

Chapter 1: VSAM: Introduction and Overview

You will learn:

- VSAM components.
- Organization of VSAM - catalogs and datasets.
- VSAM dataset types: ESDS: Entry-sequence Datasets, RRDS: Relative Record Datasets, KSDS: Key-sequenced Datasets, VRRDS: Variable Relative Record Dataset, and LDS: Linear Dataset.
- Alternative indexes and paths.
- Control Intervals and Control Areas.
- VSAM dataset definition.
- Access Method Services.
- AMS commands, functional commands, and modal commands.

Chapter 2: Access Method Services

You will learn:

- Definitions: cluster, KSDS, and ESDS.
- How data resides in the CI.
- DEFINE CLUSTER parameters.
- IMBED and REPLICATE parameters.
- SHAREOPTIONS.
- Loading a KSDS.
- Dynamic allocation of files.
- Loading an ESDS.
- Loading an RRDS.
- REPRO parameter.
- REPRO as backup and restore facility.
- RESTORE.
- KSDS: reorganization.
- Printing a VSAM dataset.
- System-managed data.
- AMS ALLOCATE: allocating datasets.
- ALLOCATED - Defining a temporary VSAM dataset.
- Extended Format Dataset - defining.

Chapter 3: VSAM Datasets

You will learn:

- Control Interval Control Information.
- Record definition Field and Binary Number Field.
- Access modes: sequential access, direct access, skip-sequential access, and control interval access.
- Entry-sequenced Datasets - Control interval structure, and processing options.
- Relative-record Datasets - Control interval structure, and processing options.
- Keyed sequential processing.
- Keyed direct processing.
- Skip-sequential processing.
- Key-sequenced Datasets - index component and index record structure.
- Free control interval pointers.
- Key, front, and rear compression.
- Index entries for spanned records.
- Non-spanned and spanned records.
- Key-sequenced Datasets - data component, distribution free space, free space computation, and processing options.
- Control interval and control area splits.
- Splits during direct and sequential processing.
- Keyrange datasets.

Chapter 4: Application Programming

You will learn:

- AMS DEFINE CLUSTER Level: tuning.
- Defining a VSAM dataset in a program.
- Connecting a program to a VSAM dataset.
- Processing VSAM datasets.
- CRP: Current Record Pointer.
- Invalid key condition.
- WRITE statement.
- START command.
- READ statement.
- Sequential retrieval.
- Random (Direct) retrieval.
- REWRITE statement.
- DELETE command.
- Disconnecting a program from a VSAM dataset.
- FILE STATUS values.
- KSDS Random and sequential access.

Chapter 5: Alternate Indexes and Paths

You will learn:

- Alternate indexes - alternate keys, alternate index upgrade, paths, and processing options.
- Alternate index allocation.
- Unique AIX on a KSDS.
- Nonunique AIX on a KSDS.
- Unique AIX on ESDS.
- Nonunique AIX on ESDS.
- BLDINDEX: LOAD function.
- JCL for loading alternate index records.
- Access a VSAM KSDS sequentially and randomly.
- Defining alternative indexes in COBOL.

Chapter 6: New VSAM Features

You will learn:

- CICS/VSAM data sharing.
- RLS access mode.
- CICS transactional recovery for VSAM files.
- VSAM RLS recoverable and non-recoverable spheres.
- Non-CICS use of VSAM RLS.
- Non-RLS access to datasets.
- Locking.
- VSAM RLS read integrity options.
- Linear datasets.
- Variable-length Relative Record Datasets.
- Choosing whether to compress a dataset.
- Dataset definition: JCL and VSAM dataset creation.
- Allocate a system-managed Key-sequenced Dataset
- Allocate a temporary VSAM dataset.
- Reusing a VSAM dataset as a work file.