## Hibernate 5

Program Code: NA

Program Overview: This program will give strong foundation knowledge on Object relational mapping (ORM) and all its business use case. This training focuses on the concepts and hands-on.

Program Duration: 4 Day

Prerequisite Skills: Familiarity with Java and SQL

Who should attend? This program is targeted for IT engineers and developers.

**Contents:**

Day 1:

Introduction to ORM and its need

* + What is Object/Relation Mapping
  + Object-relation Impedance Mismatch
  + Identity
  + An Introduction to Hibernate 5
  + Building a simple Application

The Persistence Life Cycle

* + Hibernate Object Life Cycle
  + Persistence Context
  + Using Session
  + Collection Mapping
  + Unidirectional Associations
  + Bidirectional Associations
  + Select n+1 Problem
  + Hibernate Cascade Types
  + Hibernate inverse flag
  + Component Mapping
  + Inheritance Realization

Day 2

Hibernate Fetching and Transaction

* + Interceptors
  + Hibernate Filters
  + Hibernate Fetch Strategies

Hibernate Batch Processing

* + Transaction Management
  + Programmatic Transaction Management
  + Declarative Transaction Management
  + Using Data Source for Transaction Management

Day 3:

Searches and Queries

* + Hibernate Query Language (HQL)
  + Query by Criteria
  + Hibernate Projections

Caching

* + Introduction to Caching
  + First Level Cache
  + Second Level Cache

Day 4:

Java Persistence API (JPA)

* + Introduction to JPA
  + Main JPA Components
  + Persistence Unit
  + Entity Classes
  + Annotations
  + Entity Manager API
  + JPA – Life cycle

JPQL (Java Persistence Query Language)

* + Java Persistence Query Language
  + Demonstration for JPQL

On Completion of this program: Participants will have a strong knowledge of ORM and Hibernate