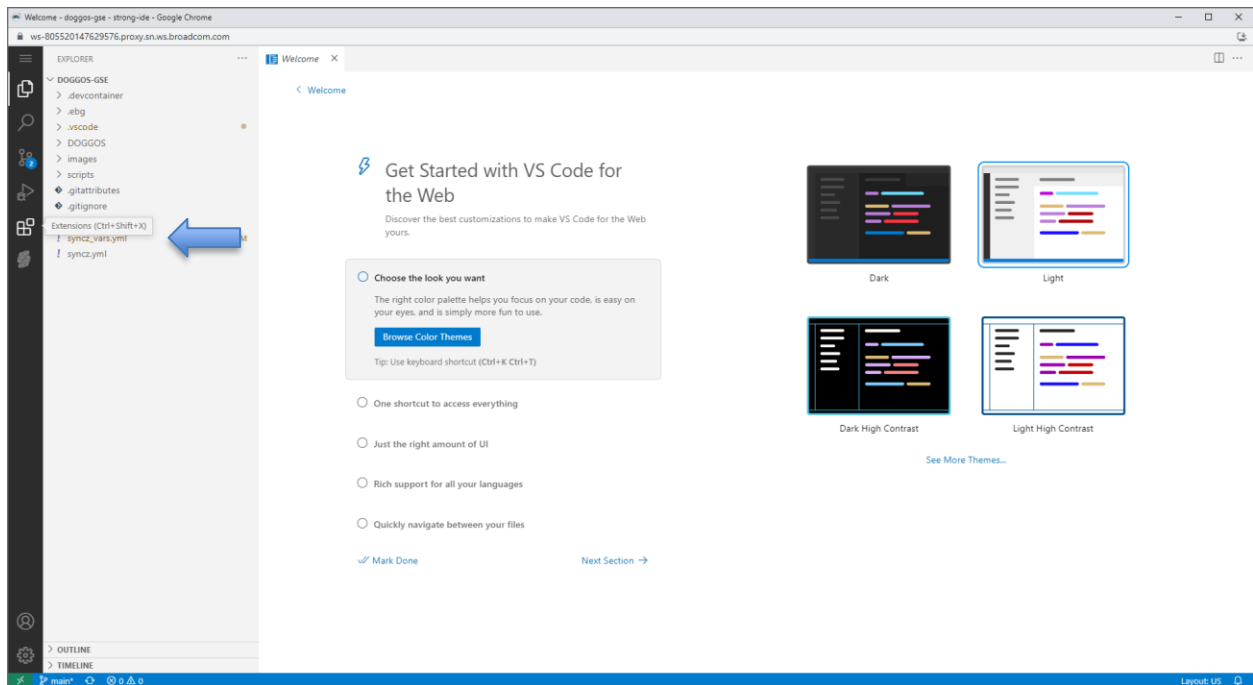
Data set uploaded successfully.
Data set created successfully.
success: true
from: /home/developer/doggos-gse/scripts/files/DOGGOS.INPUT
to: CUST010.PUBLIC.INPUT

file_to_upload: 1
success: 1
error: 0
skipped: 0

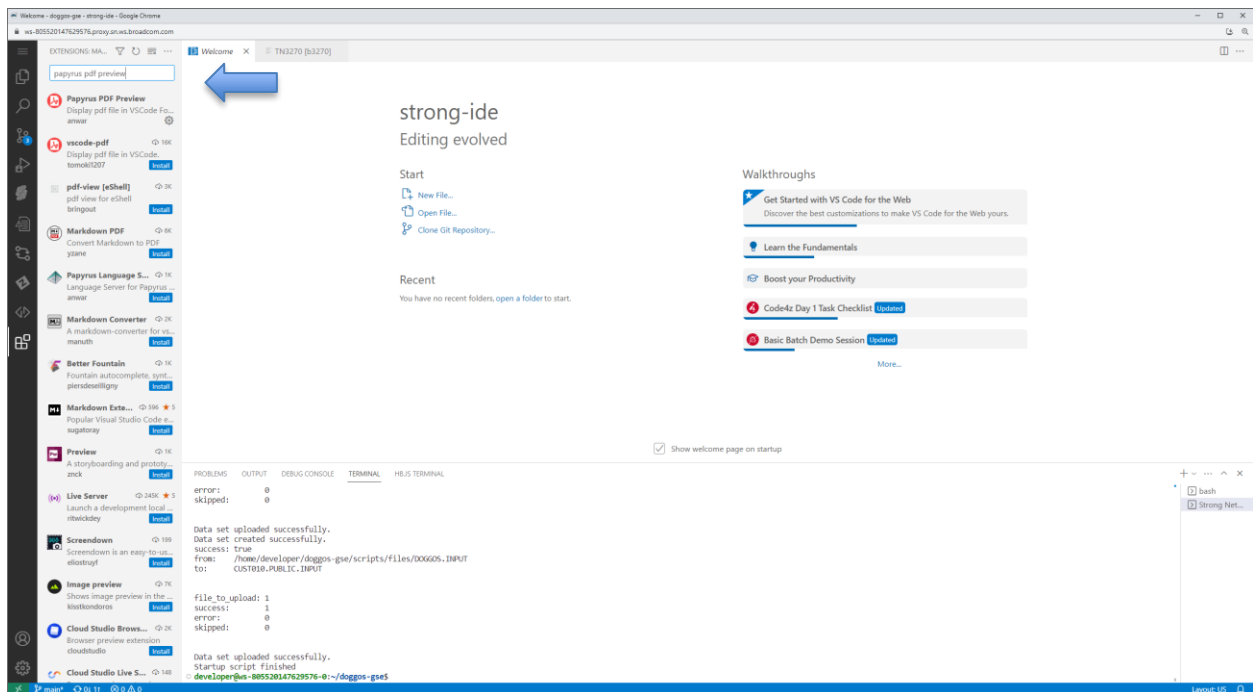
Data set uploaded successfully.
Startup script finished
