Business Intelligence Solution Providers Inc.

MySQL Training Outline

- **Relational Database Basics**
- **Brief History of SQL**

  - **Relational Databases**
  - **Tables**
  - **Rows**
  - **Columns**
  - **Relationships**
  - **Datatypes**
  - **Primary Keys**
  - **Foreign Keys**
  - **Relational Database Management System**

- **Popular Databases**

  - **Commercial Databases**
  - **Popular Open Source Databases**
  - **Valid Object References**

- **SQL Statements**

  - **Database Manipulation Language (DML)**
  - **Database Definition Language (DDL)**
  - **Database Control Language (DCL)**

- **Simple SELECTs**

  - **Introduction to the Northwind Database**
  - **Some Basics**

  - **Comments**
  - **Whitespace and Semi-colons**
  - **Case Sensitivity**

- **SELECTing All Columns in All Rows**
- **Exploring the Tables**

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- **SELECTing Specific Columns**
- **SELECTing Specific Columns**
- **Sorting Records**

  - **Sorting By a Single Column**
  - **Sorting By Multiple Columns**
  - **Sorting By Column Position**
  - **Ascending and Descending Sorts**

- **Sorting Results**
- **The WHERE Clause and Operator Symbols**

  - **Checking for Equality**
  - **Checking for Inequality**
  - **Checking for Greater or Less Than**
  - **Checking for NULL**
  - **WHERE and ORDER BY**

- **Using the WHERE clause to check for equality or inequality**
- **Using the WHERE clause to check for greater or less than**
- **Checking for NULL**
- **Using WHERE and ORDER BY Together**
- **The WHERE Clause and Operator Words**

  - **The BETWEEN Operator**
  - **The IN Operator**
  - **The LIKE Operator**
  - **The NOT Operator**

- **More SELECTs with WHERE**
- **Checking Multiple Conditions**

  - **AND**
  - **OR**
  - **Order of Evaluation**

- **Writing SELECTs with Multiple Conditions**

- **Advanced SELECTs**
- **Calculated Fields**

  - **Concatenation**
  - **Mathematical Calculations**
  - **Aliases**

- **Calculating Fields**
- **Aggregate Functions and Grouping**

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- Aggregate Functions
- Grouping Data
- Selecting Distinct Records

- **Working with Aggregate Functions**
- **Built-in Data Manipulation Functions**

- Common Math Functions
- Common String Functions
- Common Date Functions

- **Data Manipulation Functions**

Subqueries, Joins and Unions

- **Subqueries**
- **Subqueries**
- **Joins**

- Table Aliases
- Multi-table Joins

- **Using Joins**
- **Outer Joins**

- Unions
- UNION ALL
- UNION Rules

- **Working with Unions**

- **Conditional Processing with CASE**

- Using CASE
- Working with CASE

- **Inserting, Updating and Deleting Records**

- INSERT
- Inserting Records
- UPDATE
- DELETE

- Updating and Deleting Records

- **Creating and Modifying Tables**

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- **Data Types**
- **Creating Tables**

  - **NULL Values**
  - **Primary Keys**
  - **Foreign Keys**

- **Creating Tables**
- **Adding and Dropping Columns**
- **Renaming Tables**

  - **SQL Server**
  - **Oracle and MySQL**

- **Dropping Tables**

- **Views**

  - **Creating Views InnoDB**
  - **Dropping Views**
  - **Benefits of Views**
  - **Creating a View**

- **Stored Procedures**

  - **Creating Stored Procedures**
  - **Dropping Stored Procedures**
  - **Creating a Stored Procedure**
  - **Benefits of Stored Procedures**

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