

IBM z/OS Mainframe Operations Foundations

TSO/ISPF, datasets, JCL and introductory COBOL with optional CICS

FA-0767 · 4 days

Mainframe & Enterprise Systems · Software Development

Introduction

Develop introductory z/OS mainframe skills using TSO/ISPF, datasets and Job Control Language. Explore small COBOL examples and selected related services in a prepared mainframe training environment.

The four-day course starts with access and platform concepts. VSAM detail and CICS demonstrations depend on the prepared environment and available time; it is not a guarantee of intermediate production-operator competence.

Learning outcomes

- Explain mainframe terminology and distinguish z/OS from IBM i on Power.
- Use selected TSO/ISPF commands and create or manipulate permitted training datasets.
- Read and run a small JCL example in the training environment.
- Recognise COBOL program divisions, statements, control flow and file handling.
- Describe VSAM organisations and selected utility concepts where time permits.
- Recognise CICS, BMS maps, access controls and COBOL integration through optional demonstrations.

Prerequisites

Basic computer, file-management and command-line familiarity. A workstation, reliable internet and an authorised z/OS training account with a compatible terminal client are required.

Install only the client or local demonstration tools required for the lab. SSH is used only where the prepared environment provides it; TSO/ISPF access is not the same as SSH access.

Training outline

1. Section 1 — Mainframe and access foundations

- Introduction to mainframes
- Types of mainframes
- Accessing mainframes
- TSO
- ISPF

Distinguish the selected z/OS environment from IBM i/Power and identify relevant languages and operating-system terminology.

2. Section 2 — Dataset operations and JCL

- Training datasets, permitted dataset operations and selected TSO/ISPF commands.
- Job Control Language structure and a guided job example.
- VSAM introduction; optional KSDS, RRDS, ESDS, LDS, alternate-index and REPRO concepts.
- VSAM requires appropriate access methods or utilities; ordinary ISPF editing is not universal VSAM file editing.

3. Section 3 — COBOL foundations

- Introduction to COBOL
- COBOL on your PC
- Structure of COBOL
- Divisions in COBOL
- Statements in COBOL
- Arithmetics in COBOL
- Functions in COBOL
- Control Flow in COBOL
- Files in COBOL
- DB2 in COBOL

A local COBOL example demonstrates language basics; z/OS compilation, runtime and Db2 access require the appropriate prepared environment.

4. Section 4 — Optional CICS introduction

- Customer Information Control System concepts.
- BMS mapsets and selected field attributes, including ASKIP and DRK.
- Access-control concepts and CICS with COBOL.
- Coverage depends on prior-topic progress, time and the supplied CICS environment.