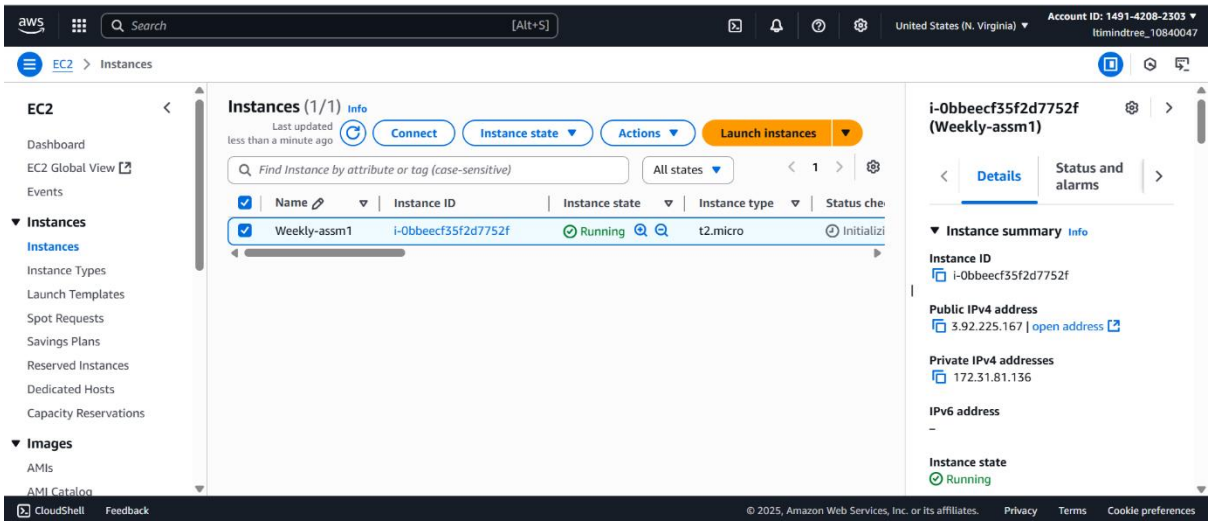
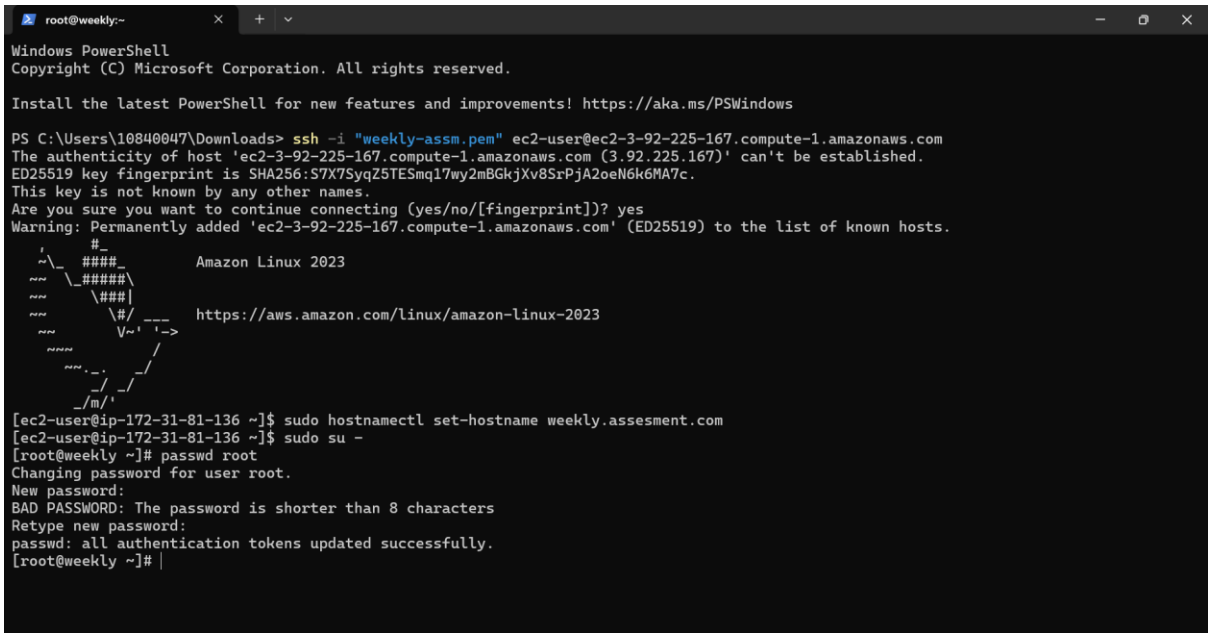
Asmit Kumar – 10840047 - Weekly Assessment 1

Create a user jack and assign a password alberto, This user should be member of wheel group as well as nobody group

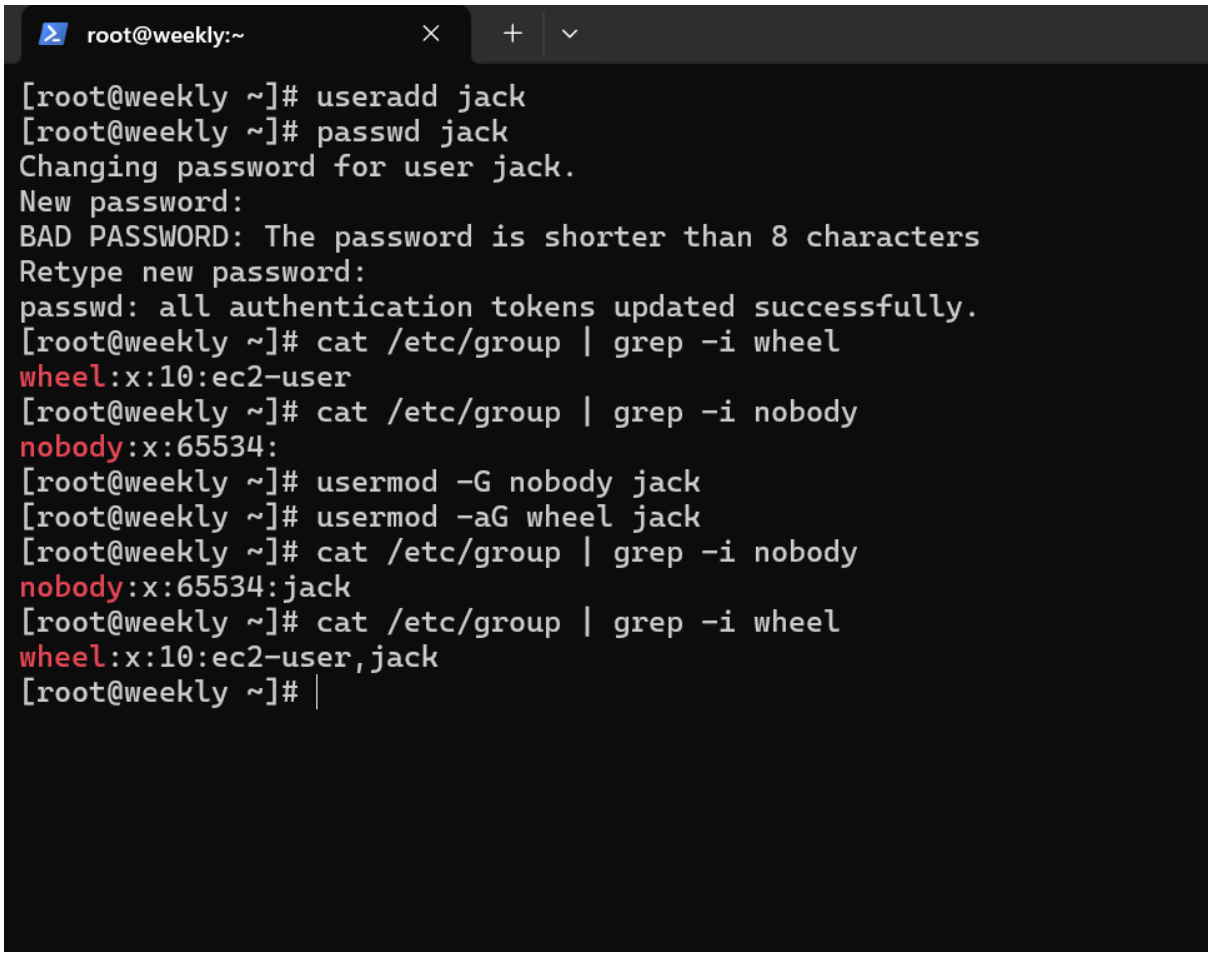
First I created an instance in aws



Then I assigned the hostname and logged as a root user

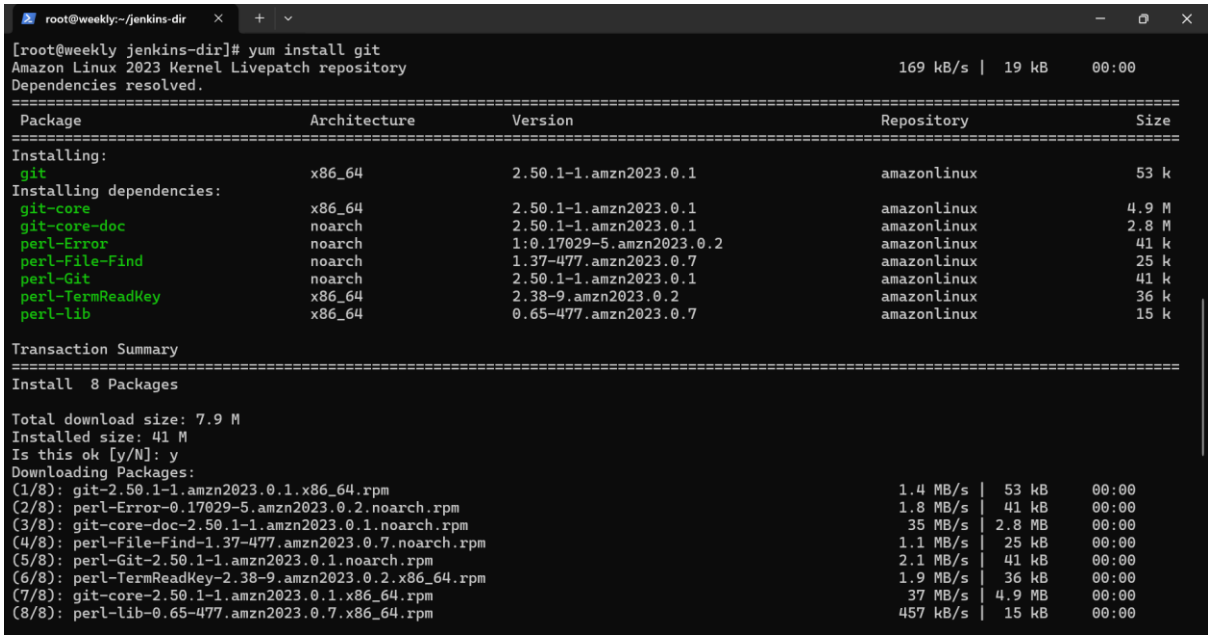


After that I created a user named Jack and set the password alberto, then I checked if wheel and nobody group already existed, then I added jack to both the groups.

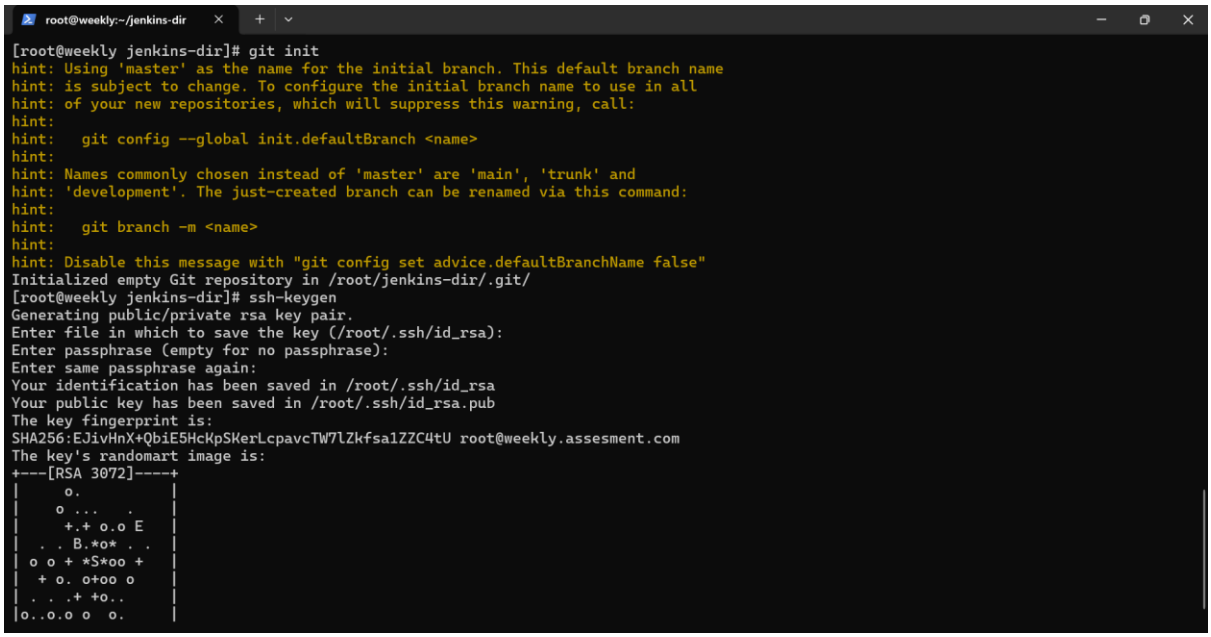


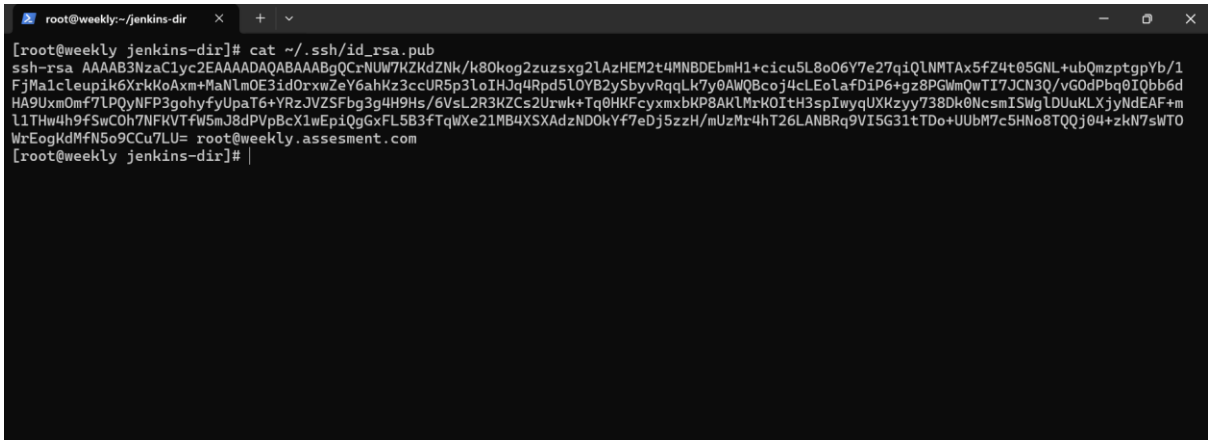
Put a new Java project on GitHub. Create a Jenkins project and integrate it with GitHub. Now add the maven package goal in the Jenkins project. Also make sure the artifacts which are built are saved in the pipeline.

