FIREBRAND

Microsoft

Dynamics CRM 2015 Installation and Deployment

Microsoft Specialist

Labs

Labs content

Introduction to the Labs

Objectives

Purpose

The purpose of the labs is to reinforce the learning in the courseware.

In the main, the labs focus on the mechanics of how to install Dynamics CRM. The labs do not require deep infrastructure skills and you will not be asked to install Windows or SQL.

Multi-Server Deployment

The labs utilise a number of virtual machines, Office 365 and Dynamics CRM Online.

Location of files

The Microsoft Dynamics installation files are on the second drive on the first CRM server under F:\CRM 2015\Install

Passwords

The crmadmin user account has a password of Pa$$w0rd.

All service accounts have a password of Pa$$w0rd.

Product Key

The 90 day Trial key will be used for the labs. The keys are:

- Microsoft Dynamics CRM Workgroup Server 2015 (5 CAL limit): XY8GN-DF2MC-FV482-YM9YP-HH6H2
- Microsoft Dynamics CRM Server 2015 (no CAL limit): C6BDP-T6NK9-8TXJP-36WTB-TXW7V

Implications of using a cloud service

The user interface and functionality in Office 365 is subject to change without notice so the steps listed may not be correct.

Labs

Install Dynamics CRM Server

Objectives

Successfully install Dynamics CRM server on a single computer.

Steps

Start Virtual Machines

Start the Virtual machines in the following order:

- Case-Study-AD
- Case-Study-SQL
- Case-Study-RS
- Case-Study-CRM1

Login to each server as crmadmin to verify has started correctly

If Windows License has expired start a Command Prompt as Administrator and run slmgr –rearm and reboot the virtual machine.

Check Active Directory

Start Active Directory Users and Computers

Write down name of OU where CRM Security Groups will be created

AD Organisational Unit

Write down account names for service accounts

Service Account	Account Name
CRM Application Service	
CRM Asynchronous Service	
CRM Deployment Service	
CRM Monitor Service	
CRM Sandbox Service	
CRM VSS Writer Service	

Verify SQL Server

Login to Case-Study-SQL as crmadmin and start SQL Server Management Studio and view the databases.

Start the SQL Server Agent service and set to run Automatically.

Open Port 445 for Inbound Domain only.

Verify SQL Reporting Services

Login to Case-Study-CRM1 as crmadmin and start Internet explorer and browse to http://case-study-rs/reportserver

CRM Server 1 Pre-Requisites

Login to Case-Study-CRM1 as crmadmin and do the following

- Install .NET 4.5.2 – NDP452-KB2901907-x86-x64-AllOs-ENU.exe from F:\CRM 2015\PreReqs
- Add the CRMApplication user and CRM Asynchronous Service user to the Local Group Performance Log Users via Computer Management->Local Users and Groups->Groups
- Add the Web Server Role through Server Manager

Install CRM Server on CRM Server 1

Login to Case-Study-CRM1 as crmadmin and run the CRM Server setup in F:\CRM 2015\Install extracting the files to C:\CRM\Server

Prompts	Response
Get Recommended Updates	Do not get updates
Product Key	Use key listed above
License Agreement	Accept
Download and Install Required Components	Record list of components below and Install
Installation Directory	Default
Specify Server Roles	Full Server
Create or connect to a deployment	Create a new deployment
SQL Server	Case-Study-SQL
Select Organisational Unit	OU documented above
Specify Service Accounts	Service Accounts documented above
Select Website	Create new website on port 5555
Email Router server name	Leave blank
Display Name	Your choice
Unique Database Name	Verify no spaces or special characters and less than 50 characters long
Report Server URL	http://case-study-rs/reportserver
CEIP	No
Microsoft Update	No

Record Components installed

Component

Component

Review Logs

Check files in C:\Users\crmadmin\AppData\Roaming\Microsoft\MSCRM\Logs

Review IIS

Start IIS and check the web components created

Review SQL Server Databases

Record the names of databases created.

Database Name

Review AD Security Groups

Record the names of service groups created in AD.

Name

Start CRM

What URL will you use to connect to CRM?

URL

Test access to CRM using this URL.

Install Reporting Extensions

Which computer will you install reporting extensions on?

Name

Run C:\CRM\SrsDataConnector\SetupSrsDataConnector.exe

Prompts	Response
Get Recommended Updates	Do not get updates
License Agreement	Accept
SQL Server	Case-Study-SQL
SSRS Instance	MSSQLSERVER
Microsoft Update	No
Installation Directory	Default

Install Sample Data

Browse to http://case-study-crm1:5555

In the Microsoft Dynamics CRM web application, navigate to Settings.

Navigate to Data Management.

Click Sample Data.

In the Sample Data window, click Install Sample Data

End of Lab

Redeployment

Objectives

Make a copy of a CRM Organisation for Training.

Steps

Start the Virtual machines in the following order:

- Case-Study-AD
- Case-Study-SQL
- Case-Study-RS
- Case-Study-CRM1

Copy SQL Database

Login to Case-Study-SQL as crmadmin and complete the following steps:

- Start SQL Server Management Studio and list the databases
- Backup the MSCRM database created in the previous lab
    - Right-click <Organisation>_MSCRM.
    - Click Tasks and then click Back Up.
    - In the Back Up Database – <Organisation>_MSCRM window, accept all default settings and click OK.
    - When the backup completes, in the Microsoft SQL Server Management Studio window, click OK
- Restore a copy of the database as Training_MSCRM.
    - Right-click <Organisation>_MSCRM.
    - Click Tasks and then click Restore and then click Database.
    - In the Restore Database – <Organisation>_MSCRM window, in Database under Destination, replace <Organisation>_MSCRM with Training_MSCRM.
    - Click Files.
    - Click the ellipsis button (…) at the end of the Rows Data line.
    - In the Locate Database Files window, in File name, type Training_MSCRM.mdf. Click OK.
    - Click the ellipsis button (…) at the end of the Log line.

- In the Locate Database Files window, in File name, type Training_MSCRM_log.ldf. Click OK.
- In the Restore Database window, click OK.
- When the restore completes, in the Microsoft SQL Server Management Studio window, click OK

Import Copy of Organisation Database

Login to Case-Study-CRM1 as crmadmin and complete the following steps:

- Start Microsoft Dynamics CRM Deployment Manager
- In Deployment Manager, click Organizations and then under Actions, click Import Organization.
- In the Import Organization Wizard, make sure that in Organization Database, Training_MSCRM is selected.
- Click Next.
- In Display name, replace <Organisation Name> with Training. Press the Tab key and then click Next.
- On the Specify Reporting Services Server page, set to https://case-study-rs/reportserver.
- On the Select Method for Mapping Users page, click Next.
- On the Edit User Mappings page, click Next.
- On the System Checks page, ignore any warnings and click Next.
- On the Ready to Import page, click Import.
- When the import is complete, in the Import Organization Wizard, click Finish.
- Close Deployment Manager.

Verify Imported Organisation

Login to Case-Study-CRM1 as crmadmin and complete the following steps:

- Start IE and browse to http://case-study-crm:5555/Training

End of Lab

CRM Online Trial

Objectives

Successfully create a Dynamics CRM Online Trial and Office 365 Trial

Steps

Sign Up for CRM Online 30 Day Trial

Navigate to http://crm.dynamics.com

Click on Take a Guided Tour

Select a role under Microsoft Dynamics CRM

Click on sign up for a 30 day free trial (http://go.microsoft.com/fwlink/?LinkId=252780)

Enter the details required

Access Office 365 Portal

Navigate to https://portal.office.com

View Subscriptions to show CRM Online Trial

View CRM Administration to see CRM Instance

Add Office 365 Subscription for Email

Click on Purchases Services in Office 365 admin centre.

Add Trial for Office 365 E3

Add Office 365 account to Outlook

Link Office 365 account to Outlook.

Open Outlook and add email address for your Office 365 acccount.

End of Lab

Explore Dynamics CRM Online

Objectives

Familiarise with Dynamics CRM Online

Steps

Sign In to CRM Online

Navigate to https://<organisationname>.crm4.dynamics.com

End of Lab

User Management

Objectives

Add Users, Manage Licenses

Steps

Sign In to Office 365 Admin Centre

Navigate to https://portal.office.com

Add users

Create four new users and record their passwords for later.

Create Security Group

In the Office 365 admin centre, Create a security group called Training and add some of the users created above to the group.

Check CRM

Navigate to http://crm.dynamics.com

Navigate to Settings->Security->Users and verify that the users are in CRM Online

Delete user

In the Office 365 admin centre, delete one of the users added above

Remove CRM License

In the Office 365 admin centre, edit one of the users added above and in remove their CRM Online License

Check CRM

Navigate to http://crm.dynamics.com

Navigate to Settings->Security->Users and verify that the deleted user, and the user without a license, are both disabled.

End of Lab

Update Email Notifications

Objectives

Add another email address to Notification for your Instance

Steps

Sign In to Office 365 Admin Centre

Navigate to https://portal.office.com

Open CRM Online Administration Centre

Click on Admin -> CRM

Add to Notifications

Click on Notification icon

Add Email Address

Add an email address

Save

End of Lab

Change Organisation Name

Objectives

Amend URL for Dynamics CRM Online instance

Steps

Sign In to Office 365 Admin Centre

Navigate to https://portal.office.com

Open CRM Online Administration Centre

Click on Admin -> CRM

Edit Instance

Click on Edit icon

Change Properties

Change Friendly Name and URL

Add Security Group

Add the Security Group created above

Save

Save

Test new URL

Browse to new URL

End of Lab

Install Dynamics CRM for Outlook

Objectives

Successfully install Dynamics CRM Outlook Client

Steps

Install Dynamics CRM for Outlook

Download from Microsoft Downloads and Install without Offline Access

Configure Dynamics CRM for Outlook

Connection to Dynamics CRM Online instance

Update Online User Synchronisation Folders

Either from within Outlook under File->CRM->Synchronise->Review Synchronisation Settings or under Settings->Administration->System Settings->Synchronisation

1. Change Contacts to All Contacts

Synchronise Outlook with CRM

End of Lab

Go Offline with Dynamics CRM for Outlook

Objectives

Successfully enable Offline functionality Dynamics CRM Outlook Client

Steps

Go Offline

From Within Outlook click on Go Offline

Go Online

Go Back Online

Update Offline Synchronisation Folders

Either from within Outlook under File->CRM->Go-Offline-Manage Offline Filters or under Settings->Administration->System Settings->Synchronisation

1. Change Accounts to All Accounts
2. Change Opportunities to Open Opportunities over $10,000
3. Disable filters for
    - Cases
    - Competitors
    - Quotes
    - Orders
    - Invoices
    - Products

Go Offline

From Within Outlook click on Go Offline

Update Record in CRM Online using Internet Explorer

Update an Opportunity as Won

Update Same Record In Outlook when Offline

Update the same Opportunity as Lost

Go Online

Go Back Online

Conflict

Was there a conflict?

End of Lab

FIREBRAND

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Dynamics CRM 2015 Application

Microsoft Specialist

Labs

Labs content

Introduction to the Labs

Objectives

Purpose

The purpose of the labs is to reinforce the learning in the courseware.

In the main, the labs focus on the using basic features of Dynamics CRM. The labs do not require deep CRM skills.

There are mixture of exercises where you follow an interactive set of activities and labs where you use Dynamics CRM perform the tasks specified.

Location of files

The exercises are found under C:\Firebrand\CRM2015\Exercises\Applications on your host machine.

Preparation

CRM Online Trial

Create a 30 day CRM Online Trial if you have not already done so.

Navigate to http://crm.dynamics.com

Click on Take a Guided Tour

Select a role under Microsoft Dynamics CRM

Click on sign up for a 30 day free trial (http://go.microsoft.com/fwlink/?LinkId=252780)

Enter the details required

Navigate to https://portal.office.com

View Subscriptions to show CRM Online Trial

View CRM Administration to see CRM Instance

Lab 1

Lab 1A: Quick Create

Find all the places you can use Quick Create from within the User Interface.

Exercise 1B: Navigate

Navigate to Contacts

Changes to All Contacts view

Open Contact record

Close Contact record

Browse to the Applications_Exercise_Navigate folder and click on practice.html

Lab 3

Lab 3A: Create and Link Records

Create the following records:

- An Account
- A Contact and make its parent the Account

Make the Contact the Primary Contact on the Account

Create a Connection between the Account and the Contact

Exercise 3B: Create a Activity

Browse to the Applications_Exercise_CreateActivity folder and click on practice.html

Exercise 3C: Create an Opportunity

Browse to the Applications_Exercise_CreateOpportunity folder and click on practice.html

Exercise 3D: Process a Case

Browse to the Applications_Exercise_ProcessCase folder and click on practice.html

Lab 4

Exercise 4A: Views

Browse to the Applications_Exercise_View folder and click on practice.html

Exercise 4B: Saved Views

Browse to the Applications_Exercise_SaveView folder and click on practice.html

Lab 5

Lab 5A: Workflow

Create a workflow for the Contact entity that creates a Task if there is no Parent Customer when a Contact is created.

Lab 5B: Business Process Flow

Create a business process flow for the case entity with three stages and required fields:

- Log
    - Customer
    - Case Origin
    - Description
    - Priority
- Investigate
    - Case Type
    - Severity
- Resolve
    - Subject

Create a new case and enter the required data for each stage

Lab 7

Lab 7A: Create a Case

Scenario

Adventure Works submitted a support case via email entitled, “Damaged rim on road series bike”. The customer service representative (CSR) got the email but needs to enter the case directly into Microsoft Dynamics CRM because he is not using Microsoft Outlook. The CSR tried calling but had to leave a voicemail with the instructions. He followed up by emailing the instructions to the customer. The CSR decided that the case should be resolved. However, the customer called back and he needed to reopen the case and handle it properly. The CSR put the case through the proper case resolution process and then closed the case.

High Level Steps:

1. Create a Case
2. Add a Phone Call to the Case.
3. Resolve the Case.

Detailed Steps:

Step 1 - Create the case

1. On the main application command bar, hover over Microsoft Dynamics CRM, and click Service.
2. Hover over the Services button on the command bar, click Cases.
3. On the Cases menu bar, click New Case.
4. In the Title box, type "Damaged rim on road series bike".
5. In the Subject box, type “Service”.
6. In the Customer box, click the Lookup icon. In the Look Up Record dialog box, type “Adventure Works” and select the account.
7. In the Case Type drop-down list, select Problem.
8. In the Case Origin drop-down list, select E-mail.
9. Click Save.
10. Within the Collaboration Area, click the Notes tab.
11. Click the Enter a Note text box, and then type "Customer would like a replacement rim".
12. Click Done.

Step 2 – Call the customer to get more details on the case.

1. On the Case form's Collaboration Area, click Activities.
2. On the Actions toolbar, click Add Phone Call.
3. In the Description Box, type, “Called Adventure Works to gather additional details.”
4. Place a checkmark in the Left Voicemail check box. Click OK.

Step 3 - Resolve the case

1. On the Case form's Menu Bar, click Resolve Case.
2. In the Resolve Case dialog box, select Problem Solved in the Resolution Type drop-down list.
3. In the Resolution box, type "E-mailed customer".
4. In the Billable Time drop-down list, select 5 minutes and then click Resolve.
5. Click Cases in the command bar.
6. On the list of Cases, change the View to My Resolved Cases. The case just created and closed appears.

Step 4- Reactivate the case

1. From the My Resolved Cases view, reopen the case just resolved.
2. On the Case Menu Bar, click Reactivate Case.
3. On the Process Bar, click Next Stage.
4. On the Research stage in the Similar Cases field, click Find.
5. In the Find Similar Cases dialog, select case titled, “Product service time (sample)”, and click Found a Solution.
6. Click Next Stage.
7. On the Resolve stage, in the Resolve Case field, click Mark Resolved.
8. On the Resolve a Case resolution dialog, in the Resolution field, type, “Talked to customer and sent a new part.”
9. In Billable Time, type “15 Minutes

Lab 8

Lab 8A: Create a Knowledge Base Article

Scenario

A Quality Control manager informs a Service Representative that there is a flaw with a line of quick release brakes and asks him to create a Knowledge Base article.

The Service Representative creates the article by using the Solution to a Problem article template. The Service Representative wants to inform customers that the company has decided to offer a free replacement for all defective quick release brakes.

To qualify for this offer, customers are required to provide their account information, and a time and date they want to have the defective brakes collected and replaced with a new model.

Starting from the Articles data grid, follow these steps to complete the lab:

High Level Steps:

1. Create a new Knowledge Base Article.
2. Choose Maintenance as the Subject.
3. Enter brakes as a Key Word.
4. For Solution, type Ask customer for time and date to replace.
5. Click Save.
6. Click Submit.
7. Click Approve.

Detailed Steps

1. Click New.
2. In the Select a Template dialog box, click Solution to a Problem and then click OK. This returns the New Article form.
3. In the Title box, type "Quick Release Brakes".
4. In the Subject box, click the Lookup icon. In the Subject Lookup dialog box, select Maintenance, and then click OK.
5. In the Key Words field, type "brakes".
6. In the text area on the New Article form, click in the Problem field and type "Problem with quick release brakes".
7. Click in the Solution field and type "Ask customer for time and date to replace".

8. Click Save. The article is saved with a status value of Draft.
9. Click Submit. The article status changes to Unapproved.
10. Click Approve. The article status changes to Published, and the article will now be visible to all users and appear in search results.

Lab 10

Lab 10A: Set up Holidays

Scenario

You work as the CRM Administrator for Contoso and you must setup the Service area of Microsoft Dynamics CRM 2015. You must setup the Holiday Schedule, to know when the office will be closed; the Customer Service Schedule, to know what hours your employees will be available; Service Level Agreements, to know when to warn and show failures from case timelines; and Entitlements, to show the level of service that a customer is eligible to receive. Note the Module 5 practices build upon each other and must all be completed.

High Level Steps

1. Create a new Holiday Schedule.
2. Enter at least one Holiday.

Detailed Steps

1. Click on the Microsoft Dynamics CRM menu, then click Settings.
2. Click on the Settings menu, then click Service Management.
3. In the Service Terms section, click Holiday Schedule.
4. Click New.
5. Type Holiday Schedule 2014 in the Name and click Create.
6. Double click on the Holiday Schedule 2014 you just created to open it.
7. Click New.
8. Type Labour Day in the Name.
9. Enter 09/01/2014 in the Start Date.
10. Enter 09/01/2014 in the End Date.
11. Verify that Duration is 1 day and click OK.

Lab 10B: Set up the Customer Service Schedule

High Level Steps

1. Create a new Customer Service Schedule.
2. Assign Work Hours.
3. Associate the Holiday Schedule created in earlier lab

Detailed Steps

1. Click on the Microsoft Dynamics CRM menu, then click Settings.
2. Click on the Settings menu, then click Service Management.
3. In the Service Terms section, click Customer Service Schedule.
4. Click New.
5. Type Calendar in the Name field and click Create.
6. For Work Hours:
    a. Verify that the radio button is next to Are the same each day.
    b. Click Set Work Hours.
    c. Verify that on the first Work Hours line it says 8:00 AM in the Start column and 5:00 PM in the End column.
    d. Click Add Break.
    e. In the line that says Break, change the Start column to be 12:00 PM and the End column to be 1:00 PM
    f. Verify that the last Work Hours line shows 1:00 PM for the Start and 5:00 PM for the End.
7. In the Work Days area, uncheck the boxes for Sunday and Saturday.
8. In the Holiday Schedule area:
    a. Change the radio button to be next to Observe.
    b. Use the lookup to grab the Holiday Schedule 2014 created in the previous lab.
9. Click Save and Close.

Lab 10C: Set up Service Level Agreements

High Level Steps

1. Create a new Service Level Agreement.
2. Associate the Customer Service Schedule created in earlier Lab
3. Add SLA Details to show Failure and Warning times.

Detailed Steps

1. Click on the Microsoft Dynamics CRM menu, then click Settings.
2. Click on the Settings menu, then click Service Management.

3. In the Service Terms section, click Service Level Agreements.
4. Click New.
5. Type Default Service Level Agreement in the Name.
6. In the Applicable From field, choose Created On.
7. In the Business Hours lookup, choose the Customer Service Schedule created in the above lab.
8. Click Save.
9. In the SLA Details area, click the plus sign.
10. Type Default in the Name field.
11. In the Related Case Field field, choose First Response By.
12. In the Applicable When area:
    a. Click Select, then choose Case.
    b. Click Select to the right of Case, then choose Status.
    c. Click Select to the right of Status, then choose Equals.
    d. Click Select to the right of Equals, then choose Active.
13. In the Success Criteria area:
    a. Click Select, then choose Case.
    b. Click Select to the right of Case, then choose First Response Sent.
    c. Click Select to the right of First Response Sent, then choose Equals.
    d. Click Select to the right of Equals, then choose Yes.
14. In the SLA Item Failure area, choose 2 hours in the Failure after field.
15. In the SLA Item Warning area, choose 1 hour in the Warn after field.
16. Click Save & Close.
17. Click Activate.
18. Click Set As Default.

Lab 10D: Set up Entitlements

High Level Steps:

1. Create a new Entitlement.

2. Add Entitlement Channels.

Detailed Steps:

1. Click on the Microsoft Dynamics CRM menu, then click Settings.
2. Click on the Settings menu, then click Service Management.
3. In the Service Terms section, click Entitlements.
4. Click New.
5. Type A Datum's Entitlement in the Name.
6. Use the Primary Customer lookup to find the A. Datum Corporation (sample) account.
7. Type 01/01/2014 in the Start Date.
8. Type 12/31/2014 in the End Date.
9. Leave the Restrict based on entitlement terms as No.
10. In the Allocation Type field, choose Number of cases.
11. In the Decrease Remaining On, choose Case Resolution
12. Type 10 in the Total Terms field.
13. Click Save.
14. In the Entitlement Channel sub-grid, click the plus sign.
    a. Choose Web in the Name drop down.
    b. Type 5 in the Total Terms field.
15. In the Entitlement Channel sub-grid, click the plus sign.
    a. Choose Phone in the Name drop down.
    b. Type 5 in the Total Terms field.
16. Click Activate.

Lab 13

Lab 13A: Create and Disqualify a Lead

Scenario

You work at Contoso as a sales representative and receive a phone call from Teresa Atkinson a potential customer interested in a new product line. In order to follow the company's guidelines for lead tracking, Teresa now needs a Lead record created in Microsoft Dynamics CRM. Later one, you receive an Email from a sales person regarding Teresa Atkinson stating she was no longer interested in the new product line that will be available this fall.

High Level Steps

1. Create a new Lead
2. Update fields in the process ribbon to manage the lead.
3. Disqualify the lead

Detailed Steps

1. Create new Lead
2. On the Nav Bar, click Sales, and click Leads.
3. On the Command bar, click New.
4. In the Lead form, enter appropriate information and observe any noted restrictions or requirements as needed:
    a. Topic: New Product Line
    b. First Name: Teresa
    c. Last Name: Atkinson
    d. Company: Adventure Works (sample)
    e. Job Title: Salesperson
    f. Rating: Warm
    g. On the Command Bar, click Save.
5. Update fields in the process ribbon to manage the lead.
    a. In the process ribbon, click Existing Account to see if there is already an account created for Adventure Works (sample). If there is, already an account for Adventure Works (sample), select the account.
    b. In the process ribbon, click Existing Contact to see if there is already a contact created for Teresa Atkinson.
    c. In the process ribbon, in the Qualify stage, click Purchase Timeframe, select This Quarter.
    d. In the process ribbon, in the Qualify stage, click Identify Decision.
    e. Click Ctrl+S to save the record.

f. In the Collaboration Pane, click Activities.
g. Click Add Phone Call.
h. Click Direction to change the phone call to incoming.
i. Click You must enter a description and enter, “Teresa called and changed her mind.”
j. Click OK.

6. Disqualify the lead

    a. On the Command Bar, click Disqualify and select No Longer Interested. The lead record you selected is now disqualified

Lab 13B: Managing Opportunities

Scenario

You are a sales person for Contoso, you receive a phone call from an existing customer interested in a potential sale of an existing product. The customer describes the product to you by comparing it to a competitor’s product line.

High Level Steps

1. Create an Opportunity tied to an existing customer.
2. Create a Competitor and Associate it to the opportunity
3. Mark the opportunity as lost and associate with the competitor
4. Reopen the opportunity
5. Mark the opportunity as won

Detailed Steps

1. Create an Opportunity tied to an existing customer:

    a. In the Nav Bar, click Sales, and in the Sales area, click Opportunities.

    b. On the Command Bar, click Create and select Opportunity.

    c. Enter the following information:

    d. Topic: Existing product line.

    e. Contact: Jim Glynn.

    f. Account: Fabrikam, Inc.

    g. Budget Amount: 7,000

    h. Est. Revenue: 5,500

    i. Est. Close Date: 3/3/2015

j. Click Save.

2. Create a Competitor and Associate it to the opportunity:
    a. On the Nav Bar, click Sales, and then click Opportunities.
    b. Double-click on “Existing product line” in the opportunities list.
    c. On the right side of the form click the Add Competitor icon.
    d. Click the look up button and select New.
    e. When the Competitor dialog box appears enter “Thomas Anderson” in the Name field.
    f. Click Save.
3. Mark the opportunity as lost and associate with the competitor:
    a. On the Nav Bar, click Sales, and then click Opportunities.
    b. Double-click on “Existing product line” in the opportunities list.
        i. In the Command Bar, select CLOSE AS LOST.
        ii. The Close Opportunity dialog box appears.
        iii. Status Reason: Out-Sold
        iv. Actual Revenue: 5,500
        v. Close Date: today’s date
    c. Competitor: Thomas Andersen
    d. Click OK.
4. Reopen the opportunity
    a. On the Nav Bar, click Sales, and then click Opportunities.
    b. From the opportunities view select the Lost Opportunities view.
    c. Open the “Existing product line” opportunity.
    d. In the Command Bar select REOPEN OPPORTUNITY.
5. Mark the Opportunity as won.
    a. From the “Existing product line” opportunity form click CLOSE AS WON in the Command Bar.
    b. The Close Opportunity dialog box appears:
        i. Status Reason: Won
        ii. Actual Revenue: 5,500
        iii. Close Date: Today’s date

c. Click OK.

Lab 14

Lab 14A: Create a Special Offer Price List and Use it on an Opportunity

Scenario

Allan Jackson is the marketing manager for Adventure Works, and has created a special offer price list for a marketing campaign. Before rolling it out to the sales team, you want to verify how it works. So, after creating the price list and adding some products to it, you will create an opportunity record and compare its pricing with both the standard and the special offer price lists.

High Level Steps

1. Publish Lync Online (Sample) product
2. Create a new price list
3. Create new price list item
4. Create new opportunity
5. Add line item to opportunity

Detailed Steps

1. Publish Lync Online (Sample)
    a. In the Nav Bar, Click Settings, and then click Product Catalog.
    b. On the product catalog page, click Products.
    c. Locate Lync Online (Sample) and double-click that product.
    d. On the Product Command Bar, click Publish.
    e. In the Confirm Publish dialog box, click Publish.
2. Create a new price list
    a. In the Nav Bar, click Settings, and then click Product Catalog.
    b. On the product catalog page, click Price Lists.
    c. On the Price Lists Nav Bar, click New.
    d. Type "Office 365 Special" in the Name field and click Save.
3. Create new price list item
    a. Click the Add New Price List Item button (+) on the Price List Items sub-grid.

b. Click the Lookup button on the Product field, and select the "Lync Online (sample)" product.

c. Click the lookup button on the Unit field and select "Administrative User(sample)".

d. In the Pricing Method drop-down list, select Currency Amount.

e. In the Amount field type 80.

f. Click Save & Close.

4. Create new opportunity

a. In the Nav Bar, click Sales, and click Opportunities.

b. On the Opportunities command bar, click New.

c. Type "Lync Opportunity for Adventure Works" in the Topic field.

d. Click the lookup button on the Identify Account field and select Adventure Works (sample) from the list.

e. Scroll down to the Product Line Items tab on the form, and use the lookup button to select the "Office 365 Special " price list in the Price List field.

f. Click Revenue and change the value to System Calculated.

g. Click Save on the Opportunity command bar.

5. Add line items to the opportunity

a. On the Product Line Items tab, click Add Opportunity Product Record button (+) and select Existing Product.

b. Use the Existing Product lookup button to select the "Lync Online (sample)" product.

c. Click in the Quantity field and type 100

Lab 14B: Opportunity, Quote, Order to Invoice

Scenario

The Sales representative had previously created an opportunity titled Bulk Bike Sale. The customer would like a quote before continuing with the sales order process.

High Level Steps

1. Create a new opportunity and convert to quote
2. Activate the quote and convert to an order
3. Convert order to an invoice

Detailed Steps

1. Create a new Opportunity using the “Office 365 Special” Pricelist and convert to quote
    a. In the Nav Bar, click Sales then select Opportunities.
    b. On the Command Bar, click New.
    c. On the Opportunity Form, enter the following information:
        i. Topic: Coho Winery is interested in Lync Online.
        ii. Account: Coho Winery (sample).
        iii. Price List: “Office 365 Special”
        iv. Revenue: System Calculated.
    d. Click Save.
    e. Click Product Line Items section, click Add Opportunity Product Record. (This will appear as a plus sign (+) in that view’s command bar.)
    f. In the Product Line Item Menu, select Existing Product.
    g. In the Product Name field within the Product Line Item Sub-Grid, enter “Lync Online”.
    h. In the Quantity field within the Product Line Item Sub-Grid, enter “10”.
    i. Locate the quote section on the form and click Add Quote Record. The Quote record is created for the “Coho Winery is interested in Lync Online” opportunity.
    j. Locate the Products section on the form and enter $10 into the Discount field.
    k. Click Save
2. Activate the quote and convert to an order
    a. On the Command Bar click Activate Quote.
    b. On the Command Bar click Create Order.
    c. The Create Order dialog box appears.
    d. Select Won for a status reason.
    e. Click OK.
3. Convert the order into an invoice
    a. From the order form click Create Invoice on the Command Bar.

Lab 15

Lab 15A: Create Goal

Scenario

After creating and testing the "Resolved Cases for Service Team" goal, the CSR Manager notices that the calculated Actual field changes as cases are resolved and the goal is recalculated, but also notices that the In-Progress field always has a value of zero. She asks the administrator to modify the goal so that cases created within the period contribute to the In-Progress value, providing the following instructions based on the research she's done:

High Level Steps

1. Add an "In-Progress" rollup field to the "No. of Cases" goal metric.
2. The rollup field should have the following properties:
    - Source Record Type: Case
    - Source Record Type State: Active
    - Date Field: Created On

Detailed Steps

1. Starting in the Goal Metrics data grid, follow these steps to perform the lab:
2. On the Navigation Bar, click Service and click Goal Metrics.
3. Locate the "No. of Cases" goal metric and double-click it to open its form.
4. Click inside the grid in the Rollup Fields section, and click Add New Rollup Field in the Records group.
5. In the Step 1 section, click the Rollup Field list, and select In-progress (integer).
6. In Step 2, select Case in the Source Record Type list, and select Active in the Source Record Type State list.
7. In Step 3, select Created On in the Date Field list, and click Save & Close.
8. Click General, and in the Goal Metric form, click Save & Close.
9. Navigate to Goals, and select the "Resolved Cases for Service Team" goal.
10. In the Actions group click Recalculate, and then click OK to confirm. Notice that the In-Progress field now is included in the calculation.
11. Finally, open the goal record and notice that In-progress values are now included as Participating Records. View those records to confirm that active cases created in the current fiscal period are now included.

Lab 15B: Create Goal Metric

Scenario

Create a Goal Metric and Goals for Invoice Amounts

High Level Steps

1. Create a Goal Metric and Rollup Query
2. Create a goal for an individual
3. Create opportunity records so the results will reflect the individual rollup results

Detailed Steps

1. Create a Goal Metric and Rollup Query
    a. Click **Sales** on the **Nav bar**, then click **Goal Metrics**.
    b. On the **Command Bar** click **New**. The **Goal Metric** form opens.
    c. In the **Step 1** section, enter "Invoiced Revenue" in the **Name** field.
    d. Select **Amount** in the **Metric Type** field.
    e. Select **Money** in the **Amount Data Type** drop-down list.
    f. On the **Goal Metric** tab, in the **Save** group, click **Save**.
    g. Click inside the grid on the form's **Rollup Fields** tab.
    h. On the Rollup Fields tab, in the Records group, click Add New Rollup Field.
    i. In the **Step 1** section, click the **Rollup Field** drop-down list, and select **Actual (Money)**
    j. In the **Step 2** section, click the **Source Record Type** drop-down list, and select **Invoice**.
    k. In the **Step 2** section, click the **Source Field** drop-down list, and select **Total Amount**.
    l. In the **Step 2** section, click the **Source Record Type State** drop-down list, and select **Paid**.
    m. In the **Step 3** section, accept the default value of **Invoice** in the **Record Type** drop-down list, and select **Modified On** in the **Date Field** drop-down list.
    n. On the **Rollup Fields** tab, in the **Save** group, click **Save and Close**.
2. Create a Goal for an individual:
    a. On the **Nav Bar** click **Sales**, and click **Goals**. .

b. On the **Command Bar**, click **New**. The Goal form opens.

c. In the **General** section, enter Goal for Q4 in the **Name** field.

d. Set the **Goal Owner** to **Allan Jackson** by clicking the lookup button and select **Lookup More Records**.

e. Enter Invoiced Revenue into Goal Metric.

f. On the **Goal** tab, in the **Save** group, click **Save**.

g. In the **Targets** section, enter 10,000 in the **Target (Money)** field.

h. On the **Goal** tab, in the **Save** group, click **Save and Close**.

3. Create Invoiced Records so the results will reflect the individual rollup results:

a. In the **Nav Bar**, click **Sales,** and click **Invoices**.

b. On the Command Bar, click New.

c. On the Invoice Form, enter the following information:

i. **Topic**: Coho Winery Lync Online.
ii. **Account**: Coho Winery (sample).
iii. **Price List: "Office 365 Special"**
iv. **Owner:** Allan Jackson.

d. Click **Save**.

e. Click **Product Line Items** section, click **Add Product Record.** (This will appear as a plus sign (+) in that view's command bar.)

f. In the Product Line Item Menu, select **Existing Product.**

g. In the Product Name field within the Product Line Item Sub-Grid, enter "*Lync Online*".

h. In the Quantity field within the Product Line Item Sub-Grid, enter "10".

i. Click Save.

j. Click on Invoice Paid on the Command Bar

k. Using the **Navigation Bar,** click **Sales** and scroll the navigation bar to the left and select **Goals.**

l. Open the individual goal previously created called **Goal for Q4.**

m. In the left hand navigation under the **Participating Records** section click **Actual (Money).**

n. You will see the invoice you created in that list

Microsoft

Dynamics CRM 2015 Customisation and Configuration

Microsoft Specialist

Labs

Labs content

Introduction to the Labs

Objectives

Purpose

The purpose of the labs is to reinforce the learning in the courseware.

In the main, the labs focus on the mechanics of how to configure Dynamics CRM. The labs do not require developer skills.

The labs require you to use Dynamics CRM perform the tasks specified.

Resources

The demos utilise Office 365 and Dynamics CRM Online.

Implications of using a cloud service

The user interface and functionality in Office 365 is subject to change without notice so the steps listed may not be correct. In addition Dynamics CRM Online may have been updated since these instructions were written and so there maybe differences.

Location of files

The files are found under C:\Firebrand\CRM2015\Labs\Customisation on your host machine.

Preparation

CRM Online Trial

Create a 30 day CRM Online Trial if you have not already done so.

Navigate to http://crm.dynamics.com

Click on Take a Guided Tour

Select a role under Microsoft Dynamics CRM

Click on sign up for a 30 day free trial (http://go.microsoft.com/fwlink/?LinkId=252780)

Enter the details required

Navigate to https://portal.office.com

View Subscriptions to show CRM Online Trial

View CRM Administration to see CRM Instance

Business Units

1. In CRM Online, Navigate to Settings->Security->Business Units to find the name of your root business unit
2. Edit the BusinessUnits.csv file and replace “Adventure Works Cycles” with the name of your root business unit.
3. Save and keep format.
4. On the navigation bar, click Microsoft Dynamics CRM, then click Settings, then click or point to Settings and then click Data Management.
5. Click Imports.
6. On the command bar, click Import Data.
7. In the Import Data Wizard, next to Data file name, click Browse
8. Browse to BusinessUnits.csv file and click on Open
9. Click Next
10. In the Review File Upload Summary page click Next
11. In the Select Data Map page, select Default (Automatic Mapping) and then click Next
12. Choose Record Type as Business Unit and click on Next
13. In the Map Fields page, click Next.
14. In the Review Mapping Summary page, click Next.
15. Click on Submit and then Finish
16. Confirm the Business Units have been created

Users

1. In Office 365 admin centre, https://portal.office.com, create the following users and assign them CRM Online licenses:
    - Alan
    - Ben
    - Connie
2. Go into CRM Online and give these uses the Salesperson security role.
3. Navigate Settings->Security->Users
4. Select all three users from the list and click on Manage Roles
5. Select Sales Person and click on OK

If the users have not been added to CRM Online, add them to the Security Group in Office 365 you specified for you CRM Online instance.

Lab 1A Create a Solution

Scenario

As a member of the Microsoft Dynamics CRM project team for Adventure Works Cycles, you have to make a series of modifications to the system. The modifications will help the New Product Development (NPD) team manage its processes. You have to create several new entities, add fields to store specific data that is required by the NPD team, and create forms and views that the NPD team can use to work with its new records.

Exercise Scenario

Before you start to make changes, you want to create a new Solution to contain your customizations. When you have completed the necessary configuration, you can export these changes as a solution package to import into another Microsoft Dynamics CRM Organization. By doing this, users can test the changes that you created and provide feedback before you deploy to the live production system. You also want to easily identify these changes in the future as having originated from the NPD team. Therefore, you will create a new Publisher to make sure that the new components have an appropriate prefix.

After you create your Solution, you must add some entities that you think might require some customization to meet the business requirements that you received. Make sure that you do not include anything in the Solution that you have not modified, because you do not want your Solution to become larger than is necessary, or include unexpected changes that are made by someone else.

High Level Steps

1. Create a Publisher named **AWC NPD and Feedback**, and use the prefix **awcnpd**.
2. Create a new Solution named NPD and Feedback.
3. Add **Account**, **Contact** and **Campaign** entities to the Solution.
4. Remove the **Campaign** entity from the Solution.

Detailed Steps

1. Create a Publisher named **AWC NPD and Feedback**, and use the prefix **awcnpd**.
    a. Browse to the Start screen of your computer, and then click the **Internet Explorer** icon.
    b. The browser window should open to the home page URL
    c. In the navigation bar, click or point to **Microsoft Dynamics CRM**, and then click **Settings**.
    d. In the navigation bar, click or point to **Settings** and then click or point to **Customisations**
    e. Click **Publishers**
    f. In the menu bar, above the list of Solutions, click **New**. The **Publisher: New Publisher** form will be displayed.
    g. Enter **AWC NPD and Feedback** for the Display Name Press **Tab**.
    h. Enter **awcnpd** for the **Prefix** (notice this converts to lowercase letters however you type it).

i. In the toolbar, click **Save and Close**.

2. Create a new Solution named "NPD and Feedback."
   a. In the navigation bar, click or point to **Settings**, and then click **Solutions**
   b. In the menu bar, above the list of Solutions, click **New**. The **Solution: New Solution** form will be displayed.
   c. Enter **NPD and Feedback** as the Display Name.
   d. Enter **7.0.0.0** as the Version Number.
   e. In the **Publisher** field, click the **lookup** icon.
   f. Select AWC NPD and Feedback
   g. In the **Solution: New Solution** form, in the toolbar, click **Save**.

3. Add **Account**, **Contact** and **Campaign** entities to the Solution.
   a. In the **Solution: NPD and Feedback** form, in the solution explorer at the left side, click **Entities**.
   b. In the menu bar, at the top of the (empty) list of entities in the Solution, click **Add Existing**.
   c. In the **Select solution components** dialog box, notice that the **Component Type** is filtered to **Entity** only.
   d. Click to the left side of the entities **Account**, **Campaign** and **Contact** to enter a check mark next to each.
   e. Click **OK.**
   f. In the **Missing Required Components** dialog box, select **No, do not include required components**, and then click **OK**. **Note**: Because no customizations are made yet, these missing required components must all be system components that will already exist in any target system that you deploy to. In your own environment, you must determine whether this is the correct response for a given situation.
   g. Click **OK**.
   h. Click **Save**.

4. Remove the **Campaign** entity from the Solution.
   a. In the **Solution: NPD and Feedback** form, in the component list, select the **Campaign** entity.
   b. In the menu bar, at the top of the component list, click **Remove**.
   c. Leave the Solution window open for use in later labs.

Lab 2A Configure Security Roles

Scenario

Gail Erickson is Head of Customer Services at Adventure Works Cycles and she has asked you to make some changes to Security Roles because the current permissions no longer fit the business requirements for her department. She wants to do this using a new Security Role so you can replace the existing role for only a few users at first to make sure the new privileges are sufficient for them to continue to do their usual work.

Gail only wants Customer Service Representatives (CSRs) to be able to assign their own Cases, so they can give away a Case they own but not take one from a colleague (managers will still be able to reassign Cases between Users however they want to).

Gail has discovered that CSRs have privileges to delete sales records they own such as Quotes. She does not want them to be able to delete any sales records at all, so if a CSR has created a Quote they would have to go through the step of closing it as Lost rather than simply deleting it. This will enable more realistic reporting of the rate of success of sales generated by the customer service department for chargeable services.

In order to support the new product development (NPD) process, some members of the marketing department responsible for managing prototype testing will need to be able to create Cases and associate these to a Contract record for the prototype to track the effort and cost of the support provided but without charging this to the customer doing the testing. A new Security Role is needed to give selected marketing Users access to create and manage their own Cases and assign them to Contracts owned by marketing Users, but not to edit any Contracts outside the department.

Some users in the customer service department need to assign cases created and owned by staff in the marketing department in order to pick these up and work on them to support customers who are testing prototypes. You need to create a Security Role that will later be assigned to a Team in the Marketing Business Unit to achieve this objective.

Lab Setup

Before doing this lab you need to have completed the lab "*Create a Solution*", and created a Solution called **NPD and Feedback** as described there.

To make it easier to switch between several Internet Explorer windows in this and later labs, right click on the Windows taskbar, click **Properties**, then in the **Taskbar Properties** dialog box, in the **Taskbar buttons** list, select **Combine when taskbar is full**, and then click **OK**.

Exercise Scenario

In this exercise you need to create a new role called AWC CSR that is a copy of the existing Customer Service Representative role. The AWC CSR role must then be customized as shown in the following table (leave all other privileges at their current setting).

Entity	Privilege	Access Level

Case	Assign	User
All Sales entities (use the privilege shortcut method)	Delete	None

You also need to create a new role called AWC Marketing as a copy of the Marketing Professional role. The AWC Marketing role requires the changes shown in the following table (leave all other privileges at their current setting).

Entity	Privilege	Access Level
Case (use the entity shortcut method, then adjust)	Read All other privileges	Organization User
Contract	Write	Business Unit

In order to deploy them from your development system to the live production Organization, you must add the two new copied roles to the NPD and Feedback Solution

You must also create a new role called AWC NPD, which you can do directly within the NPD and Feedback Solution. The AWC NPD role requires the following settings:

Entity	Privilege	Access Level
Case	Assign	Business Unit

High Level Steps

1. Create a copy of the Customer Service Representative and Marketing Professional Security Roles.
2. Add the new Security Roles to the **NPD and Feedback** Solution.
3. Modify the new **AWC CSR** and **AWC Marketing** Security Roles.
4. Create a Security Role called **AWC NPD** and modify it.

Detailed Steps

1. Create a copy of the Customer Service Representative and Marketing Professional Security Roles.
    a. Click **Microsoft Dynamics CRM**, Click **Settings**.
    b. In the **Nav bar** hover over **Settings.**
    c. Click the right arrow
    d. Click **Security.**
    e. Click **Security Roles**.
    f. Select the **Customer Service Representative role.**
    g. On the menu bar at the top of the list of Security Roles, click **More Actions**, and then click **Copy Role**.
    h. In the Copy Security Role dialog box, in New Role Name enter AWC CSR.

i. Clear the Open the new Security Role when copying is complete checkbox and click the **OK** button.
j. Select the Marketing Professional role.
k. On the menu bar at the top of the list of Security Roles, click **More Actions**, and then click **Copy Role**.
l. In the Copy Security Role dialog box, in New Role Name enter AWC Marketing.
m. Clear the **Open the new Security Role when copying is** complete checkbox and click the **OK** button

2. Add the new Security Roles to the **NPD and Feedback** Solution.
    a. Switch to the **NPD and Feedback** Solution using the Windows taskbar if you still have the window open, otherwise navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer pane on the left, click **Security Roles**
    c. On the menu bar at the top of the list of Security Roles in the Solution (none at the moment), click **Add Existing**.
    d. In the **Select solution components** dialog box, select the **AWC CSR** and **AWC Marketing** roles then click **OK**.

3. Modify the new **AWC CSR** and **AWC Marketing** Security Roles.
    a. In the list of Security Roles in the **NPD and Feedback** Solution, double-click the **AWC CSR** role to open it.
    b. Click the **Service** tab.
    c. Click the privilege for **Assign** on the **Case** entity until it is at **User** level.
    d. Click the **Sales** tab.
    e. Click the **Delete** column header until the access level is set to **None** for all sales entities.
    f. On the toolbar, click **Save and Close**.
    g. Double-click the **AWC Marketing** role to open it.
    h. Click the **Service** tab.
    i. Click the **Case** entity label until all privileges have an access level of **User**.
    j. Click the privilege for **Read** on the **Case** entity until it is at Organization level
    k. Click the privilege for **Write** on the **Contract** entity label until it is at **Business Unit** level.
    l. On the toolbar, click **Save and Close**.

4. Create a Security Role called **AWC NPD** and modify it.
    a. In the **NPD and Feedback** Solution, on the menu bar at the top of the list of Security Roles in the Solution, click **New**.
    b. In the Security Role: New Security Role form, enter AWC NPD in the Role Name field.
    c. In the **New Security Role** form click the **Service** tab.
    d. For the **Case** entity, set the access level for the **Assign** privilege to **Business Unit** then click the **Save and Close** button on the command bar.
    e. Leave the **NPD and Feedback** Solution window open for use in later labs.

Lab 2B Configure User Access

Scenario

Adventure Works Cycles has configured a development or test environment alongside their live Microsoft Dynamics CRM system. You are configuring this development system in order to test changes that are required by Adventure Works Cycles before transferring them to the live system.

Alan is a customer service representative who will be supporting customers testing product prototypes and he therefore needs access to Cases owned by users in the Marketing department, and the ability to assign these Cases to himself or others. No customer service representatives should be able to reassign Case records belonging to other users in the Service department, and you will test that this behaviour is maintained.

Lab Setup

Before doing this lab you need to have completed the first lab in this module, “Configure Security Roles”, and created the three Security Roles described there.

Exercise 1: Prepare User Accounts and Access

Exercise Scenario

To properly test the changes you will be making to the system, you need to replicate the production environment, on a limited scale. Three users, Alan Jackson, Connie Watson and Ben Burton will be performing much of the user acceptance testing (UAT) so you need to make sure they are in the same Business Units as they are in the production environment so that the roles and privileges assigned to them are tested properly.

In this exercise you must:

1. Import Business Units to match your live production environment.
2. Move Alan Jackson and Connie Watson into the Service Business Unit.
3. Move Ben Burton into the Marketing Business Unit.
4. Assign the AWC CSR Security Role to Alan Jackson and Connie Watson.
5. Assign the AWC Marketing Security Role to Ben Burton.
6. Log on as Alan and test if he can reassign Case records belonging to users in the Service Business Unit (himself or Connie), and also for users in the Marketing Business Unit (Ben).

Task 1: Assign Security Roles to Users

High Level Steps

1. Move users to the Business Units as described in the exercise scenario.
2. Assign the correct Security Roles to the users who are participating in testing.
3. Create some test **Case** records.
4. Test which Cases can be assigned by Alan Jackson.

Detailed Steps

1. Move users to the Business Units as described in the exercise scenario.
    a. Navigate to **Settings** > **Security**.
    b. Click **Users**.
    c. In the **Enabled Users** view, Select **Alan Jackson** and **Connie Watson** in the view.
    d. On the command bar click **More Commands**.
    e. In the drop-down list click **Change Business Unit**.
    f. In the **Change Business Unit** dialog click the lookup button and select the **Service** Business Unit, and then click **OK**.
    g. In the **Enabled Users** view, select **Ben Burton**.
    h. On the command bar click **More Commands**.
    i. In the drop-down list click **Change Business Unit**.
    j. In the **Change Business Unit** dialog click the lookup button and select the **Marketing** Business Unit, and then click **OK**.

2. Assign the correct Security Roles to the users who are participating in testing.
    a. In the **Enabled Users** view, select **Alan Jackson** and **Connie Watson**.
    b. On the command bar click **More Commands**.
    c. In the drop-down list click **Manage Roles**.
    d. In the **Manage Roles** dialog check the box next to the **AWC CSR** role then click **OK**.
    e. In the **Enabled Users** view, select **Ben Burton**.
    f. On the command bar click **More Commands**.
    g. In the drop-down list click **Manage Roles**
    h. In the **Manage Roles** dialog check the box next to the **AWC Marketing** role then click **OK**.

3. Create some test **Case** records.
    a. On the navigation bar click **Microsoft Dynamics CRM**, click **Service**, and then click or point to **Service**, and then click **Cases**.
    b. On the command bar click the **New Case** button.
    c. In the Case record, in **Case Title**, enter **Alan Test**, and in the **Customer** field select **Adventure Works (sample)** using the lookup button.
    d. In the header, in the **Owner** field, type **Alan** and press the Tab key.
    e. On the command bar click **Save**, then click **New**.
    f. Repeat steps c through e to create two more Cases called **Ben Test** and **Connie Test**, each owned by **Ben Burton** and **Connie Watson** as appropriate.

4. Test which Cases can be assigned by Alan Jackson.

    a. Navigate to the Start screen of your computer. On the Start page, right click on **Internet Explorer** and select **Start In Private Browsing** from the options at the bottom of the screen.
    b. Login as **Alan** then click **OK**. Microsoft Dynamics CRM will open and the top-right corner of the screen will confirm that you are signed on as Alan Jackson.
    c. Navigate to **Microsoft Dynamics CRM** > **Service** > **Cases**.
    d. Switch to the **Active Cases** view.

e. Select the **Alan Test** Case, then on the command bar click **More Commands**, and then click **Assign**.
f. In the Assign to Team or User dialog box, select Assign to another User or Team.
g. Type **Your Name** and press the Tab key. Your User record will be resolved and shown in the lookup field.
h. Click **Assign**.
i. Note whether this succeeds or if an error message is displayed.
j. Repeat steps e through i for the **Ben Test** and **Connie Test** Cases, noting the outcome for each.
k. Leave this browser window open for later in this lab and switch back to the original window where you are signed in as your user, using the Windows taskbar

Exercise 2: Extend Access using a Team

Exercise Scenario

Adventure Works Cycles require a new Product Development Team to be created within the Marketing Business Unit. Members of this Team need the ability to assign Case records at Business Unit access level.

In this exercise you must:

1. Create a new team called Product Development within the Marketing Business Unit.
2. Assign the AWC NPD role to the team.
3. Add Alan Jackson as a member of the Product Development Team.
4. Log on as Alan and attempt to reassign the Test 2 and Test 3 cases.

Task 1: Assign Security Roles to a New Team

High Level Steps

1. Create a Team called “Product Development” in the Marketing Business Unit.
2. Assign the **AWC NPD** Security Role to the **Product Development** Team.
3. Add Alan Jackson to the new Product Development Team.
4. Test which Cases can be assigned by Alan Jackson again.

Detailed Steps

1. Create a Team called “Product Development” in the Marketing Business Unit.
    a. Switch to the main navigation window for Microsoft Dynamics CRM where you are signed in as your user, using the Windows taskbar.
    b. Navigate to **Microsoft Dynamics CRM** > **Settings** > **Security**.
    c. Click **Teams**.
    d. On the command bar click **New**.
    e. In the New Team form enter Product Development in the Team Name field.
    f. In the **Business Unit** field click the lookup button, and then click **Look Up More Records**.

g. In the Look Up Record dialog box, select the **Marketing** Business Unit and then click **Add**.
h. In the **Administrator** field select **Your** user using the lookup button.
i. On the command bar click the **Save** button.

2. Assign the **AWC NPD** Security Role to the **Product Development** Team.
   a. On the command bar click **More Commands**, and then click **Manage Roles**.
   b. In the **Manage Team Roles** dialog box, select the checkbox next to the **AWC NPD** role, then click the **OK** button.

3. Add Alan Jackson to the new Product Development Team.
   a. In the **Team Members** section of the form click the **Add** button.
   b. Click the lookup button and select **Alan Jackson** from the list.

4. Test which Cases can be assigned by Alan Jackson again.
   a. If you still have the browser window open with Alan Jackson signed in, switch to that using the Windows taskbar and proceed to step e.
   b. Otherwise, navigate to the Start screen of your computer. On the Start page, right click on **Internet Explorer** and select **Start In Private Browsing** from the options at the bottom of the screen.
   c. Login as **Alan** and then click OK. Microsoft Dynamics CRM will open and the top-right corner of the screen will confirm that you are signed on as Alan Jackson.
   d. Navigate to Microsoft Dynamics CRM > Service > Cases.
   e. Switch to the **Active Cases** view.
   f. Select the case called **Ben Test**, then on the command bar click **More Commands**, and then click **Assign**.
   g. In the Assign to Team or User dialog box, select Assign to another User or Team.
   h. Type **Your Name** and press the Tab key. Your User record will be resolved and shown in the lookup field.
   i. Click **Assign**.
   j. Note whether this succeeds or if an error message is displayed.
   k. Repeat steps f through j for the Case called **Connie Test**, noting the outcome.
   l. Leave this browser window open for later labs.

Lab 3A Create Custom Entities

Scenario

In this exercise, you will create and test two new entities, Idea and Prototype.

Lab Setup

Before you perform this lab, you must complete the Configure Security Roles lab in the **Building a Security Model**, and create Security Roles named AWC CSR and AWC Marketing as described in that lab.

Exercise 1: Create Two New Entities

Exercise Scenario

Adventure Works Cycles wants to track suggestions that are made by employees and customers as *Ideas* by using Microsoft Dynamics CRM. When an Idea is submitted, the Adventure Works Cycles New Product Development (NPD) team will consider the feasibility of the Idea. Ideas that might be potentially worthwhile are proposed as *Prototypes* for testing and market research.

In this exercise, you will create a custom entity that is named Idea. The properties of the Idea entity should be configured as follows:

Property	Setting
Display Name	Idea
Plural Name	Ideas
Ownership	User or Team
Define as an activity entity	Cleared
Display Areas	Service, Marketing
Connections	Cleared
Mail Merge	Cleared

You will also create a custom entity named Prototype. The properties of the Prototype entity should be configured as follows:

Property	Settings
Display Name	Prototype
Plural Name	Prototypes
Ownership	User or Team
Define as an activity entity	Cleared
Display Areas	Service, Marketing
Notes	Enabled

Property	Settings
Activities	Enabled
Connections	Enabled
Queues	Enabled

The AWC CSR and AWC Marketing Security Roles should be modified to grant all privileges to both entities at the user level except for Read and Append To privileges. These should be at the organization level.

Then, you must test the new entities and your configuration by logging on as Alan Jackson and creating a new Idea and Prototype record.

Task 1: Create the Idea and Prototype Entities and Assign Security Role Privileges

High Level Steps

1. Create the **Idea** entity in the **NPD and Feedback** Solution by using the requirements in the scenario.
2. Create the **Prototype** entity in the **NPD and Feedback** Solution by using the requirements in the scenario.
3. Configure the **AWC CSR** and **AWC Marketing** Security Roles as described in the exercise scenario.
4. Test access to the **Idea** entity for Alan Jackson.
5. Test access to the **Prototype** entity for Alan Jackson.

Detailed Steps

1. Create the **Idea** entity in the **NPD and Feedback** Solution by using the requirements in the scenario.
    a. Switch to the **NPD and Feedback** Solution if you still have the window open, by using the Windows taskbar, otherwise navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, click **Entities**.
    c. On the menu bar at the top of the list of entities, click **New**.
    d. In Display Name, enter Idea.
    e. In Plural Name, enter Ideas.
    f. Make sure that the **Ownership** property is set to **User or Team**.
    g. In the Areas that display this entity section, select Service and Marketing.
    h. In the **Communication & Collaboration** section clear the check boxes for **Connections** and **Mail Merge**. All other settings should be left at the defaults.
    i. Click Save and Close.
    j. In the solution explorer, click **Idea**
    k. On the toolbar, click Publish. Note: Although the entity is published when it is saved the first time, the Sitemap areas are not updated until you publish again

2. Create the **Prototype** entity in the **NPD and Feedback** Solution by using the requirements in the scenario.
    a. With the **NPD and Feedback** Solution window still open, in the solution explorer click **Entities**.
    b. On the menu bar at the top of the list of entities, click **New**.
    c. In Display Name, enter Prototype.
    d. In Plural Name, enter Prototypes.
    e. Make sure that the **Ownership** property is set to **User or Team**.
    f. In the Areas that display this entity section, select Service and Marketing.
    g. In the **Communication & Collaboration** ensure that **Notes**, **Activities**, **Connections** and **Queues** are enabled. All other settings should be left at the defaults.
    h. Click Save and Close.
    i. In the solution explorer, click **Prototype**
    j. On the toolbar, click Publish. Note: Although the entity is published when it is saved the first time, the Sitemap areas are not updated until you publish again

3. Configure the **AWC CSR** and **AWC Marketing** Security Roles as described in the exercise scenario.
    a. In the solution explorer, click **Security Roles**.
    b. Double-click the **AWC CSR** Security Role to open it.
    c. Click the **Custom Entities** tab.
    d. Click the **Idea** entity name until all privileges are set to User level.
    e. Click the **Read** privilege for **Idea** until it is set to Organization level.
    f. Click the **Append To** privilege for **Idea** until it is set to Organization level
    g. Click the **Prototype** entity name until all privileges are set to User level.
    h. Click the **Read** privilege for **Prototype** until it is set to Organization level.
    i. Click the **Append To** privilege for **Prototype** until it is set to Organization level
    j. Click Save and Close.
    k. Repeat steps b through j for the **AWC Marketing** Security Role.
    l. Leave the Solution window open for later labs.

4. Test access to the **Idea** entity for Alan Jackson.
    a. you still have the browser window open with Alan Jackson signed in, switch to that using the Windows taskbar, press the F5 key to refresh the browser, and then proceed to step d.
    b. Otherwise, navigate to the Start screen of your computer. On the Start page, right click on **Internet Explorer** and select **Start In Private Browsing** from the options at the bottom of the screen.
    c. Login as **Alan**, and then click **OK**. Microsoft Dynamics CRM will open and the upper-right corner of the screen will confirm that you are signed on as Alan Jackson.
    d. Click or point to **Microsoft Dynamics CRM**, and then click **Marketing**.
    e. Click or point to **Marketing** and then click **Ideas** (you must scroll to the right side for this to be visible).
    f. On the command bar, click **New**.
    g. In Name, enter Test idea.
    h. Click **Save**.

i. On the navigation bar, click **Ideas**. The **Test idea** record will be displayed in the **Active Ideas** view.

5. Test access to the **Prototype** entity for Alan Jackson.
   a. In the navigation bar, click **Marketing**.
   b. Click **Prototypes** (you must scroll to the right side for this to be visible).
   c. On the command bar, click **New**.
   d. In Name, enter Test prototype.
   e. Click **Save**.
   f. On the navigation bar, click **Prototypes**. The **Test prototype** record will appear in the **Active Prototypes** view.
   g. Leave this Microsoft Dynamics CRM browser window open for the next lab.

Lab 3B Create a Custom Activity Entity

Scenario

Adventure Works Cycles wants to record structured feedback from employees and customers about various processes and interactions, such as placing an order, contacting support or attending an event. By creating a custom activity entity named *Feedback* this can be associated with any record that supports activities, instead of having to create several specific relationships to individual entities.

Lab Setup

Before you perform this lab, you must complete the Create Custom Entities lab in this module, and create the Idea and Prototype entities described in that lab.

Exercise 1: Create a New Activity Entity Named "Feedback"

Exercise Scenario

In this exercise, you will create and test a custom activity entity named Feedback.

You must sign in as Alan Jackson and test the entity by creating new Feedback activities for the record named "Test prototype" that you created in the earlier exercise.

Task 1: Create the Feedback Entity

High Level Steps

1. Create the **Feedback** entity as a custom activity in the **NPD and Feedback** Solution.
2. All **Data Services** and **Outlook & Mobile** options should be disabled.
3. Test as Alan Jackson.

Detailed Steps

1. Create the **Feedback** entity as a custom activity in the **NPD and Feedback** Solution.
    a. Switch to the **NPD and Feedback** Solution by using the Windows taskbar.
    b. In the solution explorer click **Entities**.
    c. On the menu bar at the top of the list of entities, click **New**.
    d. In the **Display Name** field, enter **Feedback**.
    e. In the **Plural Name** field, enter **Feedback**.
    f. Select the check boxes **Define as an activity entity** and **Display in Activity Menus**. Notice that **Ownership** is set to **User or Team** and cannot be changed.

2. All **Data Services** and **Outlook & Mobile** options should be disabled.

    a. In the **Data Services** and **Outlook & Mobile** sections clear any options that are checked (the **Offline capability for CRM for Outlook** cannot be cleared.)
    b. Click **Save and Close** to close the new entity form.
    c. Keep the Solution window open for later labs.

3. Test as Alan Jackson.

    a. Switch to the browser window that is signed in as Alan Jackson (check the User name at the upper-right side of the window).
    b. Double-click the **Test prototype** record to open it.
    c. In the Activities pane in the middle of the form, click the **Add more activities** button, and then click **Feedback**. (You can also do this from the command bar by clicking **More Commands** > **Other Activities** > **Feedback**.)
    d. Change the **Name** of the record to **Feedback 1**.
    e. On the command bar click **Save**.
    f. To return to the Prototype form, in the **Regarding** field, click the link to the **Test prototype** record.
    g. Confirm that the new Feedback record is shown on the Prototype in the Activities pane.
    h. In the Activities pane in the middle of the form, click the **Add more activities** button again, and then click **Feedback**.
    i. Change the **Name** of the record to **Feedback 2**.
    j. On the command bar click **Save**, and then click **Mark Complete**.
    k. Confirm that the completed Feedback record is shown on the Prototype in the Activities area of the social pane. **Note**: the completed activity has a grey background.

Lab 4A Create Custom Fields

Exercise Scenario

In the module *Customizing Entities* you created a custom entity called Idea. Adventure Works Cycles require additional fields to be added to the entity as follows:

Field Name	Data Type	Additional requirements
Detailed Description	Multiple lines of text	Business Required
Target Market Size	Whole number	Business Recommended Minimum value 0 Maximum value 1,000,000,000

Your task is to create these two fields within the Idea entity. In the module *Customizing Forms* you will add the fields to the form.

High Level Steps

1. Access the Idea entity within the Solution.
2. Add the **Detailed Description** field according to the scenario.
3. Add the **Target Market Size** field according to the scenario.

Detailed Steps

1. Access the Idea entity within the Solution.
    a. On the navigation bar, click **Settings**
    b. Open the **NPD and Feedback** Solution
    c. Click Entities.
    d. Expand the **Idea** entity.

2. Add the **Detailed Description** field according to the scenario.
    a. Within the **Idea** entity click **Fields**.
    b. On the toolbar click **New**.
    c. Complete the **New Field** form as follows:
        i. In the Display Name field enter Detailed Description.
        ii. Set the Field Requirement property to Business Required.
        iii. In the Description field enter “The detailed description of the idea”.
        iv. Set the **Data Type** field to read Multiple Lines of Text.
        v. Click Save and Close

3. Add the **Target Market Size** field according to the scenario.
    a. Within the **Idea** entity click **Fields**.
    b. On the toolbar click **New**.
    c. Complete the **New Field** form as follows:
        i. In the Display Name field enter Target Market Size.
        ii. Set the Field Requirement property to Business Recommended.

iii. In the Description field enter “The size of the target market”.
iv. Set the **Data Type** field to read **Whole Number**.
v. Set the Minimum Value to 0.
vi. Set the Maximum Value to 1,000,000,000.
vii. Click Save and Close.

Lab 4B Create and Modify a Global Option Set

Scenario

Adventure Works Cycles require a new Option Set field called Satisfaction Rating to be created on the Feedback form. The field should be configured as follows:

Field Name	Requirements
Satisfaction Rating	Business Required Use a Global Option Set called "Rating". Option Set values: • Unhappy • Neutral • Happy Default value: Neutral

You are required to perform the following tasks:

1. Create the Global Option Set.
2. Create the Satisfaction Rating field within the Feedback entity.
3. Add the Satisfaction Rating field to the form.
4. Test that the field works as expected.

However, after these changes have been made Adventure Works Cycles decide that the order of the values in the Option Set must be changed to:

- Happy
- Neutral
- Unhappy

You must modify the Global Option Set according to these requirements and test that it works as expected.

Exercise 1: Create an Option Set Field for the Feedback Entity

Exercise Scenario

In this exercise you will create a Global Option Set configured as follows:

Display Name	Values
Rating	Unhappy Neutral Happy

You will then create an Option Set field within the Feedback entity configured as follows:

Display Name	Field Requirement	Option Set	Default Value
Satisfaction Rating	Business Required	Ratings	Neutral

Once complete, you will add the Satisfaction Rating field to the Feedback form then test its behaviour.

