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## Hasura training

2 days (14 hours)

### Presentation

If your backend development teams use GraphQL, their speed and productivity will increase tenfold with Hasura.

The advantages of Hasura are many:

- Make powerful queries : Built-in filtering, pagination, bulk insert, delete mutations, pattern search, update
- Transform GraphQL queries into real-time queries
- Dynamic access control that integrates with your authentication system
- High performance and low power consumption (15MB docker image; ~50MB RAM @ 1000 req/s)
- Support Postgres files, transform views into graphics, trigger stored functions or procedures with mutations

In this Hasura training course, you'll discover how to use Hasura with a good knowledge of queries, authentication, migrations, metadata, mutations and real time subscriptions.

As with all our training courses, this one will introduce you to the latest version of the tool, [Hasura 2](#).

### Objectives

- Use Hasura to generate the GraphQL API in real time from a Postgres database
- Transform your data so you don't have to code it anymore
- Integrate a JWT-based authentication provider (using Auth0) with Hasura
- Hasura's basic commands
- Using migration and metadata

### Target audience

- Developers
- Directors
- Project managers

## Prerequisites

- Basic knowledge of Docker
- Basic knowledge of GraphQL
- Basic knowledge of web development

## Hasura Training Program

### Data modelling and relationships

- Creating and using a users table
- Creating and using a todos table
- Create a foreign key
- Creating a relationship
- Data transformations

### Requests, mutations and real-time subscriptions

- Launch Hasura as a Docker container
- The Hasura console
- Queries (Data sorting, Data filtering, Data full text searching)
- Mutations: create, modify and update an element
- Mutations - Mutate Items with Relations
- Using Variables in GraphQL Queries, Mutations and Subscriptions
- Subscriptions for real-time queries

### Authentication

- Create an Auth0 application
- Authentication with JWT (JSON WEB Token)
- Authentication with JWT and Firebase API
- Role-based Access
- Anonymous role
- Webhook Authentication Mode
- Auth0 connection
- Synchronize users with rules
- Testing with Auth0 tokens

### Event triggers and actions

- Firebase Cloud functions
- Create event triggers
- Implementing event logic
- Create an action
- Relationships with databases
- Remote Scheme

## Migration and metadata

- What are migrations and metadata?
- Hasura CLI
- Initial migration
- Export metadata
- Check Migration status
- How do I apply metadata?
- Synchronize migrations and metadata
- Squashing migration
- Seed Migrations

## Companies concerned

This course is aimed at companies, large or small, wishing to train their teams in a new, advanced computer technology.

## 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.