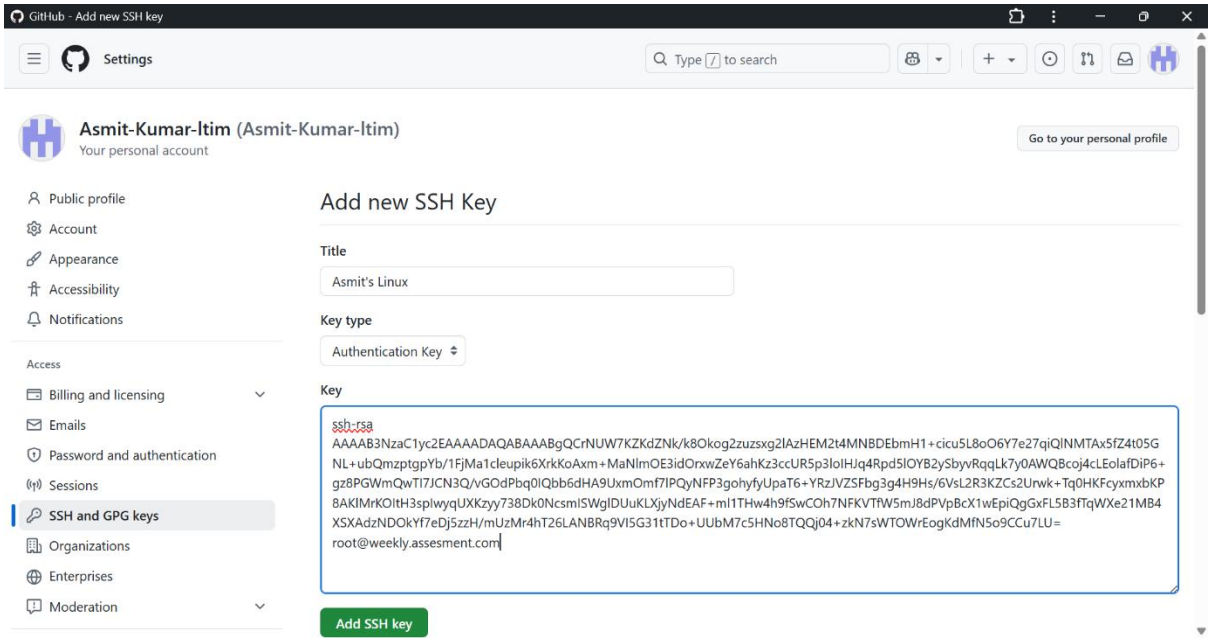
At first I installed git in my terminal



Then I generated ssh keys and pasted it in the gtihub

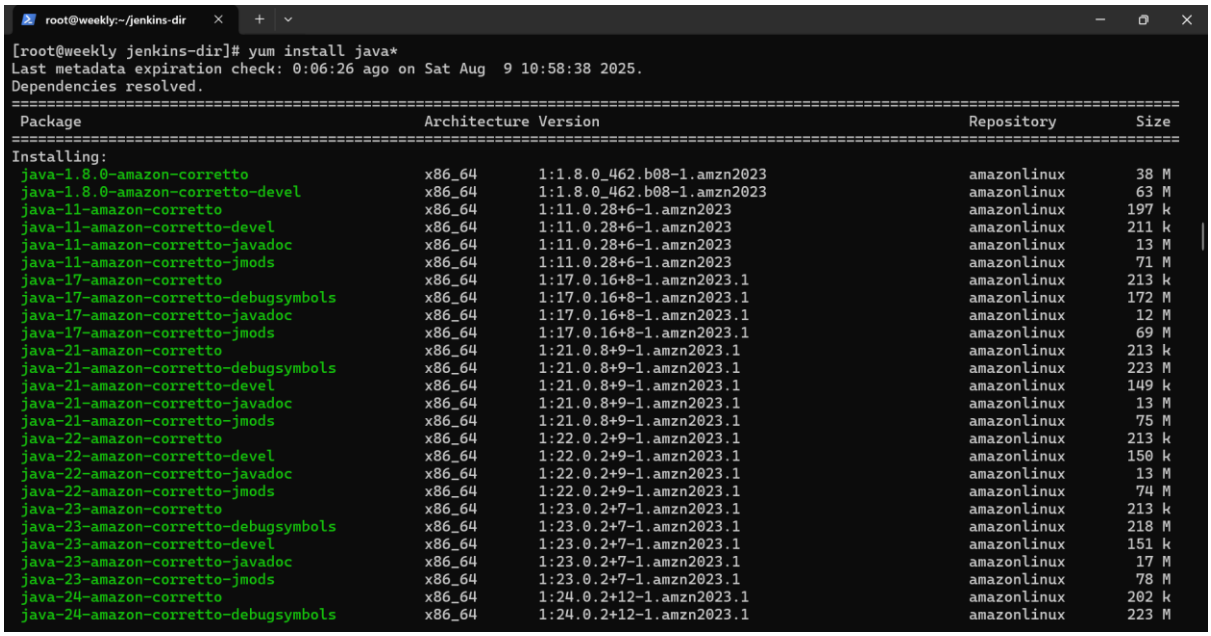




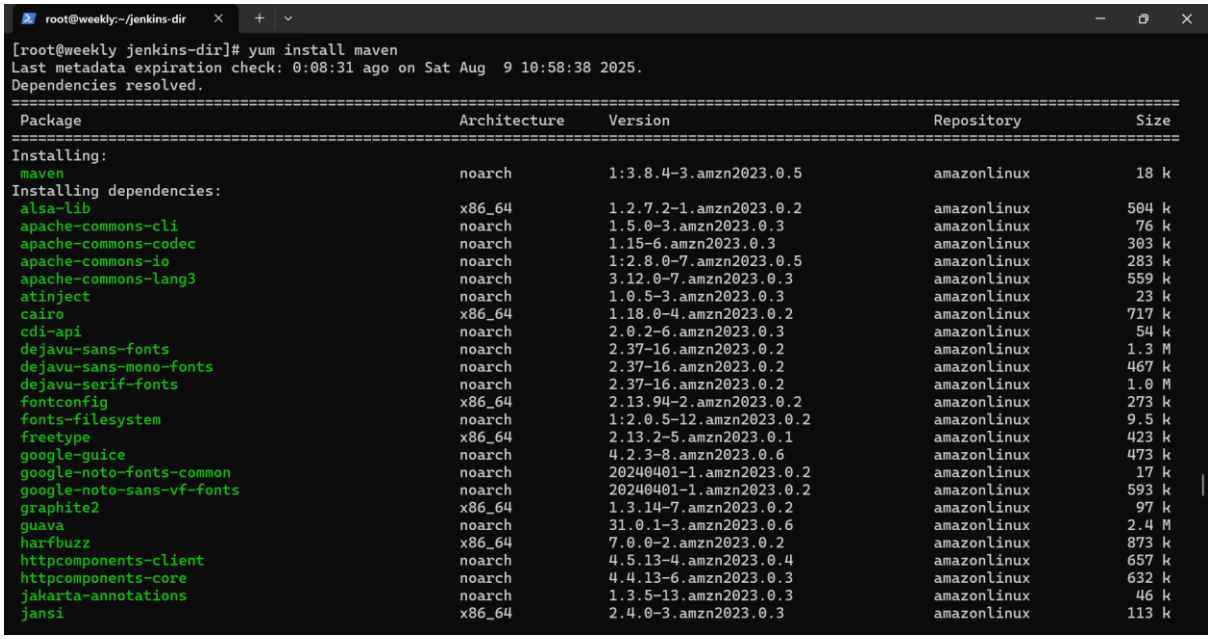


Connected git to my github repository

Then I installed java, maven and jenkins



```
root@weekly:~/jenkins-dir
[root@weekly jenkins-dir]# yum install java*
Last metadata expiration check: 0:06:26 ago on Sat Aug  9 10:58:38 2025.
Dependencies resolved.
================================================================================
 Package                    Architecture Version                  Repository  Size
================================================================================
Installing:
 java-1.8.0-amazon-corretto x86_64       1:1.8.0_462.b08-1.amzn2023 amazonlinux  38 M
 java-1.8.0-amazon-corretto-devel x86_64 1:1.8.0_462.b08-1.amzn2023 amazonlinux  63 M
 java-11-amazon-corretto    x86_64       1:11.0.28+6-1.amzn2023     amazonlinux 197 k
 java-11-amazon-corretto-devel x86_64    1:11.0.28+6-1.amzn2023     amazonlinux 211 k
 java-11-amazon-corretto-javadoc x86_64  1:11.0.28+6-1.amzn2023     amazonlinux  13 M
 java-11-amazon-corretto-jmods x86_64    1:11.0.28+6-1.amzn2023     amazonlinux  71 M
 java-17-amazon-corretto    x86_64       1:17.0.16+8-1.amzn2023.1   amazonlinux 213 k
 java-17-amazon-corretto-debugsymbols x86_64 1:17.0.16+8-1.amzn2023.1 amazonlinux 172 M
 java-17-amazon-corretto-javadoc x86_64  1:17.0.16+8-1.amzn2023.1   amazonlinux  12 M
 java-17-amazon-corretto-jmods x86_64    1:17.0.16+8-1.amzn2023.1   amazonlinux  69 M
 java-21-amazon-corretto    x86_64       1:21.0.8+9-1.amzn2023.1    amazonlinux 213 k
 java-21-amazon-corretto-debugsymbols x86_64 1:21.0.8+9-1.amzn2023.1 amazonlinux 223 M
 java-21-amazon-corretto-devel x86_64    1:21.0.8+9-1.amzn2023.1    amazonlinux 149 k
 java-21-amazon-corretto-javadoc x86_64  1:21.0.8+9-1.amzn2023.1    amazonlinux  13 M
 java-21-amazon-corretto-jmods x86_64    1:21.0.8+9-1.amzn2023.1    amazonlinux  75 M
 java-22-amazon-corretto    x86_64       1:22.0.2+9-1.amzn2023.1    amazonlinux 213 k
 java-22-amazon-corretto-devel x86_64    1:22.0.2+9-1.amzn2023.1    amazonlinux 150 k
 java-22-amazon-corretto-javadoc x86_64  1:22.0.2+9-1.amzn2023.1    amazonlinux  13 M
 java-22-amazon-corretto-jmods x86_64    1:22.0.2+9-1.amzn2023.1    amazonlinux  74 M
 java-23-amazon-corretto    x86_64       1:23.0.2+7-1.amzn2023.1    amazonlinux 213 k
 java-23-amazon-corretto-debugsymbols x86_64 1:23.0.2+7-1.amzn2023.1 amazonlinux 218 M
 java-23-amazon-corretto-devel x86_64    1:23.0.2+7-1.amzn2023.1    amazonlinux 151 k
 java-23-amazon-corretto-javadoc x86_64  1:23.0.2+7-1.amzn2023.1    amazonlinux  17 M
 java-23-amazon-corretto-jmods x86_64    1:23.0.2+7-1.amzn2023.1    amazonlinux  78 M
