

Predictive Analytics: Regression & Forecasting

Learn to apply regression, classification and time series techniques to forecast outcomes and detect patterns using Python and Power BI.

4

MODULES

13

TOPICS

COURSE OVERVIEW

This course introduces predictive analytics, tracing its evolution from descriptive and diagnostic analysis through to predictive and prescriptive approaches, along with key benefits and challenges. It then covers core techniques and concepts, including supervised and unsupervised learning, regression analysis, classification methods such as decision trees, random forest and SVM, time series forecasting, and anomaly detection. The course examines industry use cases such as customer churn prediction, demand forecasting and fraud detection. It concludes with popular tools for predictive analytics, including Python with scikit-learn and Pandas, and Power BI.

WHO THIS COURSE IS FOR

Data Analysts

Business Analysts

Data Scientists

Forecasting Analysts

BI Developers

LEARNING OBJECTIVES

- Explain what predictive analytics is and how it evolved
- Identify benefits and challenges of predictive analytics
- Compare supervised and unsupervised learning approaches
- Apply linear and logistic regression analysis
- Apply classification methods such as decision trees and random forest
- Interpret time series forecasting and anomaly detection results
- Analyse industry use cases such as churn and fraud detection
- Apply Python and Power BI to predictive analytics tasks

4 Modules, 13 Topics

I

Introduction to Predictive Analytics

TOPICS

- What is Predictive Analytics?
- Evolution from Descriptive → Diagnostic → Predictive → Prescriptive Analytics
- Key Benefits and Challenges

II

Predictive Analytics Techniques & Concepts

TOPICS

- Supervised vs. Unsupervised Learning
- Regression Analysis (Linear, Logistic)
- Classification (Decision Trees, Random Forest, SVM)
- Time Series Forecasting
- Anomaly Detection

III

Industry Use Cases

TOPICS

Predicting Customer Churn (Telecom, Banking) · Demand Forecasting (Retail, Supply Chain) · Fraud Detection (Finance, Insurance)

IV

Popular Tools for Predictive Analytics

TOPICS

Python (scikit-learn, Pandas) · Power BI

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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