SETTING UP A WEB APP AND IDE IN THE CLOUD

www.linkedin.com/in/nevil-salu

SET UP AN IAM USER

- When it comes to managing access to your AWS account's resources, creating an IAM (Identity and Access Management) user is a crucial step. An IAM user is a separate entity that can be granted specific permissions to access your account's resources and services, allowing you to control the level of access with precision.

- Security: The root user of your AWS account is vulnerable to security breaches, which could result in unauthorized access to your billing information and other sensitive data. By creating an IAM user, you can reduce the risk of security breaches and protect your account.

- When creating an IAM user, you can specify the level of access it has to your account's resources and services. For example, you can create an IAM user with Administrator Access, which grants the user permission to perform all possible actions on all resources in your account. This means the IAM user has unrestricted access to your account's resources, similar to the root user.

www.linkedin.com/in/nevil-salu

How I'm using Cloud9 in this project

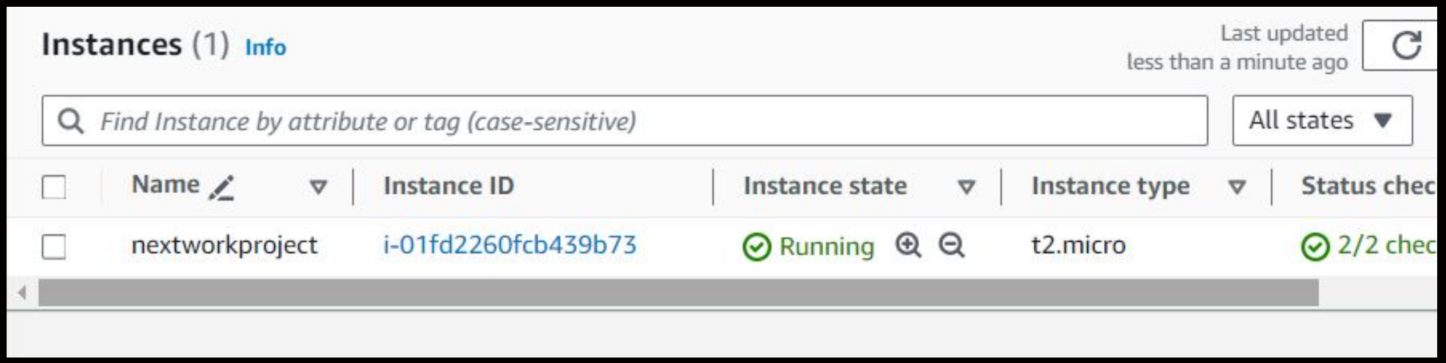
- I used AWS Cloud9 in today's project by creating a Java application in the cloud with Maven as the build tool. This allowed me to write, run, and debug my code in a cloud-based environment, without having to worry about setting up and configuring a local development environment.

Project Timeline

- The project took me a little over an hour and a half to complete, since I connected my machine to an EC2 instance since Cloud9 was not accessible.

What is an Environment?

- An environment refers to the set of circumstances and conditions in which a system or application operates. In the context of software development, an environment typically includes the operating system, libraries, frameworks, and other dependencies required to run an application.



www.linkedin.com/in/nevil-salu

What is an IDE?

- An Integrated Development Environment (IDE) is a software application that provides a comprehensive set of tools for software development, including code editing, debugging, and project management. IDEs simplify the development process by providing a single interface for writing, testing, and debugging code.

Benefits of using Cloud9

- Cloud-based development: Cloud9 allows developers to write, run, and debug code in a cloud-based environment, without having to worry about setting up and configuring a local development environment.

  Collaboration: Cloud9 enables real-time collaboration, allowing multiple developers to work on the same project simultaneously.

  Version control: Cloud9 provides built-in version control, allowing developers to track changes and collaborate on code.

www.linkedin.com/in/nevil-salu

Maven and Java in this Project

- In this project, I used Maven as the build tool to facilitate the development of a web application in Java. Maven is essential for building and managing complex projects, as it provides a standardized way of managing dependencies and building applications.

