

Unit 3. Content Data Structures

Unit overview

This unit contains these lessons.

Lessons

Lesson 3.1 - Create content data structures, page 3-3

Lesson 3.2 - Modify content data structures, page 3-25

Skill levels

Select one of these skill levels to perform the activities:

- Challenge: Minimal guidance
- Walkthrough: More guidance, with step-by-step directions

Unit dependencies

The activities in this unit must be performed in the given order.

This unit is dependent upon completing the following units:

- Introduction to IBM FileNet Content Manager
- Content Storage

Requirements

The activities in this unit assume that you have access to the student system configured for these activities.

Activity: Create content data structures

Introduction

In this exercise, you create choice lists and property templates in the Sales object store using the information provided in the Data tables. Then you create the several document classes, testing each class by creating the specified instance using Workplace XT and sample documents.

Procedures

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Procedure 6, Create a Quote document class, page 3-21

Procedure 1: Create a choice list

Create the Prospect Type choice list. You are going to use this choice list to create the Prospect object class.

1. Start Enterprise Manager:
 - a. Click Start > Programs > IBM FileNet P8 Platform > FileNet Enterprise Manager Administration Tool.
 - b. If necessary, connect to the FileNet P8domain.
 - Username: filenetadmin
 - Password: IBMFileNetP8
2. Create a Prospect Type choice list.
 - a. Select the Choice Lists node in the Sales object store.
 - b. Click Action > New Choice List.

The *Create a Choice List* window opens.
 - c. Click Next
 - d. Type the name and description provided in the following table and then click Next.

Prompt	First choice list
Name	Prospect Type
Description	Prospect Type

- e. Accept the String data type and click Next.
- f. Add the choice items from the data table to the choice list:
 - i. On the *Add Choice List Elements* page, click New Items.
The Add Item window opens.
 - ii. For each choice item identified in the table, type the choice item name in the Display Name field and click Add.

Display Name	Value
Dealer	Dealer
End User	End User
Reseller	Reseller

- iii. When you have added all the choice items, click OK to close the Add Item window.

The screenshot shows a window titled 'Add Item' for the 'Prospect Type' category. Inside the window, there is a list of items: 'Dealer(Dealer)', 'End User(End User)', and 'Reseller(Reseller)'. To the right of the list, there are four buttons: 'New Items', 'New Groups', 'Edit', and 'Remove'. At the bottom of the window, there are two buttons: 'Move Up' and 'Move Down'.

- g. Click Next and then click Finish to complete the wizard.
- h. Click OK on the *Choice List Create Confirmation* window.

Display Name	Description	Data Type	Created By	Create Date	
Entry Choices	Entry Choices	String	P8Admin	3/1/2011 4:11:25 PM	
Form Types	Form Types	String	P8Admin	3/1/2011 4:11:27 PM	
payment_types	payment_types	String	P8Admin	3/1/2011 6:45:09 PM	
Preference Type	Preference Type	String	P8Admin	3/1/2011 4:11:37 PM	
Prospect Type	Sales Prospect Type	String	P8Admin	4/22/2011 7:58:24 AM	

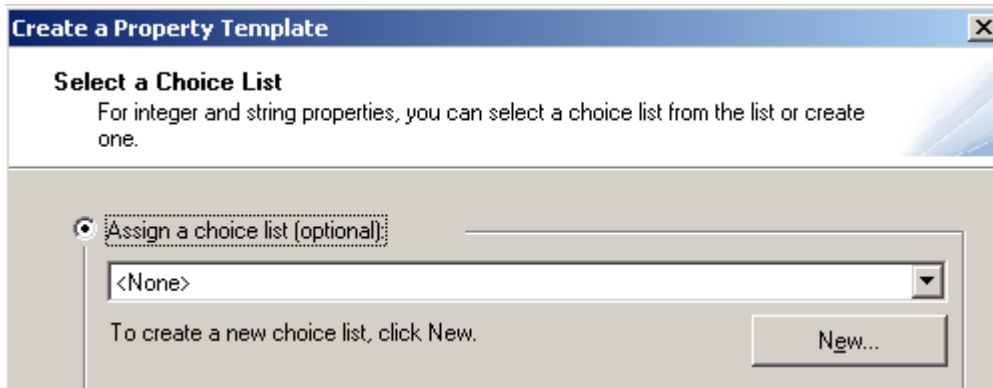
Procedure 2: Create property templates

Here you create several property templates that you will use in the procedure that follows to create a Prospect class.

