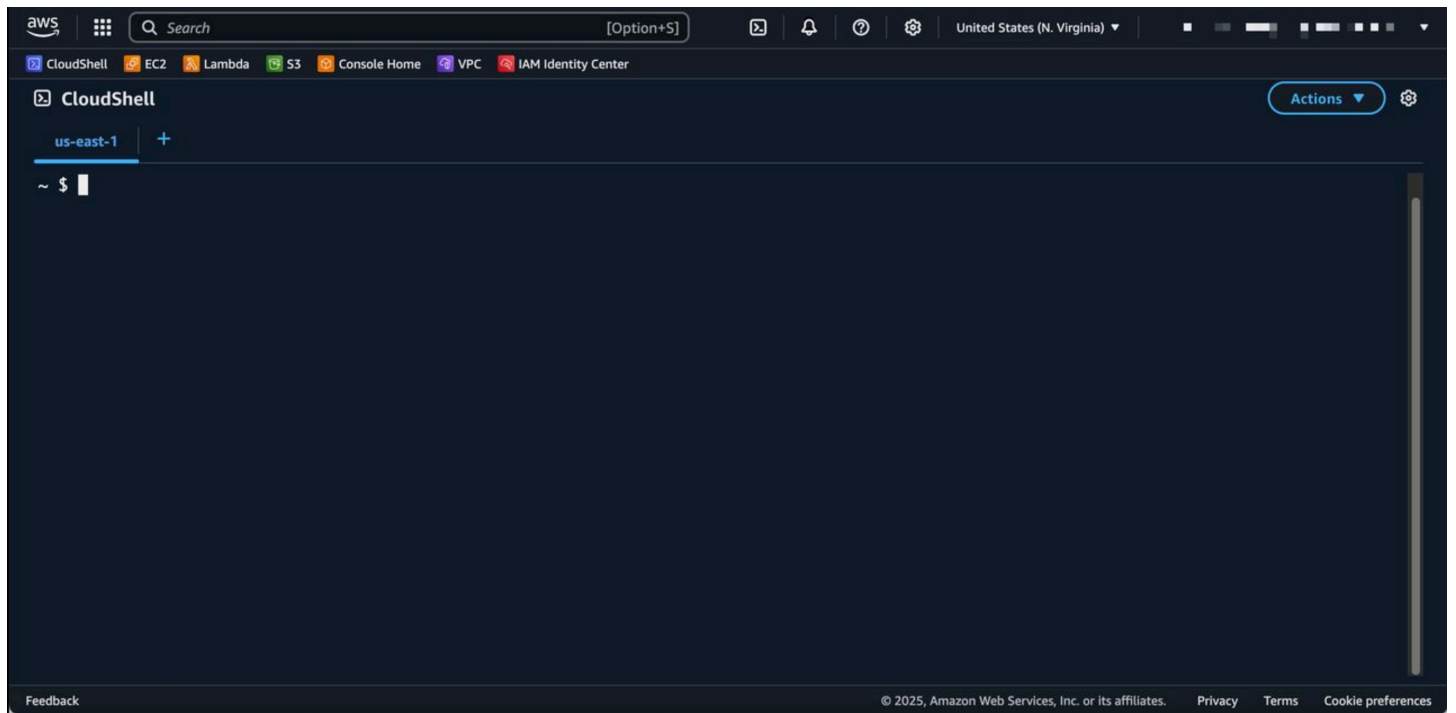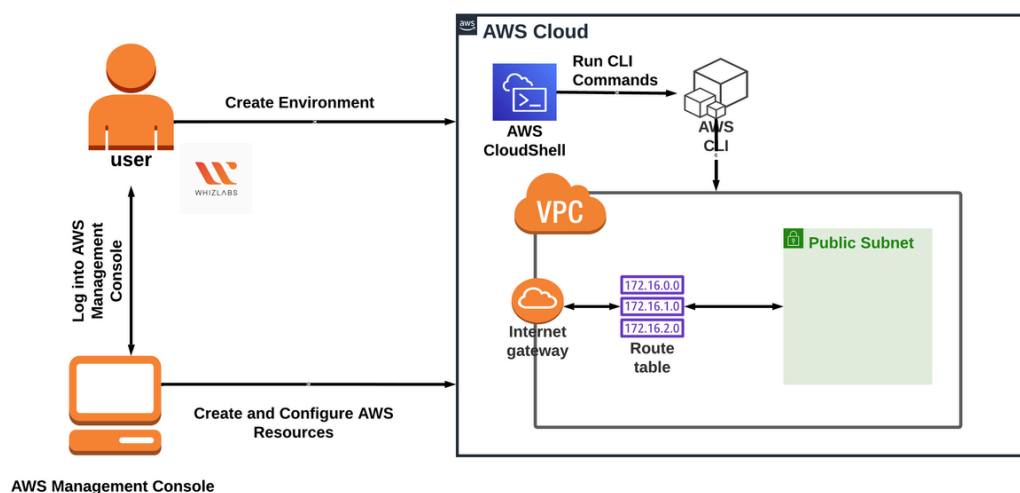# AWS CloudShell

AWS CloudShell is a **browser-based command-line interface (CLI) tool** that provides instant access to a Linux shell with **pre-installed AWS CLI, SDKs, and developer tools**. It allows you to manage AWS resources securely without needing to set up a local environment.

🔷 Key Features of AWS CloudShell

1. **Pre-Configured Environment**
   - Comes with **AWS CLI, SDKs (Python, Node.js, etc.), Git, and Bash** installed.
   - No need to install or configure CLI tools manually.
2. **Secure & IAM Integrated**
   - Automatically assumes the **IAM role** of the logged-in AWS user.
   - No need to store **access keys** on your local machine.
3. **Persistent Storage**
   - Provides **1 GB of persistent storage** per region.
   - Files are retained across sessions.
4. **Access Anywhere via Browser**
   - No need to install CLI tools locally—just open **CloudShell** in the AWS Console.
   - Works on Windows, macOS, and Linux.
5. **Supports Multiple Shells**
   - Choose from **Bash, PowerShell, and Zsh**.
6. **AWS Service Interaction**
   - Use CloudShell to manage EC2, S3, Lambda, IAM, and more directly from the CLI.

AWS CloudShell Architecture:

◆ How to Use AWS CloudShell

Step 1: Open AWS CloudShell

1. Sign in to the AWS Management Console.
2. Click the **CloudShell** icon in the top-right menu bar.
3. A shell environment will launch in your browser.

Step 2: Run AWS CLI Commands

Try listing all S3 buckets:

aws s3 ls

Check your IAM user:

aws sts get-caller-identity

Step 3: Upload & Download Files

- **Upload a file** to CloudShell: Click **Actions → Upload file**.
- **Download a file** from CloudShell: Click **Actions → Download file**.

◆ AWS CloudShell vs. AWS Cloud9

Feature	AWS CloudShell	AWS Cloud9
Purpose	Command-line access	Full web-based IDE
Pre-installed AWS CLI	✅ Yes	✅ Yes
Pre-installed SDKs	✅ Yes	✅ Yes
GUI-based Code Editing	❌ No	✅ Yes
Persistent Storage	1 GB per region	Tied to EC2 instance

◆ Best Practices

✓ Use **IAM roles** instead of access keys for security.
✓ Store scripts in **persistent storage** to keep them available across sessions.
✓ Use **CloudShell for quick AWS CLI tasks** without setting up a local CLI environment.