Task 1: Create a Global Option Set Called Rating and add the Option Set to the Entity

High Level Steps

1. Create a new Global Option Set.
2. Configure the Global Option Set according to the scenario.
3. Create a new field within the **Feedback** entity.
4. Configure the **Satisfaction Rating** field.
5. Add the **Satisfaction Rating** field to the **Feedback** form.
6. Create a new **Feedback** record and test the **Satisfaction Rating** field.

Detailed Steps

1. Create a new Global Option Set.
    a. Navigate to Microsoft Dynamics CRM > Settings > Solution
    b. Open the **NPD and Feedback** Solution
    c. Click Option Sets.
    d. On the toolbar click **New**.

2. Configure the Global Option Set according to the scenario.
    a. In the **New Option Set** form enter **Rating** into the **Name** field.
    b. In the Description field enter Customer Satisfaction Ratings.
    c. In the **Options** field click the **Add** button.
    d. In the **Label** field enter **Unhappy**.
    e. Click the **Add** button.
    f. In the **Label** field enter **Neutral**.
    g. Click the **Add** button.
    h. In the **Label** field enter **Happy**.
    i. Click Save and Close.

3. Create a new field within the **Feedback** entity.
    a. In the **NPD and Feedback** Solution, expand **Entities**.
    b. Expand the **Feedback** entity.
    c. Click **Fields**.
    d. On the toolbar click **New**.

4. Configure the **Satisfaction Rating** field.
    a. In the New Field form, enter Satisfaction Rating into the Display Name field.
    b. Set the Field Requirement to Business Required.

c. In the **Data Type** field select **Option Set**.
d. In the Use Existing Option Set field select Yes.
e. In the **Option Set** field select **Ratings**.
f. In the **Default Value** field select **Neutral**.
g. Click Save and Close.

5. Add the **Satisfaction Rating** field to the **Feedback** form.
   a. Within the **Feedback** entity click **Forms**.
   b. Double-click the **Information** form with a Form Type of **Main**.
   c. In the **Field Explorer** section on the right of the screen, Double Click the **Satisfaction Rating** field. Be sure Satisfaction Rating is just below the **Regarding** field, if not drag it into position.
   d. Click Save and Close
   e. Click Publish All Customizations.

6. Create a new **Feedback** record and test the **Satisfaction Rating** field.
   a. On the navigation bar click the **Home** button.
   b. On the navigation bar click **Marketing**.
   c. On the navigation bar, click **Ideas**.
   d. Open an idea record.
   e. On the command bar click the ellipsis button.
   f. Click Other Activities.
   g. Click Feedback.
   h. In the new **Feedback** record check that the **Satisfaction Rating** field displays **Neutral**.
   i. Click the button next to the **Satisfaction Rating** field and check that the values of **Unhappy**, **Neutral** and **Happy** appear.
   j. Close the **Feedback** form without saving changes.

Task 2: Modify the Ratings Global Option Set

High Level Steps

1. Access the **Ratings** Global Option Set.
2. Edit the order of the values in the Global Option Set according to the scenario.
3. Test the changes.

Detailed Steps

1. Access the **Ratings** Global Option Set.
   a. On the navigation bar, click **Settings**
   b. Open the **NPD and Feedback** Solution
   c. Click Option Sets.
   d. Double-click the **Ratings** option set.

2. Edit the order of the values in the Global Option Set according to the scenario.
   a. In the **Options** section, select **Happy**.
   b. Click the **Up** arrow on the toolbar until **Happy** is at the top of the list.

c. In the **Options** section, select **Unhappy**. Make a note of the **Value** used by this option for use in the next exercise.
d. Click the **Down** arrow on the toolbar until **Unhappy** is at the bottom of the list.
e. Click **Save**, then **Publish**, and leave the **Option Set** form open for the later steps in this lab.

3. Test the changes.
   a. On the navigation bar click the **Home** button.
   b. On the navigation bar click **Marketing**.
   c. On the navigation bar, click **Ideas**.
   d. Open an idea record.
   e. On the toolbar click the ellipsis button.
   f. Click Other Activities.
   g. Click Feedback.
   h. In the new **Feedback** record check that the **Satisfaction Rating** field displays **Neutral**.
   i. Click the button next to the **Satisfaction Rating** field and check that the values of **Happy**, **Neutral** and **Unhappy** appear.
   j. Close the **Feedback** form without saving changes.

Exercise 2: Edit a Global Option Set

Exercise Scenario

Adventure Works Cycles has decided that the Ratings Global Option Set requires two additional values: Very Happy and Very Unhappy. The Global Option Set must be modified to accommodate these changes.

High Level Steps

1. Access the **Ratings** Global Option Set.
2. Add two new values to the **Ratings** Global Option Set.
3. Test the changes

Detailed Steps

1. Access the **Ratings** Global Option Set.
   a. On the navigation bar, click **Settings**
   b. Open the **NPD and Feedback** Solution
   c. Click Option Sets.
   d. Double-click the **Ratings** option set.

2. Add two new values to the **Ratings** Global Option Set.
   a. In the **Options** field click the **Add** button.
   b. In the **Label** field enter **Very Happy**.
   c. Click the **Up** arrow on the toolbar until the new option moves to the top of the list.
   d. Click the **Add** button.
   e. In the **Label** field enter **Very Unhappy**.

f. In the **Value** field, select the provided value and enter any number lower than the one used for Unhappy (which you noted in the previous exercise).
g. You will see a message warning you that this value does not use the Solution's prefix. Click **OK** to continue past this warning.
h. Click the **Down** arrow on the toolbar until it moves to the bottom of the list.
i. Ensure that the order of items is **Very Happy**, **Happy**, **Neutral**, **Unhappy**, **Very Unhappy**.
j. Click **Save and Close** to close the **Option Set** form. Note: you do not need to publish because the new items added are automatically published when they are saved the first time.

3. Test the changes
   a. On the navigation bar click the **Home** button.
   b. On the navigation bar click **Sales**.
   c. On the navigation bar, click **Ideas**.
   d. Open an idea record.
   e. On the toolbar click the ellipsis button.
   f. Click Other Activities.
   g. Click Feedback.
   h. In the new **Feedback** record check that the **Satisfaction Rating** field displays **Neutral**.
   i. Click the button next to the **Satisfaction Rating** field and check that the values of **Very Happy**, **Happy**, **Neutral**, **Unhappy** and **Very Unhappy** appear.
   j. Close the **Feedback** form without saving changes.

Lab 5A Create a 1:N Relationship

Exercise Scenario

You must create a 1:N relationship between the Idea and Prototype entities and modify it to meet the requirements of the NPD team. To prevent Prototype records being created without an Idea record, you will create a lookup field on Prototype named "Originating Idea", make this Business Required and add it to the Prototype form.

To make sure that Prototypes are assigned correctly when an Idea is assigned, you will configure the relationship behaviour to configurable cascading and change the assign rule to Cascade User-Owned.

To prevent Ideas being deleted if they have related Prototypes, change the delete rule to Restrict.

You must create some records and test your configuration changes.

High Level Steps

1. Open the **NPD and Feedback** solution.
2. Create a 1:N relationship between the Idea and Prototype entities.
3. Add the Originating Idea lookup field to the Prototype form.
4. Test the relationship by creating an Idea record, then a related Prototype.
5. Attempt to delete the test Idea record.
6. Assign the Idea to Connie Watson.

Detailed Steps

1. Open the **NPD and Feedback** solution.
    a. Switch to the **NPD and Feedback** Solution if you still have the window open, by using the Windows taskbar, otherwise navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, expand **Entities**, and then expand **Idea**.

2. Create a 1:N relationship between the Idea and Prototype entities.
    a. Under the **Idea** entity, click **1:N Relationships**.
    b. On the action bar, click **New 1-to-Many Relationship**.
    c. In the Relationship form, in the **Related Entity** list select **Prototype**.
    d. In **Name**, Highlight awcnpd_ press delete.
    e. Highlight _awcnpd press delete. Leaving only **idea_prototype**.
    f. In the Lookup Field section, in Display Name, enter Originating Idea.
    g. In the Field Requirement list, select Business Required.
    h. In the Type of Behavior list, select Configurable Cascading.
    i. In the Assign list, select Cascade User-Owned.
    j. In the **Delete** list, select **Restrict**.
    k. On the toolbar, click **Save and Close**.

3. Add the Originating Idea lookup field to the Prototype form.
    a. In the solution explorer, expand **Prototype** then click **Forms**.

b. Double-click the **Information** form with a Form Type of **Main**.
c. In the Field Explorer Double Click **Originating Idea** field and drag it below the **Owner** field.
d. Click **Save**, and then click **Publish**.
e. Click Save and Close.
f. Leave the **NPD and Feedback** Solution window open for later labs.

4. Test the relationship by creating an Idea record, then a related Prototype.
   a. Switch to the main navigation window.
   b. Navigate to **Microsoft Dynamics CRM** > **Marketing** > **Ideas** (you must scroll to the right side to reach Ideas).
   c. On the command bar, click **New**.
   d. In Name, enter New range of helmets.
   e. On the command bar, click **Save**.
   f. On the navigation bar, click or point to the drop-down arrow to the right of **New range of helmets** then click **Prototypes**.
   g. Below the view label **Prototype Associated View**, on the command bar, click **Add New Prototype**.
   h. In the New Prototype form, in Name, enter Lightweight race helmet.
   i. In **Owner**, type **Alan** and press the Tab key. **Alan Jackson** will be selected as the **Owner**.
   j. Close the Lightweight race helmet window.

5. Attempt to delete the test Idea record.
   a. In the **New range of helmets** Idea record, click the name of the Idea at the top left to return to the main form
   b. On the command bar click **Delete**
   c. In the **Confirm Deletion** dialog box click **Delete**.
   d. An error will be displayed stating that the record could not be deleted because of an association. Click **OK**.

6. Assign the Idea to Connie Watson.
   a. In the **New range of helmets** Idea record, on the command bar click **Assign**.
   b. In the **Assign Idea** dialog box, underneath **Assign to another user or team**, type **Connie** and press the Tab key.
   c. Click **OK** to Assign the **New range of helmets** Idea to Connie Watson.
   d. On the navigation bar, click or point to the drop-down arrow to the right of **New range of helmets** then click **Prototypes**.
   e. Double-click the **Lightweight race helmet** Prototype.
   f. Confirm that Alan Jackson is still the owner of the Prototype record.

Lab 5B Create a N:N Relationship

Exercise Scenario

When ideas are submitted, Adventure Works Cycles need to identify competitors who are already in that area of the market, to help assess the feasibility of competing effectively against them. By tracking Ideas against Competitors, this will help steer product development in the most viable direction, for example whether innovation, price, quality or other factors are more likely to make a new product successful.

You must create a many-to-many relationship between the Idea entity you created in the "*Customizing Entities"* module and the built-in Competitor entity, and test that it works correctly.

High Level Steps

1. Create a N:N relationship between the **Idea** and **Competitor** entities.
2. Link an **Idea** to an existing **Competitor**.
3. Link an **Idea** to a new **Competitor**.

Detailed Steps

1. Create a N:N relationship between the **Idea** and **Competitor** entities.
    a. Switch to the **NPD and Feedback** solution if you still have the window open, otherwise navigate to **Settings** > **Solutions** and double-click the solution to open it.
    b. In the solution explorer, expand **Entities** then expand **Idea**.
    c. Under the **Idea** entity click **N:N Relationships**.
    d. On the action bar, click New Many-to-Many Relationship.
    e. In the New Relationship form, in the Current Entity section, in the Display Option list select Use Plural Name.
    f. In the **Other Entity** section, in the **Entity Name** list select **Competitor**.
    g. In the Other Entity section, in the Display Option list select Use Plural Name.
    h. On the toolbar, click **Save and Close** to return to the Solution.
    i. Leave the **NPD and Feedback** Solution window open for later labs.

2. Link an **Idea** to an existing **Competitor**.
    a. Switch to the main navigation window.
    b. Navigate to Microsoft Dynamics CRM > Sales > Competitors.
    c. On the command bar, click **New**.
    d. In the New Competitor record, in Name enter Wingtip Toys.
    e. On the command bar, click **Save**.
    f. Navigate to Microsoft Dynamics CRM > Marketing > Ideas.
    g. Open the New range of helmets Idea.
    h. On the navigation bar, click or point to the drop-down arrow to the right of **New range of helmets** then click **Competitors**.
    i. Below the view label **Competitor Associated View**, on the command bar, click **Add Existing Competitor**.
    j. In the lookup entry which appears in the list, enter **Wingtip** and press the Tab key.

3. Link an **Idea** to a new **Competitor**.
    a. With the **New range of helmets** Idea still open, click **Add Existing Competitor**. A lookup control is displayed in the list.
    b. Click the lookup icon at the right side of the lookup control, and then click **Look Up More Records**.
    c. In the **Look Up Records** dialog box which appears, at the lower left corner click **New**.
    d. On the **New Competitor** form, enter the name **Wide World Importers**, then click **Save**.
    e. In the **Look Up Records** dialog box, click **Add**.
    f. Click **Wide World Importers** in the list of Competitors to open it.
    g. On the navigation bar, click or point to the drop-down arrow to the right of **Wide World Importers** then click **Ideas**.
    h. Verify that **New range of helmets** is shown in the list of associated Ideas, because the N:N relationship is symmetrical.

Lab 5C Customize Relationship Mappings

Scenario

Ben Burton, Marketing Manager for Adventure Works Cycles must make sure that the member of the marketing team who is developing an Idea will have complete access to all Prototypes that are created for that Idea.

He asks you to configure Prototypes so that any new records that are created will have the same owner as the Idea they relate to.

You must configure the field mapping between the Idea and the Prototype entities by using the existing 1:N relationship that you created, by adding a mapping for the Owner field.

Then, you must test the mapping by creating a Prototype record from an Idea and checking that the value in the Owner field is the same

High Level Steps

1. Open the 1:N relationship between the Idea and the Prototype entities.
2. Create a mapping between the Owner fields of both entities.
3. Test the field mapping by creating a Prototype from an Idea.

Detailed Steps

1. Open the 1:N relationship between Idea and Prototype

    a. Switch to the **NPD and Feedback** solution if you still have the window open, by using the Windows taskbar, otherwise navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, expand **Entities** then expand **Idea**.
    c. Under the **Idea** entity, click **1:N Relationships**
    d. Find the relationship with **Prototype** as the **Related Entity** (you can sort this column by clicking the heading).
    e. Double-click to open the relationship.

2. Create a mapping between the Owner fields of both entities.
    a. In the **Idea to Prototype** relationship form, in the navigation pane, click **Mappings**.
    b. On the menu bar at the top of the list of mappings, click **New**.
    c. In the Source Entity Fields list, select ownerid.
    d. In the Target Entity Fields list, select ownerid.
    e. Click **OK**.
    f. Click **New**.
    g. Verify that ownerid is still displayed in the **Source Entity Fields** list, but is not displayed in the **Target Entity Fields** list.
    h. Click **Cancel**.
    i. In the Relationship form, click **Save and Close**.
    j. Leave the **NPD and Feedback** Solution window open for later labs.

3. Test the field mapping by creating a Prototype from an Idea.
    a. Switch to the main application window by using the Windows taskbar.
    b. Navigate to Microsoft Dynamics CRM > Marketing > Ideas.
    c. Open the **New range of helmets** Idea. Note the current owner of the record.
    d. On the navigation bar, click or point to the drop-down arrow to the right of **New range of helmets** then click **Prototypes**.
    e. Below the view label **Prototype Associated View**, on the command bar, click **Add New Prototype**.
    f. In the New Prototype form, in Name, enter Off-road helmet with headlights.
    g. Verify that the owner of the Prototype record matches the owner of the Idea.
    h. Click **Save**, then close the Prototype record window.

Lab 6A Add Fields to Forms

Scenario

You need to continue the configuration of the Idea entity by adding some of the fields created previously to the form, and modify the layout to organize these logically. You also need to modify the Prototype form, and add some additional fields at the same time. The Prototype form also needs some changes to the layout to present the information as clearly as possible.

Lab Setup

Before doing this lab you need to have completed the lab "Create Custom Fields" in the "*Customizing Fields*" module, and created the Target Market Size and Description fields on the Idea entity as described there. You also need to have completed the lab "Create New Relationships" in the module, "*Managing Relationships*", and created a 1:N relationship between the Idea and Prototype entities as described there.

Exercise 1: Modify Form Layout and Add Fields

Exercise Scenario

In this exercise you must format an existing tab and section on the Idea Information form, add two existing fields to the form and modify the layout of one of the fields.

You must also add a new section to the Prototype Information form, create two new fields and add these to the new section. The two new fields must have the properties shown in the following table.