```

Installing a PDF Reader Extension:

- 1) To open the PDF exercises you first have to install the PDF reader so VS Code can access the file. Click the Extensions box on the left side of the screen.

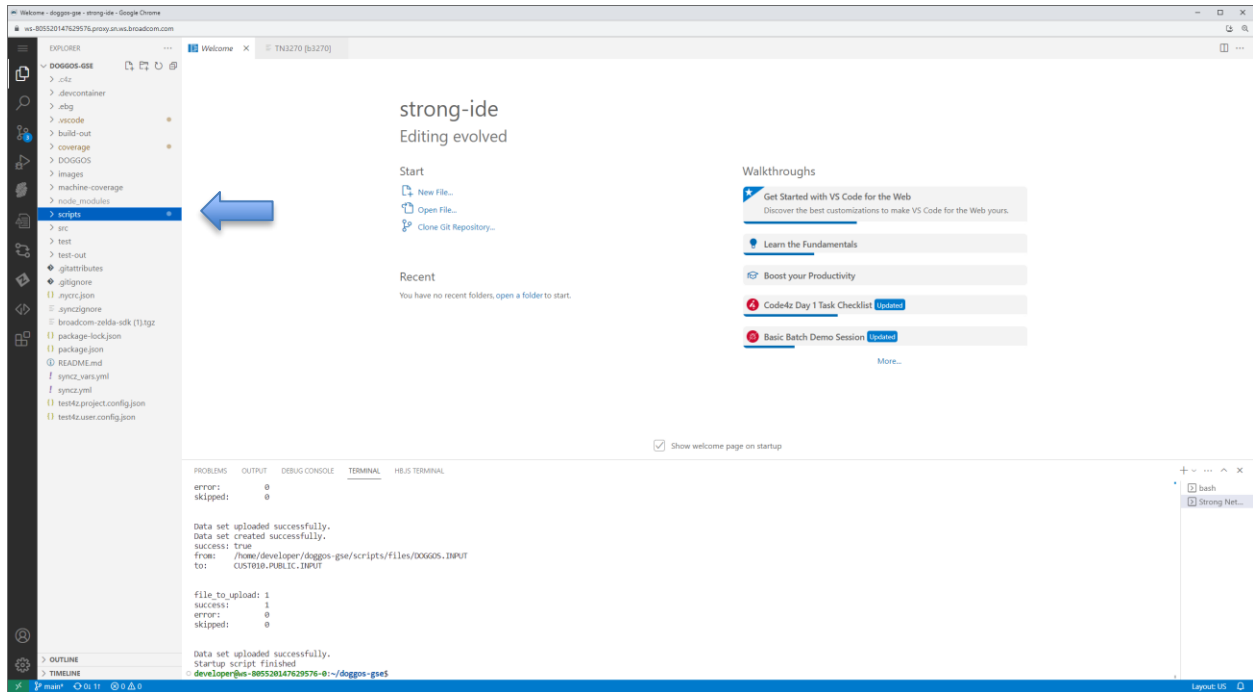


2) In the Search Extension in Marketplace box type Papyrus PDF Preview and press enter.



