Course Outline

Introduction to z/OS

Course Summary

Objectives

By the end of this course, students will be able to:

- Describe the concepts underlying IBM zSeries computer systems in general (hardware: processors, memory, tape, disk, devices in general; software: operating systems, application environment, application programs)
- Correctly use terms related to mainframe computer systems: such as data set / file, fields, records, data set organization
- Understand terms specifically related to z/OS, such as DDname, data set name, PDS, PDSE, VSAM, label, VTOC, directory, catalog, TSO, ISPF, JCL
- Describe the role SMS (System Managed Storage) plays in z/OS
- Describe the roles played in application development of CLIST, REXX, JCL, and TSO/ISPF
- Describe the role of Unicode in the mainframe world, and the support for Unicode provided in z/OS
- Describe capabilities of the latest IBM compilers for COBOL, PL/I, and C as well as the Assembler, the binder, and Language Environment
- Describe the capabilities of DB2, in broad, general terms, and understand the salient features of the latest version of DB2
- Compare and contrast the two major transaction processing environments
- CICS/TS and IMS, and the role of MQSeries
- Describe the facilities available under z/OS for running UNIX applications, including a web server and email
- Send text messages to a cell phone and / or emails to the Internet from a batch job, (providing their system is configured to do so).

Topics

- Introduction: What's Hot
- z/OS - A software overview
- z/OS Fundamentals
- Unicode
- DB2 - IBM's Premier relational data base
- Transaction monitors
- Languages
- z/OS and UNIX System Services
- Sending notes, e-mails, and text messages
- Conclusion

Prerequisite

A technical computer background is required for this course.

Duration

One Day

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Introduction to z/OS

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I. *Introduction: What's Hot*
- A. z/Architecture - A hardware overview
- B. zSeries
- C. CPC - Central Processor Complex
- D. I/O Channels, PR/SM, LPARs, and Sysplex, zBX, Tapes and Disk

II. *z/OS - A software overview*
- A. z/OS Workloads
- B. Capacity utilization
- C. Workload manager
- D. z/OS Workloads
- E. Tuning

III. *z/OS Fundamentals*
- A. Data management terms
- B. Data organizations
- C. Sequential data set
- D. VTOC
- E. Partioned Data Set (PDS)
- F. Catalog
- G. PDSE
- H. The UNIX File model: the Hierarchical File System (HFS)
- I. Batch
- J. JCL
- K. TSO/ISPF
- L. CLIST and REXX
- M. Dialog manager
- N. SMS - System Managed Storage

IV. *Unicode*
- A. z/OS support for Unicode

V. DB2 - IBM's Premier relational data base
- A. The Basics
- B. Indexes
- C. DB2 Architecture
- D. Embedded SQL
- E. Components
- F. DB2 LUW

VI. *Transaction monitors*
- A. CICS/TS
- B. IMS
- C. The role of MQSeries

VII. *Languages*
- A. Common threads
- B. Language Environment (LE)
- C. Assembler
- D. Enterprise COBOL
- E. Enterprise PL/I
- F. C/C++
- G. The program binder

VIII. *z/OS and UNIX System Services*
- A. TSO User ID
- B. Profiles
- C. UNIX User ID
- D. z/OS UNIX - The shell interface under OMVS
- E. Things you can do under z/OS UNIX
- F. Standard commands and utilities
- G. Compile / assemble / bind
- H. HTTP sever - host web site
- I. Use sed file to convert flat file to HTML
- J. Use sendmail and ftp
- K. Code / compile / run Java
- L. WebSphere

IX. *Sending notes, e-mails, and text messages*
- A. Communications possibilities
- B. Sending emails from a batch job
- C. Sending text messages from a batch job to a cell phone
- D. SMTP notes
- E. Communications possibilities conclusion

X. *Conclusion*
- A. z/OS.e and zNALC
- B. Final thoughts

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