 java-24-amazon-corretto    x86_64       1:24.0.2+12-1.amzn2023.1   amazonlinux 202 k
 java-24-amazon-corretto-debugsymbols x86_64 1:24.0.2+12-1.amzn2023.1 amazonlinux 223 M
```



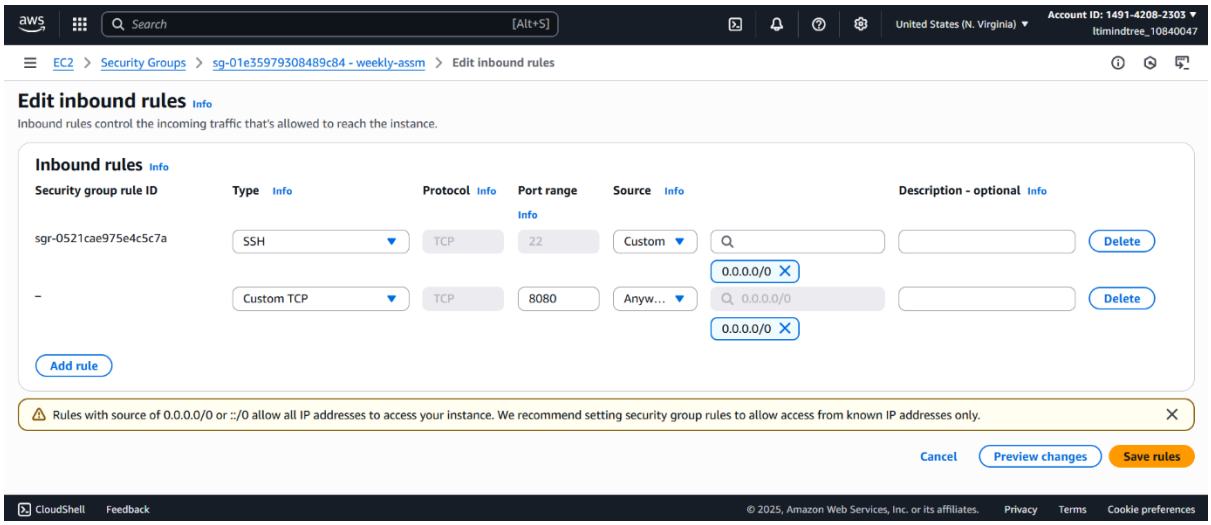
```
root@weekly:~/jenkins-dir
[root@weekly jenkins-dir]# yum install maven
Last metadata expiration check: 0:08:31 ago on Sat Aug  9 10:58:38 2025.
Dependencies resolved.
================================================================================
 Package                    Architecture Version                  Repository  Size
================================================================================
Installing:
 maven                      noarch       1:3.8.4-3.amzn2023.0.5     amazonlinux  18 k
Installing dependencies:
 alsa-lib                   x86_64       1.2.7.2-1.amzn2023.0.2     amazonlinux 504 k
 apache-commons-cli         noarch       1.5.0-3.amzn2023.0.3       amazonlinux  76 k
 apache-commons-codec       noarch       1.15-6.amzn2023.0.3        amazonlinux 303 k
 apache-commons-io          noarch       1:2.8.0-7.amzn2023.0.5     amazonlinux 283 k
 apache-commons-lang3       noarch       3.12.0-7.amzn2023.0.3      amazonlinux 559 k
 atinject                   noarch       1.0.5-3.amzn2023.0.3       amazonlinux  23 k
 cairo                      x86_64       1.18.0-4.amzn2023.0.2      amazonlinux 717 k
 cdi-api                    noarch       2.0.2-6.amzn2023.0.3       amazonlinux  54 k
 dejavu-sans-fonts          noarch       2.37-16.amzn2023.0.2       amazonlinux 1.3 M
 dejavu-sans-mono-fonts     noarch       2.37-16.amzn2023.0.2       amazonlinux 467 k
 dejavu-serif-fonts         noarch       2.37-16.amzn2023.0.2       amazonlinux 1.0 M
 fontconfig                 x86_64       2.13.94-2.amzn2023.0.2     amazonlinux 273 k
 fonts-filesystem           noarch       1:2.0.5-12.amzn2023.0.2    amazonlinux 9.5 k
 freetype                   x86_64       2.13.2-5.amzn2023.0.1      amazonlinux 423 k
 google-guice               noarch       4.2.3-8.amzn2023.0.6       amazonlinux 473 k
 google-noto-fonts-common   noarch       20240401-1.amzn2023.0.2    amazonlinux  17 k
 google-noto-sans-vf-fonts  noarch       20240401-1.amzn2023.0.2    amazonlinux 593 k
 graphite2                  x86_64       1.3.14-7.amzn2023.0.2      amazonlinux  97 k
 guava                      noarch       31.0.1-3.amzn2023.0.6      amazonlinux 2.4 M
 harfbuzz                   x86_64       7.0.0-2.amzn2023.0.2       amazonlinux 873 k
 httpcomponents-client      noarch       4.5.13-4.amzn2023.0.4      amazonlinux 657 k
 httpcomponents-core        noarch       4.4.13-6.amzn2023.0.3      amazonlinux 632 k
 jakarta-annotations        noarch       1.3.5-13.amzn2023.0.3      amazonlinux  46 k
 jansi                      x86_64       2.4.0-3.amzn2023.0.3       amazonlinux 113 k
```

