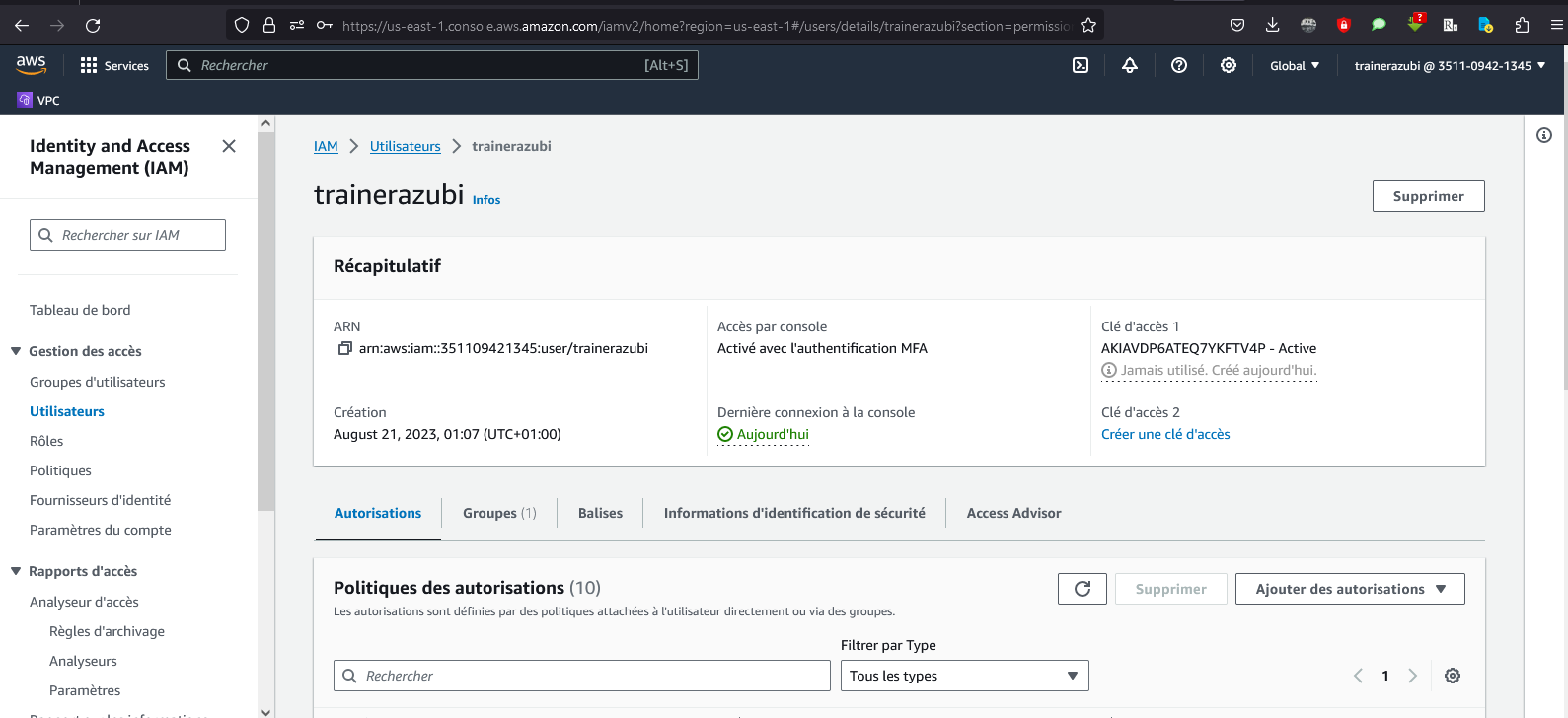
**Project:** MIGRATION OF A SAMPLE DATABASE TO AWS

1. **Sign up for an AWS account:**

This is the starting point, and it's crucial to have an AWS account to access AWS services.

* IAM
* Users
* Add user
* access to console
* IAM user
* custom password, not reset
* Attach existing policies
* not tags
* return to user or login
* select user
* security credentials
* CLI, I understand
* create acccess key



1. **Introduction to AWS:**

**EC2 (Elastic Compute Cloud)**: For deploying virtual instances.

**S3 (Simple Storage Service)**: For data storage.

**RDS (Relational Database Service)**: For managing relational databases.

**DynamoDB:** For NoSQL databases.

**AWS DMS (Database Migration Service):** The key tool in our project for migration.

**Concrete Example:**

Here is a concrete example of navigating the AWS console after logging in:

You open your browser and go to aws.amazon.com.

You click on "Sign in to the AWS Console" and enter your authentication information.

Once logged in, you see the AWS Console dashboard with shortcuts to various services.

You use the search bar to find the "RDS" service and access the RDS console for database management.

You explore other services like EC2 and S3 to understand how they work.

1. **AWS Well-Architected Framework:**

Understand the five pillars of the AWS Well-Architected Framework:

**Operational Excellence:** Optimize operations to deliver a reliable and efficient service.

**Security:** Implement robust security measures to protect sensitive data.

**Reliability:** Ensure the system operates reliably and without interruption.

**Performance Efficiency:** Optimize performance to meet application needs.

**Cost Optimization:** Reduce unnecessary costs while maintaining optimal performance.

1. **AWS Infrastructure Overview:**

Detailed Description: This step aims to familiarize you with the fundamentals of AWS infrastructure, including regions, Availability Zones, and Edge Locations, as well as to understand the key role of AWS Database Migration Service (DMS) in our project. Here is a detailed guide with configurations, commands, and outcomes:

1. **Understanding Key Concepts**:

AWS Regions: AWS is distributed worldwide into geographical regions. Each region is an independent geographical area with multiple data centers. Availability Zones (AZs): Each AWS region consists of multiple Availability Zones. AZs are distinct and isolated data centers from each other. Edge Locations: These are AWS endpoints for content distribution via Amazon CloudFront, AWS's content delivery network (CDN) service.

1. **Using the AWS Console**:

Sign in to the AWS console. Use the search bar to access the AWS DMS console. You can perform the search by typing "DMS" in the bar.

1. **Exploring AWS DMS**:

Once in the AWS DMS console, explore the available features and options. For example, you can configure database replication, replication instances, and monitor the status of replication tasks.

1. **Understanding the Role of AWS DMS in Migration**:

AWS DMS is the primary tool we will use for migrating the database. It enables continuous replication of source data to the target database on AWS.

**Outcome**:

After following these steps, you will have a basic understanding of AWS infrastructure, including how regions, Availability Zones, and Edge Locations are structured. You will also be familiar with the AWS DMS console, which plays a central role in our database migration project.

**Concrete Example**: Imagine you are exploring the AWS DMS console:

You access the AWS console. In the search bar, you type "DMS" and click on the result to access the DMS console. You can see options to create a new replication instance and configure migration tasks. By exploring replication instances, you can check the real-time data replication status between the source and target.

This example illustrates how you can use the AWS console to understand the operation of AWS DMS, which will be crucial for our database migration project.

1. **Planning and Discovery:**
2. **Selecting the Target Database on AWS**:
3. **Designing the Target Database Architecture**:
4. **Data Migration**:
5. **Architecture**: