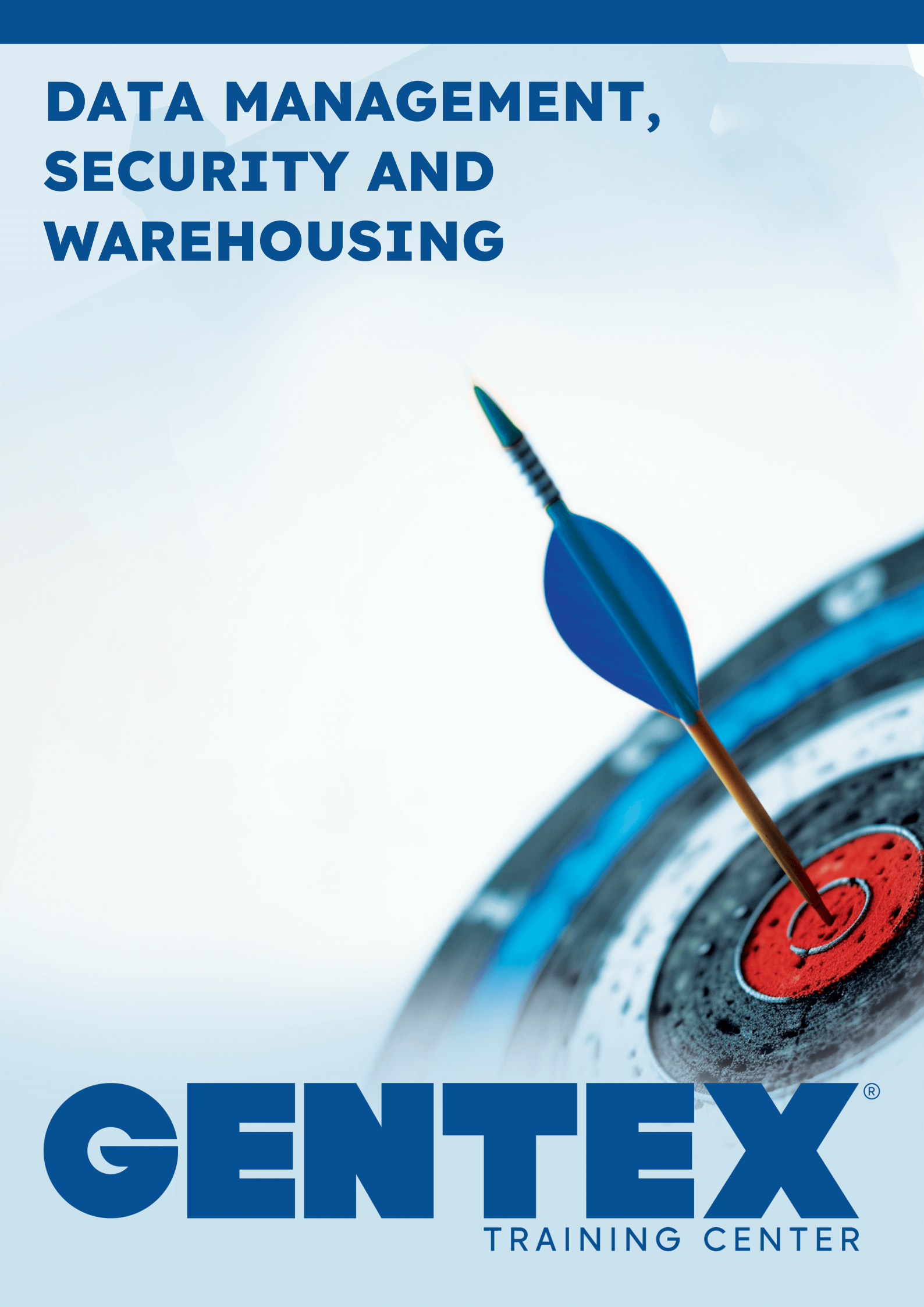
DATA MANAGEMENT, SECURITY AND WAREHOUSING



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TRAINING CENTER

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Introduction

Data has become the asset a company cannot insure, replace, or leave unmanaged. Customer records, financial files, supplier documents, and operational logs sit across servers, cloud platforms, and storage media, and every one of them carries a legal and commercial obligation. This Data Management, Security and Warehousing Training Course gives data, IT, and compliance professionals a practical method to govern, protect, and store information through its full lifecycle. Participants learn how to classify data, design secure storage and backup architectures, apply encryption and access controls, meet privacy requirements, and plan retention and disposal. Furthermore, the course connects technical controls to governance, so protection holds up under audit and regulatory review.

Data Management, Security and Warehousing Course Objectives

- Classify data by sensitivity, criticality, and regulatory category.
- Design data architectures covering databases, warehouses, data lakes, and storage tiers.
- Apply storage management methods: tiering, deduplication, compression, and archiving.
- Build backup, replication, and disaster recovery plans with defined RTO and RPO targets.
- Implement encryption at rest and in transit using standard algorithms and key management.
- Apply identity and access management, role-based access, and least-privilege principles.
- Enforce data privacy and retention requirements under GDPR-style rules and local law.
- Design secure destruction and media sanitisation procedures per recognised standards.
- Monitor data security using logging, SIEM alerts, and data loss prevention tools.
- Build governance: data ownership, stewardship, policy, and audit evidence.

Course Methodology

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- Facilitated sessions built on real data architectures and governance policies.
- Case workshops on data breaches, storage failures, and recovery tests.
- Tabletop exercise on a ransomware incident and recovery sequence.
- Group work on a data classification and retention matrix.
- Peer review of backup and disaster recovery plans against RTO and RPO targets.

Who Should Take This Course

- Data management and data governance officers.
- IT infrastructure, storage, and backup administrators.
- Information security and compliance analysts.
- Database administrators and data warehouse staff.
- Risk, audit, and privacy officers.
- Records and document management professionals.

Data Management, Security and Warehousing Course Outlines

Day 1: Data Fundamentals, Classification, and Governance

- Data types, sources, and the difference between operational and analytical data.
- Data lifecycle: creation, storage, use, sharing, archiving, and disposal.
- Classification by sensitivity, business criticality, and regulatory category.
- Data ownership, stewardship, and accountability models.
- Policy, standards, and procedure hierarchy.

- Data quality dimensions and their business impact.
- Data governance frameworks and council structures.

Day 2: Storage Architecture and Data Warehousing

- Relational databases, data warehouses, data lakes, and lakehouses.
- Schema design, normalisation, and dimensional modelling basics.
- ETL and ELT pipelines and data integration patterns.
- Storage tiers: hot, warm, cold, and archive.
- Deduplication, compression, and capacity planning.
- Cloud storage options, regions, and data residency.
- Metadata management, catalogues, and lineage tracking.

Day 3: Backup, Continuity, and Disaster Recovery

- Backup types: full, incremental, differential, and snapshot.
- The 3-2-1 backup rule and immutable backup copies.
- Replication strategies and site redundancy.
- Recovery time objective (RTO) and recovery point objective (RPO) planning.
- Restore testing and validation schedules.
- Ransomware resilience and air-gapped copies.
- Business continuity linkage and recovery runbooks.

Day 4: Security Controls, Privacy, and Access Management

- Identity and access management, SSO, and multi-factor authentication.
- Role-based access control and least-privilege enforcement.

- Encryption at rest and in transit, key management, and certificate handling.
- Network segmentation, firewalls, and secure data transfer.
- Data loss prevention, logging, and SIEM monitoring.
- Privacy obligations, consent, data subject requests, and cross-border transfer rules.
- Retention schedules, legal holds, and secure disposal.

Day 5: Audit, Compliance, and Continuous Improvement

- Control frameworks: ISO 27001 and NIST guidance applied to data.
- Access reviews, privilege audits, and segregation of duties.
- Evidence collection and audit trail documentation.
- Incident response for data breaches and notification duties.
- Metrics: backup success rate, restore time, and open control findings.
- Testing, training, and awareness for data handling.
- Building a yearly data management and security roadmap.

Conclusion

By successfully completing the Data Management, Security and Warehousing Training Course, participants will have acquired a solid working knowledge of data classification and governance, storage and warehousing architecture, backup and disaster recovery design, encryption and access control, privacy and retention obligations, and audit-ready control evidence. They will leave able to protect information through its whole lifecycle and prove that protection works. Gentex Training Center delivers this programme with data and security practitioners who apply these controls in live environments.

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FAQs for the Data Management, Security and Warehousing course

Q1 What is the "Data Management, Security and Warehousing" course about?

It is a five-day programme on governing, protecting, and storing data through its full lifecycle. It covers data classification and governance, storage and warehousing architecture, backup and disaster recovery, encryption and access control, privacy and retention, and audit evidence.

Q2 What are the key benefits of the "Data Management, Security and Warehousing" course?

Participants reduce breach and data loss risk, cut storage and recovery costs through tiering and deduplication, and meet privacy and retention obligations with documented controls. They also gain tested recovery plans and audit evidence that hold up under regulatory review.

Q3 What skills will I gain from the "Data Management, Security and Warehousing" course?

You will gain data classification and governance design, storage and data warehouse architecture planning, backup and disaster recovery management with RTO and RPO targets, and security, privacy, and access control implementation with audit-ready evidence.

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Q4 What tools, methods, or standards are covered in the "Data Management, Security and Warehousing" course?

The course works with data classification schemes, dimensional modelling and ETL or ELT pipelines, storage tiering with deduplication and compression, the 3-2-1 backup rule with immutable copies, RTO and RPO planning, encryption at rest and in transit with key management, identity and access management with role-based access control and multi-factor authentication, SIEM and data loss prevention tools, ISO 27001 and NIST control guidance, GDPR-style privacy requirements, and retention and secure disposal standards.

Q5 How is the "Data Management, Security and Warehousing" course applied in real-world practice?

Teams apply it when classifying a new data set, designing an archive tier, running a restore test, reviewing user access rights, and answering a data subject request. It also guides disaster recovery rehearsals, breach notification decisions, and quarterly control reporting to management.