1. Create a contact_methods property template.
 - a. In Enterprise Manager, select the Property Templates node in the Sales object store.
 - b. Click Action > New Property Template.
The Create a Property Template window opens.
 - c. Click Next.
 - d. Complete the *Name and Describe the Property Template* page, and then click Next.

Prompt	Value
Name	contact_methods
Symbolic Name	contact_methods
Description	contact_methods

- e. On the *Select the Data Type* page, select String and then click Next.
The *Select a Choice List* page opens.
 - i. Accept the default option selection of <None> for *Assign a choice list (optional)* (optional).



- ii. Click Next.
- f. Complete the *Single or Multi-Value* page.
 - i. In the *Single or Multi Value* group box, select the option Multi.
 - ii. Then select the *Unique and unordered values* option.

Create a Property Template

Single or Multi-Value?
Will the property be a single value or a multi-value? Most properties are single, but choose multi-value if the property will contain a list.

Single or Multi Value

☐ Single

☒ Multi

☐ Non-unique and ordered values (such as lines in an address)

☒ Unique and unordered values (such as the list of primary colors)

To set other property template attributes, click More.

More...

- g. Click Next.
 - h. Review the property template information and click Finish.
 - i. Click OK to close the *Property Template Create Confirmation* window.
2. Create a prospect_name property template.
 - a. Use the following data table to create the prospect_name property template.

Prompt	Value
Name	prospect_name
Symbolic Name	prospect_name
Description	prospect_name
Data type	String
Assign a choice list	<None>
Single or Multi-Value	Single

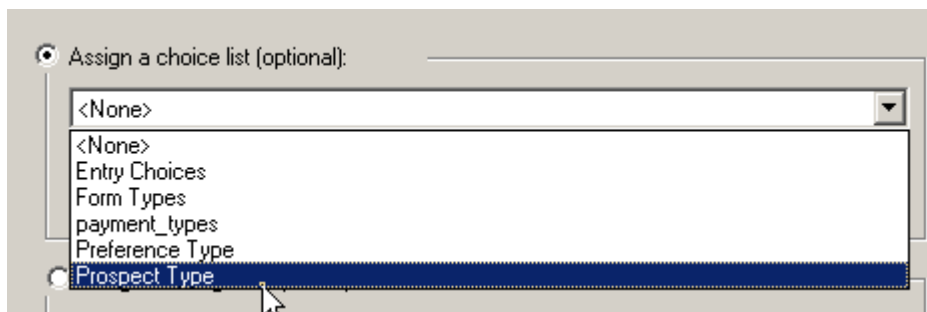
- b. Click Finish, and then click OK on the confirmation window.

3. Create a prospect_category property template.
 - a. Use the following data table to create the times_contacted property template.

Prompt	Value
Name	prospect_category
Symbolic Name	prospect_category
Description	prospect_category
Data type	String

b. Assign a choice list.

- i. Select the Prospect Type choice list that you created at the beginning of this lesson and click Next.



c. Select Single on the *Single or Multi-Value* and click Next.

d. Click Finish and the OK on the confirmation window.

4. Create a last_contact_date property template.

a. Use the following data to create the last_contact_date property template.

Prompt	Value
Name	last_contact_date
Symbolic Name	last_contact_date
Description	last_contact_date
Data type	DateTime
Single or Multit-Value	Single

b. Click Finish and the OK on the confirmation window.

5. Create a times_contacted property template.

a. Use the following data table to create the times_contacted property template.

Prompt	Value
Name	times_contacted
Symbolic Name	times_contacted
Description	times_contacted
Data type	Integer
Choice list	<none>
Single or Multi-Value	Single

b. Click Finish and the OK on the confirmation window.

6. Review the Property Templates.

a. Click the column heading, Display Name, to sort the property templates in ascending order.