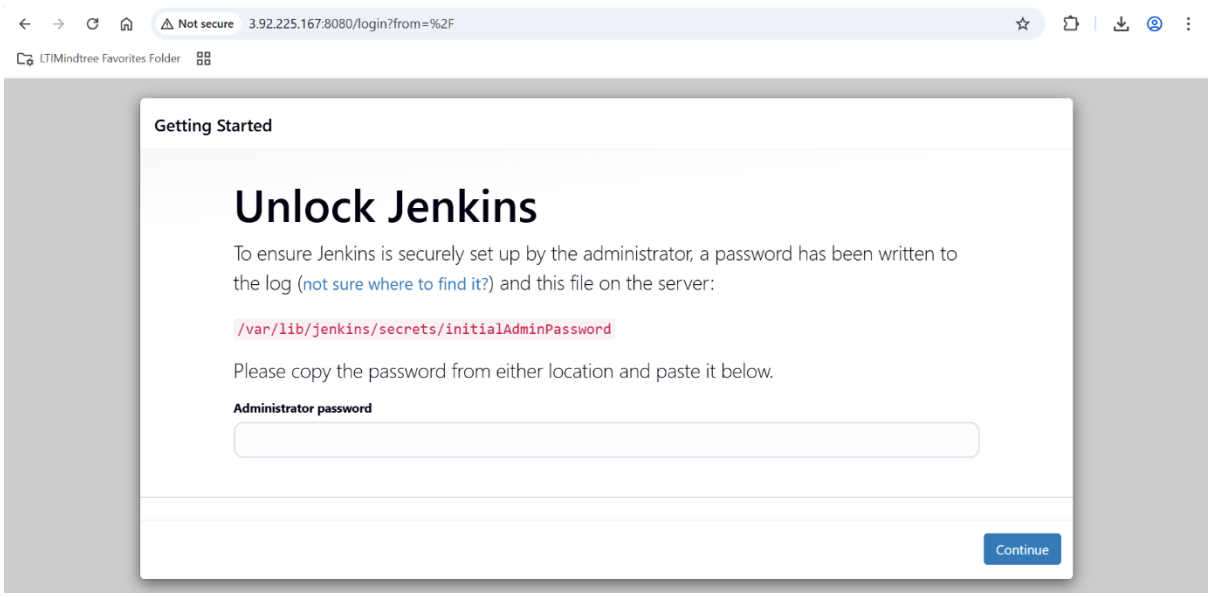
```
root@weekly:~/jenkins-dir
[root@weekly jenkins-dir]# wget -O /etc/yum.repos.d/jenkins.repo \
    https://pkg.jenkins.io/redhat-stable/jenkins.repo
--2025-08-09 11:08:54--  https://pkg.jenkins.io/redhat-stable/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 146.75.30.133, 2a04:4e42:77::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|146.75.30.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 85
Saving to: '/etc/yum.repos.d/jenkins.repo'

/etc/yum.repos.d/jenkins.repo     100%[=======================================================>]      85  --.-KB/s    in 0s

2025-08-09 11:08:54 (5.80 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [85/85]

[root@weekly jenkins-dir]# rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key
[root@weekly jenkins-dir]# yum upgrade
Jenkins-stable                                                                  684 kB/s |  32 kB     00:00
Dependencies resolved.
Nothing to do.
Complete!
[root@weekly jenkins-dir]# yum install java-17-amazon-corretto -y
Last metadata expiration check: 0:00:07 ago on Sat Aug  9 11:09:10 2025.
Dependencies resolved.
================================================================================================================================
 Package                          Architecture         Version                              Repository                  Size
================================================================================================================================
Installing:
 java-17-amazon-corretto          x86_64               1:17.0.16+8-1.amzn2023.1             amazonlinux                213 k
Installing dependencies:
 giflib                           x86_64               5.2.1-9.amzn2023.0.1                 amazonlinux                 49 k
 libICE                           x86_64               1.1.1-3.amzn2023.0.1                 amazonlinux                 76 k
 libSM                            x86_64               1.2.4-3.amzn2023.0.1                 amazonlinux                 45 k
 libXi                            x86_64               1.8.2-1.amzn2023.0.1                 amazonlinux                 42 k
 libXinerama                      x86_64               1.1.5-6.amzn2023.0.1                 amazonlinux                 16 k
```

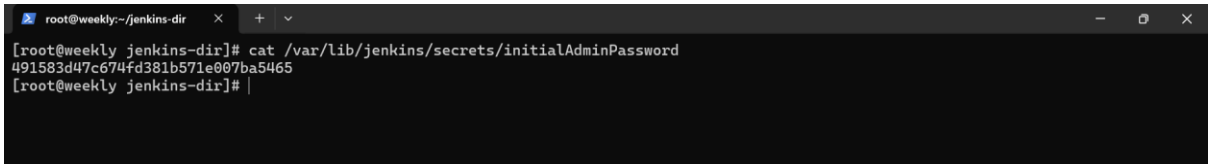
```
root@weekly:~/jenkins-dir
[root@weekly jenkins-dir]# yum install jenkins -y
Last metadata expiration check: 0:00:22 ago on Sat Aug  9 11:09:10 2025.
Dependencies resolved.
================================================================================================================================
 Package                      Architecture             Version                          Repository                      Size
================================================================================================================================
Installing:
 jenkins                      noarch                   2.516.1-1.1                      jenkins                         83 M

Transaction Summary
================================================================================================================================
Install  1 Package

Total download size: 83 M
Installed size: 83 M
Downloading Packages:
jenkins-2.516.1-1.1.noarch.rpm                                                   41 MB/s |  83 MB     00:02
--------------------------------------------------------------------------------------------------------------------------------
Total                                                                            41 MB/s |  83 MB     00:02
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :                                                                                              1/1
  Running scriptlet: jenkins-2.516.1-1.1.noarch                                                                   1/1
  Installing       : jenkins-2.516.1-1.1.noarch                                                                   1/1
  Running scriptlet: jenkins-2.516.1-1.1.noarch                                                                   1/1
  Verifying        : jenkins-2.516.1-1.1.noarch                                                                   1/1

Installed:
  jenkins-2.516.1-1.1.noarch
```

```
[root@weekly jenkins-dir]# systemctl enable jenkins
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /usr/lib/systemd/system/jenkins.service.
[root@weekly jenkins-dir]# systemctl start jenkins
[root@weekly jenkins-dir]#
```

