IBM Z Systems Environment - Introduced & Explained Training

Duration: **2 Day**

BILGINÇ IT Academy
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Overview

This two-day course is the essential introduction to z Systems - IBM's mainframe-based enterprise computing environments, and to IBM's flagship operating system, z/OS.
The course introduces the concepts and terminology that are encountered and used by IS personnel every day, and explains them in an easily understandable manner.
This course provides a firm foundation for anyone moving into the world of IBM z Systems mainframe-based computing.

This course is also available for one-company, on-site presentations and for live presentation over the Internet, via the Virtual Classroom Environment service.

Prerequisites

None.

What You Will Learn

- list the principal components found in IBM z Systems environments
- describe how data is stored, the different data codes and types, and the devices used
- explain the concepts of operating systems
- describe the IBM mainframe operating systems and their associated software, as available in IBM z Systems
- describe the functions carried out in z Systems based IS departments
- understand the different numbering systems and representations used in z Systems.

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Outline

The Mainframe Computer

Origins; Types of computers; General purpose; Scientific; Scientific AND general purpose?; The PC; The Graphical User Interface (GUI); The application development backlog; The Local Area Network (LAN); Who runs the distributed data centre?; Total Cost of Ownership (TCO); Today's real world; What is a mainframe?; What can it do?; Hardware and software; Types of computing; Batch; Batch processing today; Interactive; On-line; Real time.

Enterprise Computing Hardware

Enterprise computing hardware; An IBM mainframe computer room and its contents; The processor complex; Parallel sysplex; Logical partitions; Channels; Controllers; I/O units; Addressing; Local and remote; Disk storage; Old technology; Storing data on a traditional disk; The cylinder concept; Sectors; Cache storage; RAID - a newer technology; Disk Mirroring (RAID-1); Data Striping (RAID 5/6); Remote Disk copy; Virtual disks; Why magnetic tape?; Tape cartridges; High performance tapes; Automated Tape Libraries; Virtual Tape Servers; Other Input/output peripherals.

z Systems Programs

What is software?; Types of software; System software; Exits; Application software; What does a program comprise?; Main module; Subroutines and procedures; Functions; Data; EBCDIC; ASCII; Building a program; Programming languages; Executing a program.

Practical Operations

Who runs the IT environment ?: Operators, Help Desk Operatives, Security Administrators, Systems Programmers, Storage Administrators, Network Analysts, Application Developers/Support, Database Administrators.

The z Systems' Operating Systems

z Systems operating systems; z/OS operating systems; zVM operating systems; z/VSE operating systems; Linux operating systems; z/TPF operating systems.

z/OS Operating System

The z/OS operating system; Some important definitions; Address spaces; Common area; Private area; Main components of MVS; MVS processing environments; On-line; TSO; z/OS communications server; VTAM; TCP/IP; JES: JES2, JES3; Transaction Servers: CICS, IMS; Databases: DB2, IMS; UNIX System Services; WebSphere Application Server.

Numbering Systems

Numbering systems; Decimal arithmetic; Binary arithmetic; Binary subtraction; Negative binary numbers; 2's complement; Hexadecimal arithmetic; Hexadecimal / binary relationship; Extended Binary Coded Decimal Interchange Code; Packed decimal numbers; Memory addressing.