Let’s Get Connected

Install VS Code, grab the extensions, issue a command. Oh it’s on!

9 steps 60 minutes

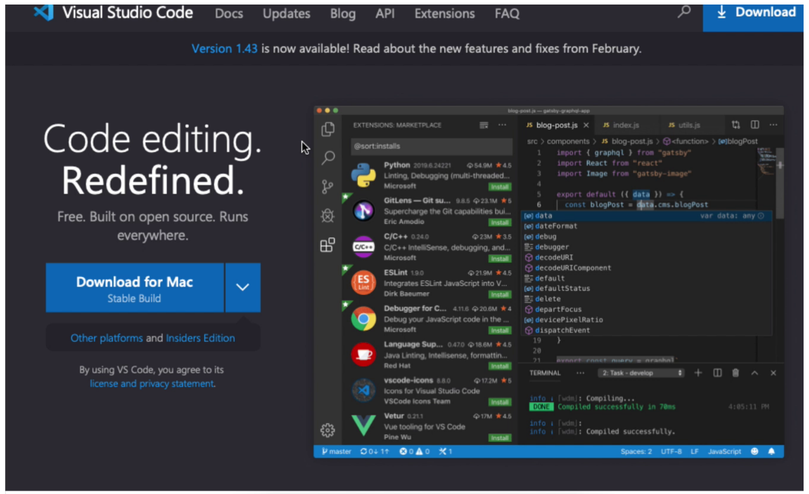
THE CHALLENGE

Visual Studio Code, often shortened to VS Code, is an extremely popular modular editor, used by programmers all around the world. We’ll be installing VS Code, and then installing some extensions so we can begin doing work on the remote system.

When completed, you and your system will be fully equipped to hack away at the rest of the challenges.

BEFORE YOU BEGIN

The screens you see may look slightly different than what we have here, and that’s probably ok! Use your best judgement, and if you get stuck, read the instructions carefully. All computers are different, we can’t cover every possibility.

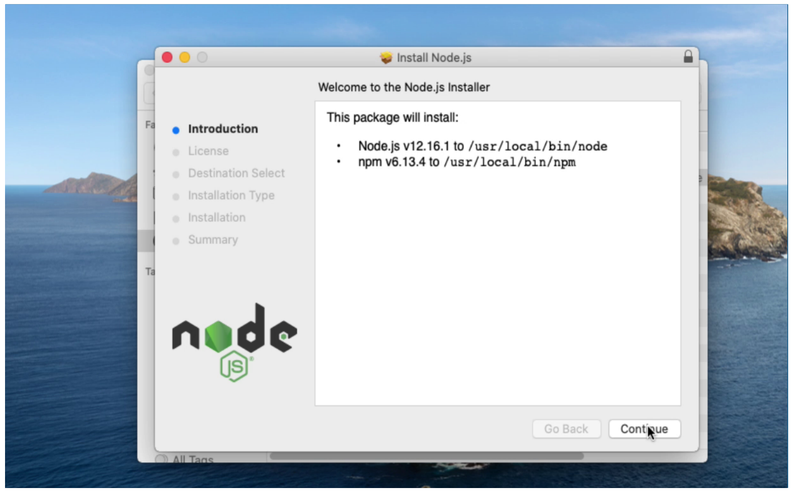


1. DOWNLOAD THE GOODS

Download VS Code and Node.js from the following links
Node.js : https://nodejs.org/en/
VS Code: https://code.visualstudio.com/download

For both downloads, you will probably be automatically directed to the correct version that you should get.

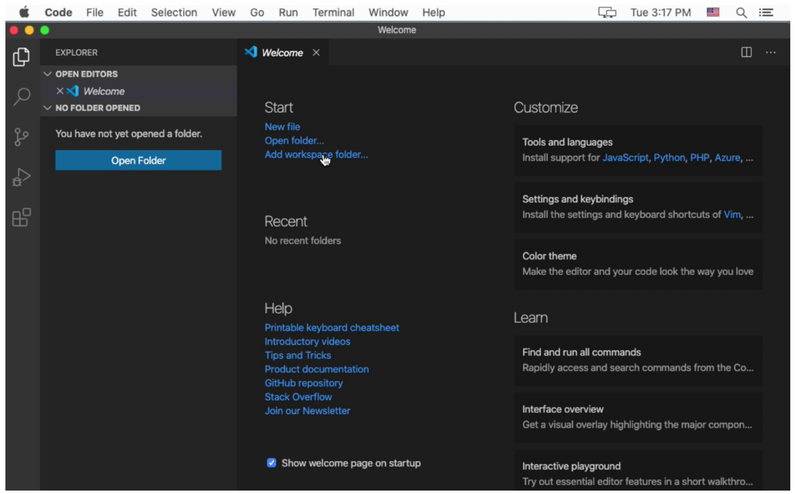
For Node.js, select the LTS (Long Term Support) version, as it is more likely to remain stable and consistent throughout the time you're working on the contest.