3) Click on Papyrus PDF Preview to install.

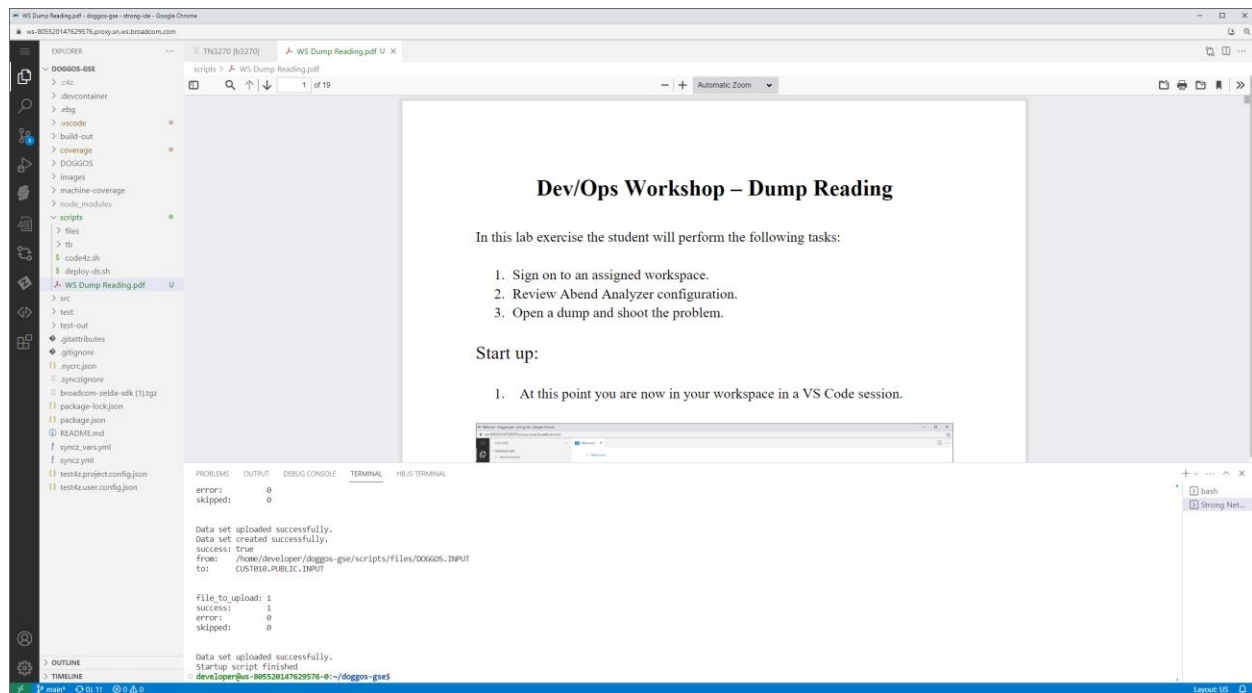
To open the exercises from the windows explore extension on the left open the script folder.