Field Name	Properties
Planned Completion	Type: Date Format: Date only
Budget	Type: Currency Precision: 0 Minimum value: 0 Maximum value: 1,000,000

Task 1: Customize the Idea Form and Add Existing Fields

High Level Steps

1. Open the Idea form called **Information** from **NPD and Feedback** solution.
2. Modify the **General** tab columns to 50% of the width for each, and modify the **General** section to have two columns.
3. Modify the **Name** field to span two columns, add the **Target Market Size** and **Description** fields to the **General** section and modify the **Description** field to span two columns and five rows.

Detailed Steps

1. Open the Idea form called **Information** from **NPD and Feedback** solution.
    a. Switch to the **NPD and Feedback** Solution if you still have the window open, otherwise navigate to **Settings** > **Solutions** and double-click the solution to open it.
    b. In the solution explorer, expand **Entities** then expand **Idea**.
    c. Under the Idea entity click **Forms**.
    d. Click **Forms**.
    e. Double-click the **Information** form with a Form Type of **Main**.

2. Modify the **General** tab columns to 50% of the width for each, and modify the **General** section to have two columns.
    a. Double-click the **General** tab.
    b. In the **Tab Properties** dialog box, click the **Formatting** tab.
    c. In the **Layout** section, under **Two Columns**, select the icon on the left. Note that the column widths change to 50% each.
    d. Click **OK**.
    e. Double-click the **General** section.
    f. In the **Section Properties** dialog box, click the **Formatting** tab.
    g. In the **Layout** section, select **Two Columns**.
    h. Click **OK**.

3. Modify the **Name** field to span two columns, add the **Target Market Size** and **Description** fields to the **General** section and modify the **Description** field to span two columns and five rows.
    a. Double-click the **Name** field on the form.
    b. In the **Field Properties** dialog box, click the **Formatting** tab.
    c. In the Layout section, select **Two columns** to span both columns of the containing section. Note that the options for Three and Four columns are unavailable. Click **OK**.
    d. In the **Field Explorer** pane, in the **Filter** list, select **Custom Fields**.
    e. In Field Explorer pane Double click **Target Market Size** field. Drag it next to **Owner**.
    f. Double click the **Target Market Size** field.
    g. In the **Field Properties** dialog box, on the **Display** tab, change the **Label** to **Target Market** (delete the word “Size”). Click **OK**.
    h. In Field Explorer pane Double click **Description** field. Drag it under **Owner**.
    i. Double-click the **Description** field.
    j. In the **Field Properties** dialog box, click the **Formatting** tab.
    k. In the Layout section, select **Two columns**.
    l. In the **Row Layout** section, in **Number of Rows**, enter **5**.
    m. Click **OK**.
    n. On the ribbon, click the **Home** tab then click **Save**.
    o. Click **Publish**.
    p. Click Save and Close.
    q. Keep the Solution window open for the next task in this lab exercise.

Task 2: Customize the Prototype Form and Add New Fields

High Level Steps

1. Open the **Prototype** form called **Information**.
2. Add two new fields to the Prototype entity.
3. Create a new one column section called **Planning**.
4. Add the **Planned Completion**, **Currency** and **Budget** fields to the form.
5. Configure the **Originating Idea** field to be read-only.
6. Add the **Owner** field to the form header.
7. Add the **Modified By** and **Modified On** fields to the form footer.
8. Test your changes to both entities by creating a **Prototype** from an existing **Idea**.

Detailed Steps

1. Open the **Prototype** form called **Information**.
    a. In the **NPD and Feedback** solution (this should still be open from the previous task) expand the **Prototype** entity.
    b. Click **Forms**.
    c. Double-click the **Information** form with a Form Type of **Main**.

2. Add two new fields to the Prototype entity.
    a. In the Field Explorer pane, click **New** Field.
    b. In the **New for Prototype** form in **Display Name**, enter **Planned Completion**.
    c. In the **Type** list, select **Date and Time**.
    d. In the **Format** list, select **Date Only** (this is the default value).
    e. On the toolbar, click the **Save and New** button.
    f. In the second **New for Prototype** form, in the **Display Name** field, enter **Budget**.
    g. In the **Type** list, select **Currency**.
    h. In the **Precision** list, select **0**.
    i. In the **Minimum Value** field, enter **0** (zero).
    j. In the **Maximum Value** field, enter **1000000** (1 million; formatting is applied according to your personal settings)
    k. On the toolbar, click **Save and Close**.

3. Create a new one column section called **Planning**.
    a. On the ribbon, click the **Insert** tab, then click **Section**, then click **One Column**.
    b. Double-click the new section on the form.
    c. In the **Section Properties** dialog box, in the **Name** and **Label** fields, enter **Planning**.
    d. Select the two checkboxes Show the label of this section on the form and Show a line at the top of the section.
    e. Click **OK**.

4. Add the Planned Completion, Currency and Budget fields to the form.
    a. In the **Field Explorer**, select the **Planned Completion** field and drag it into the **Planning** section.
    b. Drag the **Currency** field below the **Planned Completion** field

c. Drag the **Budget** field below the **Currency** field.

5. Configure the Originating Idea field to be read-only.
   a. Double-click the **Originating Idea** field.
   b. In the **Field Properties** dialog box, check the box next to **Field is read-only**.
   c. Click **OK**.

6. Add the Owner field to the form header.
   a. On the ribbon, click the **Home** tab.
   b. In the **Select** group, click **Header**.
   c. In the **Field Explorer**, select the **Owner** field and drag it to the leftmost position in the **Header**.

7. Add the Modified By and Modified On fields to the form footer.
   a. Scroll down to the bottom of the form and double-click the **Footer** area.
   b. In the **Field Explorer**, click the **Modified By** field and drag it to the leftmost position in the footer.
   c. In the **Field Explorer**, click the **Modified On** field and drag it to the middle position in the **Footer**.
   d. On the ribbon, click **Save**, and then click **Publish**.
   e. Click Save and Close.
   f. Leave the Solution window open for later labs.

8. Test your changes to both entities by creating a **Prototype** from an existing **Idea**.
   a. Switch to the main navigation window where you are signed in as your user, using the Windows Task Bar.
   b. Navigate to Microsoft Dynamics CRM > Sales > Ideas.
   c. Open an existing Idea record and check that the form reflects the changes you have made in this exercise.
   d. On the navigation bar, to the right of the name of the Idea record you have opened, click the drop-down arrow, then click **Prototypes**.
   e. A list of related prototype records will be displayed.
   f. On the action bar above the list, click the **New** button. A new Prototype record will be created, inheriting values from the Idea.
   g. Check that the Prototype form reflects the changes you have made in this exercise. Note the position of the **Owner** field in the header area.

Lab 6B Create a Role-Based Form

Scenario

Ben Burton, Marketing Manager at Adventure Works Cycles has asked for some changes to be made to the Competitor form to support the new product development (NPD) process. Users managing NPD need to see information about related Ideas on Competitor records, but this is not useful to everyone. You have decided to create a second form for the NPD users to meet their requirements without affecting other departments.

Lab Setup

Before doing this lab you need to have completed the lab "Create New Relationships" in the module, "*Managing Relationships*", and created a 1:N relationship between the Competitor and Idea entities as described there.

Create New Role-Based Form for Competitors

Exercise Scenario

In this exercise you will create and test a new NPD version of the Competitor form.

Task 1: Create a Role-Based Form

High Level Steps

1. Open the **NPD and Feedback** solution.
2. Create a copy of the existing **Information** form for the **Competitor** entity.
3. Add a sub-grid showing **Ideas** on the new **NPD** form.
4. Assign the new form to the **AWC NPD** Security Role.
5. Set the form order.
6. Create a new Team to manage the form access.
7. Test your work by logging in as Connie Watson.
8. Test your work by logging in as Ben Burton.

Detailed Steps

1. Open the **NPD and Feedback** solution.
    a. Switch to the **NPD and Feedback** solution if you still have the window open, otherwise navigate to **Settings** > **Solutions** and double-click the solution to open it.
    b. In the solution explorer expand **Entities**.

2. Create a copy of the existing **Information** form for the **Competitor** entity.
    a. Expand the **Competitor** entity.
    b. Click **Forms**.
    c. Double-click the **Competitor** form that has a **Form Type** of **Main**.
    d. On the ribbon, click **Save As**.
    e. In the **Save As** dialog box, change the **Name** to read **NPD**.

f. In the Save As dialog box, change Description to "A form for the NPD team."
g. Click **OK** and wait for the form to save and reload.

3. Add a sub-grid showing **Ideas** on the new **NPD** form.
   a. In the **NPD** form designer, on the ribbon, click the **Insert** tab.
   b. In the **1 Tab** group, click **One Column**.
   c. With the tab still selected, on the **Home** ribbon in the **Edit** group, click **Change Properties** (or you can double-click the tab).
   d. In the **Tab Properties** dialog box, in **Name** and **Label** enter **Ideas**.
   e. Click **OK**.
   f. On the **Insert** ribbon, in the **Control** group, click **Sub-grid**.
   g. In the **Set Properties** dialog box, in **Name**, enter **Ideas**.
   h. In the **Entity** list, select **Ideas**. Note the label is filled in based on this selection, but you can choose to overwrite it.
   i. Click **Set**.
   j. On the ribbon click the **Home** tab.
   k. Click **Save**.
   l. Click **Publish**.
   m. Click Save and Close.

4. Assign the new form to the **AWC NPD** Security Role.
   a. Select the **NPD** form.
   b. On the action bar above the list of forms, click **Enable Security Roles**.
   c. Select the **AWC NPD** role.
   d. Click **OK**.

5. Set the form order.
   a. On the toolbar, click **Form Order**, then click **Main Form Set**.
   b. Move the **NPD** form to the top of the list by selecting the form and clicking the up arrow above the list.
   c. Click **OK**.

6. Create a new Team to manage the form access.
   a. In the main Microsoft Dynamics CRM navigation screen where you are signed in as your user, navigate to **Settings** > **Security**.
   b. Click **Teams**.
   c. On the command bar, click **New**.
   d. In the New Team form, in Team Name, enter **NPD Competitor Form Access**.
   e. In **Administrator**, type **Your Name** and press the Tab key.
   f. On the command bar, click **Save**.
   g. Above the Team Members list, click **Add User record** (**+**).
   h. In the lookup control which appears, click the lookup icon and select **Ben Burton** from the list.
   i. In the navigation bar, to the right of the Team name **NPD Competitor Form Access**, click or point to the drop down arrow, then click **Security Roles**.
   j. In the action bar below the **Role Associate View** label, click **Manage Roles**.

k. In the **Manage Team Roles** dialog box, select the **AWC NPD** role and then click **OK**.

7. Test your work by logging in as Connie Watson.
   a. Navigate to the Start screen of your computer. On the Start page, right click on **Internet Explorer** and select **Start In Private Browsing** from the options at the bottom of the screen.
   b. Login as **Connie** and then click **OK**. Microsoft Dynamics CRM will open and the top-right corner of the screen will confirm that you are signed in as Connie Watson.
   c. Navigate to **Microsoft Dynamics CRM**, click **Sales**, and then click **Competitors**.
   d. Double-click an existing Competitor record.
   e. Scroll down the form and observe that the Ideas sub-grid does not appear.
   f. Close this Microsoft Dynamics CRM browser window.

8. Test your work by logging in as Ben Burton.
   a. Navigate to the Start screen of your computer. On the Start page, right click on **Internet Explorer** and select **Start In Private Browsing** from the options at the bottom of the screen.
   b. Login as **Ben** and then click **OK**. Microsoft Dynamics CRM will open and the top-right corner of the screen will confirm that you are signed in as Ben Burton.
   c. Navigate to **Microsoft Dynamics CRM**, click **Sales**, and then click **Competitors**.
   d. Double-click an existing Competitor record.
   e. Scroll down the form and make sure that the Ideas sub-grid appears. Also notice the name of the form above the record name at the top left.
   f. Close this Microsoft Dynamics CRM browser window.

Lab 7A Create a Business Rule

Scenario

After a Prototype record is created, users must not be able to move it to a different idea than the one it originated from, to make sure that the reported outcomes of Ideas are accurate. To achieve this requirement, you configured the Originating Idea field on the Prototype form to be read-only. This works if a user creates the Prototype record from an Idea because it inherits the Idea lookup value through field mapping. However, when a Prototype is created from anywhere else, the record cannot be saved because the field is required *and* read-only (locked).

Ben Burton, the Marketing Manager, has asked you to create a Business Rule so that users can create a Prototype and link it to an Idea, or the other way round. You must configure a Business Rule that will test if the Originating Idea field does not contain data, and unlock it when this condition is true.

Lab Setup

Before you perform this lab, you must complete the Add Fields to Forms lab in the Customizing Forms module, and added the Originating Idea lookup to the Prototype form as described in that lab.

High Level Steps

1. Create a Business Rule for the Prototype entity in the NPD and Feedback Solution.
2. Configure the **Business Rule** as described in the lab scenario.
3. Test the **Business Rule** by creating a **Prototype** record.

Detailed Steps

1. Create a Business Rule for the Prototype entity in the NPD and Feedback Solution.
    a. Switch to the **NPD and Feedback** Solution window if it is still open, by using the Windows task bar. Otherwise, Navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, expand **Entities**.
    c. Expand Prototype.
    d. Click Business Rules.
    e. On the menu bar, click **New**.

2. Configure the **Business Rule** as described in the lab scenario.
    a. Enter Originating Idea unlocked when empty as the rule name.
    b. In the **Condition** section, click the plus sign to add a condition.
    c. In Field, select Originating Idea.
    d. In the Operator list, select Does not contain data.
    e. Click the green check mark button to save the changes to the condition.
    f. In the **Action** section, click the plus sign to add an action.
    g. In the list which is displayed, select **Lock or unlock field**.
    h. In Field, select Originating Idea.
    i. In **Status**, select Unlock.

j. Click the blue check mark button to save the changes to the action.
k. At the top left of the window, on the command bar, click **Save**.
l. On the command bar, click **Activate**, then in the **Process Activate Confirmation** dialog box, click **Activate**.

3. Test the **Business Rule** by creating a **Prototype** record.
    a. Switch to the main application window by using the Windows taskbar then navigate to **Marketing** > **Prototypes**.
    b. On the command bar, click **New**.
    c. In Name, enter Business Rule test.
    d. In the **Originating Idea** field, click the lookup icon and then select an existing **Idea** record.
    e. Click the **Originating Idea** field again and verify that it does not respond because it is now locked.
    f. On the command bar, click **Save**. Notice that the **Originating Idea** field now displays a padlock icon to show that it is locked

Lab 8A Modify the Quick Find View

Adventure Works Cycles staff frequently use the Quick Find feature in Microsoft Dynamics CRM. Some users need to search for Contacts based on the city in which they are located. Because the **City** field is not configured as a *find column* by default you must modify the Quick Find view by adding the Address 1: City field as a find column.

Exercise Scenario

In this exercise you must modify the **Quick Find Active Contacts** view to enable the **Address 1: City** field as a find column in order to allow users to search for Contacts based on the city in which they are located.

Task 1: Add City field to Quick Find columns

High Level Steps

1. Open the Quick Find Active Contacts view in the NPD and Feedback Solution.
2. Add **Address 1: City** as a find column and publish the changes.
3. Test the modified **Quick Find** view.

Detailed Steps

1. Open the Quick Find Active Contacts view in the NPD and Feedback Solution.
    a. Switch to the **NPD and Feedback** Solution window if it is still open, by using the Windows taskbar, otherwise navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, expand **Entities**.
    c. Expand the **Contact** entity.
    d. Click **Views**.
    e. In the list of views, double-click **Quick Find Active Contact**.

2. Add **Address 1: City** as a find column and publish the changes.
    a. In the **Common Tasks** pane at the right side of the view designer, click **Add Find Columns**.
    b. Select the check box next to **Address 1: City**.
    c. Click **OK**.
    d. Click Save and Close.
    e. In the solution explorer, click the **Contact** entity node.
    f. On the toolbar, click **Publish**.

3. Test the modified **Quick Find** view.
    a. Switch to the main application window by using the Windows taskbar.
    b. Navigate to Microsoft Dynamics CRM > Sales > Contacts.
    c. In the **Search for Records** field type the two letters **re** and press Enter. Records that have a name or city that begins with these letters will be displayed.

Lab 8B Create a Custom View

Scenario

Adventure Works Cycles requires two custom views to be created in their Microsoft Dynamics CRM installation. The details of the views are as follows:

A new public view for the Prototype entity is required. The view must be named **All Prototypes for My Ideas**. To create the view, you must copy the **Active Prototypes** view, add a filter to the view, and add the **Modified On** and **Originating Idea** fields as columns.

