Configure and migrate to Azure Database for PostgreSQL (DP-3021)

ID DP-3021 **Price** CHF 420.—(excl. VAT) **Duration** 1 days

Prerequisites

- Demonstrate an understanding of relational databases.
- Demonstrate an understanding of basic SQL.

Course Content

Explore PostgreSQL architecture

- Introduction
- Describe Azure Database for PostgreSQL
- Understand PostgreSQL architecture
- Understand PostgreSQL shared memory
- Exercise – Explore Azure Database for PostgreSQL
- Module assessment
- Summary

Understand client-server communication in PostgreSQL

- Introduction
- Understand connection handling
- Understand the PostgreSQL client tools
- Exercise - Explore PostgreSQL with client tools
- Module assessment
- Summary

Understand PostgreSQL query processing

- Introduction
- Identify the query processing components
- Understand the EXPLAIN statement
- Exercise - Execute the EXPLAIN statement
- Module assessment
- Summary

Secure Azure Database for PostgreSQL

- Introduction
- Describe Azure Database for PostgreSQL security
- Describe built-in Azure Database for PostgreSQL server roles
- Grant permissions in Azure SQL Database for PostgreSQL
- Understand encryption in Azure Database for PostgreSQL
- Exercise: Configure permissions in Azure Database for PostgreSQL
- Module assessment
- Summary

Procedures and functions in PostgreSQL

- Introduction
- Create a stored procedure in Azure Database for PostgreSQL
- Call a stored procedure in Azure Database for PostgreSQL
- Create and use a function in Azure Database for PostgreSQL
- Exercise - Create a stored procedure in Azure Database for PostgreSQL
- Module assessment
- Summary

Understand write-ahead logging

- Introduction
- Describe write ahead logging
- Describe replication and logical decoding
- Exercise - List table changes with logical decoding
- Module assessment
- Summary

Configure and manage Azure Database for PostgreSQL

- Introduction
- Understand the system catalogs and system views
- Investigate metadata with system catalogs and system views
- Explain the purpose of vacuum and autovacuum
- Configure autovacuum server parameters
- Exercise - Configure system parameters and explore metadata with system catalogs and views
- Module assessment
- Summary

Understand concurrency in PostgreSQL

- Introduction
- Understand multi-version concurrency control (MVCC) and snapshots
- Describe isolation levels

- Understand locking
- Exercise - Understand locking
- Module assessment
- Summary

Tune queries in Azure Database for PostgreSQL

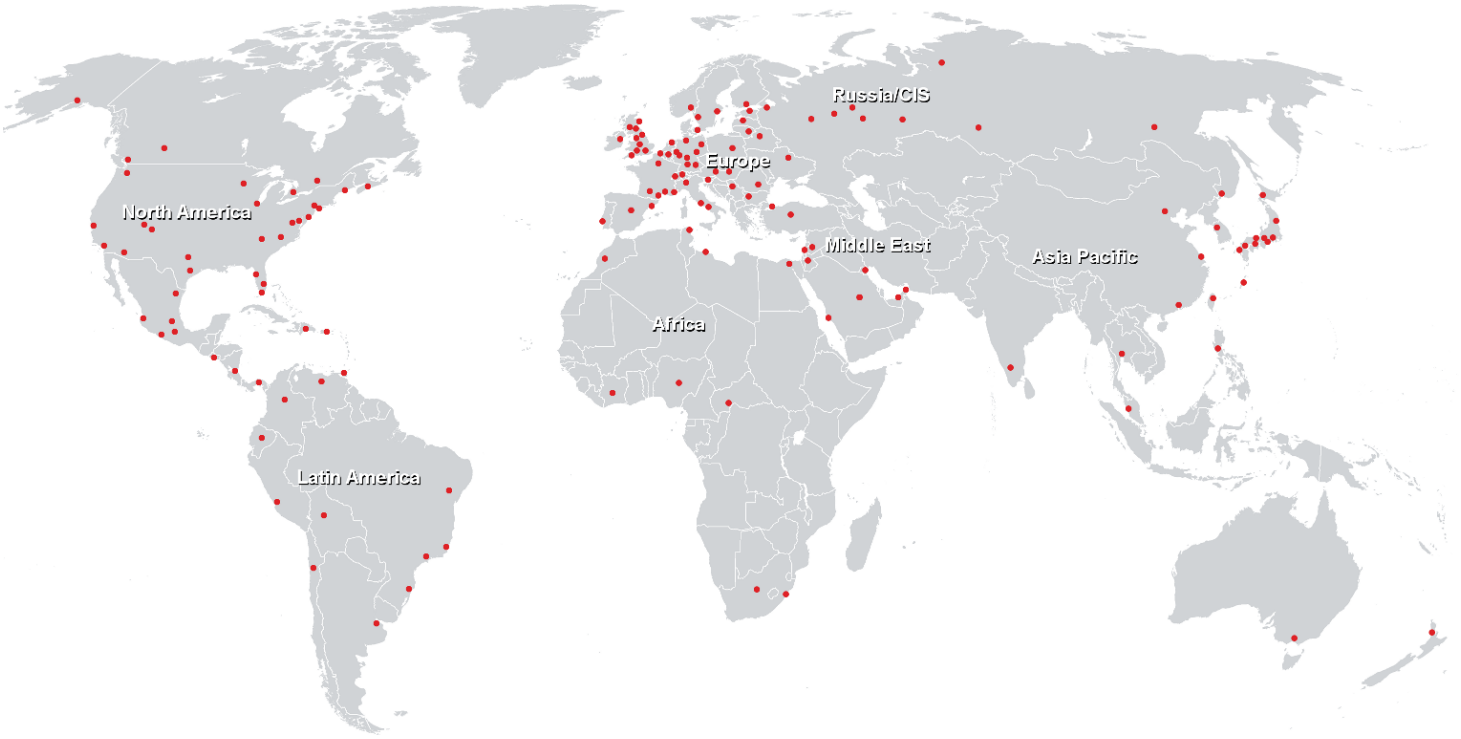
- Introduction
- Understand statistics
- Assess query performance with the Query Store
- Exercise - Assess query performance using Query Store
- Module assessment
- Summary

Migrate to Azure Database for PostgreSQL flexible server

- Introduction
- Compare online and offline migrations
- Identify migration tool options
- Analyze the decision criteria for tool selection and migration model
- Exercise – Offline PostgreSQL database migration
- Exercise – Online PostgreSQL database migration
- Module assessment
- Summary

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Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3
CH-8304 Wallisellen
Tel. +41 44 832 50 80

info@flane.ch, https://www.flane.ch