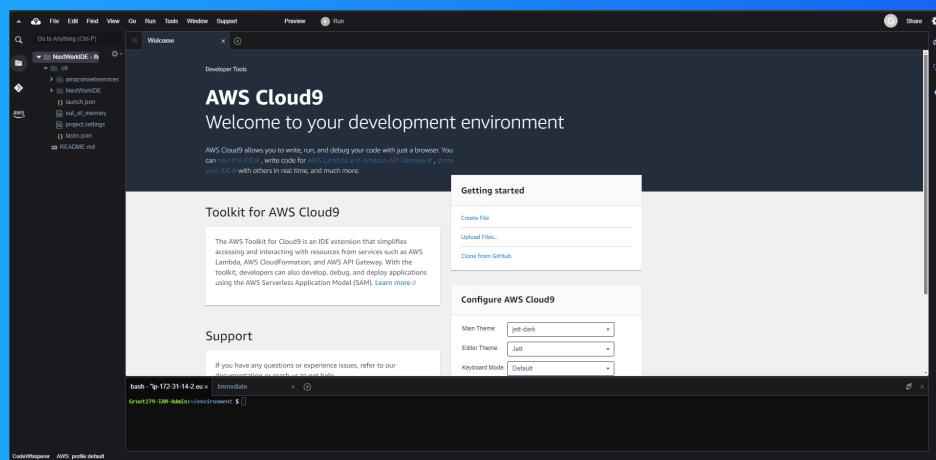




Build a Web App and IDE in AWS



tahirgroot@gmail.com





TA

tahirgroot@gmail.com

NextWork Student

NextWork.org

Introducing Today's Project!

What is AWS Cloud9 and why is it useful?

AWS Cloud9 is a cloud-based IDE (Integrated Development Environment). It lets you code, run, and debug from any web browser, eliminating local setup and simplifying collaboration.

How I'm using Cloud9 in this project

AWS Cloud9's code editor provided a platform to write the web application's code. Cloud9's debugging tools helped me identify and fix any errors in the code.

One thing I didn't expect...

How easy is it to setup a cloud 9 env

This project took me...

30 minutes



tahirgroot@gmail.com

NextWork Student

NextWork.org

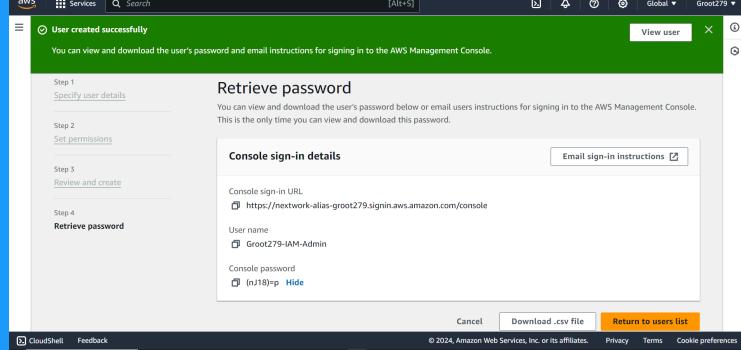
Set up an IAM User

An IAM user is an identity within your AWS account that has specific permissions to access and manage AWS resources. They can be used by people or applications to interact with AWS services.

The importance of IAM users

It's important to use IAM users because they enable granular access control. You can assign specific permissions to each user, following the principle of least privilege. This strengthens security by limiting access to only the resources and actions

I created an IAM user with administrator access. This means my IAM users is allowed to perform all possible actions to all the resources in my account.



Environments & IDEs

What is an environment?

An environment is a set of tools, software, and configurations that developers use to build, test, and deploy applications. It provides a safe and controlled space to experiment without impacting live users or other developers.

What is an IDE?

An IDE is a programmer's workbench that combines all the tools needed for software development into a single application. This includes features like a code editor, debugger, compiler, and project management tools.



tahirgroot@gmail.com

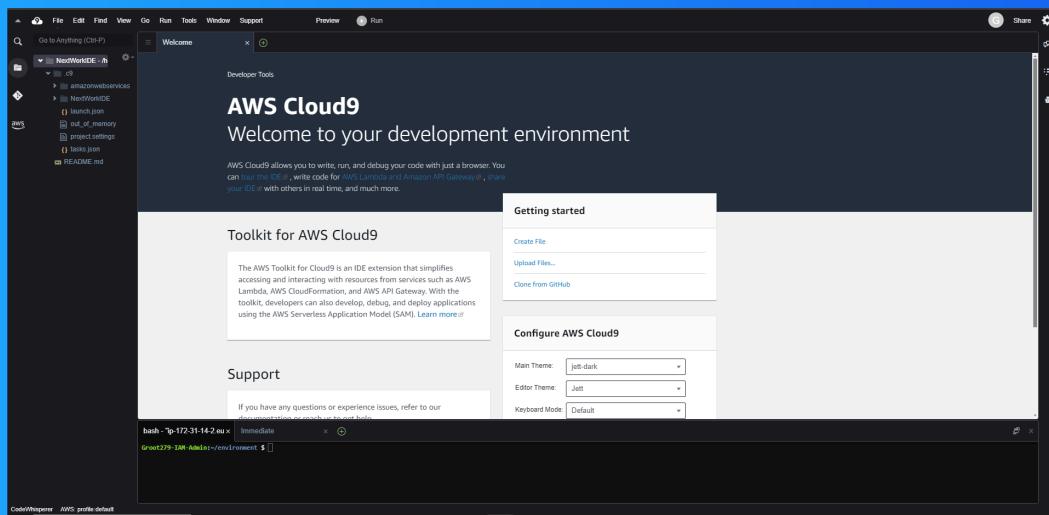
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Launch a Cloud9 IDE