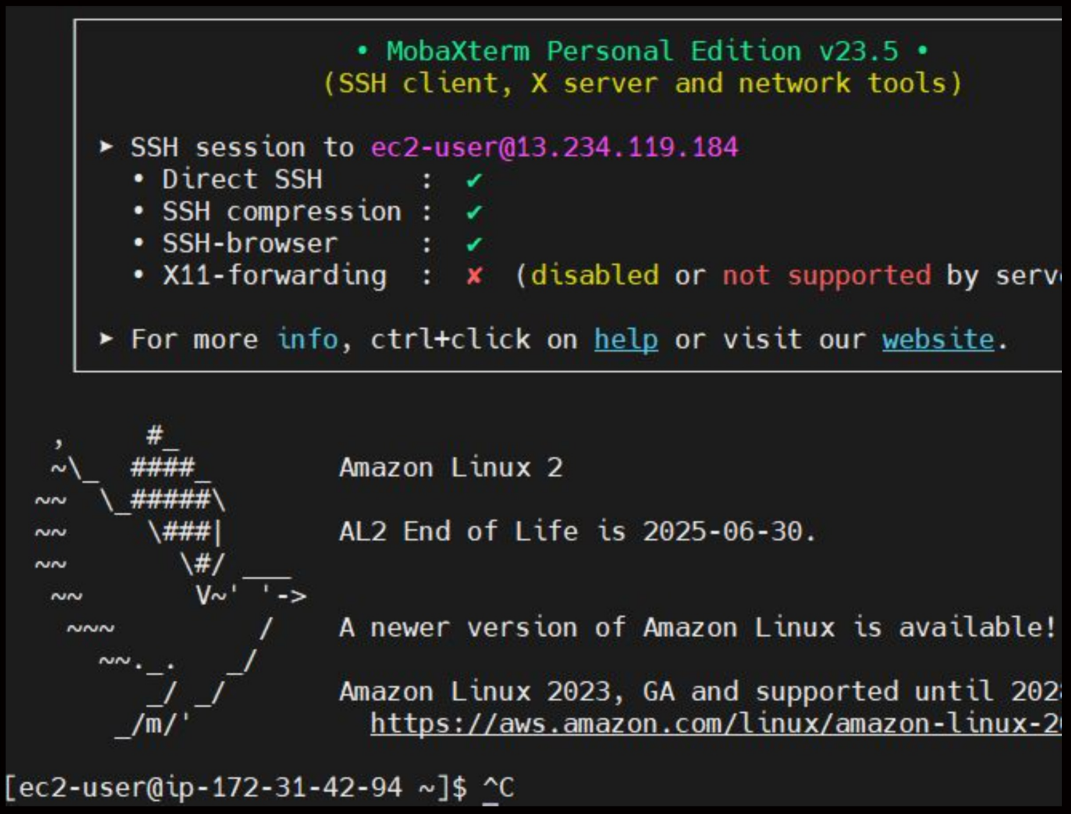
- Java is the programming language used in this project, specifically Coretto 8. Java is a popular language for building web applications due to its platform independence, strong security features, and large community of developers.

```
[ec2-user@ip-172-31-42-94 ~]$ mvn -v
Apache Maven 3.5.2 (138edd61fd100ec658bfa2d307c43b76940a5d7d; 2017-10-18T07:58:1
3Z)
Maven home: /usr/share/apache-maven
```

```
[ec2-user@ip-172-31-42-94 ~]$ java -version
openjdk version "17.0.12" 2024-07-16 LTS
OpenJDK Runtime Environment Corretto-17.0.12.7.1 (build 17.0.12+7-LTS)
OpenJDK 64-Bit Server VM Corretto-17.0.12.7.1 (build 17.0.12+7-LTS, mi
```

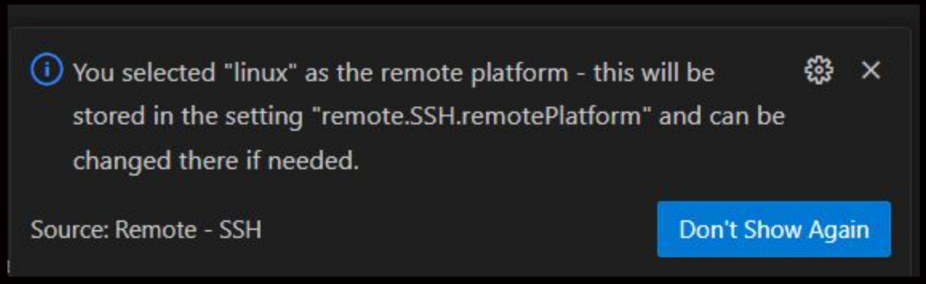
Creating an EC2 Instance - Details

- To create an EC2 instance, I opted for a Linux 2 AMI and connected to my own IP address using a Windows machine. I used MobaXterm to connect to my machine and access the EC2 instance.



Connecting to VS Code on my Machine

- To connect to VS Code on my machine, I used the remote SSH host feature. I provided the necessary details, including the hostname, username, and password, and opted for Linux as the operating system. This allowed me to connect to my EC2 instance and access my project files.



Creating the App

- Using a bundled library, I was able to create a sample app in VS Code connected to my own machine, linked to the instance that I created. This allowed me to write, run, and debug my code in a cloud-based environment