

MANAGING A CI/CD PIPELINE WITH AWS CODE FAMILY

PROJECT 1 / 6

SETTING UP A WEB APP AND IDE IN THE CLOUD



Muhammad Asif Sahil



Real-Sahil

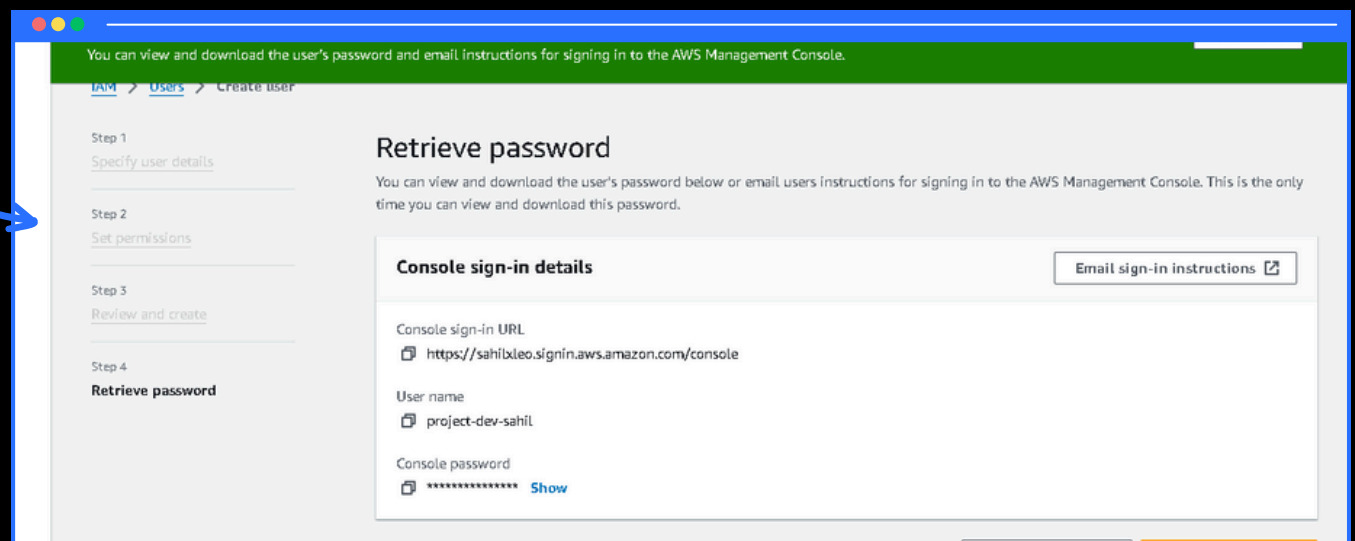


01

SET UP AN IAM USER

- An IAM user is an entity in AWS Identity and Access Management (IAM) that represents an individual user or application with specific permissions in the AWS environment.
- It's important to create IAM users because, IAM users are essential for securely managing access to AWS resources.
- I created an IAM user with SuperUser rights.

A new IAM user set up for my AWS Account



Muhammad Asif Sahil

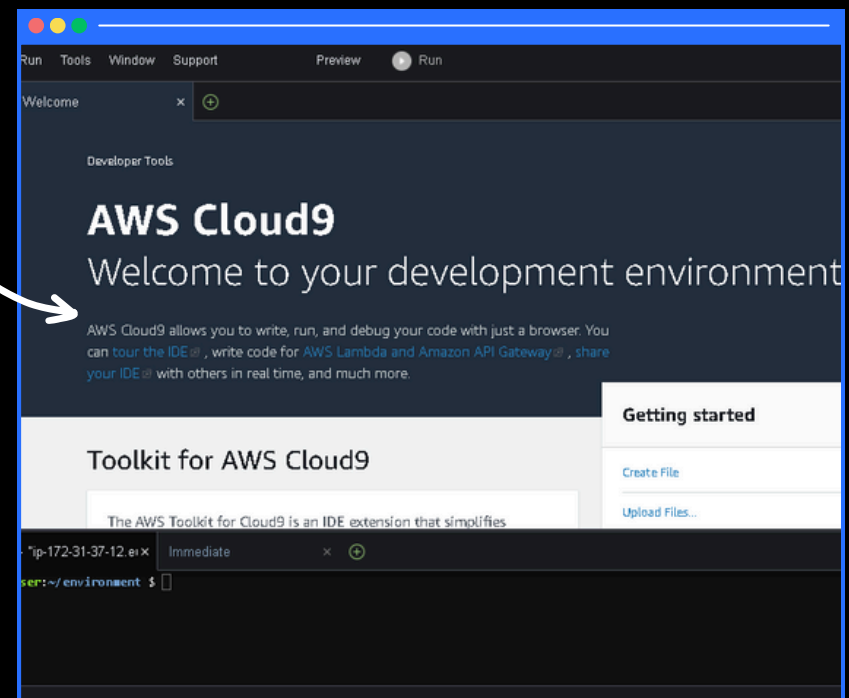
 Real-Sahil

02

LAUNCH A CLOUD9 IDE

- An IDE is used for writing, editing, debugging, and managing code in software development.
- I used AWS Cloud9 to launch an environment.
- Using Cloud9 meant the advantage of browser-based coding environments, enabling easy collaboration and access from any device with internet.