2. INSTALL NODE.JS

Run the Node.js installer package, taking the defaults when prompted. This will install Node.js and npm, the Node Package Manager, which we’ll use later for the Zowe CLI Plugins.

If you get a message about being unable to validate the software, right-click on the installer and select Open. This will let you proceed once you verify it’s ok.



3. INSTALL AND RUN VS CODE

Windows: Run the VS Code installer
Mac: Copy VS Code application into the Applications folder
Linux: Install the rpm/deb file

Everybody: Start VS Code

Optional: Make a shortcut to VS Code in your dock, taskbar, or menu so you don’t have to search too far for it next time.

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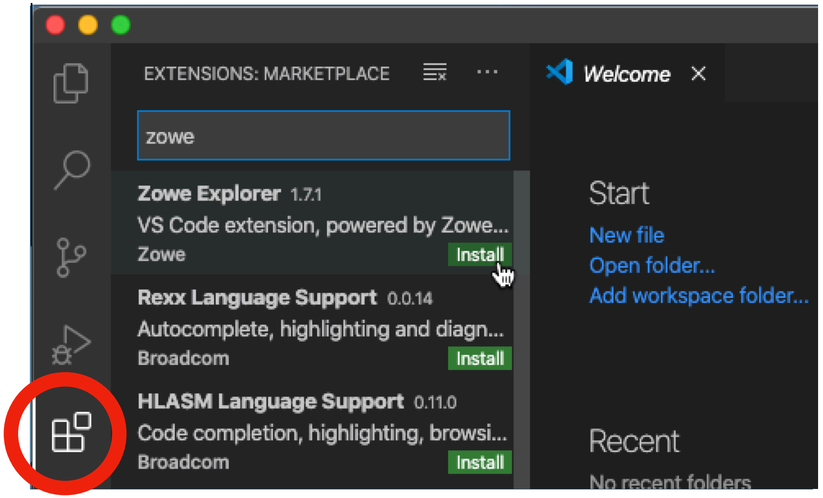
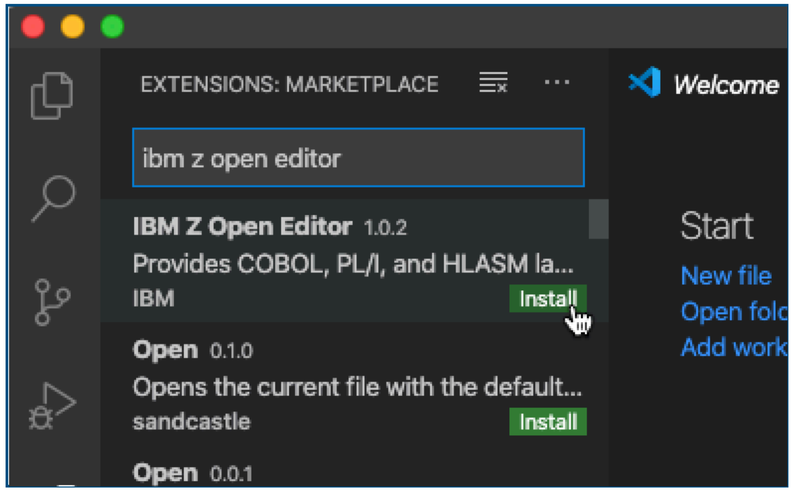


4. INSTALL ZOWE EXPLORER

Click on the Extensions launcher in the Activity Bar (looks like a set of four boxes, highlighted in red above) and search for Zowe. Next, click on the green "Install" button for it to install the Zowe Explorer. This is the extension for VS Code that gives you the ability to connect to an IBM Z mainframe system (and more, which you'll learn about later)

