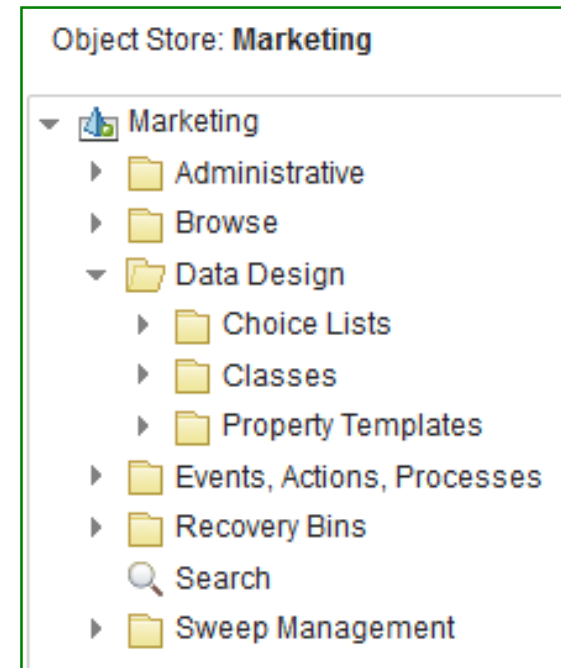# Build a FileNet Content Repository

Unit objectives

- Create JDBC data sources
- Create an object store
- Add an object store as a repository to an IBM Content Navigator desktop

What is an Object Store?

- A repository for storing objects
  - Object metadata is in a database.
  - Content can be stored in the database or it can be stored in storage areas:
    - File storage area
    - Fixed storage area
    - Advanced storage area
    - Content cache area

- Sample tasks that are done in an object store:
  - Configure security and storage policies.
  - Create objects to store data.
  - Configure events and processes.
  - Browse to the objects.
  - Search for documents and folders.
  - Manage Sweeps.
  - Configure Index.

Object Store: **Marketing**

- ▼ ⬙ Marketing
  - ▶ 📁 Administrative
  - ▶ 📁 Browse
  - ▼ 📁 Data Design
    - ▶ 📁 Choice Lists
    - ▶ 📁 Classes
    - ▶ 📁 Property Templates
  - ▶ 📁 Events, Actions, Processes
  - ▶ 📁 Recovery Bins
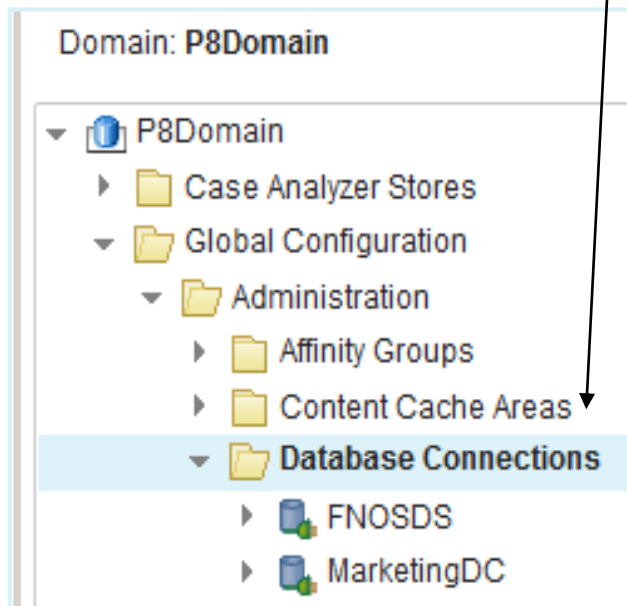 - 🔍 Search
  - ▶ 📁 Sweep Management

Object store database

- Object stores can share a database, but they must use separate schemas.

- If you require a separate database, a database administrator can create one that meets the documented requirements.
  - Example: DB2 for Linux, UNIX, and Windows server
    - Use SERVER authentication.
    - Set the DB2 code set to UTF-8.
    - Set the page size to 32 KB.

- See IBM Knowledge Center for database requirements:
  - Microsoft SQL
  - Oracle
  - DB2 fro z/OS
  - DB2 for Linux, UNIX, and Windows server

- GCD database
  - Contains domain configuration properties
  - Not usually shared with object stores

What is a database connection object?

A database connection identifies the data source pair that provides the Java Database Connectivity to the database.

Create a database connection in Administration Console for Content Platform Engine.
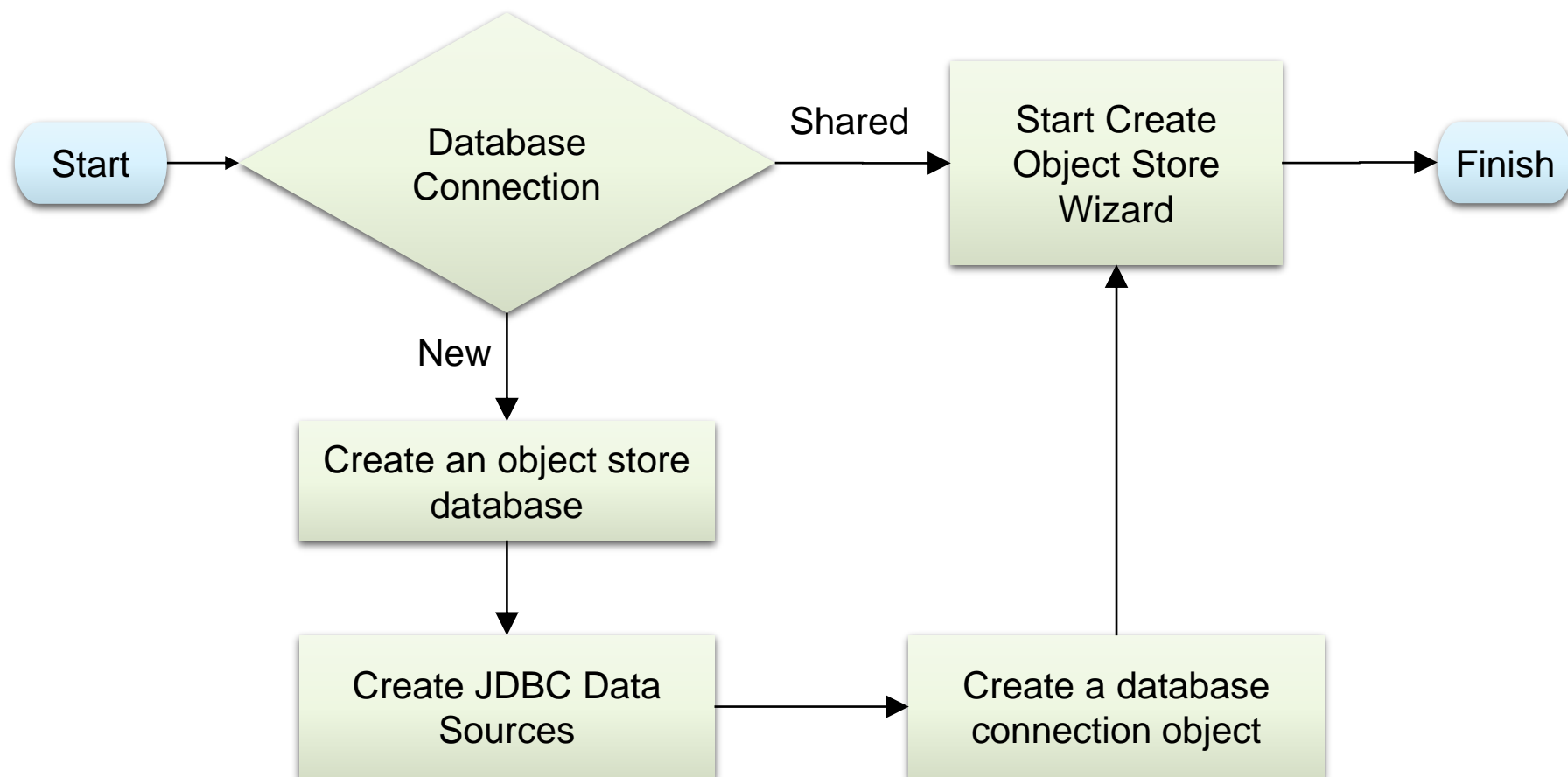

It is specific to a site.

