

- COURSE CODE:** DWHASP
- COURSE TITLE:** Data Warehousing (DW) – Advanced SQL Queries & Performance
- PLATFORM:** Multi-platform: DB2 UDB for z/OS & OS/390, DB2 UDB for Linux/UNIX/Windows, Oracle and SQL Server.
- AUDIENCE:** Data warehouse and BI developers, data warehouse architects and DBAs.
- PREREQUISITES:** Completion of our 'Data Warehousing Terms, Concepts & Architecture' (DWHTCA) course or equivalent knowledge.
- DURATION:** 2 days
- SUMMARY:** After briefly reviewing DW and BI terms and concepts, the lecturer will develop an understanding of how to use the statistics, analytic and OLAP features in a BI environment.
The main features of this presentation are examples, **intensive hands-on exercises, best practices and performance considerations.**
- OBJECTIVES:** Upon completion of this presentation, the participant should be able to code efficient SQL queries to meet both single and multidimensional business requirements.

1. SUMMARY – DATA WAREHOUSE (DW) TERMS & CONCEPTS

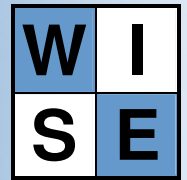
- Rationale and beneficiaries
- DW architecture (including BI considerations)
- Data warehouse vs. data mart
- Metadata
- Normalization vs. denormalization
- Integrity constraints
- Schema types
- DW objects (logical vs. physical)
- Hardware considerations
- Partitioning and parallelism options
- Indexes
- Summary tables
- Extract, Transform, Load (ETL)

2. STATISTICS & ANALYTIC QUERY OPTIONS

- Rationale
- AVG
- CORRELATION
- COUNT/COUNT_BIG
- COVARIANCE
- MAX
- MIN
- RAND
- STDDEV
- SUM
- VARIANCE
- Workshop

3. ONLINE ANALYTICAL PROCESSING (OLAP) QUERY OPTIONS

- Rationale
- RANK
- DENSE_RANK
- ROW_NUMBER
- PARTITION BY
- ORDER BY
- ROWS
- RANGE
- GROUP BY
- GROUPING
- ROLLUP
- CUBE
- OVER
- Workshop



4. COMMON BUSINESS SCENARIOS

- Retail
- Finance
- Sports
- Advertising
- Office supplies