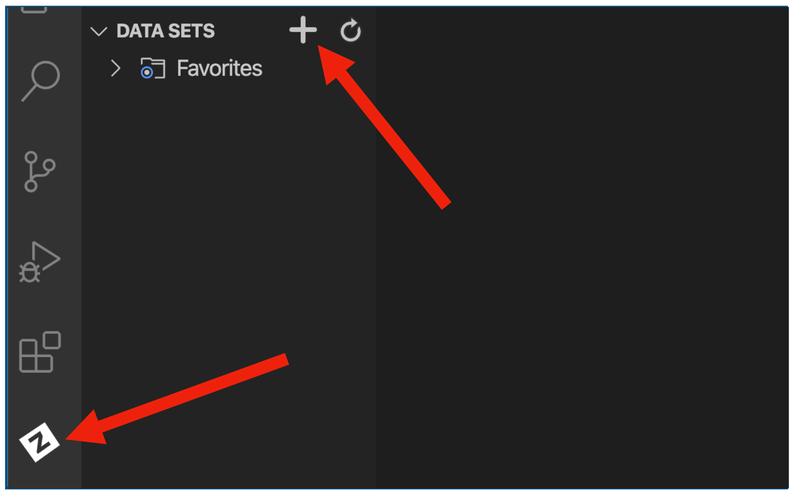
If prompted, do NOT use the option to hide your profile settings. This can cause problems later on.



5. INSTALL IBM Z OPEN EDITOR

Next, do the same for '**IBM Z Open Editor**'. This extension gives you some additional help when reading and writing a few of the files you'll run into when working on the IBM Z mainframe platform. Its install might take a little longer.

When both extensions have installed, proceed to Step 6.



6. SPECIFY NEW CONNECTION

If the extension installs were successful, but you do not see a Zowe icon (like in the above screenshot), then restart VS Code and it should appear.

Once it shows up, click on it to open up its view. This area is known as the Activity Bar, and it's where you find the main tasks in VS Code.

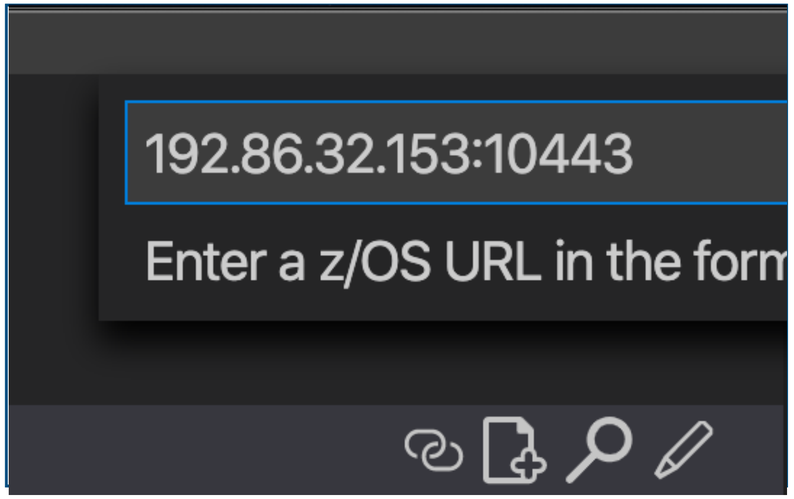
Then, click the Plus sign next to Data Sets up top. The Plus sign will not appear until you move your mouse into the Data Sets area.

NOTE - VS Code prompt windows disappear when you switch between applications. This may be annoying if you are trying to copy/paste information from one window (a web browser) into it. You may want to line up your windows side-by-side, rather than switching between them.

"WHY DO I NEED THESE EXTENSIONS?"

Visual Studio Code is an extensible editor, meaning that it gets more and more useful by adding extensions and making your own customizations to it. You can install the extensions you want, and make customizations based on the way you work, and now you have your very own setup, custom fit to the way you like to work.

The IBM Z Open Editor plugins provide support for types of files you're likely to encounter on the IBM Z platform, especially for the COBOL and PL/I programming languages. The Zowe Explorer extension gives you a convenient interface to the z/OS Operation System, letting you browse files and monitor job output.