Then double click on one of the following exercises:

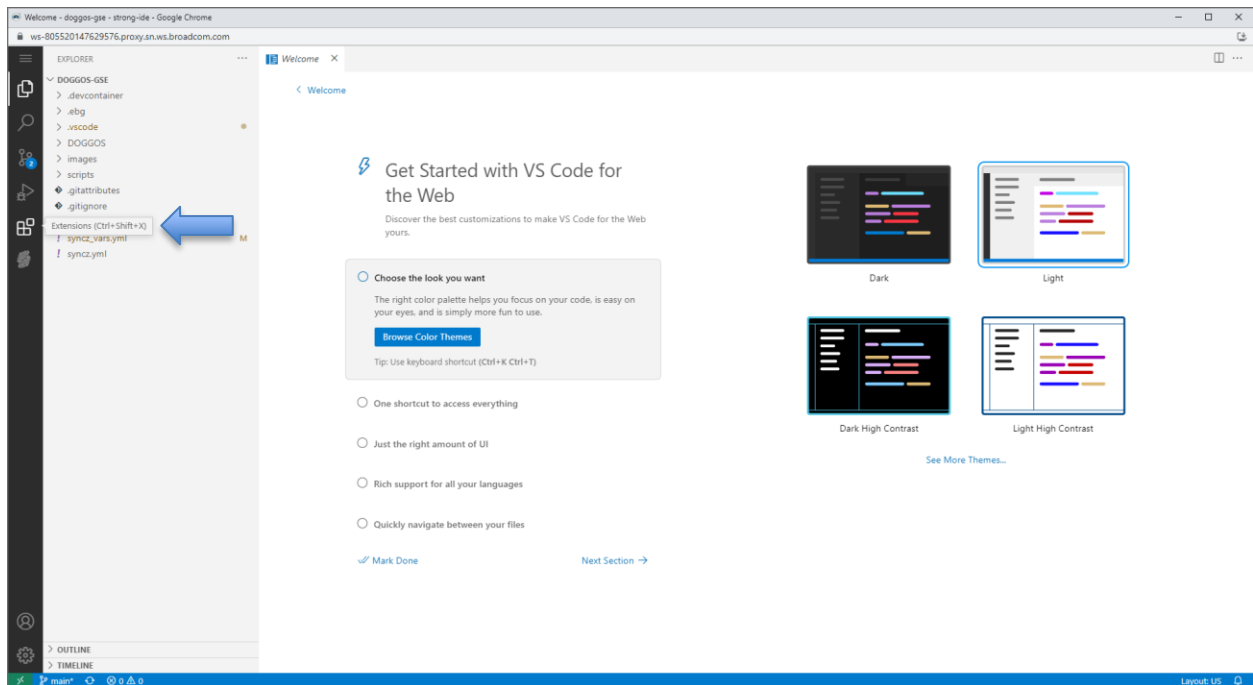
- 1) WS Code Change and Test
- 2) WS Dump Reading

This will open the PDF in a tab.

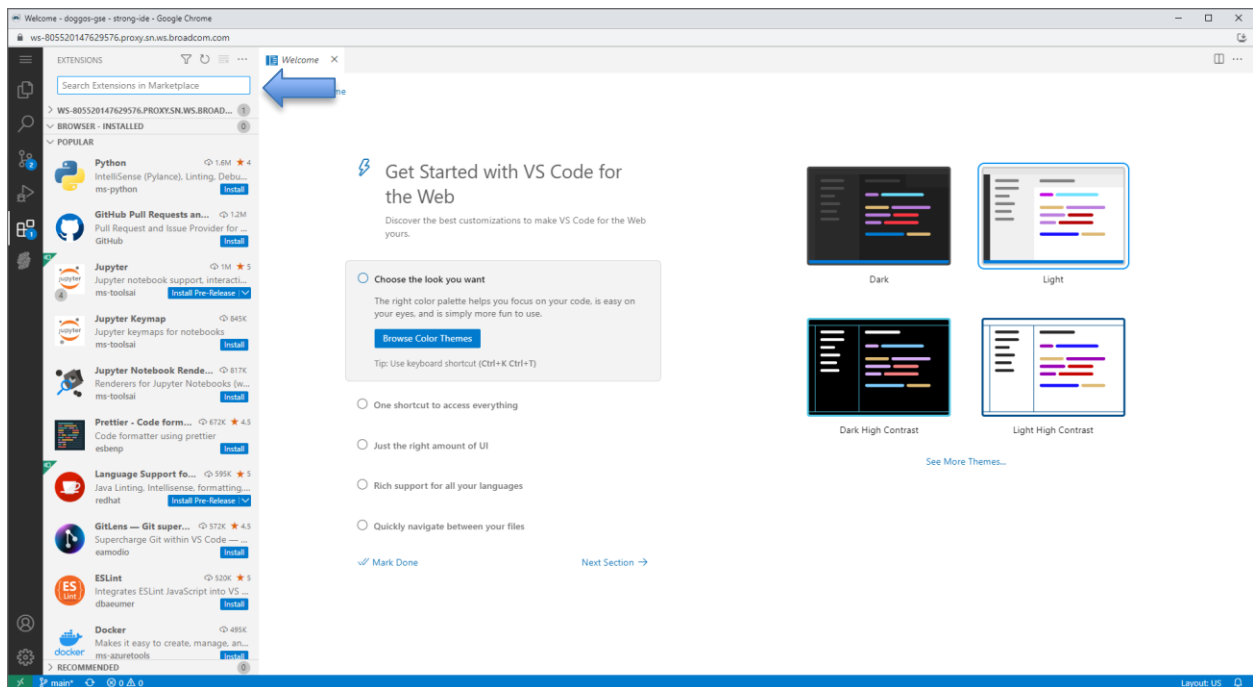