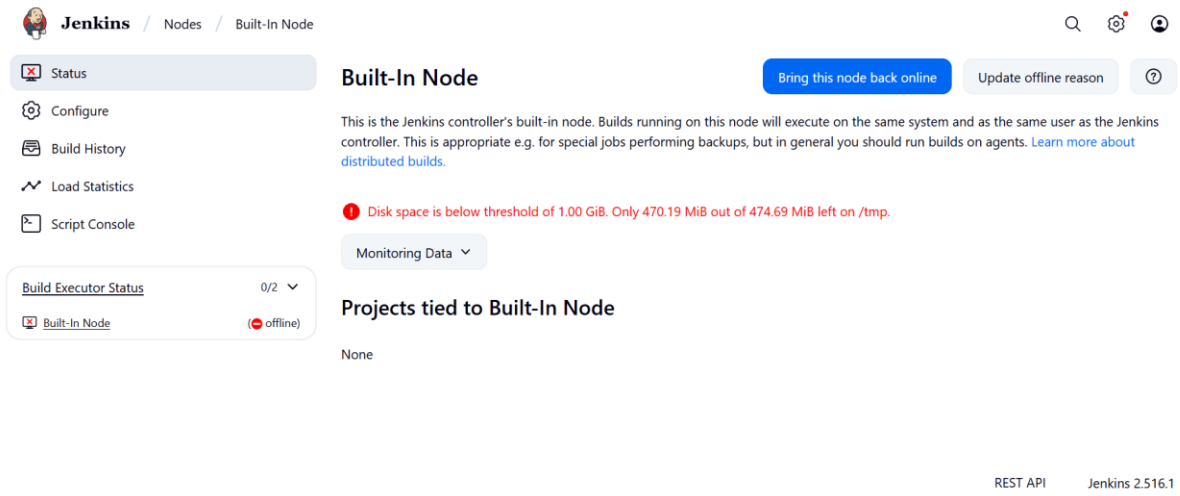
In aws instance I added a new inbound rule with port 8080 which is the default port of jenkins so that jenkins can run in the browser.



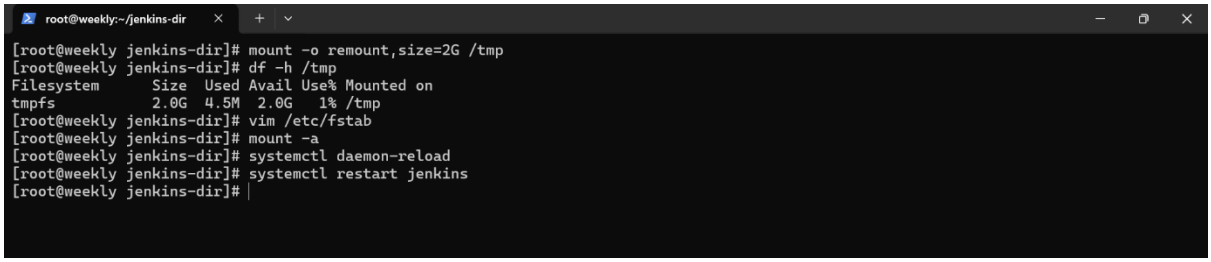




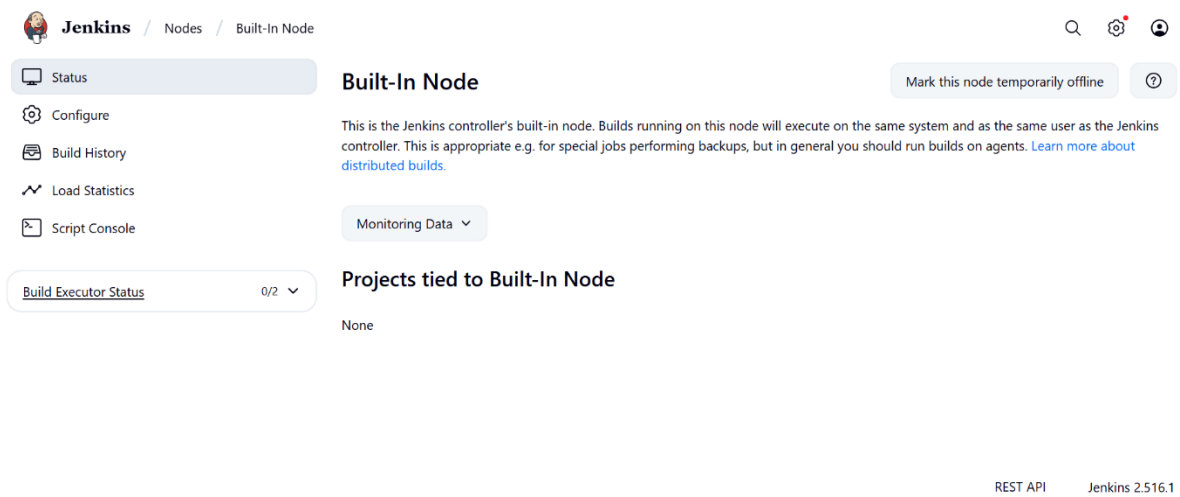
After opening jenkins, it was saying that the disk space is low.



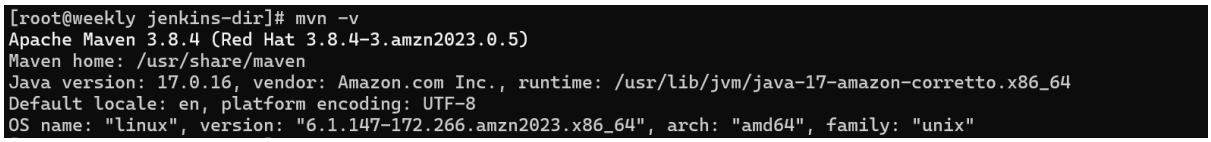
So I increased the tmp space to 2 gb.



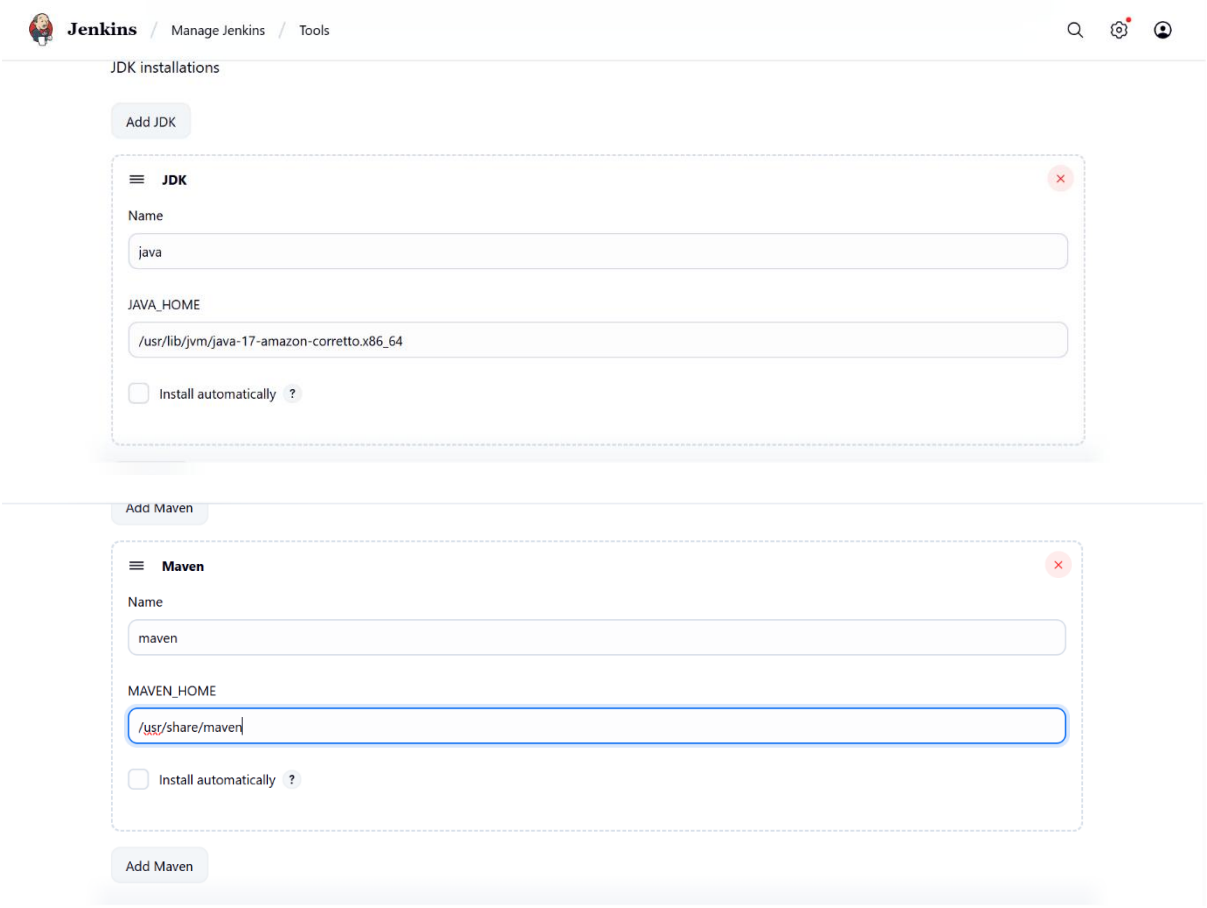
Then this problem got solved.