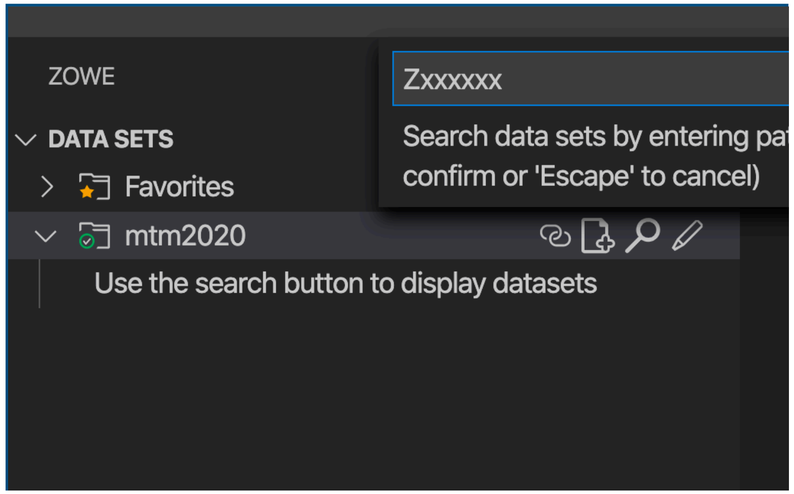


7. ENTER CONNECTION INFO

Select the “Create a New Connection to z/OS” option that comes up. Give the connection a name, like mtm2020.
Select that you'd like a **zosmf** profile type.
Then, unless otherwise directed, use the following URL:

https://192.86.32.153:10443

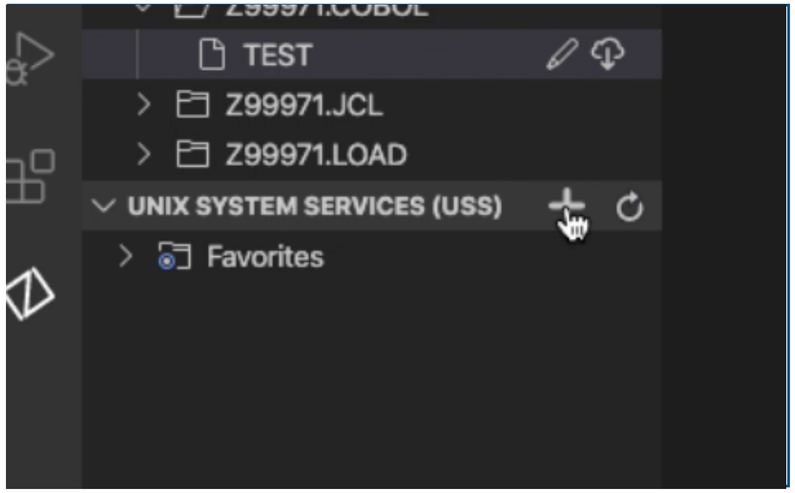
Enter your username, then your password.
Select “False – Accept connections with self-signed certificates.
Leave the **API Mediation Layer** and **encoding** fields blank, and hit Enter to complete.



8. SHOW DATA SETS

Mouse-over the new connection you just created under DATA SETS and click the magnifying glass next to it. In the window that pops up, type in your userid. This will set the filter to your user files, which is a good place to start. Hit enter. This may search for a few seconds before returning a result.

Hint: Your ID is not z99971, z99999 or Zxxxxx. Those are just examples used for screenshots. Get used to typing your own ID, you’ll be using it a lot throughout these challenges.



9. ADD USS AND JOBS

Click the + next to Unix System Services (USS) and select the connection profile you created in step 7. Repeat the step for JOBS down at the bottom section.

When done, you should have connection profiles for all three main areas of the Zowe Explorer plugin.

Now that you're in, feel free to explore a little and see what you just made available!

NICE JOB! LET’S RECAP

You have just transformed your computer into a lean, mean, mainframe challenge attacking machine! You might not realize it yet, but right before you is a window into one of the world’s most powerful enterprise computers. How far you take your skills is entirely up to you, but we hope you enjoy learning all about IBM Z.

Need a break? Go right ahead. As long as you saved, everything will be waiting right here when you come back.

NEXT UP...

You’re connected, but there’s more work to be done. Head back to the Part 1 challenges and complete the work there, now that you know how to issue commands and look at output.