Display Name	Description	Data Type	Created By	Create Date	Category	ID
address	address	String	P8Admin	3/1/2011 6:45:19...		{C...
amount_due	amount_due	Float	P8Admin	4/11/2011 4:04:0...		{E...
Animation Enabled	Animation ...	Boolean	P8Admin	3/1/2011 4:11:29...		{C...
Application Name	Application...	String	P8Admin	3/1/2011 4:11:25...	Foundati...	{E...
AssociatedPropertyID	Associated...	ID	P8Admin	3/1/2011 4:11:23...	Content ...	{E...
available	available	Binary	P8Admin	3/1/2011 6:45:22...		{C...
Cc	Cc	String	P8Admin	3/1/2011 4:11:42...		{C...
Component Binding Label	Componen...	String	P8Admin	3/1/2011 4:11:23...		{C...
contact_methods	contact_m...	String	P8Admin	4/21/2011 9:09:5...		{F...
contact_name	contact_na...	String	P8Admin	4/22/2011 8:31:0...		{E...

- b. Click the column heading, Data Type, to sort the property templates by data type.
7. Refresh the object store.
 - a. Select Sales.
 - b. From the menu bar click Action > Refresh.

Procedure 3: Create a root folder Prospects

1. Create a Prospects folder.
 - a. In Enterprise Manager, select Sales > Root Folder.
 - b. Click Action > New Subfolder.
The Create a New Folder Wizard opens.
 - c. Type `Prospects` as the Folder Name.
 - d. Click Next.
The *Class and Properties* page is displayed.

Create New Folder Wizard

Class and Properties

Select class from available list and set the property values.

Class:

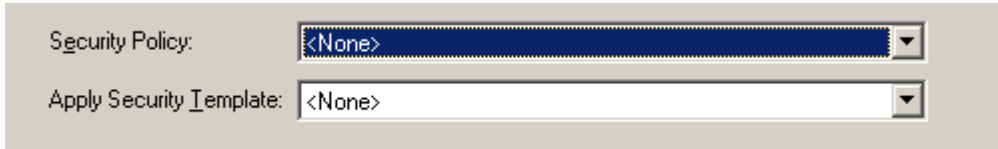
Folder

☐ List hidden classes
☐ List all properties

	Property Name	Property Value
0	Parent	[Object ()]
1	Folder Name	Prospects
2	Inherit Parent Permissio	TRUE
3	IsHiddenContainer	FALSE
4

- e. Accept the default Class value of Folder and click Next.

- f. Accept the default selections on the Advanced Features page.



The screenshot shows a window with two dropdown menus. The first is labeled 'Security Policy:' and the second is labeled 'Apply Security Template:'. Both dropdown menus are currently set to '<None>'. The window has a light beige background and a standard Windows-style border.

- g. Click Finish.

A new folder named Prospects is listed below Root Folder in the tree view to the left.

Procedure 4: Create a document class Prospect

All the properties required for the Prospect class are available in the Sales object store.

1. Create a Prospect document class.

- a. In the Enterprise Manager tree view to the left, select Sales > Document Class.
- b. Click Action > New Class.

The *Create a Class* Wizard starts.

- c. Click Next.
- d. Type `Prospect` as the class name, and accept `Prospect` for the symbolic name and for the description, and then click Next.

2. Complete the Select Properties page.

In the instructions that follow (step b), be sure to add the properties in the sequence shown, because Workplace XT will display these properties in the reverse order of the sequence that you entered them. That is to say, you want `prospect_name` to be displayed first (after Document Title), then `phone_numbers`, then `email_address`, then `address`, and so on. So `prospect_name` should be entered last, after `phone_numbers`, after `email_address`, after `address`, and so on.

- a. In the Available panel, scroll down and select `prospect_category`, and then click the double right arrow (>>) to add the property to the Selected panel.
 - b. Select and add the remaining properties in the sequence that they are listed to the Selected Properties list.
 - `prospect_category` (already done)
 - `times_contacted`
 - `last_contact_date`
 - `contact_name`
 - `contact_methods`
 - `address`
 - `email_address`
 - `phone_numbers`
-

- prospect_name
- c. Verify that the check box *Refresh Parent Class Node* is selected and click Next.
- d. Click Next on the *Select Property Attributes* page.
- e. On the *Specify Content Storage and Replication Parameters* page, accept the default option selection of *Inherit Settings From the Parent Class*.
- f. Click Next
- g. Click Next on the Configure Auditing
- h. Click Finish, and then click OK on the Confirmation window.

