IBM Netezza Analytics for Developers

Duration: 3 Days Course Code: DW551G

Overview:

Netezza allows you to extend SQL by using user-defined extensions (UDXs), as well as User-Defined Analytic Processes (UDAPs). UDXs can be thought of as the user-defined counterparts of built-in SQL Functions. They are called from SQL in the same manner and follow the same guidelines for input and output. UDAPs, although called from SQL similarly to UDXs, are actually applications that run when called. The UDAP concept allows a Netezza developer to implement a freestanding, executable data-processing program, that runs "out of process" that is, outside the system, and register it in a database.
This course will teach participants how to develop User Defined Extensions including: User Defined Functions (UDFs), User Defined Aggregates (UDAs), User Defined Table Functions (UDTFs), and User Defined Analytic Processes (UDAPs). Students will develop these User Defined Extensions using the Netezza command line utilities to compile and register these in-database analytics.

Target Audience:

This advanced course is intended for Developers and Programmers that want to embed in-database analytics on Netezza.

Objectives:

- Write a user defined function (UDF) in C++ to extend the capabilities of SQL
- Write a user defined aggregate (UDA) in C++ to implement the various phases of aggregate evaluation, such as initialization, accumulation, and merging
- Write a user defined table function (UDTF) in C++ enabling you to process one/many rows to return a table shape composed of many rows/columns
- Manage user defined functions, aggregates and table functions and shared libraries (e.g., granting permissions)
- Write a user defined analytic process (UDAP) in Java to extend the capabilities of SQL and run an analytic out-of-process. Additionally, be aware that UDAPs can be developed in other programmatic languages
- Know the features of the Netezza Plug-in for Eclipse

Prerequisites:

You should have:

- Working knowledge of Unix or Linux
- Working knowledge of Data Warehousing concepts
- Knowledge of C or C++
- Ability to use the VI Editor
- Knowledge of Java
- Familiarity with Eclipse

Content:

- Introduction to IBM Netezza Analytics
- Establishing the Programming Environment
- Writing a Simple UDF
- Working with Data Types
- Accessing UDFs via Cross Database access and Stored Procedures
- Advanced Topics in User Defined Functions
- User Defined Table Functions
- Working with User Defined Aggregates
- User Defined Analytical Processes
- UDAP using Scalar Functions (UDFs)
- UDAP using Table Functions (UDTFs)
- UDAP using Aggregate (UDAs)
- Debugging User-Defined Functions and Aggregates
- How to Administer the system

Further Information:

For More information, or to book your course, please call us on 00 971 4 446 4987

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