+33 (0)1 48 10 09 46
formation@ambient-it.net
140 Avenue Jean Lolive 93500 Pantin - France

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Sign up

AWS Timestream training

2 days (14 hours)

Presentation

With our AWS Timestream training, you'll become an expert in managing and analyzing time series data via the Cloud, enabling informed, real-time decision-making.

Our course will first teach you the fundamentals of Amazon Timestream and time series, highlighting its unique architecture and the various typical use cases.

We'll cover the creation and management of Timestream databases from A to Z, from their initial configuration to their optimization for cost and performance. You'll discover how to send data to Timestream, query it with SQL, and visualize it with tools like Amazon QuickSight and Grafana.

In addition, the program covers indispensable aspects such as integration with other AWS services such as AWS IoT Core and Amazon SageMaker for advanced machine learning applications.

At the end of our training course, you'll be able to effectively manage your time series data to gain valuable insights and improve your business processes.

Objectives

- Understand the benefits and use cases of AWS Timestream
- Master the creation and management of Timestream databases
- Learn to ingest data in real time and in batches
- Query and manipulate time series data with SQL
- Use Grafana and Amazon QuickSight to visualize and analyze data

Target audience

- Developers
- Data Analysts
- Data Engineers
- Data Scientists
- System Administrators

Prerequisites

- A good understanding of database concepts and SQL
- Knowledge of cloud administration
- Mastery of a programming language

Technical requirements

Have an administrator account on AWS.

AWS TIMESTREAM TRAINING PROGRAM

INTRODUCTION TO AWS TIMESTREAM

- Understand the benefits and typical use cases of AWS Timestream
- Discover Timestream's basic technical concepts
- Overview of resources for getting started with Timestream
- Watch the introductory video to Amazon Timestream
- Interactive discussion on the challenges of time series databases

DATABASE CREATION AND MANAGEMENT

- Database creation via AWS console and AWS CLI
- Exploration of Timestream database management methods (security, backup, etc.)
- Using AWS SDKs for database management
- Hands-on experience of database creation and configuration
- Access and security management

DATA INGESTION

- Use of data collection services such as AWS IoT Core and Apache Flink managed by Amazon
- Demonstration of real-time and batch data ingestion
- How to use Telegraf for data ingestion
- Using the UNLOAD operation for data extraction
- Practical exercises on data ingestion scenarios

DATA QUERYING AND MANIPULATION

- Using SQL to query time series data
- Complex query examples and performance optimization
- Practical workshop on SQL queries with time series data
- Using Timestream's advanced functions in queries
- Exploring references and query language examples

DATA VISUALIZATION AND ANALYSIS

- Introduction to Grafana and Amazon QuickSight for data visualization
- Practical workshop on configuring Grafana to visualize Timestream data
- Use Amazon QuickSight for in-depth analysis
- Integration with Amazon SageMaker for machine learning needs
- Case studies in data visualization and analysis for business insights

INTEGRATION WITH OTHER AWS SERVICES AND BEST PRACTICES

- Discussion of Timestream's integration with other AWS services (Lambda, S3, IoT, etc.).
- Exploring best practices for cost optimization and resource management
- Timestream data security and compliance
- Basic troubleshooting and using the API for advanced development
- Advanced use cases and strategies for maximizing Timestream efficiency

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.