Installing a VS Code Extension for Code4z:

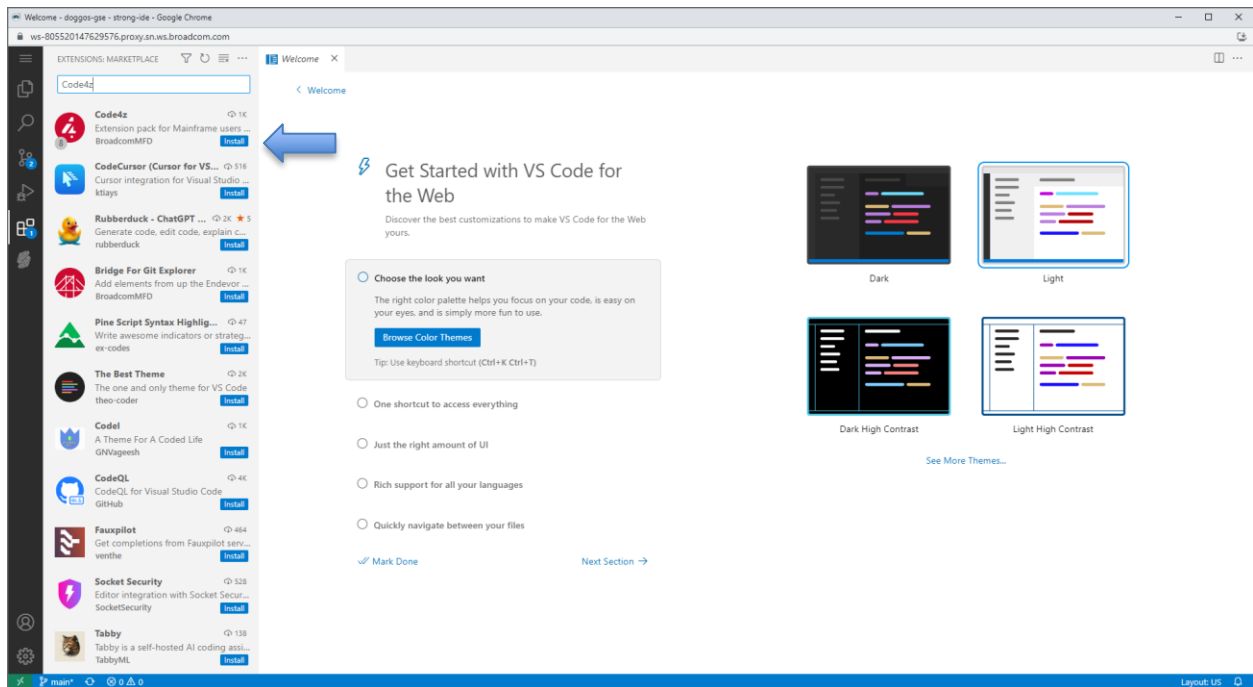
1. Before you can start the workshop an extension has to be installed to allow you to complete it. Click the Extensions box on the left side of the screen.



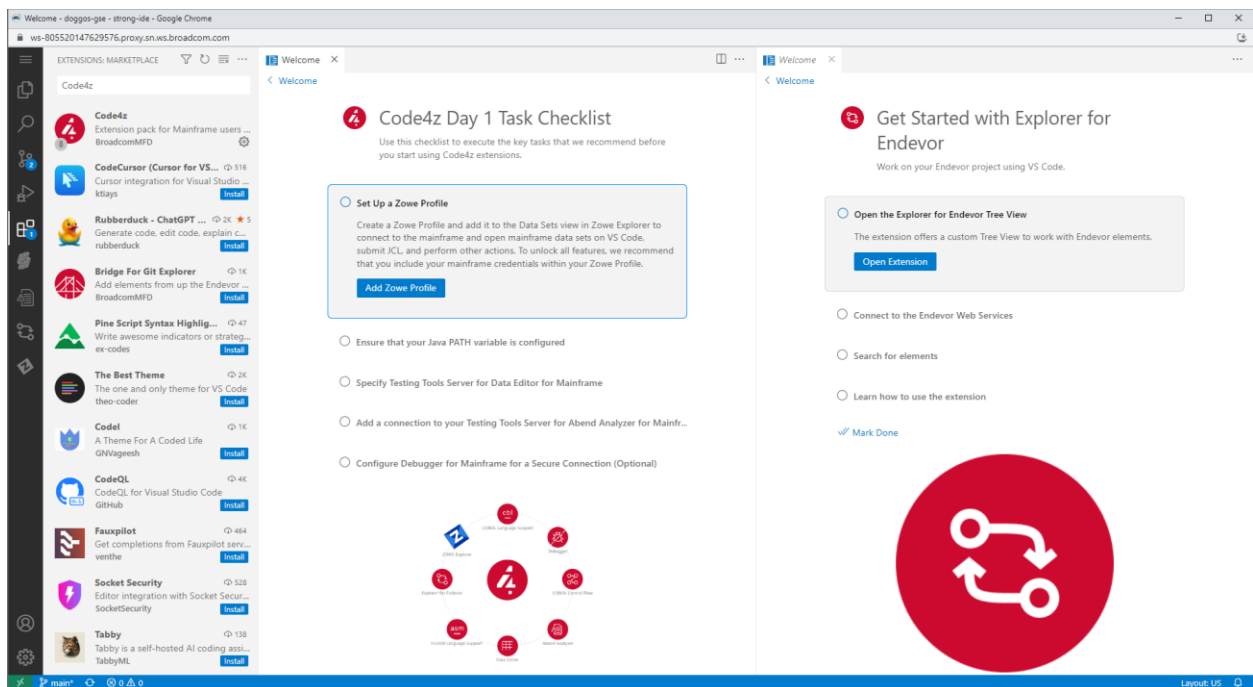
2. The following screen will allow you to search for the needed plugin. In the Search Extensions in Marketplace box enter Code4z.



