IT Training Report

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Position: IT Trainee

Company: Northern Electricity Distribution Company (شركة توزيع كهرباء الشمال)
Duration: July 2025 – November 2025 (5 Months)
Location: Nablus, Palestine

Introduction

This report summarizes my 5-month IT training at the **Northern Electricity Distribution Company** in Nablus, Palestine.
The training combined theoretical and practical learning across multiple departments, providing hands-on exposure to technical infrastructure, database systems, networking, cybersecurity, and organizational IT management.
Throughout this program, I developed a strong understanding of how large-scale utility systems operate, integrating hardware, software, and data systems to ensure reliability and efficiency.

Week 1 – Introduction to Technical Departments and Printing Systems

Day 1: Overview of technical departments, their coordination, and workflow integration.
Day 2: Study of the **TABS data system** and practical visit to the **server room**.
Day 3: Training in **technical support operations** and modern printer management.
Day 4: Discussion on career preparation, essential programming skills, and job-market readiness.
Day 5: Advanced training on printer networking, IP configuration, driver installation, and server linking.

Week 2 – Operating Systems, Fire Safety, and Database Structure

Day 1: Practical installation and troubleshooting of **Windows operating systems**.
Day 2: Learning about **fire alarm systems**, their wiring, function, and safety significance.
Day 3: Exploration of **security camera systems**, components, and optimal placement.
Day 4: Configuration of post-installation system settings following security policies.
Day 5: Introduction to **database design and inter-departmental data linkage**.

Week 3 – Employee Resource System (ERB) and Project Development

Day 1: Introduction to the **ERB platform**, including employee and attendance data.
Day 2: Generating and managing reports such as salaries, leaves, and attendance logs.
Day 3: Linking interdepartmental data for accurate performance monitoring.
Day 4: Discussion of **graduation project development** and idea formulation.
Day 5: Brainstorming of socially driven project ideas and feasibility analysis.

Skills Gained:

- ERB navigation and report generation
- Data integration and validation
- Team collaboration and project ideation

Challenges:

- Understanding complex ERB functions (overcome through supervision)
- Translating technical ideas into practical community-based solutions

Week 4 – Billing System and Financial Data Management

Day 1: Introduction to the **billing workflow** and its importance.
Day 2: Understanding the process of **bill issuance** and data validation.
Day 3: Studying **integration between billing, subscriber, and collection systems**.
Day 4: Generating **financial and statistical reports** for management analysis.
Day 5: Reviewing billing data accuracy, identifying errors, and improving report integrity.

Skills Gained:

- Mastery of billing system structure
- Financial data reporting and analysis
- Understanding of system integration for workflow accuracy

Challenges:

- Complex internal structure (clarified through guided explanation)
- Managing large datasets efficiently

Week 5 – Database Integration, Data Encryption, and Secure Remote Work

Day 1–2:

- Studied **database merging** methods and conflict resolution
- Performed **data cleaning and standardization** for unified databases

Day 3–4:

- Learned principles of **encryption (public/private keys)** and secure communication
- Understood **message authentication** and protection of sensitive data

Day 5:

- Configured **VPN for remote work**, set user permissions, and secured network access

Skills Gained:

- Data merging, validation, and encryption fundamentals
- VPN setup for secure communication
- Understanding enterprise data security frameworks

Challenges:

- Complex encryption theory (simplified via hands-on examples)
- New remote-access systems (mastered through step-by-step learning)

Week 6 – Networking and Hardware Fundamentals

Day 1: Basic understanding of **IP and MAC addresses**.
Day 2: Comparison between **Static and Dynamic IP (DHCP)** addressing.
Day 3: Router communication, routing tables, and data transmission protocols.
Day 4–5: Study and hands-on assembly of **hardware components**—motherboard, CPU, RAM, PSU, HDD.

Skills Gained:

- Networking concepts and IP addressing
- Router configuration and communication
- Hardware assembly and diagnostics

Challenges:

- Differentiating IP types (clarified through real-world examples)

Week 8 – Advanced Hardware, Software, and Network Management

Day 1: Comparison of **NVMe vs SATA SSDs** with performance benchmarking.
Day 2: Maintenance of **fire alarm systems** and troubleshooting protocols.
Day 3: Installing and transferring **software across networks** via IP sharing.
Day 4: Managing **firewalls** and ensuring internal system connectivity.
Day 5: Upgrading systems (RAM, SSD), configuring Windows, and enabling **Remote Desktop Access**.

Skills Gained:

- Understanding modern hardware and storage systems
- System security and performance optimization
- Software deployment via LAN
- Remote access configuration

Challenges:

- Adjusting to performance variations in new hardware (resolved through testing)
- Network and security setup requiring precise configuration