

DATA ANALYTICS TOOLS FOR INTERNAL AUDIT



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TRAINING CENTER



Introduction

Data Analytics Tools for Internal Audit Training Course equips auditors to choose and use the right analytics tooling for each audit question. Participants work through audit analytics foundations, tool categories and selection, spreadsheet and database techniques, SQL querying, audit analytics platforms and CAAT software, visualisation, automation and continuous auditing, and tool governance as one connected toolkit. The programme links the audit objective an engagement sets with the tool that answers it efficiently and reproducibly. As a result, learners gain a practical, tool-aware audit analytics method. Furthermore, the course strengthens tool judgement, test repeatability, and evidence quality.

Data Analytics Tools for Internal Audit Course Objectives

- Explain how analytics tooling expands audit coverage and evidence.
- Identify analytics tool categories and their audit uses.
- Apply spreadsheet techniques: pivot tables, lookups, and conditional logic.
- Apply database querying using SQL fundamentals.
- Apply audit analytics platforms and CAAT software features.
- Apply data visualisation tools for audit insight.
- Apply automation and scheduling for recurring audit tests.
- Apply tool selection criteria for a given audit objective.
- Apply data governance, access control, and tool security practice.
- Document tool logic, parameters, and reproducibility standards.

Course Methodology

- Interactive sessions built on audit analytics and tooling cases.

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- Workshops on tool selection, query design, and test documentation.
- Group exercises on spreadsheet, SQL, and platform-based testing.
- Hands-on practice with audit datasets, query scripts, and dashboard mock-ups.
- Simulation of a tool-assisted audit engagement and results review.
- Facilitator coaching and peer review on personal tooling roadmaps.

Who Should Take This Course

- Internal auditors and audit analytics professionals.
- IT auditors and technology assurance staff.
- Compliance and internal control professionals.
- Data analysts supporting audit and risk functions.
- Finance and operations staff supporting audit testing.
- Consultants advising on audit analytics tooling and CAAT programmes.

Data Analytics Tools for Internal Audit Course Outlines

Day 1: Audit Analytics Tooling Landscape

- How tooling changes audit scope, speed, and evidence quality.
- Tool categories: spreadsheets, databases, CAAT, BI, and scripting.
- Choosing tools by audit objective and data volume.
- Build, buy, or use existing enterprise tooling.
- Data governance, privacy, and ethical use in audit analytics.
- Auditor competencies for tool-based audit work.
- Case discussion: a tool used beyond its capability.





Day 2: Spreadsheet and Database Techniques

- Structured data tables and disciplined spreadsheet design.
- Pivot tables, lookups, and conditional logic for audit tests.
- Duplicate detection, ageing, and exception formulas.
- Reconciliation and matching across worksheets.
- Introduction to relational databases and audit data models.
- Importing, validating, and reconciling extracted data.
- Workshop: building an audit test in a spreadsheet tool.

Day 3: Querying Data with SQL

- SQL fundamentals: select, filter, sort, and aggregate.
- Joins and subqueries for multi-table audit tests.
- Grouping, having clauses, and exception identification.
- Data quality checks written as queries.
- Documenting queries for repeatability and review.
- Common SQL errors in audit use and how to avoid them.
- Exercise: writing queries for duplicate and gap testing.

Day 4: Audit Platforms, Visualisation, and Automation

- Audit analytics and CAAT software features.
- Continuous auditing, automation, and scheduling.
- Dashboards and data visualisation for audit insight.
- Alerting, exception reporting, and monitoring routines.
- Selecting and configuring tools for recurring tests.

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- Testing tool output and validating results.
- Simulation: building an automated audit test with a dashboard.

Day 5: Governance, Documentation, and Reporting

- Tool logic documentation and reproducibility standards.
- Version control and change control for audit analytics.
- Access control, security, and segregation of duties for tools.
- Translating tool output into audit findings.
- Reporting analytics results to management and committees.
- Building audit analytics capability and upskilling teams.
- Capstone: presenting an audit analytics tooling roadmap.

Conclusion

By successfully completing Data Analytics Tools for Internal Audit, participants will gain a practical command of audit analytics tool categories, spreadsheet and database techniques, SQL querying, audit platforms and CAAT software, visualisation, automation, and tool governance. They will acquire skills in tool selection, query design, test automation, and documentation that expand audit coverage with reproducible evidence. Gentex Training Center designs the programme to help auditors use analytics tooling with confidence.

FAQs





Q1 What is the "Data Analytics Tools for Internal Audit" course about?

It equips auditors to choose and use the right analytics tooling for each audit question. The course spans the audit analytics tooling landscape, spreadsheet and database techniques, querying data with SQL, audit platforms, visualisation and automation, and governance, documentation and reporting.

Q2 What are the key benefits of the "Data Analytics Tools for Internal Audit" course?

You gain a practical, tool-aware audit analytics method that links the audit objective an engagement sets with the tool that answers it efficiently and reproducibly. The course improves tool selection and query design, strengthens spreadsheet and SQL technique, sharpens automation and visualisation use, and gives you documentation practice that makes audit tests repeatable and reviewable.

Q3 What skills will I gain from the "Data Analytics Tools for Internal Audit" course?

You will develop four core skills: audit analytics tool selection with objective-based criteria, spreadsheet and database testing technique, SQL query design for audit tests, and automation, visualisation and documentation with results reporting.



Q4 What tools, methods, or standards are covered in the "Data Analytics Tools for Internal Audit" course?

The course covers how tooling changes audit scope, speed and evidence quality, tool categories including spreadsheets, databases, CAAT software, BI platforms and scripting, tool selection by audit objective and data volume, build, buy or use decisions, data governance, privacy and ethical use, auditor competencies for tool-based work, structured data tables and disciplined spreadsheet design, pivot tables, lookups and conditional logic, duplicate detection, ageing and exception formulas, reconciliation and matching across worksheets, relational databases and audit data models, importing, validating and reconciling extracted data, SQL fundamentals of select, filter, sort and aggregate, joins and subqueries for multi-table tests, grouping, having clauses and exception identification, data quality checks written as queries, documenting queries for repeatability and review, common SQL errors in audit use, audit analytics and CAAT software features, continuous auditing, automation and scheduling, dashboards and data visualisation, alerting, exception reporting and monitoring routines, tool configuration for recurring tests, testing tool output and validating results, tool logic documentation and reproducibility standards, version control and change control for audit analytics, access control, security and segregation of duties for tools, translating tool output into audit findings, reporting analytics results to management and committees, and building audit analytics capability and upskilling teams.

Q5 How is the "Data Analytics Tools for Internal Audit" course applied in real-world practice?

Participants apply it to real work such as selecting a tool for a given audit objective, building an audit test in a spreadsheet, writing SQL queries for duplicate and gap testing, configuring a recurring automated test with a dashboard, validating tool output for false positives, and documenting test logic for review. The same methods support continuous auditing and audit analytics capability building.