Object store and database connectivity

- The JDBC data source information is used by Content Platform Engine to connect to global configuration database (GCD) and object store databases.
- You must configure two JDBC data sources for each database connection object.
  - XA
  - Non-XA
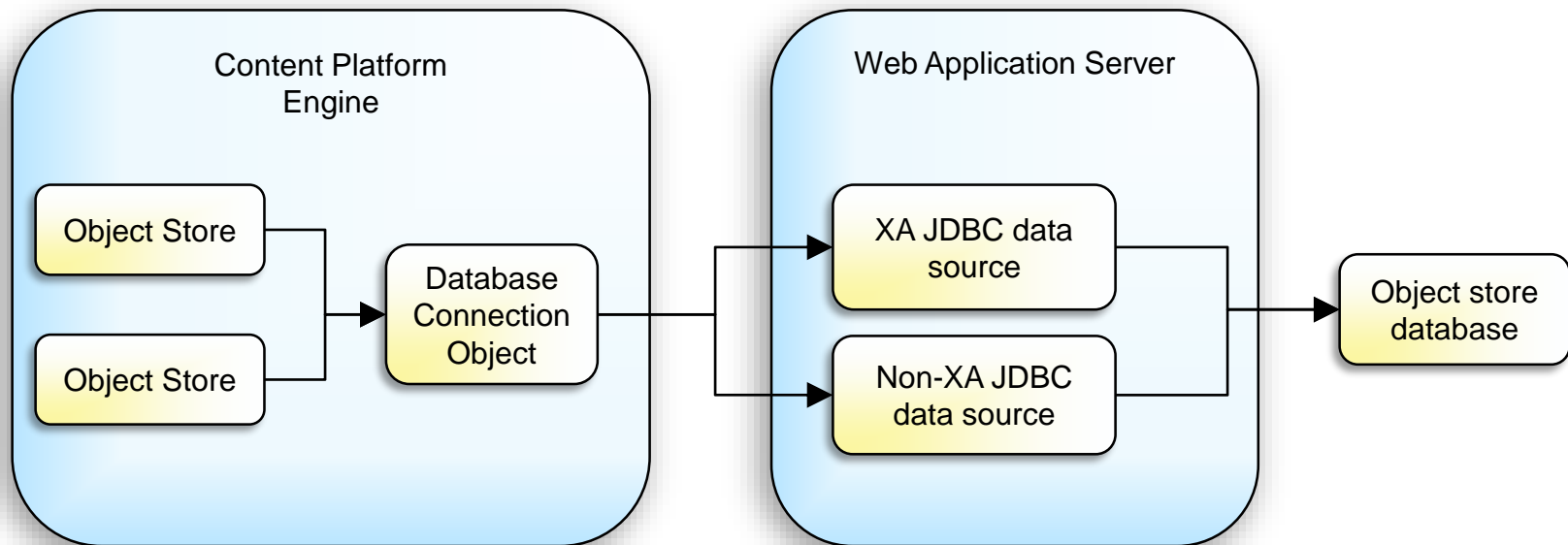
Object Store creation overview

Start → Database Connection

Database Connection —Shared→ Start Create Object Store Wizard → Finish

Database Connection —New→ Create an object store database → Create JDBC Data Sources → Create a database connection object → Start Create Object Store Wizard
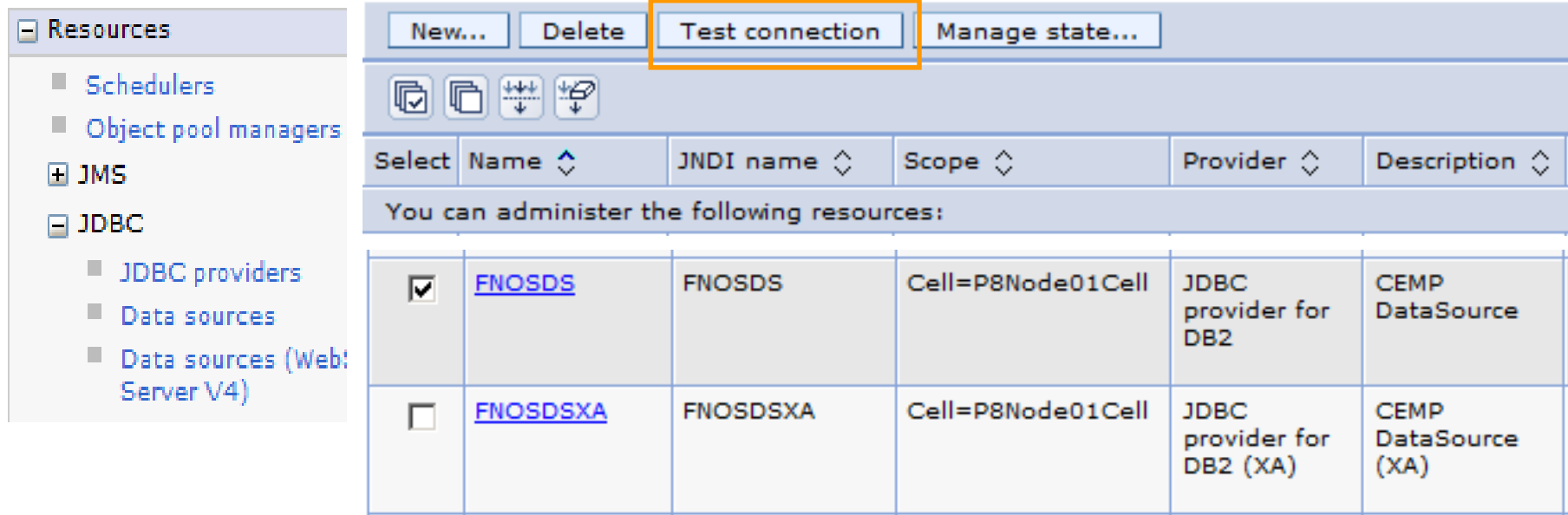
What is IBM FileNet Configuration Manager?

