



## Course : Artificial Intelligence (AI) in Banking

A practical introduction to investment principles, financial instruments, and portfolio strategies for beginners and intermediate learners.

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|---------------------|------------|-------------------|------------------------|
| <b>City :</b>       | Doha       | <b>Hotel :</b>    | The Ritz-Carlton, Doha |
| <b>Start Date :</b> | 2025-11-02 | <b>End Date :</b> | 2025-11-06             |
| <b>Period :</b>     | 1 Week     | <b>Price :</b>    | 3950 \$                |

## Course Overview

Artificial Intelligence (AI) has been widely adopted across diverse industries, driving transformative advancements throughout supply and value chains. Its applications span from recommender systems and smart assistants to chatbots, classifiers, and predictive engines. Today, recommender systems effectively deliver the right product to the right customer at the optimal time, while smart assistants have become integral to daily life. Similarly, chatbots are revolutionizing customer service, classifiers are detecting fraudulent activities, and predictive engines are anticipating credit defaults with remarkable accuracy.

In parallel, the rapid growth of social media usage has heightened the need for organizations to analyze trends and customer sentiments. Natural Language Processing (NLP) offers powerful solutions in this domain, while data visualization tools play a critical role in extracting meaningful insights from vast organizational datasets.

This training program equips participants with the knowledge and skills to harness AI technologies within the banking sector. Participants will explore how recommender systems, chatbots, classifiers, and predictive engines can create substantial value for financial institutions.

### Key areas of focus in the Artificial Intelligence in Banking training course include:

- Data analysis and visualization
- Customer clustering and segmentation
- Machine learning for credit default prediction and fraud detection
- Natural Language Processing (NLP)
- Chatbots and smart assistants

## Course Objectives

### By the end of this Artificial Intelligence in Banking training course, participants will learn to:

- Develop a credit default predictor
- Develop a fraud detection system
- Develop a recommender system
- Develop a customer segmentation system
- Build a chatbot that assists customers

## Target Audience

**this training course is intended for professionals interested in solving problems in the Banking sector using Artificial Intelligence.**

This Artificial Intelligence (AI) in Banking training course is suitable for a wide range of professionals but will greatly benefit:

- Risk managers
- Marketing managers and professionals in the Banking sector
- Computer programmers who intend to understand the applications of Artificial Intelligence in Banking
- Technologists and researchers interested in Banking and Artificial Intelligence
- Customer service managers and professionals in the Banking sector
- Senior corporate Leaders, Managers, and Department Heads in the Banking sector

## Methodology

Participants in this Artificial Intelligence in Banking training course will receive thorough training on the subjects covered by the course outline with the Tutor utilising a variety of proven adult learning teaching and facilitation techniques. Training methodology includes combining a presentation of the main concepts and hands-on practical exercises to be completed by the participant

## Course Outline

### Day 1: Foundations of Artificial Intelligence

- Introduction to Artificial Intelligence
- Artificial Intelligence and Machine Learning concepts
- Typical applications across industries
- System architecture overview
- Software tools for AI development: Python, R, WEKA

### Day 2: Data Analytics and Visualization

- Data collection and preparation

- Feature engineering techniques
- Statistical analysis methods
- Data visualization for insights
- Dimensionality reduction approaches

### Day 3: Supervised and Unsupervised Learning

- Principles of similarity estimation
- Clustering methods and customer segmentation
- Association rules for pattern discovery
- Recommender systems in practice
- Classification models: K-Nearest Neighbors, Decision Trees, Naïve Bayes
- Introduction to Artificial Neural Networks

### Day 4: Natural Language Processing (NLP)

- Structuring information from raw text
- Regular expressions for text processing
- Word features and semantic analysis
- Text classification techniques
- Information extraction methods
- Question-answering systems

### Day 5: Building Intelligent Chatbots

- Extracting meaningful information from conversations
- Chatbots as interactive search engines
- Natural Language Understanding (NLU)
- Natural Language Generation (NLG)
- Developing and deploying a complete chatbot system

## Certificates

On successful completion of this training course, HighPoint Certificate will be awarded to the delegates. Continuing Professional Education credits (CPE): In accordance with the standards of the National Registry of CPE Sponsors, one CPE credit is granted per 50 minutes of attendance.