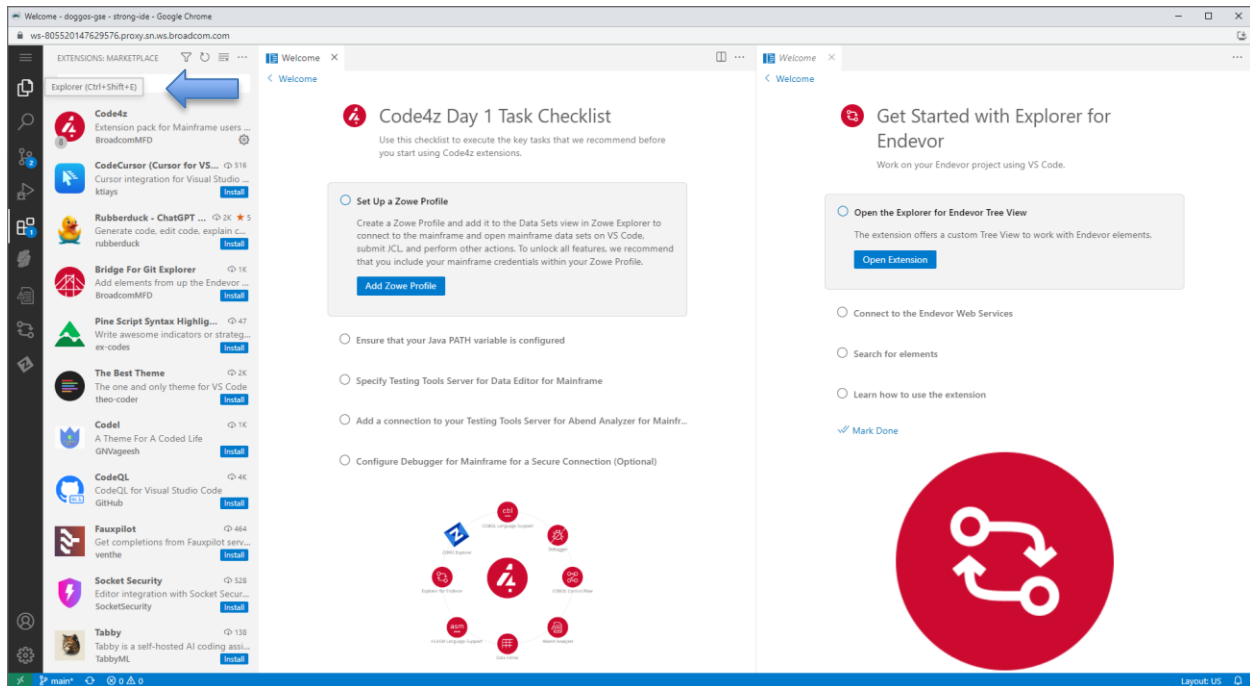
3. Click on the Install box for Code4z. The one that looks like the logo for the Fantastic 4.



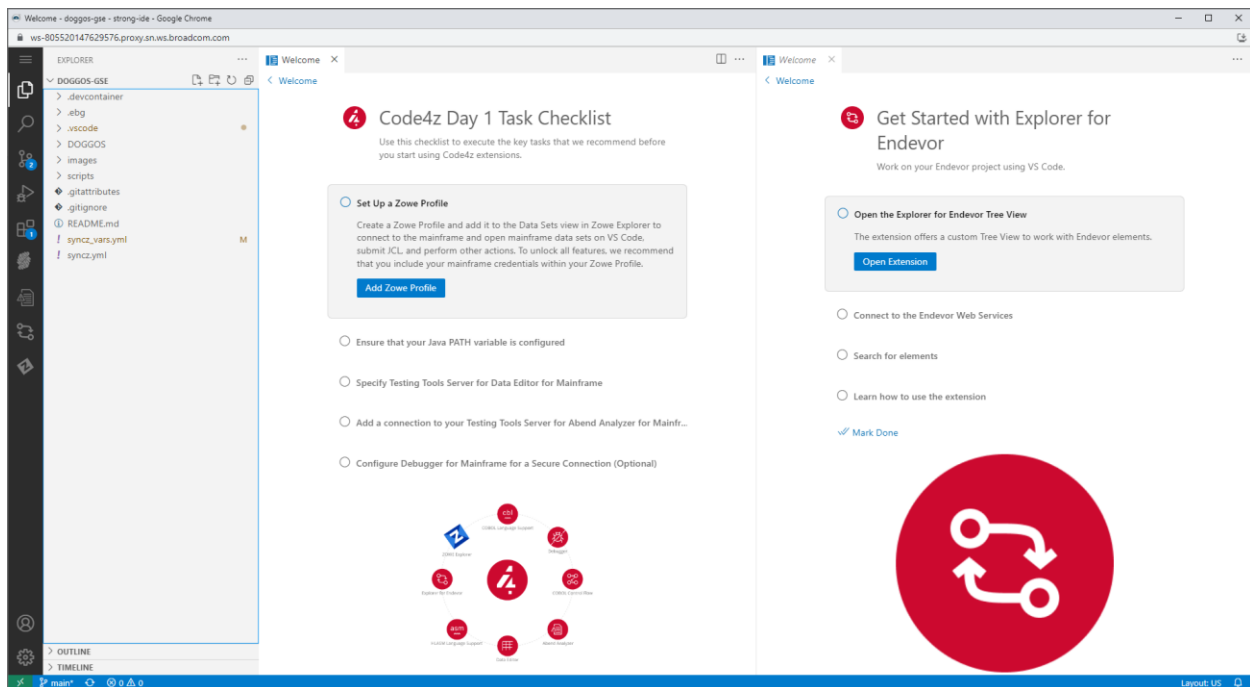
4. At this point Broadcom's Code4z is being installed into VS Code in the workspace. Notice the extra extensions that have been installed.



At this point you are ready to start the workshop. To return to the Explorer view click on the extension that looks like two pieces of paper.



It will return you to the main view.



Congratulations you have completed the workshop setup.