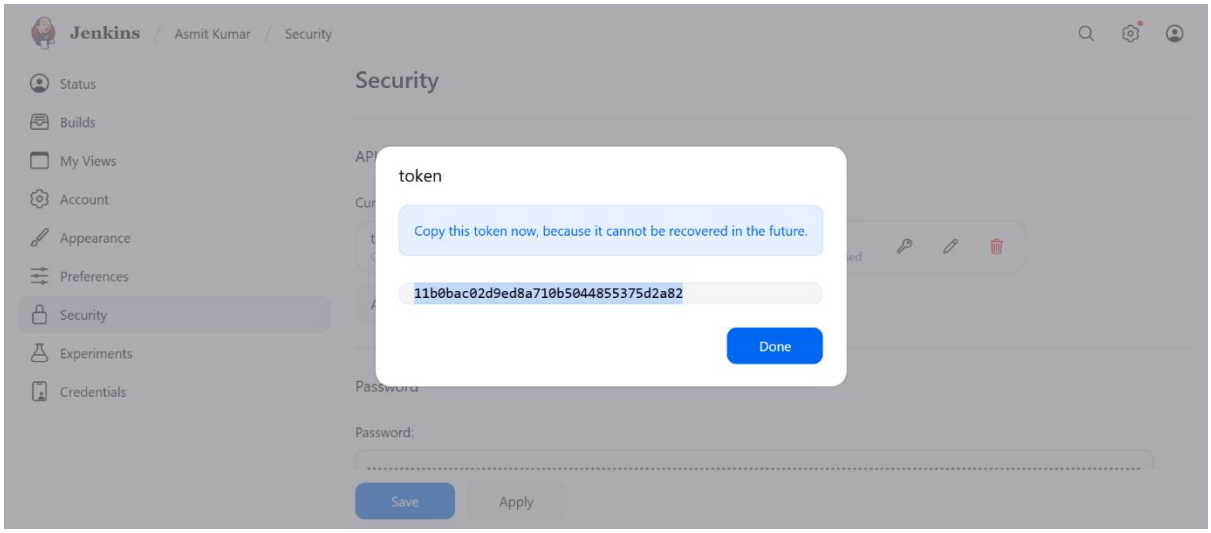
Then I ran a command to display the path of java and maven

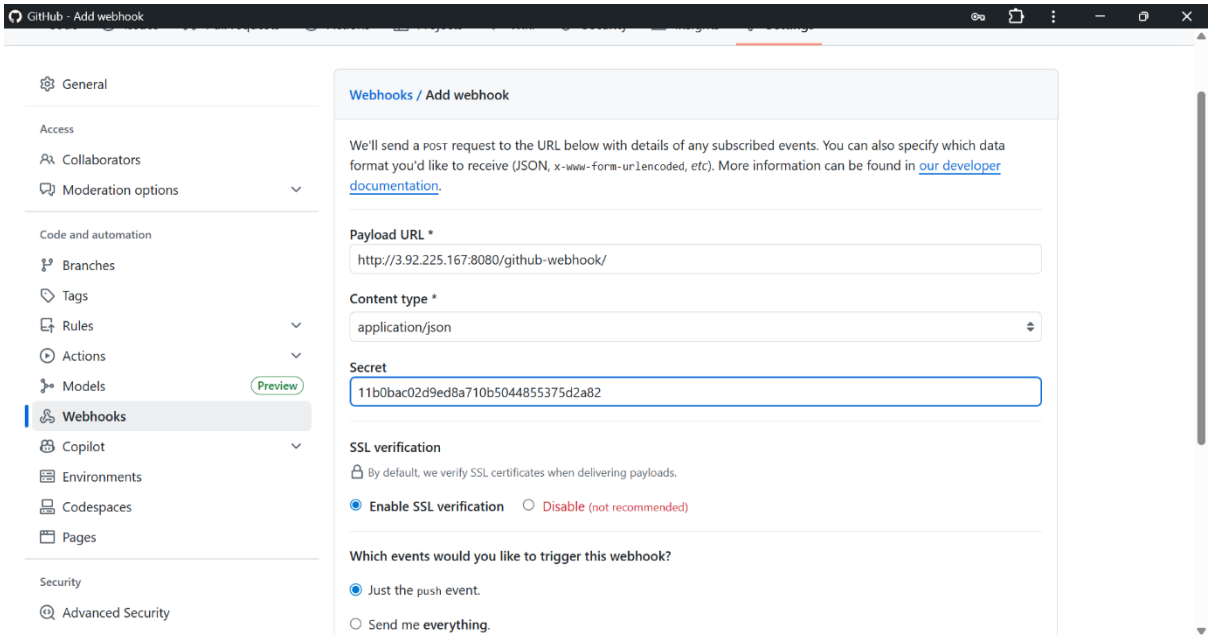


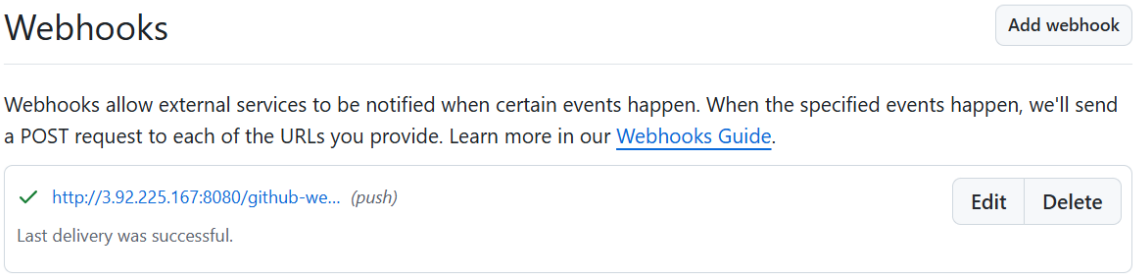
In jenkins, I went to manage jenkins then tools, add jdk and add maven and add java and maven paths to their respective given space



Then I added webhooks and generated token under profile then security and copied the token and pasted it in the github repo – security – webooks

