

SEM 5

Advance Devops Lab 01

Aim

To understand the benefits of Cloud Infrastructure and set up the AWS Cloud9 IDE, launch it, and perform a collaboration demonstration.

Theory

AWS Cloud9 is a cloud-based integrated development environment (IDE) that enables you to write, run, and debug your code using just a browser. It includes a code editor, debugger, and terminal. Cloud9 comes preconfigured with essential tools for popular programming languages such as JavaScript, Python, and PHP, eliminating the need to install files or configure your development machine for new projects. As a cloud-based IDE, you can access your Cloud9 environment from any internet-connected device, allowing you to work from anywhere. Cloud9 also simplifies serverless application development by providing a seamless experience for defining resources, debugging, and switching between local and remote execution. Additionally, it enables easy collaboration with your team, allowing real-time code sharing and simultaneous input tracking.

Benefits

Code with Just a Browser

AWS Cloud9 offers the flexibility to run your development environment on a managed Amazon EC2 instance or any Linux server supporting SSH. This allows you to write, run, and debug applications using only a browser, without needing a local IDE. The Cloud9 code editor and integrated debugger feature code hinting, code completion, and step-through debugging. The terminal provides a browser-based shell experience, enabling you to install additional software, execute commands, or push code to a Git repository.

Code Together in Real Time

AWS Cloud9 facilitates easy collaboration by allowing you to share your development environment with team members in just a few clicks. This enables pair programming, where team members can see each other's real-time inputs and chat within the IDE.

Build Serverless Applications with Ease

AWS Cloud9 simplifies serverless application development by preconfiguring the environment with all necessary SDKs, libraries, and plugins. It supports local testing and debugging of AWS Lambda functions, allowing you to iterate on your code quickly and improve its quality.

Direct Terminal Access to AWS

AWS Cloud9 includes a terminal with sudo privileges to the managed Amazon EC2 instance hosting your development environment, along with a preauthenticated AWS Command Line Interface. This allows you to easily run commands and directly access AWS services.

Start New Projects Quickly

AWS Cloud9 enables quick project starts with prepackaged tooling for over 40 programming languages, including Node.js, JavaScript, Python, PHP, Ruby, Go, and C++. This eliminates the need for installing or configuring files, SDKs, and plugins on your development machine. Being cloud-based, it allows easy maintenance of multiple development environments to isolate your project's resources.

Steps:







