

Day 1 – AWS Key Pair Creation (AWS)



Challenge

100 Days of Cloud (AWS & Azure)

Day 1 – AWS Fundamentals



Objective

Create an AWS EC2 key pair that will later be used for secure access to cloud servers.

This task validates understanding of basic AWS security concepts and correct regional configuration.



Task Requirements

Requirement	Value
Key Name	datacenter-kp
Key Type	RSA
AWS Region	us-east-1

Task

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The Nautilus DevOps team is strategizing the migration of a portion of their infrastructure to the AWS cloud. Recognizing the scale of this undertaking, they have opted to approach the migration in incremental steps rather than as a single massive transition. To achieve this, they have segmented large tasks into smaller, more manageable units. This granular approach enables the team to execute the migration in gradual phases, ensuring smoother implementation and minimizing disruption to ongoing operations. By breaking down the migration into smaller tasks, the Nautilus DevOps team can systematically progress through each stage, allowing for better control, risk mitigation, and optimization of resources throughout the migration process.

For this task, create a key pair with the following requirements:

- Name of the `key pair` should be `datacenter-kp`.
- Key pair `type` must be `rsa`

Use below given AWS Credentials: (You can run the `showcreds` command on `aws-client` host to retrieve these credentials)

Console URL	https://077406604020.signin.aws.amazon.com/console?region=us-east-1
Username	kk_labs_user_209611
Password	sx^PI480Z^NL
Start Time	Thu Dec 25 04:17:33 UTC 2025
End Time	Thu Dec 25 05:17:33 UTC 2025

Concept Overview

An **AWS Key Pair** is a set of cryptographic keys (public & private) used to securely authenticate to EC2 instances. AWS uses key pairs instead of passwords to improve security.

- Public key → stored in AWS
- Private key → downloaded and kept securely by the user

AWS Management Console (GUI)

1. Logged into AWS Console using provided credentials

The screenshot shows the AWS Management Console with the EC2 service selected in the left navigation bar. The main content area displays the EC2 dashboard, which includes sections for Resources (Instances running, Auto Scaling Groups, Capacity Reservations), Launch instance (Launch instance, Migrate a server), and Service health (AWS Health Dashboard). On the right side, there are Account attributes (Account ID: 6518-7281-1359, IAM user: kk_labs_user_389321), Settings (Data protection and security, Allowed AMIs, Zones, EC2 Serial Console, Default credit specification, EC2 console preferences), and an Explore AWS section. A red box highlights the 'An error occurred' message in the Service health section.

2. Navigated to EC2 → Key Pairs

The screenshot shows the EC2 Features page. The left sidebar lists various EC2 services and features. The main content area shows the 'Key pairs' feature under 'Features' (EC2 feature). Other features listed include Playback Key (Amazon Interactive Video Service feature) and Channel (Amazon Interactive Video Service feature). Under 'Services', it lists EC2 (Virtual Servers in the Cloud) and Key Management Service. On the right side, there are Account attributes (Account ID: 6518-7281-1359, IAM user: kk_labs_user_389321), Settings (Data protection and security, Allowed AMIs, Zones, EC2 Serial Console, Default credit specification, EC2 console preferences), and an Explore AWS section. A red box highlights the 'An error occurred' message in the Service health section.

3. Clicked Create Key Pair

The screenshot shows the AWS EC2 Key Pairs page. The left sidebar has 'EC2' selected under 'Key pairs'. The main area title is 'Key pairs (1/1) Info'. A table lists one key pair: 'nautlius-kp' (rsa, created 2025/12/25 01:25 GM...), with a fingerprint 'bf:13:a3:44:a1:7e:e0:6...' and ID 'key-0d8574e718efbd516'. Action buttons include 'Actions' and 'Create key pair'.

4. Entered the following:

- o **Name:** datacenter-kp
- o **Type:** RSA
- o **Region:** us-east-1

The screenshot shows the 'Create key pair' wizard. Step 1: Key pair details. It asks for a name ('datacenter-kp'), key pair type ('RSA'), and private key file format ('pem'). It also includes sections for tags and a note about file permissions. Buttons at the bottom are 'Cancel' and 'Create key pair'.

5. Created and downloaded the key

✓ Outcome

- Successfully created an RSA key pair named datacenter-kp
- Verified creation via CLI and AWS Console
- Private key secured with correct file permissions

📚 Key Takeaways

- AWS uses key pairs instead of passwords for EC2 access
- Correct region selection is critical in AWS

Proof of Work

This task demonstrates hands-on experience with:

- AWS IAM authentication
- EC2 key pair management
- Secure handling of private keys

 Screenshots included as evidence of real cloud work

Next: Day 2 – EC2 Instance Launch & SSH Access