The new Prospect class is listed in the right pane of Enterprise Manager.

- I. Minimize Enterprise Manager.

Create an instance of the Prospect class to verify that it has the metadata required by the class specification. This instance is a prospect email file (the first email sent to this prospect.)

- b. Run Workplace XT and Enter your account information and click *Log in*.

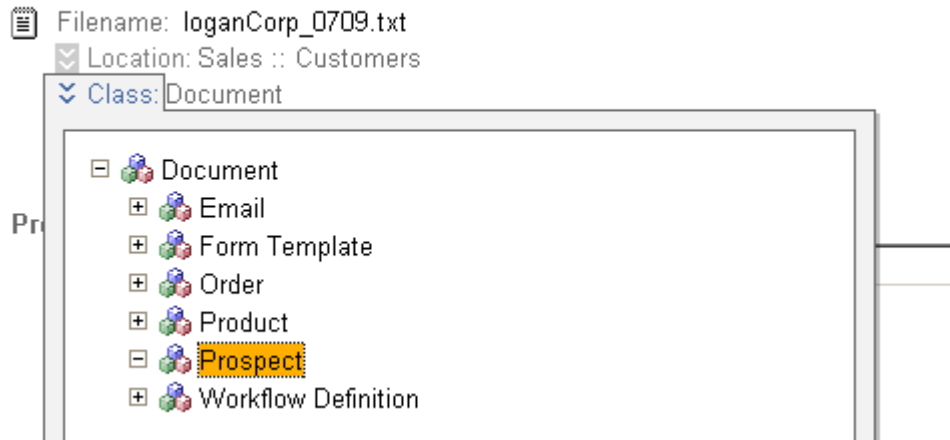
- User name: carol
- Password: IBMFileNetP8

- c. Select Sales > Prospects.

- d. Click the Add Document icon.

The Add Document browser window opens.

- i. Browse to
C:\Labs\P8Administration\DataStructures.
- ii. Select loganCorp_0709.txt and click Open.
- e. Click Next on the Add Document window.
- f. Click Class, select the Document > Prospect subclass, and click OK.



The property fields for the Prospect class are listed in the Add Document window.

- g. Enter Logan Corporation for prospect_name.
- h. Add phone numbers.
 - i. Click on phone_numbers and type in 123 123-4455
 - ii. Click Add. The number is moved to the Selected items box.
- iii. Repeat steps 3g-i to 3g-ii to add the number 123 222-3333, and click OK to close the phone_numbers sub-window.

Properties

Document Title:

☒ phone_numbers:

email_address:

iv.

- j. Type or select the remaining data in the class entry fields:

Prompt	Value
email_address	mlogan@logan.com
address	1515 Harbor, Newport, CA 90000
contact_methods	Email
contact_name	Max Logan
last_contact_date	[previous workday date]
times_contacted	1
prospect_category	Dealer

- k. Click Add.

- l. Click OK to close the Add Document window.

4. Inspect the new prospect object.

- a. Select the loganCorp_0709.txt document entry in the Sales > Prospects folder.
- b. Click the information icon in the Tools menu bar.

The properties windows opens

- c. Click Cancel to close the Properties page.
- d. Log out of Workplace XT and minimize the browser.

Procedure 5: Create a folder class Vendor

1. Create the Vendor folder class on the Sales object store.
 - a. Restore Enterprise Manager.

You are logged in as filenetadmin.







- b. Select the Sales object store and expand Other Classes.
 - c. In the left column, select Folder.
 - d. Click Action > New Class.

The Create a Class Wizard starts.

- e. Use the data provided for this step to specify the properties for the class.

Prompt	Value
Name	Vendor
Symbolic Name	Vendor
Description	Vendor folder
Select Properties	<ul style="list-style-type: none">• vendor_name• vendor_id• address• contact_name• phone_numbers

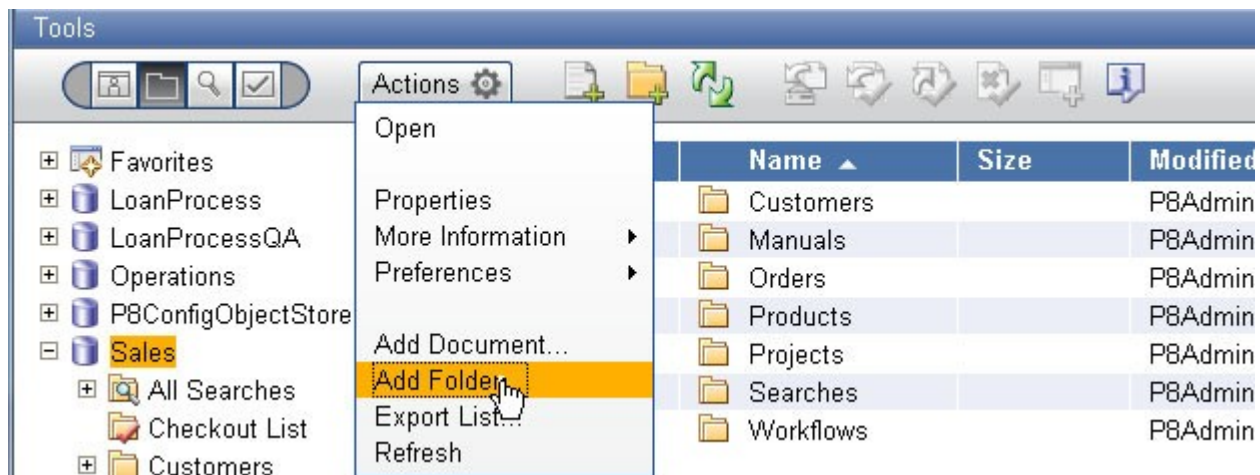
- f. Complete the wizard, accepting the defaults for the remaining fields.

Display Name	Description	Data Type	Created By	Create Date	
 Form Proxy Folder	Form Prox...		P8Admin	4/18/2011 2...	
 Preferences Folder	Preference...		P8Admin	4/18/2011 2...	
 Project	Project		P8Admin	4/18/2011 2...	
 Vendor	Vendor folder		P8Admin	5/23/2011 2...	
 Container Type	Container ...	String			
 IsHiddenContainer	IsHiddenC...	Boolean			

- g. Minimize Enterprise Manager.
 2. Create a Vendors folder.
 - a. Run Workplace XT.
 - b. Enter your account information and click *Log in*.
-

- User name:
filenetadmin
- Password:
IBMFileNetP8

- c. Select the Sales object store.
- . Create a folder to contain the vendor folders.
 - i. Click Actions > Add Folder to open the Add Folder browser window.



- ii. Accept the default class of Folder.
 - iii. Type `Vendors` in the Folder Name field and click Add.
 - iv. Click OK to close the Add Folder browser window.
3. Create a Vendor subclass folder instance named *PC Paper*.

In Workplace XT, create a folder instance of the Vendor subclass (a subclass of Folder) to verify that it has the metadata required by the class specification.

- a. Select Sales > Vendors.
- b. Click Actions > Add Folder.
- The Add Folder browser window opens.
- c. Click Class, select the Folder > Vendor subclass, and click OK.



- d. Complete the Properties fields with the following data.

Property	Value
Folder Name	PC Paper
phone_numbers	808 555-1234
contact_name	Harry Smith
address	200 Main Costa, CA 92626
vendor_id	001
vendor_name	PC Paper Supplies

e. Click Add, and then click OK to close the Add Folder browser window.

Name ▲	Size	Modified By	Modified On	Major Version
 PC Paper		CEadmin	5/23/11 2:55 PM	

- f. Select the PC Paper entry and click the information icon in the Tools menu bar.
- g. Click Cancel to close the Properties page.

Procedure 6: Create a Quote document class

1. Create two new property templates.

a. Restore Enterprise Manager.

You are logged in as
filenetadmin.

b. Select Sales > Property Templates.

c. Use the following data table to create the salesperson_id property template.

Prompt	Value
Name	salesperson_id
Symbolic Name	salesperson_id
Description	salesperson_id
Data type	Integer
Assign a choice list	<none>
Single or Multi-Value	Single

d. Use the following data to create the date_needed property template.

Prompt	Value
Name	date_needed
Symbolic Name	date_needed
Description	date_needed
Data type	DateTime

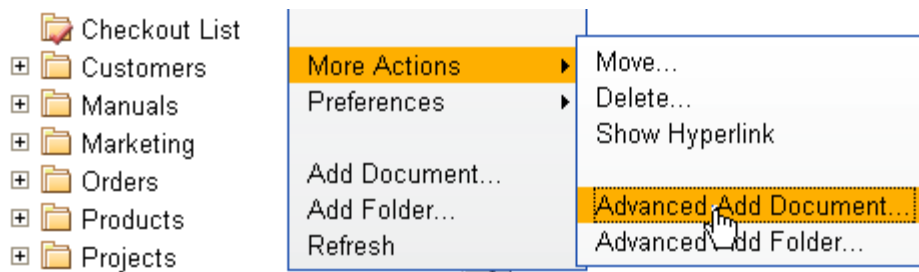
Single or Multit-Value	Single
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2. Create a Quote document class in the Sales object store.
 - a. Select Sales > Document Class.
 - b. Click Action > New Class to start the Create a Class Wizard, and then click Next.
 - c. Type `Quote` as the name, symbolic name, and description, and then click Next.
 - d. Add the following properties in the sequence listed below, and then click Next.
 - `customer_name`
 - `contact_name`
 - `address`
 - `salesperson_id`
 - `date_needed`
 - e. Complete the wizard accepting the default values, and click Finish. f.

Minimize Enterprise Manager.

3. Create a Quote instance.

-
- a. Run Workplace XT.
 - b. Enter your account information and click *Log in*.
 - User name: `filenetadmin`
 - Password: `IBMFileNetP8`
 - c. Select Sales > Vendors > PC Paper.
 - d. Click Actions > More Actions > Advanced Add Document.



The Add Document browser window opens.

- e. For the Select File step:
 - i. Browse to `C:\Labs\P8Administration\DataStructures`.
 - ii. Select `TestPriceQuote1.doc` and click Open.
- f. Click Next on the Add Document window.
- g. For the Set Properties step, click the selection button to the right of Class and select Sales > Document > Quote.

h. In the Property section of the window, type or select the following values:

Property	Value
Document Title	TestPriceQuotel.doc
date_needed	[Select date one week from today]
salesperson_id	1
address	16 Green Newport, CA 91234
contact_name	Harry Smith
customer_name	Susan Parks

i. Accept the default value of No for Compound Document.

j. Accept the default value of Yes for the option *Add as major version*.

k. Click Finish.

l. Click OK to close the Add Confirmation page.

4. Verify properties for the Quote document.

a. Select the document entry for the document you just added.

b. Click the Information icon to open the Properties page of the new document.

c. Click Cancel to close the Properties page.

d. Log out from Workplace XT and minimize the browser window.

Lesson 3.2. Modify content data structures

Why is this lesson important to you?

Your solution designer has identified aspects of your business solution that require changes to existing content data structures. As the solution builder, you must implement the required changes.

Activities

- Modify content data structures: Challenge, page 3-27
- Modify content data structures: Walkthrough, page 3-29
 - Optional activity: Work with metadata dependencies, page 3-37

Modify content data structures: Challenge

Challenge

Use Enterprise Manager to make the following metadata changes on the SalesSBx object store. Make and verify the correction on the PO3411.tif file.

- Change the display name of the product_id property template to `product_id_code`.
- Add a group Debit Card to the payment_types choice list. Create the following list items in the group: PayPal, BankOfUSA, and Amazon.
- Change the class of the PO3411.tif document in SalesSBx > Orders from the ProductOrder class to the ServiceOrder class.

Verification

- Examine the existing documents of the Product class. The documents have a product_id_code property instead of a product_id property. The product_id_code has a data value, which was retained.
 - The payment_types choice list includes Debit Card with the items PayPal, BankOfUSA, and Amazon.
 - Ensure that the PO3411.tif document no longer has the product_ids property. The file has the service_date and hours properties, which are both blank.
-