You must also create a new view for the Feedback entity. The view should be named **Service Feedback Last 3 Months** and be filtered to show feedback for resolved cases that were modified in the last three months. The view must display columns for the **Satisfaction Rating**, **Owner**, **Modified On** date of the Case, and the **Owner** of the Case.

Lab Setup

Before you perform this lab, you must complete the Create Custom Entities lab and the Create a Custom Activity Entity lab in the **Customizing Entities** module, and create the Prototype and Feedback entities as described in those labs.

Exercise 1: Create Custom Public Views

Exercise Scenario

In this exercise you must create the **All Prototypes for My Ideas** view and the **Service Feedback Last 3 Months** view following the requirements specified in the lab scenario.

Task 1: Create a Custom View for the Prototype Entity

High Level Steps

1. Open the list of **Prototype** views in the **NPD and Feedback** solution.
2. Create a copy of the Active Prototypes view and name it All Prototypes for My Ideas.
3. Update the filter criteria of the new view.
4. Add the **Modified On** and **Originating Idea** columns to the view.
5. Publish the entity and test the view.

Detailed Steps

1. Open the list of **Prototype** views in the **NPD and Feedback** solution.
    a. Switch to the **NPD and Feedback** Solution window if it is still open, by using the Windows taskbar, otherwise navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, expand **Entities**.
    c. Expand the **Prototype** entity.
    d. Click **Views**.

2. Create a copy of the Active Prototypes view and name it All Prototypes for My Ideas.
    a. Double-click the **Active Prototypes** view.
    b. When the view is open, click **Save As**.
    c. Change the Name to All Prototypes for My Ideas and then click **OK**.

3. Update the filter criteria of the new view.
    a. In the **Common Tasks** pane on the right side of the view designer, click **Edit Filter Criteria**.
    b. In the **Select** control, click the drop-down and select **Originating Idea** from the **Related** section in the lower part of the list.
    c. Underneath **Originating Idea**, in the **Select** control, select the **Owner** field.
    d. Make sure that the condition list to the right of **Owner** contains **Equals current user**.
    e. At the lower right corner of the **Edit Filter Criteria** dialog box, Click **OK**.

4. Add the **Modified On** and **Originating Idea** columns to the view.
    a. In the Common Tasks pane, click Add Columns.
    b. In the **Add Columns** dialog box, select the check boxes next to **Originating Idea** and **Modified On**, and then click **OK**.
    c. Select the **Originating Idea** column in the view.
    d. In the **Common Tasks** area, click the left arrow until the **Originating Idea** column is to the left of the **Name** column.
    e. Select the **Originating Idea** column, and then in the **Common Tasks** pane, click **Change Properties**.
    f. In the **Change Column Properties** dialog box, select **200px** and click **OK**.
    g. Select the **Modified On** column.
    h. In the **Common Tasks** area, click the right arrow until the **Modified On** column is to the right of the **Created On** column.
    i. Click Save and Close.
    j. In the solution explorer, click the **Prototype** entity.
    k. On the toolbar, click **Publish**.
    l. Leave the Solution window open for use in later labs.

5. Publish the entity and test the view.
    a. Switch to the main application window by using the Windows taskbar.
    b. Navigate to **Marketing** > **Prototypes** (you must scroll to the right side to view this).
    c. Click the view selector (this shows Active Prototypes because this is the label of the current view).
    d. In the view selection list, select **All Prototypes for My Ideas**. If the view does not appear in the list, press the F5 key to refresh the browser and repeat steps **c** and **d**.

Task 2: Create a Custom View for the Feedback Entity

High Level Steps

1. In the **NPD and Feedback** Solution, create a view for the **Feedback** entity named **Service Feedback Last 3 Months**.
2. Modify the filter criteria as described in the lab scenario.

3. Add columns to the view as described in the lab scenario.
4. Resize the new columns and configure sorting for the view.
5. Publish and test the view.

Detailed Steps

1. In the **NPD and Feedback** Solution, create a view for the **Feedback** entity named **Service Feedback Last 3 Months**.
    a. Switch to the **NPD and Feedback** Solution window by using the Windows taskbar.
    b. In the solution explorer, expand the **Entities** node.
    c. In the list of entities, expand **Feedback**.
    d. Click **Views**.
    e. On the menu bar above the list of views, click **New**.
    f. In Name, enter Service Feedback Last 3 Months and click **OK**.

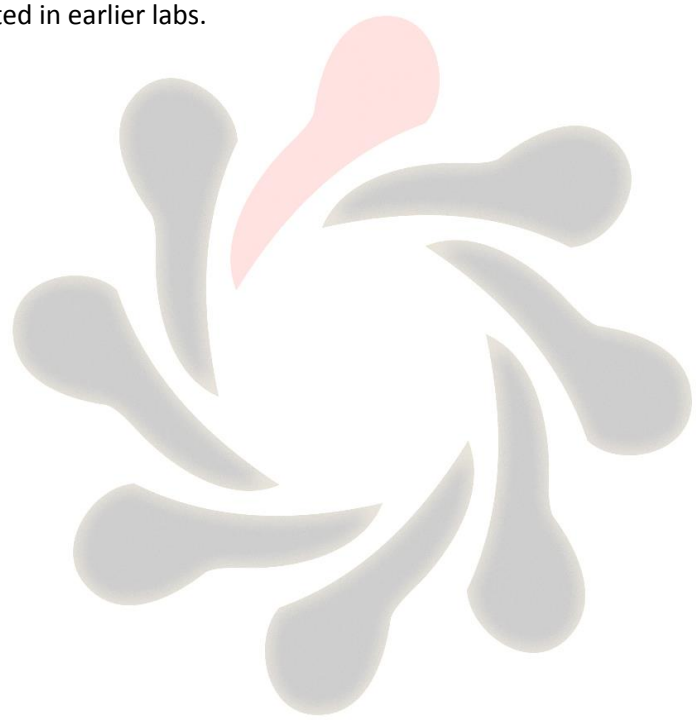
2. Modify the filter criteria as described in the lab scenario.
    a. In the Common Tasks pane, click Edit Filter Criteria.
    b. In the **Edit Filter Criteria** dialog box, click the **Select** control, and then in the **Related** section of the list select **Regarding (Case)**.
    c. Underneath **Regarding (Case)**, in the **Select** control, select the **Status** field.
    d. Next to the **Enter Value: Status** field, click the ellipsis button.
    e. Double-click **Resolved** in the **Available Values** list to add **Resolved** to the **Selected Values** list, and then click **OK**
    f. Underneath **Regarding (Case)**, in the **Select** control, select **Modified On**
    g. In the condition list (that currently contains **On**), select **Last X Months**.
    h. In the **Choose Date** control, type **3**.
    i. At the lower right corner of the **Edit Filter Criteria** dialog box, Click **OK**.

3. Add columns to the view as described in the lab scenario.
    a. In the Common Tasks pane, click Add Columns.
    b. In the **Add Columns** dialog box, select the check boxes next to **Date Created** and **Satisfaction Rating**, and then click **OK**.
    c. In the Common Tasks pane, click Add Columns.
    d. In the **Add Columns** dialog box, in the **Record Type** list, select **Regarding (Case)**.
    e. Select the check boxes next to **Modified On** and **Owner**, and then click **OK**.

4. Resize the new columns and configure sorting for the view.
    a. Double-click the **Owner (Regarding)** column.
    b. In the **Change Column Properties** dialog box, select **125px**, and then click **OK**.
    c. In the Common Tasks pane, click Configure Sorting.
    d. In the **Configure Sort Order** dialog box, in the **Sort By** list, select **Date Created**.
    e. Underneath **Date Created**, select **Descending Order** so that the newest records will be displayed at the top.
    f. Click **OK**.
    g. On the toolbar, click **Save and Close**.

5. Publish and test the view.

a. In the solution, click the **Feedback** entity.
b. On the toolbar, click **Publish**.
c. Leave the Solution window open for use in later labs.
d. Switch to the main application window by using the Windows taskbar.
e. Navigate to Service > Activities.
f. Click the view selector (this shows My Activities because this is the label of the current view).
g. In the view selection list, click **Feedback**, then in the submenu select **Service Feedback Last 3 Months**. The new view will be displayed, showing test records created in earlier labs.



Lab 9A Create a Custom Chart

Scenario

Judith Walker, Head of Services at Adventure Works Cycles, needs to assess customer satisfaction for recently resolved service Cases.

She asks you to create a chart to use on a dashboard showing the number of Feedback responses in each month, broken down by the satisfaction rating. Judith already has a dashboard which shows volumes of work in the service department. For this new chart, she needs to see how the proportions of the satisfaction ratings change from month to month rather than the actual number of responses.

Objectives

In this lab you will create a chart of Feedback records, using a category from the Cases they are related to. You will then test the chart before adding it to a dashboard.

Lab Setup

Before starting this lab, you will need to complete the lab exercise "*Create a Custom View for the Prototype Entity*" in the module "*Customizing Views*".

Exercise 1: Create a Chart of Feedback Satisfaction for Service Cases

Exercise Scenario

To meet Judith's requirements you must create a chart categorized by the month the related Case was resolved.

Instead of creating a custom field to use for the date a Case is resolved, note that you can use the Modified On field which will provide the same result. Cases cannot be modified after they are closed (unless they are re-opened first). When you use the chart on a dashboard you will be able to associate it with a view of recently resolved Cases to make sure this is a valid approach.

Because Judith is more interested in the relative proportions of the satisfaction ratings each month than in the actual number of Cases closed or Feedback responses received, you must create a 100% Stacked Column to make the visualization clearer.

Task 1: Create a 100% Stacked Column Chart

High Level Steps

1. Open the **Product Development** Solution and create a chart for the Feedback entity.
2. Configure the new chart as described in the exercise scenario.
3. Save and publish the new chart.
4. Create some Feedback records.
5. Test the new chart.

Detailed Steps

1. Open the **Product Development** Solution and create a chart for the Feedback entity.
    a. If you have left the **Product Development** Solution window open, switch to it.
    b. If not, navigate to **Microsoft Dynamics CRM** > **Settings** > **Solutions** and double-click the **Product Development** Solution to open it.
    c. Expand the **Entities** node of the solution explorer.
    d. Expand the **Feedback** node, then click **Charts**.
    e. In the action bar, click **New**. The chart configuration form will open

2. Configure the new chart as described in the exercise scenario.
    a. In the View used for chart preview at the top of the form, select the view called **Service Feedback Last 3 Months**.
    b. Below the heading **Legend Entries (Series)** click **Select Field** and select the **Satisfaction Rating** field from the top section of the list.
    c. To the right of the field name, click **Count:All** and select **Count:Non-empty**.
    d. To the right of the series row, click the **Column** button, then in the gallery which appears click the **Column** button (on the left), then select **100% Stacked Column**.
    e. Below the heading **Horizontal (Category) Axis Labels** click **Select Field** and select the **Modified On (Regarding)** field. Leave the date grouping at **Month**.
    f. Click **Add a Category**, then **Select Field** and select the **Satisfaction Rating** field from the top section of the list.
    g. Enter a new chart name **Feedback by Case Closed Month and Satisfaction** (or another name if you prefer).

3. Save and publish the new chart.
    a. Click **Save and Close** to close the chart configuration form.
    b. Click the **Feedback** entity in the solution explorer.
    c. On the toolbar, click **Publish**.

4. Create some Feedback records.
    a. Leave the **Product Development Solution** window open for later labs.
    b. Switch to the main navigation window and Navigate to **Microsoft Dynamics CRM** > **Service** > **Cases**.
    c. On the command bar, click **New Case**.
    d. Click the **Case Title** field.
    e. Enter **Test1** (or your own name for this test record).
    f. Point to or click the **Customer** field, then click the lookup button to the right of it and select any Account from the list.
    g. The record will be automatically saved.
    h. In the social pane, under the **Activities** tab, click **Add More Activities** (with an ellipsis icon **…**), then click **Feedback**.
    i. In the new Feedback form, click the **Satisfaction Rating** field and use the option set control to select a rating.
    j. On the command bar click **Save** then click **Mark Complete**.
    k. Click the **Regarding** field to return to the Case form.

l. Repeat steps **h** through **k** several times, selecting different satisfaction ratings for each new Feedback record.
m. With the Case form open, on the command bar click **Resolve Case**.
n. In the **Resolve Case** dialog box, click the **Resolution** field and enter **Fixed**.

5. Test the new chart.
   a. Navigate to Service > Activities.
   b. Click **My Activities** to show the list of available views.
   c. Click Feedback, then in the sub-menu, click **Service Feedback Last 3 Months**.
   d. On the right hand side of the screen, click **Charts** to expand the chart pane.
   e. Note that the column of the chart extends to 100 (%).
   f. Point to any data point in the chart (one column segment) and check that the infotip shows the correct number of responses.
   g. Click a data point and confirm the **Service Feedback Last 3 Months** view is filtered to match the category for that data point.

Lab 9B Create a Modified Dashboard

Walker, Head of Services wants to include the chart of feedback ratings for recent service cases on a dashboard where it will be easily visible to all members of the service department. The department does not use Goals in Microsoft Dynamics CRM, so Judith has identified that the Goal Progress chart on the Customer Service Performance dashboard can be removed to make space for the new one.

Exercise Scenario

In this exercise you create a copy of the Customer Service Dashboard, remove the Goal Progress chart and add the Feedback Satisfaction chart you created in the first lab in this module. You will then move the new chart to the top left to give it more prominence and then test your changes.

Task 1: Copy and Modify the Customer Service Performance Dashboard

High Level Steps

1. Create a copy of the **Customer Service Performance (original)** dashboard in the **Product Development** solution.
2. Remove the Goal Progress chart and replace it with the Feedback chart you created in the lab earlier in this module.
3. Publish and test your new dashboard.

Detailed Steps

1. Create a copy of the **Customer Service Performance (original)** dashboard in the **Product Development** solution.
    a. Switch to the **Product Development** solution if you still have the window open, otherwise navigate to **Settings** > **Solutions** and double-click the solution to open it.
    b. In the solution explorer, click **Dashboards**.
    c. On the action bar, click **Add Existing**.
    d. In the Select solution components dialog box, select **Customer Service Performance Dashboard (original)** and click **OK**.
    e. On the action bar, click **Save As**.
    f. In the Dashboard Properties dialog box, enter **Customer Service and Feedback Dashboard** as the **Name** of the Dashboard. Enter something suitable for the **Description**, then click **Save**.
    g. Select **Customer Service Performance Dashboard (original)** and on **Remove** in the action bar
    h. Double click on **Customer Service and Feedback Dashboard** to edit it
    i. Double click on the Chart3, the **Goal Chart** component
    j. Set **Entity** to **Feedback**
    k. Set **Default View** to **Service Feedback Last 3 Months**
    l. Set Chart to Chart created in the previous Lab
    m. Click on **Set**
    n. Click on **Save** and then **Close**
    o. **Publish** the dashboard

Lab 10A Configure Field Security

Scenario

Ben Burton, the Marketing Manager at Adventure Works Cycles, wants to track the budget allocated to a Prototype. This will depend on the expected market size, estimated feasibility of developing the prototype into a finished product and other factors.

You must create a new field named Budget, and apply Field Security to it. You must configure Field Security Profiles to control access to this to meet the business requirements. All users who work in the Product Development Team need to be able to view the value of the **Budget** field so they can make sure expenditure remains within the limit that has been set. Only NPD Managers must be able to change the value.

Lab Setup

Before you perform this lab, you must complete the Add Fields to Forms lab in the **Customizing Forms** module, and added a field named **Budget** to the Prototype form named **Information** as described in that lab.

High Level Steps

1. Enable **Field Security** for the **Budget** field of the **Prototype** entity in the **NPD and Feedback** Solution.
2. Test access to the **Budget** field for Ben Burton.
3. Create and configure a Field Security Profile to allow Read access to the **Budget** field for the **Product Development** Team.
4. Test access to the **Budget** field for Ben Burton again.
5. Create and configure a Field Security Profile to allow Update access to the **Budget** field for a new Team named **NPD Managers**.
6. Test access to the **Budget** field for Ben Burton again.

Detailed Steps

1. Enable **Field Security** for the **Budget** field of the **Prototype** entity in the **NPD and Feedback** Solution.
    a. Switch to the **NPD and Feedback** Solution if it is still open, by using the Windows taskbar. Otherwise navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, expand **Entities.**
    c. Expand the **Prototype** entity.
    d. Click Fields.
    e. In the list of fields for the Prototype entity, double-click to open the **Budget** field.
    f. In Field Security, select Enable.
    g. On the toolbar, click Save and Close.
    h. In the solution explorer, click **Prototype**.
    i. On the toolbar, click **Publish**.

