



MAINFRAME

Mainframe is a high performance multi-user computer system which facilitates easy processing of bulk data with heightened security features. It is especially crucial for governments and large organizations. In other words, mainframe systems are the most scalable, available, reliable and secured systems in the world capable of performing about a million instructions per second. Now, that's something!

Why Mainframe?

- Mainframes are used for applications involving database management of any organization or industry that work with extremely high volumes of data such as banking, finance, healthcare, insurance, government etc.
- Even though Mainframe is a legacy system and slightly outdated, it still holds 60-70% of world's total business database.

What are the benefits of learning Mainframe?

- It's easy to learn.
- You need not have any background technical knowledge (Even suitable for ECE/EEE/E&I/CSE/IT/MECH Candidates)
- All MNC companies have Mainframe projects.
- It presents an easy opportunity to kick-start your career in an MNC with good starting package.
- Competition is less for Mainframe candidates as compared to other technology.

Course Duration

- 45 Working Days

Mainframe Curriculum

1)INTRODUCTION

- z/OS overview
- Storage management
- Managing work
- I/O processing

- Data management
- Job management and flow
- IPL: Initial Program Load and system initialization

2)TSO/ISPF

- z/OS TSO: Concepts and ISPF
- TSO ISPF start-up
- Browsing a dataset
- Editing a dataset
- TSO commands
- Command procedures and dialogs

3)JCL

- Introduction to JCL
- JOB , EXEC ,DD
- Running a simple job
- Using existing datasets
- Creating datasets
- Non-sequential datasets
- Running complex jobs
- Procedures

4)JCL Utilities

- IEBGENER
- IEBCOPY
- IEBUPDTE
- IEBDG
- IEBTPCH
- IEHLIST
- IEHPRGM
- SORT
- IDCAMS

5)COBOL Programming

- Writing a program that prepares a report
- Design, code, and test a structured program
- Features for structured coding
- How to define, move, and initialize fields
- Intrinsic functions and arithmetic statements
- Working with dates

- Working with characters
- Tables
- Copy members and subprograms
- Concepts and terms for working with disk files
- Flow of control – PERFORM
- Table processing
- Indexes and subscripts
- Loading tables
- Coding and using a sequential search
- Coding and using a binary search
- Memory manipulation with the REDEFINES
- Report processing
- Basic debugging techniques
- Sequential files
- Indexed files - VSAM KSDS
- Relative files - VSAM RRDS
- Sort/merge feature
- How to become an effective maintenance programmer
- Object oriented COBOL
- Multiple dimension table
- Processing multi-level tables
- Nested processing
- Invoking procedures and passing data
- Run-time options and parameter
- Variable length tables o Sequential file updating

6) VSAM for Programmers

- Access Method Services
- COBOL requirements for VSAM file handling
- COBOL for key-sequenced data sets
- VSAM datasets
- VSAM performance
- Application programming
- Access method services
- Using sequential and direct access
- Alternate indexes and paths
- VSAM security and data security
- Using Access Method Services
- Program using AIX sequentially

7) DB2: Application Programming

- DB2 fundamentals

- DB2 programming in COBOL
- DB2 objects
- SQL: Structured Query Language
- Retrieval operations
- Retrieval operations: built-in functions
- Other retrieval operations
- Update operations
- QMF: Query Management Facility
- Locking and performance
- EXPLAIN
- Coding considerations
- Embedded SQL
- Program design

8)CICS TS: Command Level Programming

- CICS concepts and terms
- CICS feature set
- Designing a CICS program
- creating a BMS map set
- BMS map set and symbolic map
- Coding a CICS program
- Testing a CICS program
- Temporary storage control
- CICS commands and programming techniques
- Program design
- Systems overview
- Menu program
- Maintenance program
- Processing files sequentially