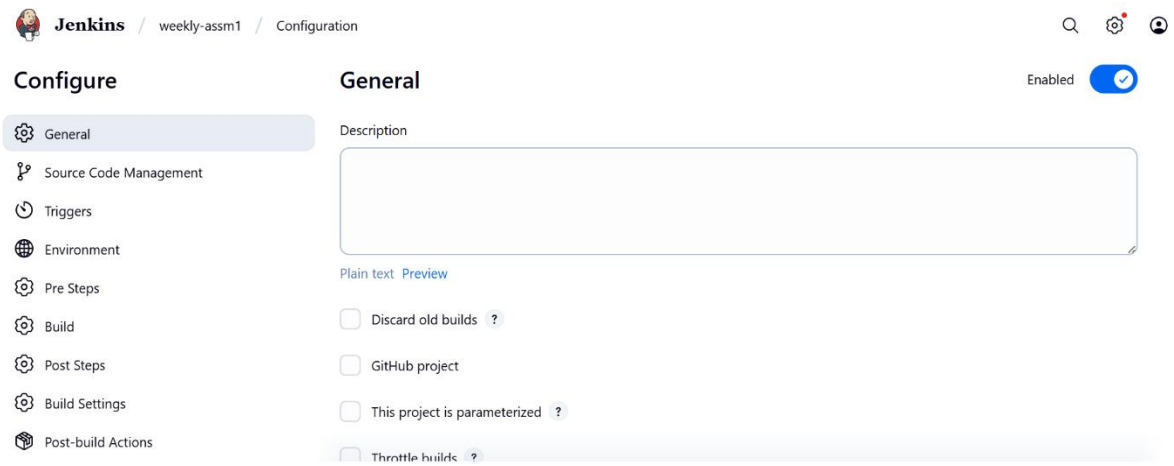




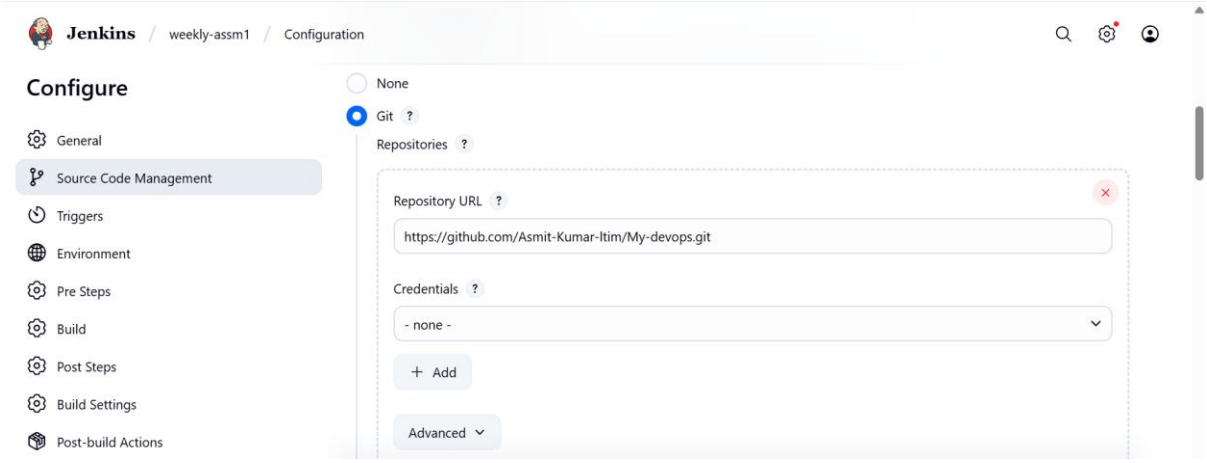


Webhooks is succesfully added.

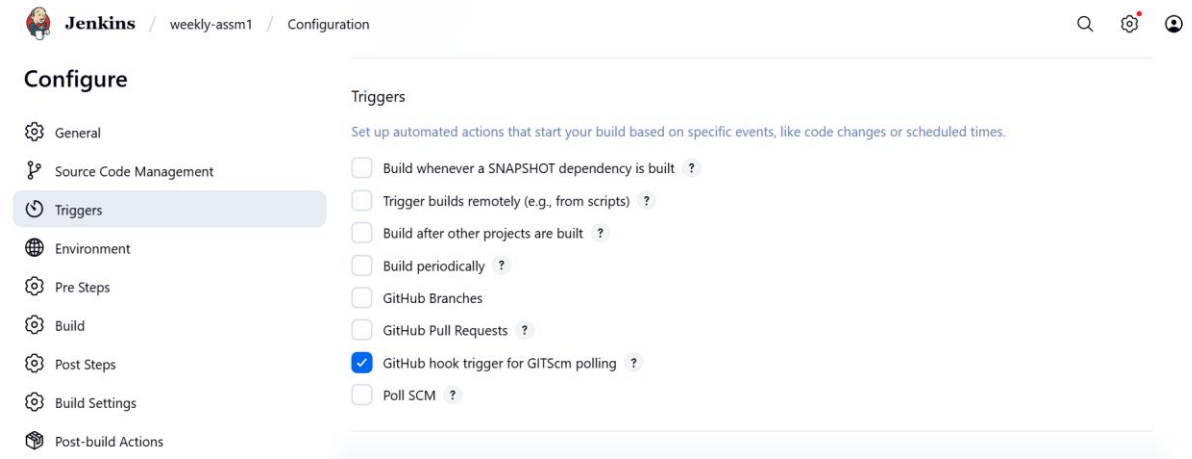
Now I created a job with maven project named **weekly-assm1.**



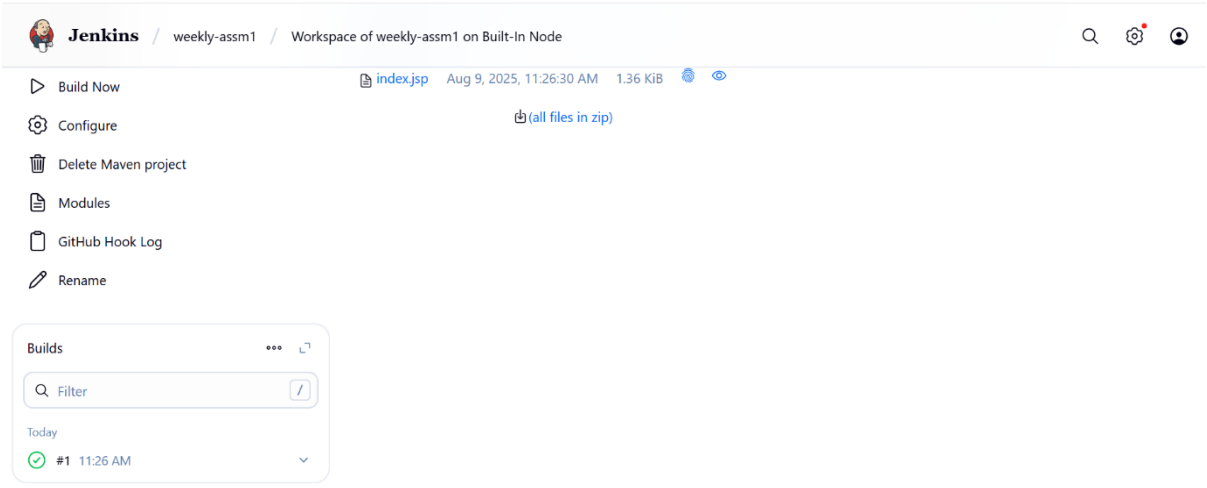
Then I added my github repository url so that the job can read from my repository.



Then I added trigger – Github hook trigger for GITScm polling so that whenever any changes is done by the developer in github it will automatically build the project.



At first I clicked build now and the project got built successfully.



Then I did some changes in the file inside my repository and in second time jenkins built it automatically.