

AWS

Web App in Cloud



amazon EC2

Easy

Free

Topics:

EC2

VS Code

SSH



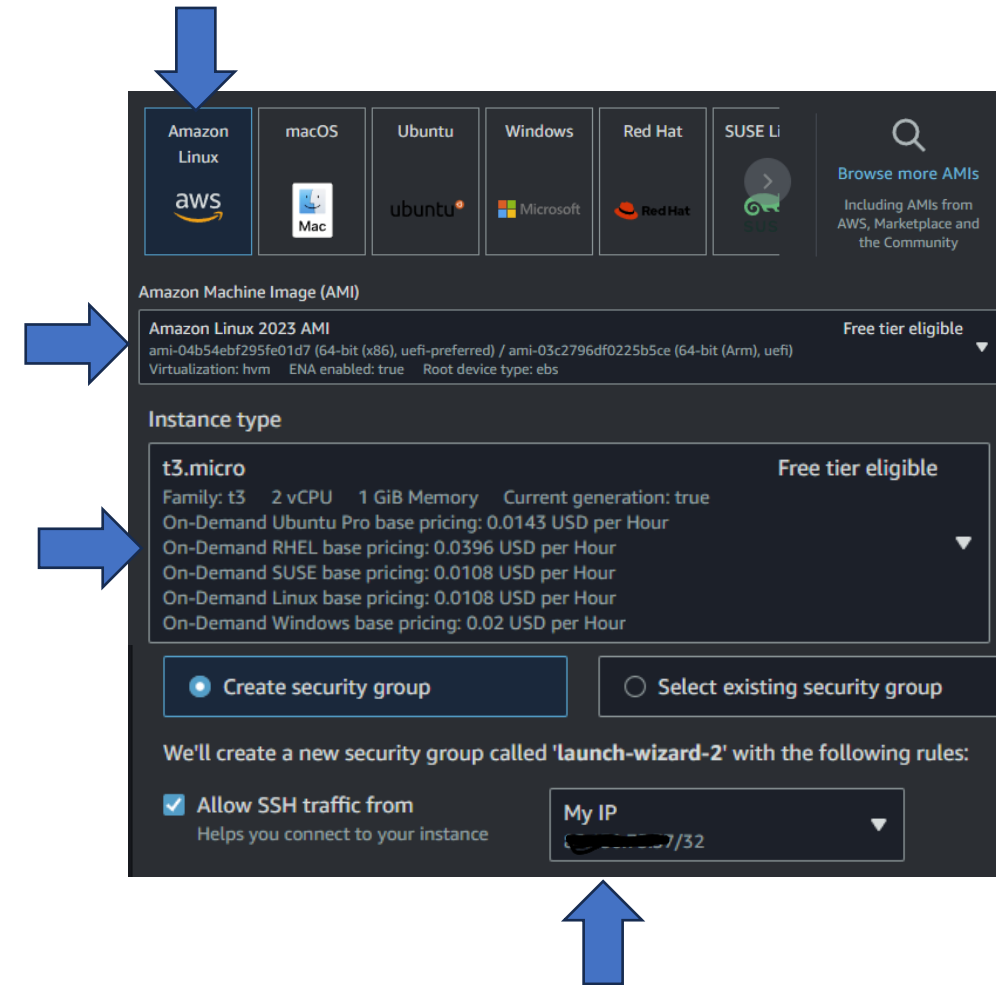
SSH client



SSH server

Create AWS EC2 Instance

- Create an EC2 Instance
 1. Pick a name
 2. OS: Amazon Linux-
 - Amazon Linux 2023 AMI (Free)
 3. Instance type
 - t3.micro (Free)
 4. Key Pair Login- Create ne key pair
 - Name, RSA, (.pem) – A file will be downloaded
 5. Network Settings: Allow SSH from
 - My IP
 6. Create the EC2 Instance



Getting started with SSH

- In the Instance label, pick your instance
- On the top right, click “Connect”
- Pick the “SSH Client” Option
- Copy the example:
 - `ssh -i "/path/to/file.pem" ec2-user@ec2-<Public-IPv4-DNS>.<AZ>.compute.amazonaws.com`

The screenshot illustrates the steps to connect to an EC2 instance using SSH. It shows the AWS Management Console interface with the 'Instances' list. A blue arrow points to the 'testec2' instance. Another blue arrow points to the 'Connect' button. A third blue arrow points to the 'SSH client' tab in the 'EC2 Instance Connect' section. The 'SSH client' tab displays instructions for connecting to the instance, including the command to run and the public DNS address. A final blue arrow points to the command line example.

Events

Name	Instance ID	Instance state	Instance type
testec2	i-04c5a178ac7791eac	Running	t3.micro

Connect Instance state Actions

EC2 Instance Connect Session Manager **SSH client** EC2 serial console

Instance ID
i-04c5a178ac7791eac (testec2)

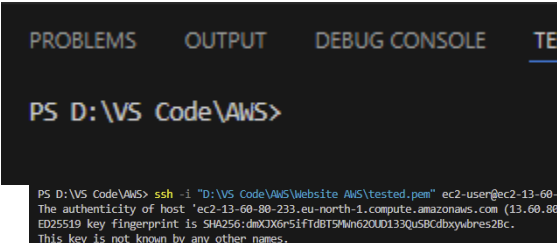
1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is testkey.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.
`chmod 400 "testkey.pem"`
4. Connect to your instance using its Public DNS:
`ec2-13-61-23-20.eu-north-1.compute.amazonaws.com`

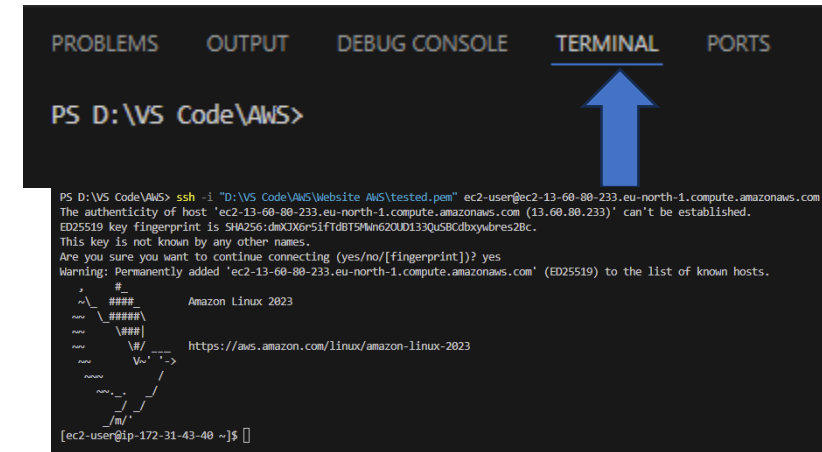
Example:
`ssh -i "testkey.pem" ec2-user@ec2-13-61-23-20.eu-north-1.compute.amazonaws.com`

Note: In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

The Instance will be deleted so I can show it

Connect to EC2 Instance with SSH

- We need to change permissions to the “.pem” file we got from AWS
 - In Linux/MacOS: “***Sudo chmod 400 <file.pem>***”
 - In Windows: “***icacls “<path/to/file.pem>” /grant:r “<username>:R”***”
 - Open VS Code Terminal
 - Insert the SSH command
 - `ssh -i "<path/to/file.pem>" ec2-user@ec2-<Public-IPv4-DNS>.<AZ>.compute.amazonaws.com`
- 
- A screenshot of a VS Code terminal window. The terminal title bar shows 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', and 'TERMINAL'. The terminal content shows the prompt 'PS D:\VS Code\AWS>' followed by the command 'ssh -i "D:\VS Code\AWS\Website_AWS\tested.pem" ec2-user@ec2-13-60-80-233.eu-north-1.compute.amazonaws.com (13.60.80.233)'. The output shows the SSH connection process, including the host key fingerprint and a warning that the key is not known by any other names.



