

## DATABASE TESTING

### Module 1: Database concepts primer

- ✓ What is Database Application?
- ✓ Testing the Application vs. Testing the DMBS
- ✓ Back End vs. Front End Testing
- ✓ QA' ing Data – Who is responsible?
- ✓ What should be test in the Database?
- ✓ Knowledge required for the Database Tester
- ✓ Database Testing Phases
- ✓ Database Testing Methodologies
- ✓ Structural Database Testing
- ✓ Functional Database Testing

### Module 2: Basic SQL (Structured Query Language)

- ✓ SQL Coding Standards – what you need to know
- ✓ SQL Basics : Select, Insert, Update and Delete
- ✓ Using the select Statement to Test data
- ✓ Using the insert Statement to generate Test data
- ✓ Testing for application accuracy using the Update and Delete Statements
- ✓ Testing for basic data integrity using Constraints

### Module 3: Testing with SQL

- ✓ Joining Tables
- ✓ Using SQL Queries for Data Verification
- ✓ How Concurrency Issue affect data accuracy
- ✓ Database Objects:
  - ✓ Views
  - ✓ Indexes
  - ✓ Stored procedures
  - ✓ Triggers
  - ✓ User – Defined Functions

### Module 4: Using SQL in Scripting Languages

- ✓ Structural Database Testing using TOAD Tool
  - ✓ Database schema tests
  - ✓ Database and devices
  - ✓ Tables, Columns types, defaults and rules
  - ✓ Keys and indexes
- ✓ Stored Procedure tests
  - ✓ Individual Procedure tests
  - ✓ Integration tests of procedures
- ✓ Trigger tests
  - ✓ Testing Update triggers
  - ✓ Testing Insert triggers
  - ✓ Testing Delete triggers
- ✓ Integration tests of SQL server
- ✓ Functional Database Testing Using QTP with VB Script
- ✓ Dividing Back End based on Functionality
- ✓ Checking data integrity and consistency
- ✓ Test back end via front end
- ✓ Login and ser security
- ✓ Stress testing
- ✓ Catching common Database application hacks
- ✓ Test cases protecting against SQL Injection and other common hacks
- ✓ Session Wrap – Up
- ✓ Summary
- ✓ Final Questions