MedTech Company Project – Systems & Data Environment Setup
Portfolio Documentation – 2026

Author: Dele
Location: UK
Target Roles: Healthcare IT, Systems Administration, Workforce & Data Analysis

---

1. Project Overview

This project involved the design and implementation of a simulated IT and workforce systems environment for a fictional MedTech company. The environment was built to replicate real-world healthcare and NHS-style operations with strong focus on security, governance, compliance, and operational reliability.

The project aimed to demonstrate practical competence in systems administration, user lifecycle management, data reporting, and audit processes.

---

2. Organisational Structure

The Active Directory environment was structured to represent a multi-department healthcare organisation.

Departments (Organisational Units):

- IT Services
- HR Services
- Clinical Services
- Financial Services
- Leavers / Archived Users

Each department contained:

- User OU
- Group OU
- Admin OU
- Role-based Security Groups

This structure enabled controlled access and clear separation of responsibilities.

---

3. User & Group Management

A full joiner, mover, and leaver lifecycle was implemented.

Joiners:
- New accounts created
- Assigned to departmental groups
- Initial passwords configured
- Role-based permissions applied

Movers:
- Users transferred between departments
- Group memberships updated
- Access permissions reviewed

Leavers:
- Accounts disabled
- Group memberships removed
- Moved to Leavers OU
- Audit trail preserved

This replicated real HR and IT onboarding and offboarding processes.

---

4. Access Control & Security

Least-privilege access principles were applied.

- Created standard and admin groups
- Restricted elevated privileges
- Reviewed admin memberships
- Removed unnecessary permissions
- Conducted privilege audits

This ensured only authorised users accessed sensitive systems.

---

5. Client-Server Integration

- Installed and configured Windows Server as Domain Controller
- Configured DNS and internal networking
- Joined client machines to domain
- Tested authentication and access policies
- Applied Group Policy Objects (GPOs)

This simulated enterprise workstation management.

---

6. Data & Reporting Environment

Multiple data sources were integrated.

Data Sources:
- Active Directory exports (PowerShell)
- CSV workforce datasets
- Event logs

Tools:
- SQLite (SQL)
- Microsoft Excel

Activities:
- Imported data into databases
- Ran audit queries
- Identified inactive users
- Flagged high-risk accounts
- Generated management reports

---

7. Audit & Compliance

Regular audits were conducted.

- Reviewed inactive accounts
- Analysed login activity
- Checked privilege assignments
- Verified compliance
- Documented findings

Audit summaries were prepared for management review.

---

8. Documentation & Portfolio Development

Professional documentation standards were applied.

- Step-by-step lab guides
- Configuration records
- Screenshots
- Audit reports
- Change logs

This demonstrated governance and accountability.

---

9. Problem-Solving & Troubleshooting

Technical challenges resolved included:

- Network configuration errors
- DNS failures
- GPO conflicts
- VM performance issues
- Authentication errors
- Data import problems

Issues were resolved using systematic troubleshooting methods.

---

10. Skills Demonstrated

Technical Skills:
- Active Directory Administration
- Windows Server Management
- User Access Control
- SQL Reporting
- Excel Analysis
- Virtualisation (VirtualBox)
- PowerShell (Basic)

Professional Skills:
- Data Governance
- Compliance Awareness
- Documentation
- Time Management
- Stakeholder Communication

- Continuous Improvement

---

11. Business & Healthcare Relevance

The project reflects operational realities in healthcare IT:

- Protection of patient-related data
- Secure system access
- Workforce data management
- Audit readiness
- Regulatory compliance
- Service continuity

It aligns with NHS Digital and MedTech standards.

---

12. Project Outcome

The project successfully delivered:

- Secure domain infrastructure
- Role-based access model
- Workforce reporting system
- Audit framework
- Documented procedures

The environment demonstrates readiness for entry-level to junior roles in healthcare IT and systems administration.

---

13. Career Impact

This project strengthened:

- Practical technical confidence
- Analytical thinking
- Compliance awareness
- Professional documentation skills
- Interview readiness

It provides strong evidence of hands-on capability and career commitment.

End of Document