2. Test access to the **Budget** field for Ben Burton.
    a. Open the Start screen of your computer.
    b. Right click on **Internet Explorer** and select **Start In Private Browsing** from the options at the bottom of the screen.
    c. Login as **Ben**, and then click **OK**. Microsoft Dynamics CRM will open and the upper-right corner of the screen will confirm that you are signed in as Ben Burton.
    d. Click or point to **Microsoft Dynamics CRM**, and then click **Marketing**.
    e. Click or point to **Marketing** and then click **Prototypes** (you must scroll to the right side for this to be visible).
    f. Double-click to open an existing Prototype record, or on the command bar, click **New**. Verify that the **Budget** field displays a key icon and the field value is masked by asterisks. The field also displays a padlock icon to indicate that the field is locked (read-only).
    g. Keep this window open with Ben Burton signed in, for use later in this lab.

3. Create and configure a Field Security Profile to allow Read access to the **Budget** field for the **Product Development** Team.
    a. Switch to the **NPD and Feedback** Solution window by using the Windows taskbar.
    b. At the bottom of the solution explorer, click **Field Security Profiles**.
    c. In the menu bar, click **New**.
    d. In the New Field Security Profile form, in Name, enter **NPD Budget Read Access**.
    e. On the toolbar, click **Save**.
    f. In the navigation pane to the left of the window, click **Teams**.
    g. In the menu bar, click **Add**.
    h. In the **Look Up Records** dialog box, click the name of the **Product Development** Team to open the Team record.
    i. In the **Product Development** Team form, in the **Team members** section, click **+** (Add User record).
    j. In the lookup control that is displayed, select **Ben Burton**.
    k. Close the **Product Development** Team window.
    l. With the **Product Development** team record selected, click **Select**, and then click **Add**.
    m. In the navigation pane, click **Field Permissions**. A list of all fields in the system that have field security enabled is displayed.
    n. Double-click the **Budget** field, or select it and then click **Edit**.
    o. In **Allow Read**, select **Yes**. Leave the other options as **No**.
    p. Click OK.
    q. On the toolbar, click **Save and Close**.

4. Test access to the **Budget** field for Ben Burton again.
    a. Switch to the Microsoft Dynamics CRM window that is signed in as **Ben Burton**, by using the Windows taskbar.
    b. On the navigation bar, click **Prototypes**.
    c. On the command bar, click **New**. Verify that the **Budget** field displays a key icon and a padlock icon to indicate that the field is locked (read-only). However, the field

value is no longer masked by asterisks because Ben has Read access to the secured field.

d. On the navigation bar, click **Prototypes**.
e. Keep this window open with Ben Burton signed in, for use later in this lab.

5. Create and configure a Field Security Profile to allow Update access to the **Budget** field for a new Team named **NPD Managers**.
   a. Switch to the **NPD and Feedback** Solution window by using the Windows taskbar.
   b. In the **Field Security Profiles** menu bar, click **New**.
   c. In the New Field Security Profile form, in Name, enter **NPD Managers Budget Update Access**.
   d. On the toolbar, click **Save**.
   e. In the navigation pane to the left of the window, click **Teams**.
   f. In the menu bar, click **Add**.
   g. In the **Look Up Records** dialog box, at the lower left click **New**.
   h. In the New Development Team form, in Name enter **NPD Managers**.
   i. In Administrator, select your user.
   j. On the command bar, click **Save**.
   k. In the **Look Up Records** dialog box, click the name of the **NPD Managers** Team to open the Team record.
   l. In the **NPD Managers** Team form, in the **Team members** section, click **+** (Add User record).
   m. In the lookup control that is displayed, select **Ben Burton**.
   n. In the **Team members** section, click **+** (Add User record).
   o. In the lookup control that is displayed, select **Ben Burton**.
   p. Close the **NPD Managers** Team window.
   q. In the **Look Up Records** dialog box, click **Add**.
   r. In the navigation pane, click **Field Permissions**. A list of all fields in the system that have field security enabled is displayed.
   s. Double-click the **Budget** field, or select it and then click **Edit**.
   t. In Allow Read, Allow Update and Allow Create select Yes.
   u. Click OK. On the toolbar, click **Save and Close**.

6. Test access to the **Budget** field for Ben Burton again.
   a. Switch to the Microsoft Dynamics CRM window that is signed in as **Ben Burton**, by using the Windows taskbar.
   b. On the navigation bar, click **Prototypes**.
   c. On the command bar, click **New**. Verify that the **Budget** field displays a key icon to indicate that the field is enabled for field security. However, no padlock icon is displayed and the field value is not masked by asterisks because Ben has Read, Update and Create access to the secured field.
   d. On the navigation bar, click **Prototypes**.
   e. Open the **Test Prototype** record, and attempt to update the **Budget** field value to $10,000. Make a note of what happens in the **Test Your Knowledge** section at the end of this lab.
   f. Keep this window open with Ben Burton signed in, for use in later labs.

Lab 10B Create and Configure an Access Team Template

High Level Steps

1. Enable Access Teams for the Prototype entity.
2. Create an **Access Team Template** named **Project Team** for the Prototype entity.
3. Add a sub-grid to the Prototype **Information** form for **Project Team** members.
4. Create a **Prototype** record and test Ben Burton's access to it.
5. Add Ben Burton to the **Project Team** on a Prototype and test his access again.

Detailed Steps

1. Enable Access Teams for the Prototype entity.
    a. Switch to the **NPD and Feedback** Solution if it is still open, by using the Windows taskbar. Otherwise navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, expand **Entities.**
    c. Click **Prototype**.
    d. In the Prototype properties, in the **Communication & Collaboration** section, select the check box to enable **Access Teams**.
    e. On the toolbar, click **Save**, and then click **Publish**.
    f. Leave the Solution window open for use later in this lab.

2. Create an **Access Team Template** named **Project Team** for the Prototype entity.
    a. Switch to the main application window that is signed in as **your user**, by using the Windows taskbar.
    b. Navigate to **Settings** > **Security**.
    c. Click **Access Team Templates** at the lower left.
    d. On the toolbar, click **New**.
    e. In Name, enter Project Team.
    f. In Entity, select Prototype.
    g. In **Access Rights**, select the check boxes for **Read** and **Write**.
    h. On the ribbon, click **Save and Close**.

3. Add a sub-grid to the Prototype **Information** form for **Project Team** members.
    a. Switch to the **NPD and Feedback** Solution, by using the Windows taskbar.
    b. In the solution explorer, expand the **Prototype** entity.
    c. Click **Forms**.
    d. Double-click the **Information** form that has a **Form Type** of **Main**.
    e. In the form editor, select the **Planning** section.
    f. On the **Insert** ribbon, click **Section**, and then click **One Column** to insert a new section.
    g. In the **Insert** ribbon, in the **Control** group, click **Sub-Grid**.
    h. In the **Set Properties** dialog box, in **Name**, enter **ProjectTeam** (no spaces).
    i. In Label, enter Project Team.
    j. Select the check box Display label on the Form.

k. In the **Data Source** section, in **Records**, select **All Record Types**. **Note**: the users who are added to the Access Team do not have a direct relationship with the record, so **Only Related Records** will not work.
l. In **Entity**, select **Users**.
m. In Default View, select Associated Record Team Members. The Team Template property is now displayed.
n. In **Team Template**, select **Project Team** (the name of the Access Team Template you created).
o. In the lower right, click **Set**.
p. On the **Home** ribbon, click Save**,** and then click **Publish**.
q. Click Save and Close.

4. Create a **Prototype** record and test Ben Burton's access to it.
   a. Switch to the main application window that is signed in as **your user**, by using the Windows taskbar.
   b. Navigate to Marketing > Prototypes.
   c. On the command bar, click **New**.
   d. In Name, enter Access Team test.
   e. In **Originating Idea**, select any Idea record.
   f. On the command bar, click **Save**.
   g. Switch to the Microsoft Dynamics CRM window that is signed in as **Ben Burton**, by using the Windows taskbar.
   h. On the navigation bar, click **Prototypes**.
   i. Double click the **Access Team test** Prototype record. If the record is not in the view, click the **Refresh list** icon at the top right corner of the view.
   j. Try to update the **Budget** field to a value of $10,000. Make a note of what happens in the **Test Your Knowledge** section at the end of this lab.
   k. Keep this window open for use later in this lab.

5. Add Ben Burton to the **Project Team** on a Prototype and test his access again.
   a. Switch to the Microsoft Dynamics CRM window that is signed in as **your user**, by using the Windows taskbar.
   b. In the **Access Team test** record, above the **Project Team** sub-grid, click **+** (Add User record), and then in the lookup control, select **Ben Burton**.
   c. In the **Access Team test** record, above the **Project Team** sub-grid, click **+** (Add User record), and then in the lookup control, select **Judith Walker**.
   d. Point to the error icon that is displayed (a red circle with a white diagonal cross) to read the error message.
   e. Switch to the Microsoft Dynamics CRM window that is signed in as **Ben Burton**, by using the Windows taskbar.
   f. Press the **F5** key to refresh the **Access Team test** record.
   g. Try to update the **Budget** field to a value of $10,000.
   h. On the command bar, click **Save**.
   i. In the **Access Team test** record, above the **Project Team** sub-grid, click **+** (Add User record), and then in the lookup control, select **Your User**.

j. Point to the error icon that is displayed (a red circle with a white diagonal cross) to read the error message.

Lab 11A Create a Multi-Entity Business Process Flow

Scenario

Adventure Works Cycles want to make it as simple as possible for members of staff to follow the correct process for New Product Development.

To help with this, you must create a Business Process Flow which starts with a new Idea record and guides the user through the process to create a Prototype.

In the practice you will build the first few stages of this multi-entity business process flow, bringing together all of the customisations you have done so far and presenting them as a single logical flow, rather than separate entities

High Level Steps

1. Enable the Idea, Prototype and Feedback entities for Business process flows in the NPD and Feedback Solution.
2. Create a Business Process Flow in the NPD and Feedback Solution
3. Configure the **Gather Information** stage.
4. Add and configure stages for the **Prototype** entity.
5. Add and configure stages for the **Feedback** entity.
6. Activate the **NPD New Idea Process**.
7. Sign in as Ben Burton to test the process.
8. Test the NPD New Idea Process.

Detailed Steps

1. Enable the Idea, Prototype and Feedback entities for Business process flows in the NPD and Feedback Solution.
    a. Switch to the **NPD and Feedback** Solution window if it is still open, by using the Windows taskbar. Otherwise, navigate to **Settings** > **Solutions** and double-click the Solution to open it.
    b. In the solution explorer, expand **Entities**.
    c. Click **Idea**.
    d. In the entity properties page, in the **Process** section, select **Business process flows**.
    e. On the toolbar, click **Save**, and then click **Publish**.
    f. In the solution explorer, click **Prototype**.
    g. In the entity properties page, in the **Process** section, select **Business process flows**.
    h. On the toolbar, click **Save**, and then click **Publish**.
    i. In the solution explorer, click **Feedback**.
    j. In the entity properties page, in the **Process** section, select **Business process flows**.
    k. On the toolbar, click **Save**, and then click **Publish**.

2. Create a Business Process Flow in the NPD and Feedback Solution
    a. In the solution explorer, click **Processes**.
    b. In the menu bar, click **New**.

c. In Process Name, enter **NPD New Idea Process**.
d. In the Category list, select Business Process Flow.
e. In the **Entity** list, select **Idea**.
f. Click **OK**.

3. Configure the **Gather Information** stage.
   a. In the NPD New Idea Process form, in the **Stages** column, click **NEW STAGE**, and then enter a stage name of **Gather Information** (this will be converted to all uppercase no matter how you type it).
   b. In the **Stage Category** column, select **QUALIFY**.
   c. In the **Fields** column, click the **--** prompt and select **Name**.
   d. In the **Required** column, select the check box next to **Name**.
   e. At the top of the **Steps** column, click the **+** button to add a new step.
   f. In the **Fields** column, select **Target Market Size**.
   g. In the **Required** column, select the check box next to **Target Market Size**.

4. Add and configure stages for the **Prototype** entity.
   a. In the **Included Entities** section, click **+/- Options** to add a new entity, and then click **Prototype**. **Note**: the process designer only displays the stages for one entity. To view the previous stage, click **IDEA** in the **Included Entities** section.
   b. In the **Stages** column, click **NEW STAGE**, and then enter a stage name of **Initial Scope**.
   c. In the **Stage Category** column, select **DEVELOP**.
   d. In the **Fields** column, select **Name**.
   e. At the top of the **Steps** column, click the **+** button to add a new step.
   f. In the **Fields** column, select **Currency**.
   g. In the **Required** column, select the check box next to **Currency**.
   h. At the top of the **Steps** column, click the **+** button to add a new step.
   i. In the **Fields** column, select **Budget**.
   j. In the **Required** column, select the check box next to **Budget**.
   k. At the top of the **Stages** column, click the **+** button to add a new stage.
   l. In the **Stages** column, click **NEW STAGE**, and then enter a stage name of **Planning**.
   m. In the **Stage Category** column, select **RESEARCH**.
   n. In the **Fields** column, select **Planned Completion**.
   o. In the **Required** column, select the check box next to **Planned Completion**.

5. Add and configure stages for the **Feedback** entity.
   a. In the **Included Entities** section, click **+/- Options** to add a new entity, and then click **Feedback (Regarding)**. **Note**: the process designer only displays the stages for one entity. To view the previous stage, click **IDEA** or **PROTOTYPE** in the **Included Entities** section.
   b. In the **Stages** column, click **NEW STAGE**, and then enter a stage name of **Feedback**.
   c. In the **Stage Category** column, select **RESOLVE**.
   d. In the **Fields** column, select **Subject**.
   e. At the top of the **Steps** column, click the **+** button to add a new step.
   f. In the Fields column, select Satisfaction Rating.

g. In the **Required** column, select the check box next to **Satisfaction Rating**.

6. Activate the NPD New Idea Process.
   a. On the toolbar, click **Save**.
   b. Click Enable Security Roles.
   c. In the **Enable Security Roles** dialog box, click **Enable for everyone**, and then click **OK**.
   d. On the toolbar, click **Activate**.

7. In the Process Activation Confirmation dialog box, click Activate.

8. Sign in as Ben Burton to test the process.
   a. If it is still open, switch to the Microsoft Dynamics CRM window that is signed in as **Ben Burton**, by using the Windows taskbar, then progress to step **e**.
   b. Open the Start screen of your computer.
   c. Right click on **Internet Explorer** and select **Start In Private Browsing** from the options at the bottom of the screen.
   d. Login as **Ben**, and then click **OK**. Microsoft Dynamics CRM will open and the upper-right corner of the screen will confirm that you are signed in as Ben Burton.
   e. Click or point to **Microsoft Dynamics CRM**, and then click **Marketing**.
   f. Click or point to **Marketing** and then click **Ideas** (you must scroll to the right side for this to be visible).

9. Test the NPD New Idea Process.
   a. On the command bar, click **New**.
   b. In Name, enter Waterproof saddle covers.
   c. On the command bar, click **Save**.
   d. On the right side of the screen, click **Next Stage**. Note: you cannot progress beyond this stage because the **Target Market Size** field is required by the process. The field is *not* required on the form.
   e. In the body of the form, enter a **Target Market Size** of **9,000,000**.
   f. On the right side of the screen, click **Next Stage**, and then click **Create**.
   g. In Name, enter Disposable polythene cover.
   h. On the command bar, click **Save**.
   i. In the process bar, click the stage called **Gather Information**. This returns you to the Idea entity.
   j. On the right side of the screen, click **Next Stage**, and then click **Create** to create a second Prototype record.
   k. In Name, enter Elasticated PVC cover.
   l. On the command bar, click **Save**.
   m. In the process bar, click the stage called **Gather Information**.
   n. On the navigation bar, to the right of the Idea name **NPD Process Test**, click the drop down arrow, and then click **Prototypes**.
   o. Double-click **Disposable polythene cover**. **Note**: you cannot progress this Prototype to the next stage of the process because the second Prototype has replaced it.
   p. In the process bar, click the stage called **Gather Information**.

q. On the navigation bar, to the right of the Idea name **NPD Process Test**, click the drop down arrow, and then click **Prototypes**.
r. Double-click Elasticated PVC cover.
s. In the process bar, in **Budget**, enter **$5,000**.
t. On the right side of the screen, click **Next Stage**, and then click **Next Stage** again, and then click **Create**.
u. In Subject, enter **The process works**.
v. In Satisfaction Rating, select Very Happy.
w. On the command bar, click **Save**.
x. Click Mark as Complete.
y. In the process bar, click the stage called **Initial Scope**. **Note**: this displays the last stage the Prototype entity reached in the process, not the stage selected.
z. Close all application windows.