All of us have some experience with databases (mainly Oracle or MS SQL). We have been working with Teradata for one year, some of us just few months. We are working with client environment without administration access. That is why we can skip subjects connected with administration / installation or just talk a little bit about that. Our main goal is to focus on code optimization, tricks , good practices and so on.

Introduction to Teradata

* Background
* Why use Teradata
* User Scalability

Relational Concepts

* ~~Introduction to RDBMS~~
* ~~Warehousing Concepts~~

Set Up and Installation

* ~~Installation~~

Just basic information

* Tools and Utilities like BTEQ

Teradata Architecture

* Components
  + Node
  + Parsing Engine
  + Message Parsing Layer - BYNET
  + Access Module Processor
* Storage Architecture
* Retrieval Architecture
* Architectural Overview

Teradata Basic Concepts - SQL

If it is about SQL structure we can skip this. We know how to build SQL statements. I left subjects which looks most interesting.

* ~~Data Type~~
* ~~Tables~~ 
  + ~~Permanent~~
  + ~~Volatile~~
  + ~~Global Temporary~~
  + Derived
  + Set v/s Multiset Tables
* Playing with Data - CRUD Operations [DDL and DML]
* ~~Logical and Conditional Operators~~
* ~~SET Operators~~
* String Manipulation
* ~~Date/Time~~
* Built in and Aggregate Functions
* Joins and Subqueries
* Indexes
  + Primary
  + Secondary

Teradata Advanced Concepts

It looks nice.

* Case
* Coalesce
* Macros
* Stored Procedures
* Space
  + Temp
  + Spool
  + Permanent
* Join Strategies
* Statistics
* Compression
* Hashing Algorithm
* OLAP Functions
* User Management

Teradata Additional Concepts

* Utilities
  + FastLoad
  + MultiLoad
  + FastExport
  + BTEQ
* Data Protection Methodologies
* Optimization Strategies

Our proposal is:

* analysis of query plans, SQL tuning
* compression
* performance monitoring
* correlated subqueries vs joins
* recursive query performance
* Teradata load and export utilities – comparison
* user defined types
* session/logging, etc. statements
* useful system tables/views
* Teradata - good practices in the design of structures, data types and query performance
* comparison of Teradata with other solutions (for example: Netezza, Exadata, Vertica)

Some information about:

* permission management
* Teradata row and column level security