- IBM FileNet Configuration Manager is a tool that automates FileNet Content Manager configuration tasks.

- Used for configuring FileNet P8 settings:
  - Data sources that are required for object stores.
  - JDBC connections
  - LDAP connections
  - Bootstrap properties

- You can use Configuration Manager to generate one or more unique Content Platform Engine configuration profiles.
  - A profile is a collection of information that is required to configure and deploy new or upgraded Content Platform Engine instances.
  - Example: **CEConfig.cfgp**
  - You can use profiles as templates for configuration.

Testing JDBC Data Sources

- Use the WebSphere Application Server administrative console

  `http://<ServerName>:9043/ibm/console/logon.jsp`
  - Resources > JDBC > Data sources

Sharing Database Connections

> Multiple object stores or isolated regions in a single database can share a database connection.

Database Connection: FNOSDS

General	Properties	**Object Stores**

	Name ▲	Database Schema Name
🔷	LoanProcess	LoanProcess
🔷	LoanProcessQA	LoanProcessQA
🔷	P8ConfigObjectStore	OSDBUSER
🔷	Sales	Sales
🔷	SalesQA	SalesQA
🔷	SalesSBx	SalesSBx

> Each object store uses a unique schema name.

- Benefits
  - Reduces the application server administrative load.
  - Reduces the database administrator load.
  - Requires fewer data sources and database connections.
  - Provides a way to create new object stores without the intervention of the Database Administrator and the Application Server Administrator.

Prepare to Create an Object Store

- Plan the number of object stores that are needed for the following tasks:
  - Supports enterprise IT organizational structure
  - Simplifies security for many document types and deep folder structures
  - Improve search performance
- Determine one or more file storage areas
  - Improves retrieval performance for large documents.
- Consider which database type you use.
  - All the object stores that you create must be based on the same database type.
- Determine database connections.
- Decide which users and groups work with the object store and their rights.
  - Adding users and groups after you create an object store is time-consuming.

Add-ons for an Object Store

- You can configure a number of AddOns.
  - Select only needed Add-ons during Object Store creation.

- Default Add-on
  - Base Content Engine Extensions Add-ons are selected by default.

- Custom Add-ons
  - You can create custom Add-ons and install it on the Content Platform Engine.

- Workplace Base Extensions and Workplace XT Extensions are required for IBM Content Navigator.

5.2.1 Base Application Extensions
5.2.1 Base Content Engine Extensions
5.2.1 Process Engine Extensions
5.2.1 Stored Search Extensions
5.2.1 Thumbnail Extensions
5.2.1 Workplace Base Extensions
5.2.1 Workplace Templates Extensions
5.2.1 Workplace XT Extensions

IBM Content Navigator

- IBM Content Navigator is a client for FileNet P8 Platform.
  - Provides a console for users to work with content.
  - Replaces IBM FileNet Workplace XT (IBM FileNet P8 5.2.1 and later).
- Connects to several types of repositories:
  - IBM Content Manager Enterprise Edition repositories
  - IBM Content Manager OnDemand repositories
  - IBM FileNet P8 repositories
  - OASIS Content Management Interoperability Services (CMIS) repositories
- For users to access the object store in IBM Content Navigator, you must configure the object store as a repository.
  - Connect IBM Content Navigator to the repository.
  - Associate the repository with an IBM Content Navigator desktop.
  - The object store must include 5.2.1 Workplace and Workplace XT extensions

Instructor demonstration

- Create a data source for an object store.

Unit summary

- Create JDBC data sources
- Create an object store
- Add an object store as a repository to an IBM Content Navigator desktop

Exercise: Build a FileNet Content Repository

Exercise objectives

- Create JDBC data sources for an object store.
- Create an object store.
- Add an object store as a repository to an IBM Content Navigator desktop.