

Sybase Adaptive Server Enterprise 15.7

An Introduction to Transact SQL



Requirements

A minimum of SQL language (DML), not being necessary knowledge of procedural/transactional SQL

Intended for

1. Database Administrators without knowledge of ASE T-SQL
2. IT Professionals without knowledge of ASE T-SQL

Objectives of the introduction

1. Being introduced to T-SQL in ASE 15.7
2. Overview of the possibilities of and how to work with T-SQL

Course Contents

SyBase ASE

Part I - Adaptive Server Enterprise and Transact SQL

1. What is ASE and T-SQL

1. SQL: DDL, DML, DCL, TCL
2. What to use it for? (speed, batch processes, security issues, etc.)
3. Something about 2 Tier, 3 tier and (dis)advantages of executing stuff on the Server
4. II. ASE compared to other databases
 1. (Dis)advantages of ASE in general
 2. Vs. Microsoft SQL Server
 3. Vs. Oracle
 4. Not only windows ASE, also available for Linux, Unix, etc.
 5. Existence of temporary tables
 6. No functions, all procedures
 7. Multiple record sets
 8. Speed compared with others
 9. Transaction logs (auto-increment like in other databases?)
 10. Security
 11. New features in ASE 15.7
 1. Merge
 2. Ways to connect to ASE from client and the different (dis)advantages of them
 12.
 1. Odbc, jdbc, open client, etc.
 2. Row locks
 13.
 1. Page sizes how they affect, "single row" locks
 2. Tools to facilitate to work with ASE

14.
 1. ISQL
 2. Toad for ASE
 3. Existence of possibility to debug, but not in this course
 4. Extended Stored Procedures
15.
 1. Mention what they are about, but not part of the course.

Part II – “Transact-SQL”

1.Objects

- Types of objects and their use
- Defaults
- Validation rules
- “Ranges of Data”?
- Stored procedures (non-extended), returning values, input output
- Triggers
- Client bits vs server bits (int on server is like long on client)
- Tables (temporary or not, implicit creation by using select into ...)
- Views (not updatable and other (dis)advantages)
- Procedure
- Trigger
- Tables, views
- Index (clustered, unique vs non-unique)
- Data types
- Cursors
- “*=” vs “outer (left/right) joins”
- Table
- Add/drop columns
- Primary keys (clustered)
- Foreign keys (cascade or not)

- Standard data types
 1. CREATE
 2. DECLARE
 3. Assigning values to variables
 4. Code blocks (Begin End, 'named' blocks?)
 5. Loops
 6. Conditional Expressions
 7. Statements
 8. Operators
 9. Syntax for joins
 10. ALTER
 11. Indexes (unique, clustered)
 12. *identity* data type and what's important when working with it
 13. temporary tables (#)
 14. subselects
 15. partition by, group by, order by, having clause
 16. Union (all)
 17. Merge
 18. Error checking vs. Exception handling
 19. Comments
 20. Messages (print, raiserror)
 21. System procedures a few examples of their use

Part III - Data Control Language

1. An understanding of USERS and Groups/ROLES
2. GRANT
3. REVOKE

Part IV – Transaction Control Language

1. COMMITS
2. SAVEPOINTS
3. ROLLBACK

Part V – Workshop “The PUBS₂ Database”

- Exercises

Part VI – Optimization tips

1. Use of SHOWPLAN
2. Indexes and primary Keys
3. Avoid doing things two times: Use of Merge command
4. TRUNCATE vs. DELETE
5. UNION (ALL)
6. USE temporary tables
7. WHERE CURRENT OF when using cursors
8. IF / WHERE “EXISTS” vs. SELECT Count(*)

If you are interested, if you want to grow in your career, this is the opportunity send us an e-mail with your:

- Name
- Address
- Contacts

For formation.lisboa@greennettech.com with the subject: "Sybase ASE Training".