Install Apache Maven & Amazon Corretto 8 (JAVA)

- The commands:

- Apache Maven:

- `wget https://archive.apache.org/dist/maven/maven-3/3.5.2/binaries/apache-maven-3.5.2-bin.tar.gz`
 - `sudo tar -xzf apache-maven-3.5.2-bin.tar.gz -C /opt`
 - `echo "export PATH=/opt/apache-maven-3.5.2/bin:$PATH" >> ~/.bashrc`
 - `source ~/.bashrc`

- Amazon Corretto 8 / JAVA

- `sudo dnf install -y java-1.8.0-amazon-corretto-devel`
 - `export JAVA_HOME=/usr/lib/jvm/java-1.8.0-amazon-corretto.x86_64`
 - `export PATH=/usr/lib/jvm/java-1.8.0-amazon-corretto.x86_64/jre/bin/:$PATH`

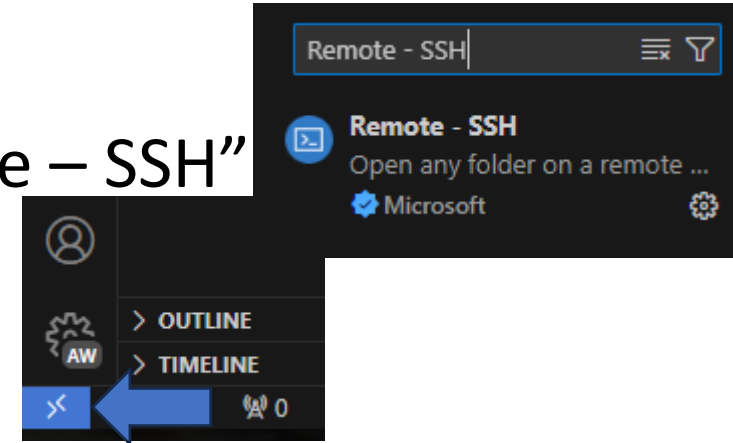
Run Maven

- Run the commands in the VS Code Terminal:
 - ***mvn archetype:generate ***
DgroupId=com.<Name>
***DartifactId=<Name> ***
***DarchetypeArtifactId=maven-archetype-webapp ***
DinteractiveMode=false

```
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 12.494 s
[INFO] Finished at: 2024-10-08T22:42:05Z
[INFO] Final Memory: 17M/98M
[INFO] -----
```

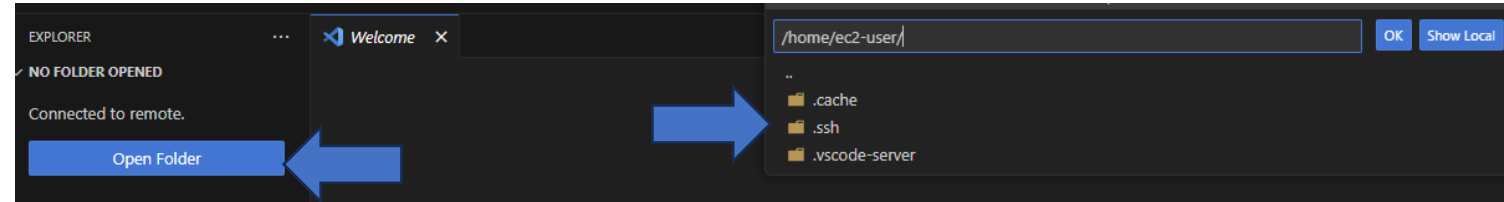
VS Code SSH Connection

- In VS Code download the extension “Remote – SSH”
- Click the blue “><” on the button left color
- Click “Connect to host”
- Click “+ Add New SSH Host”
- Run the SSH Command
- Check the “config” file that every thing is correct
- Now we can Connect with SSH



```
1 Host ec2-13-60-80-233.eu-north-1.compute.amazonaws.com
2   HostName ec2-13-60-80-233.eu-north-1.compute.amazonaws.com
3   IdentityFile "D:\VS Code\AWS\Website AWS\tested.pem"
4   User ec2-user
5
```

VS Code SSH



- Now you can check the files in the EC2 Instance and edit them or work on the Web app you created with Maven and Amazon Corretto 8.