The benefit of using Cloud9

Using Cloud9 has the benefit of being accessible from any device with a web browser. No local installation is needed, making it ideal for collaboration and working on different machines





tahirgroot@gmail.com

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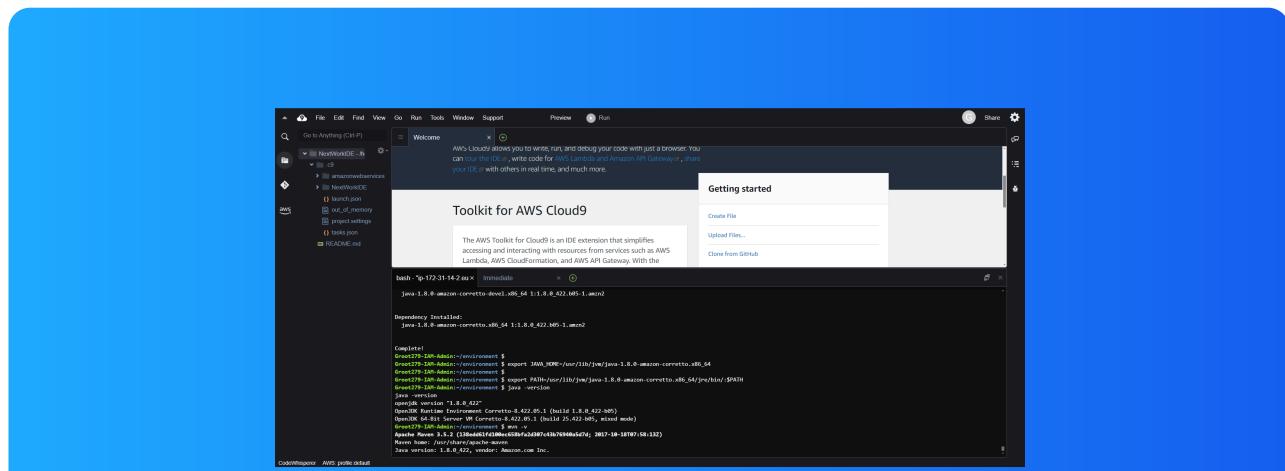
Maven & Java

Maven is a free, open-source build automation tool used primarily for Java projects. It helps manage a project's build process, dependencies, documentation, and more, streamlining development.

Maven is required in this project because i am building a web app in a specific programming language which will not be able to build on its own without the help of maven

Java is a widely-used, high-level programming language known for its "write once, run anywhere" approach. its popular for web applications, mobile apps, and enterprise software due to its object-oriented design and focus on security and reliability.

Java is required in this project because it is a versatile tool for creating different applications, including web apps

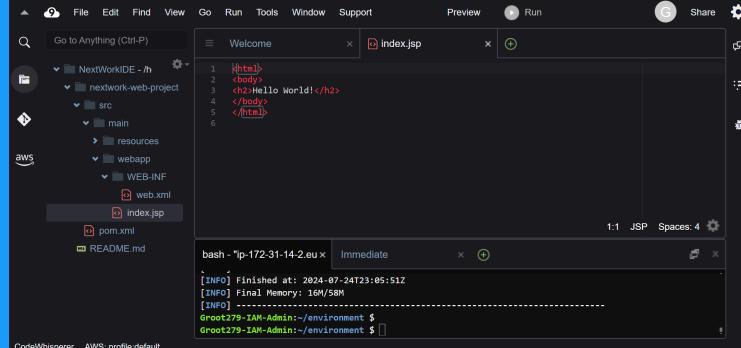


Create the Application

To create a simple Java web app, I ran the command mvn archetype:generate

Once the web app was created, my IDE's file explorer was populated with a java web app structure- so i did not have to create one from scratch

To customise this web app's display, I updated index.jsp. The difference between index.jsp and an index.html file is that index.jsp can contain java code. which is what could support the creation of a web application (not just a static website)



The screenshot shows the IntelliJ IDEA interface. The left sidebar displays the project structure with a tree view of files and folders. In the center, there is a code editor window titled "index.jsp" containing the following JSP code:

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<html>
<body>
<h2>Hello World!</h2>
</body>
</html>
```

Below the code editor, there is a terminal window titled "bash - *ip-172-31-14-2.eu x" showing the output of a build command:

```
[INFO] Finished at: 2024-07-24T23:05:51Z
[INFO] Final Memory: 184/589M
[INFO]
[INFO] Groot279-IAH-Admin:~/environment $
```



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