KOENIG SOLUTIONS · COURSE OUTLINE

AI in Auditing: Fraud Detection & Risk Analytics (Open Source)

Learn to apply AI across internal audit processes, from risk assessment and fraud detection to performance analytics and ethics.

8 Days	8	32	1
64 HOURS	MODULES	TOPICS	HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course covers the fundamentals of AI and its role in internal audit, followed by AI-powered audit tools and case studies of AI adoption. It then examines AI-driven risk assessment and audit planning, before moving into fraud detection and prevention techniques using anomaly detection and real-time alerts. Further modules address continuous auditing, audit sampling, ethical considerations, regulatory compliance, performance analytics, and emerging AI trends relevant to internal auditors.

WHO THIS COURSE IS FOR

- **Internal Auditors**
- **Audit Managers**
- **Risk Analysts**
- **Compliance Officers**
- **Fraud Investigators**
- **Banking Professionals**

PREREQUISITES

- Fundamental of Python Programming or any other Object-Oriented Programming is a must

TOOLS AND REQUIREMENTS

- Courseware: Unofficial PDF will be provided
- Lab: Koenig DC (VM) will be provided

LEARNING OBJECTIVES

- Articulate the fundamental concepts and principles of Artificial Intelligence (AI) in the context of internal auditing
- Identify and discuss diverse applications of AI in internal audit, specifically within the banking industry
- Integrate AI into internal audit processes to enhance efficiency, risk management, fraud detection, and reporting
- Utilize AI-powered tools to analyze data, improve decision-making, and enhance audit quality
- Stay informed about emerging trends in AI and understand its impact on the future of internal audit practices and strategies

COURSE SYLLABUS

8 Modules, 32 Topics

01

Introduction to AI in Internal Audit

UNDERSTANDING AI FUNDAMENTALS

- Introduction to the core concepts, principles, and terminology of AI, with a focus on its relevance to internal auditing

THE ROLE OF AI IN INTERNAL AUDIT

- Exploring how AI can transform internal audit processes, enhance productivity, and improve accuracy in audit findings

USE CASES

- **Automated Audit Planning:** AI tools can streamline audit planning by analyzing past audits and suggesting areas of focus
- **Risk Identification:** AI algorithms can identify unusual patterns and flag potential risks early in the audit cycle

02

AI Applications in Internal Audit

AI-POWERED AUDIT TOOLS

- Delving into AI applications in audit tasks such as data analysis, document review, and compliance monitoring

CASE STUDIES

- Examining case studies of AI adoption in internal audit departments, focusing on successes and challenges

USE CASES

- **Data Analysis and Reporting:** AI can automate data analysis, identify trends, and generate reports that highlight key findings
- **Compliance Monitoring:** AI-powered tools can continuously monitor compliance with regulatory requirements, flagging discrepancies in real time

03

AI-Driven Risk Assessment and Planning

RISK ASSESSMENT WITH AI

- Understanding how AI can be used to identify and assess risks, enabling more focused and data-driven audit planning

AI IN AUDIT PLANNING

- Utilizing AI to prioritize audit activities based on risk profiles and real-time data

USE CASES

- **Risk Scoring:** AI can assess large datasets to score risks associated with different audit areas, prioritizing those with higher risk levels
- **Predictive Risk Analytics:** AI models can predict potential risks based on historical data, helping auditors focus on areas most likely to present issues

04

AI for Fraud Detection and Prevention

AI IN FRAUD DETECTION

- Learning how AI algorithms can detect anomalies and patterns that indicate fraudulent activities within financial data

USE CASES

- **Anomaly Detection:** AI algorithms can detect unusual transactions that deviate from established patterns, indicating possible fraud
- **Real-Time Alerts:** AI systems can generate real-time alerts when suspicious activities are detected, enabling swift action

PRACTICAL EXERCISES

- Hands-on application of AI tools for identifying potential fraud and implementing proactive fraud prevention strategies

05

Enhancing Audit Efficiency with AI

AI FOR CONTINUOUS AUDITING

- Exploring AI-driven continuous auditing techniques that allow for real-time monitoring and instant reporting

AI IN AUDIT SAMPLING AND ANALYSIS

- Leveraging AI for audit sampling, testing, and analysis, leading to more efficient audit cycles

USE CASES

- **Continuous Auditing:** AI can automate repetitive auditing tasks, allowing for continuous monitoring and faster audits
- **Sampling Optimization:** AI can optimize sample selection, improving the accuracy and reliability of audit findings

06

AI Ethics and Responsible Implementation

ETHICAL CONSIDERATIONS IN AI

- Discussing ethical considerations around AI usage, focusing on data privacy, transparency, and bias in AI-driven audit processes

REGULATORY COMPLIANCE

- Ensuring AI implementation aligns with regulatory requirements and internal governance frameworks

USE CASES

- **Bias Detection in AI Models:** AI tools can help identify and mitigate biases in audit algorithms, ensuring fair and ethical use of technology
- **Transparency in AI Decisions:** Implement AI models that provide clear, understandable insights into their decision-making processes

07

AI-Driven Performance Analytics for Internal Audit

PERFORMANCE MEASUREMENT WITH AI

- Utilizing AI to measure audit performance, track key metrics, and identify areas for improvement in audit processes

OPTIMIZING AUDIT OUTCOMES WITH AI

- Strategies for using AI to optimize audit effectiveness and enhance overall audit quality

USE CASES

- **Audit Performance Dashboards:** AI can create dashboards that provide real-time insights into audit performance metrics and KPIs
- **Outcome Optimization:** Use AI to identify areas for improvement in audit processes, enhancing overall effectiveness and quality

08

AI for Future-Ready Internal Auditors

EMERGING AI TRENDS IN INTERNAL AUDIT

- Exploring the latest advancements in AI and their potential impact on the future of internal audit practices

CONTINUOUS LEARNING IN AI

- Developing a roadmap for continuous learning in AI to stay relevant in the evolving landscape of internal audit

AI for Future-Ready Internal Auditors (continued)

INNOVATION IN INTERNAL AUDIT

- Fostering a culture of innovation by integrating cutting-edge AI tools to transform audit processes

USE CASES

- **Trend Analysis:** AI tools can analyze emerging trends in the industry to prepare internal auditors for future challenges
- **Continuous Learning and Development:** Implement AI-driven platforms that recommend training and upskilling opportunities based on individual auditor performance

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.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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