My Cloud9 IDE!



Muhammad Asif Sahil

 Real-Sahil

INSTALL MAVEN & JAVA

03

I used terminal
commands to install
Maven and Java

- Apache Maven is a build automation tool used primarily for Java projects to manage dependencies and build processes.
- Maven is required in this project because of it's automation capability
- Java is a popular programming language used to build different types of applications, from mobile apps to large enterprise systems.
- The Java version I'm using for this project is JDK 1.8.

```
(29/30): s1s0-0.5.4-9.amzn2023.0.4.noarch.rpm      8.7 MB/s | 510 kB   00:00
(30/30): s1f4j-1.7.32-3.amzn2023.0.4.noarch.rpm    2.4 MB/s | 70 kB   00:00
-----
Total                                             13 MB/s | 9.4 MB   00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
Preparing :
Installing : s1f4j-1.7.32-3.amzn2023.0.4.noarch 1/1
Installing : plexus-utils-3.3.0-9.amzn2023.0.4.noarch 1/30
Installing : atinject-1.0.5-3.amzn2023.0.3.noarch 2/30
Installing : plexus-containers-component-annotations-2.1.0-9.amzn2023.0.4.noarch 3/30
Installing : plexus-classworlds-2.6.0-10.amzn2023.0.4.noarch 4/30
Installing : plexus-cipher-1.8-3.amzn2023.0.3.noarch 5/30
Installing : jakarta-annotations-1.3.5-13.amzn2023.0.3.noarch 6/30
Installing : httpcomponents-core-4.4.13-6.amzn2023.0.3.noarch 7/30
Installing : apache-commons-lang3-3.12.0-7.amzn2023.0.3.noarch 8/30
Installing : apache-commons-io-1:2.8.0-7.amzn2023.0.4.noarch 9/30
Installing :                                     10/30
```



Muhammad Asif Sahil

 Real-Sahil

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 had the project related resources and folders.
- To customise this web app's display, I updated the **index.jsp** by double clicking and editing it.

04

Web App
structure set
up by Maven

The screenshot shows an IDE window with a file explorer on the left and a terminal on the right. The file explorer shows a project structure with folders like 'src', 'main', 'resources', 'webapp', and 'WEB-INF'. The 'index.jsp' file is highlighted. The terminal shows the output of the 'mvn archetype:generate' command, which includes downloading Maven parent POMs and archetypes, and finally creating the project structure. The output ends with 'BUILD SUCCESS' and a total time of 13.471 s.

```
bash - "ip-172-31-37-12.ec2" Immediate (Javascript (bn x)
t 18/ kb/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/4/maven-parent-4.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/maven-parent/4/maven-parent-4.pom (10.0 kB at 1.2 MB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/apache/3/apache-3.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/apache/3/apache-3.pom (3.4 kB at 429 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-webapp/1.0/maven-archetype-webapp-1.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-webapp/1.0/maven-archetype-webapp-1.0.jar (3.9
kB at 395 kB/s)
[INFO] -----
[INFO] Using following parameters for creating project from Old (1.x) Archetype: maven-archetype-webapp:1.0
[INFO] -----
[INFO] Parameter: basedir, Value: /home/ec2-user/environment
[INFO] Parameter: package, Value: com.nextwork.app
[INFO] Parameter: groupId, Value: com.nextwork.app
[INFO] Parameter: artifactId, Value: nextwork-web-project
[INFO] Parameter: packageName, Value: com.nextwork.app
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] project created from Old (1.x) Archetype in dir: /home/ec2-user/environment/nextwork-web-project
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 13.471 s
```



Muhammad Asif Sahil

Real-Sahil

MY KEY LEARNINGS

01

It's recommended to use an IAM user instead of the root user for better security and access management.

02

IDEs are used for writing, editing, debugging, and managing code in software development.

03

The service I used to set up an IDE was AWS Cloud9. The benefit of using this service over traditional IDEs is the flexibility and accessibility.

04

Apache Maven is used in my project to build automation tool used primarily for Java projects to manage dependencies and build processes.



Muhammad Asif Sahil




Real-Sahil

FINAL THOUGHTS...

- This project took me 45 minute in a whole.
- Delete **EVERYTHING** at the end! Let's keep this project free :)
- In the next project of this DevOps series, we will use **AWS CodeCommit** to set up a repository for our web app's code.



Muhammad Asif Sahil

 Real-Sahil

FIND THIS HELPFUL?



Like this post



Leave a comment



Save for later



Let's connect!



Muhammad Asif Sahil



Real-Sahil