



Set Up a Web App Using AWS and VS Code



Oleg Kawałko

```
devops > nextwork-web-project > src > main > webapp > index.jsp > ...  
1  <html>  
2  
3  <body>  
4  
5  <h2>Hello   Oleg</h2>  
6  
7  <p>This is my NextWork web application working!</p>  
8  
9  </body>  
10  
11 </html>  
12
```



Introducing Today's Project!

In this project, I will demonstrate... I'm doing this project to learn...

Key tools and concepts

Services I used were EC2, Session Manager, Java, Apache Maven, SSH, vs code server, vscode, Key concepts I learnt include work in linux cli, establishing connection with server with vscode server in it and create java web app by choose archetype

Project reflection

One thing I didn't expect in this project wasnt that interesting until i change it a little bit, by setup vs code server

This project took me approximately... couple hours

This project is part one of a series of DevOps projects where I'm building a CI/CD pipeline! I'll be working on the next project



Launching an EC2 instance

i launched ec2 to have server in cloud with Linux Server AMI to tbc

I also enabled SSH

ssh is safe protocol to connect remotely connect to instance (prot 22)

Key pairs

A key pair credentials to login using ssh to instance..

Once I set up my key pair, AWS automatically downloaded my private key



Set up VS Code

VS Code is tool to manage and code apps

I installed VS Code to manage and code apps

```
ubuntu@ip-172-31-18-254:/home/devops$
```

i-07e85858f9ae603c6 (web-server)

PublicIPs: 13.49.224.203 PrivateIPs: 172.31.18.254



My first terminal commands

A terminal is... The first command I ran for this project is... `ls`

I also updated my private key's permissions by... `chmod`

```
ubuntu@ip-172-31-18-254:/home/devops$
```

i-07e85858f9ae603c6 (web-server)

PublicIPs: 13.49.224.203 PrivateIPs: 172.31.18.254



SSH connection to EC2 instance

To connect to my EC2 instance, I ran the command `ssh -i "kluczor.pem" ubuntu@ec2-13-49-224-203.eu-north-1.compute.amazonaws.com` which is presented in aws connect section

This command required an IPv4 address

A server's IPV4 DNS is... ipv4 translated into domain name

```
Last login: Tue Oct 14 19:31:07 2025 from 13.48.4.202
ubuntu@ip-172-31-18-254:~$
```



Maven & Java

Apache Maven is...tool to help developers build java web apps, it automates developing by having various archetypes

Maven is required in this project because... im going to set up web app

Java is...programing language used to code mobile apps nad more

Java is required in this project because...maven needs java to work



Create the Application

I generated a Java web through archetype webapp

I installed vscode server to connect clients to vscode

Configuration details required to set up a remote connection include password that i created

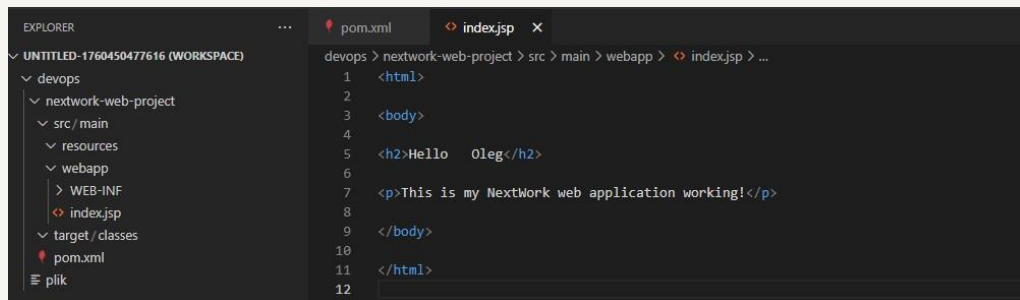
```
hantagip-172-31-18-254:/home/devops/nextwork-web-project$ mvn test
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.nextwork.app:nextwork-web-project >-----
[INFO] Building nextwork-web-project Maven Webapp 1.0-SNAPSHOT
[INFO]
[INFO] -----[ war ]-----
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ nextwork-web-project ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ nextwork-web-project ---
[INFO] No sources to compile
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ nextwork-web-project ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory /home/devops/nextwork-web-project/src/test/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ nextwork-web-project ---
[INFO] No sources to compile
[INFO]
[INFO] --- maven-surefire-plugin:2.12.4:test (default-test) @ nextwork-web-project ---
[INFO] No tests to run.
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 1.482 s
[INFO] Finished at: 2025-10-14T20:14:21Z
[INFO]
[INFO] -----
hantagip-172-31-18-254:/home/devops/nextwork-web-project$
```




Create the Application

Using VS Code's file explorer, I could see hierarchy of catalogs and files

Two of the project folders created by Maven are src and webapp, which... src is source defined how web looks, webapp with files like index, css etc





Using Remote - SSH

The index.jsp is... my web index file in jsp

I edited index.jsp by changing one line in code

```
devops > nextwork-web-project > src > main > webapp > <index.jsp> ...  
1  <html>  
2  
3  <body>  
4  
5  <h2>Hello  Oleg</h2>  
6  
7  <p>This is my NextWork web application working!</p>  
8  
9  </body>  
10  
11 </html>  
12
```



nextwork.org

The place to learn & showcase your skills

Check out nextwork.org for more projects

