

Oracle Database 23ai: Oracle AI Vector Search Fundamentals Live Class

Course Duration: 16 Hours

Course Code: OD23AI-VSF

1. Course Overview

The **Oracle Database 23ai: Oracle AI Vector Search Fundamentals** course provides participants with a strong foundation in AI-driven search capabilities using Oracle Database 23ai. This live instructor-led training introduces the concepts of vector data, embeddings, and semantic search, helping learners understand how to integrate AI-based search functionality into enterprise applications. By the end of the training, participants will be able to build, manage, and optimize AI vector search solutions to deliver intelligent and context-aware experiences.

2. What You'll Learn?

- Fundamentals of Oracle Database 23ai and AI integration
- Core concepts of **vector embeddings** and semantic search
- How to store, index, and query vector data efficiently
- Techniques for combining traditional search with AI vector search
- Practical use cases such as **recommendation engines, image search, and conversational AI**
- Best practices for performance tuning and scalability of vector search

3. Target Audience

This course is ideal for:

- Database administrators (DBAs)
- Data scientists and AI/ML professionals
- Application developers integrating AI into business solutions
- Solution architects and technical consultants
- Anyone interested in leveraging AI-powered search within Oracle Database

4. Pre-Requisites

- Basic understanding of **SQL and relational databases**
- Familiarity with **AI/ML concepts** (recommended but not mandatory)
- Prior knowledge of Oracle Database fundamentals will be an added advantage

5. Course Content

Module 1: Introduction to Oracle Database 23ai and AI Vector Search

- Overview of Oracle Database 23ai
- Introduction to vectors and embeddings
- Real-world use cases of AI vector search

Module 2: Working with Vector Data

- Creating and managing vector columns
- Importing and storing vector embeddings
- Indexing vector data

Module 3: Querying Vector Data

- Similarity search fundamentals
- Performing semantic searches

- Combining keyword and vector search

Module 4: Integrating AI Vector Search in Applications

- Embedding generation workflows
- Connecting applications with Oracle Database vector search
- Use cases: recommendation systems, natural language search

Module 5: Performance, Tuning, and Best Practices

- Query optimization for vector workloads
- Managing large-scale vector data
- Security and compliance considerations

Module 6: Hands-On Labs & Case Studies

- Building a sample AI vector search project
- Practical exercises with Oracle Database 23ai
- End-to-end implementation demo