**Informix Database Administration Training**

Duration: 40 hours

**Unit 1: Informix DB Architecture**

* Setup Information
* SW install
* Creation of single instance (multi-db arch)
* Creation of Multiple instances
* Start/stop/bounce Db/ move DB different states
* Change Config parameters

**Exercise 1: Installation**

**Unit 2: Disk, memory, and process management**

* Virtual processors and threads
* Manage virtual processors
* Shared memory
* Manage shared memory
* Data storage
* Manage disk space
* Moving data with external tables
* Storage space encryption

**Exercise 2: Disk Management**

**Exercise 3: Memory Management**

**Exercise 4: Process Management**

# Unit 3: Fault tolerance

* Mirroring
* Using mirroring
* Consistency checking

**Exercise 5: Performance Tuning**

# Unit 4: High availability and scalability

* Strategies for high availability and scalability
* High-availability cluster configuration
* Cluster administration
* Connection management through the Connection Manager
* Cluster failover, redirection, and restoration

**Exercise 6: High Availability**

**Unit 5: Security and Access Control**

* Securing Data
* Auditing Data Security
* Creating and granting a role
* Defining and granting privileges for a default role
* Built-in roles

**Exercise 7: Security**

**Unit 6: Monitoring and logging.**

* Logging
* Manage the database-logging mode
* Logical log
* Manage logical-log files
* Physical logging, checkpoints, and fast recovery
* Manage the physical log
* Monitoring of logs/alert logs
* DB health checks

**Exercise 8:** Monitoring and Logging

**Unit 7: Performance Tuning.**

* Performance basics
* Performance monitoring and the tools you use
* Effect of configuration on CPU utilization
* Effect of configuration on memory utilization
* Effect of configuration on I/O activity
* Table performance considerations
* Boosted Partition Free Space Caches (PFSC)
* Indexes and index performance considerations
* Locking
* Fragmentation guidelines
* Queries and the query optimizer
* Optimizer directives
* Parallel database query (PDQ)
* Improving individual query performance
* The onperf utility on UNIX

**Exercise 9: Performance Tuning**

**Unit 8: Backup & Restore**

* Informix Backup Options
* Logical Log Backups
* Informix Server Backups
* Testing Backups
* Both OnTape & OnBar methods
* Transactional Log management

**Exercise 10: Backup & Restore**

**Unit 9: Troubleshooting Informix**

**Unit 10: Up gradation**

* Upgrading single instance setup
* Upgrading multiple Instances

**Exercise 11: Up gradation**

**Unit 11: Best Practices**

# Unit 12: Case studies and examples

**Unit 13: Final Project**

* Design and Implementation of a Database Solution
* Presentation and Peer Review