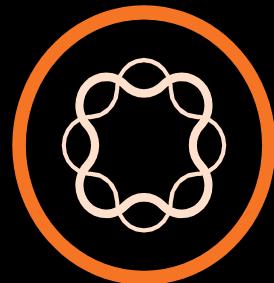




Adobe Experience Manager

Design Adaptive Forms Using Adobe Experience Manager

Student Guide



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Design Adaptive Forms Using Adobe Experience Manager

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September 1, 2017

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Module 1: Introduction to AEM Forms

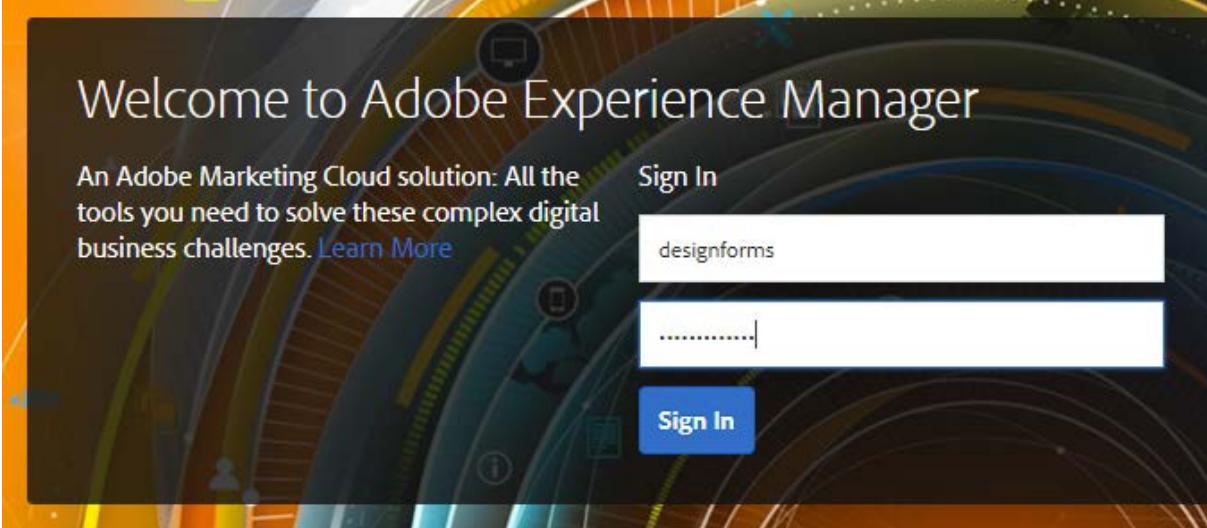
Overview

In this exercise, you will get set up to use Adobe Experience Manager (AEM) Forms and become familiar with some of the Forms features and technology. You will experience the basics of what a designer does by creating a simple form from scratch.

TIME: It should take approximately 30 minutes to complete this exercise.

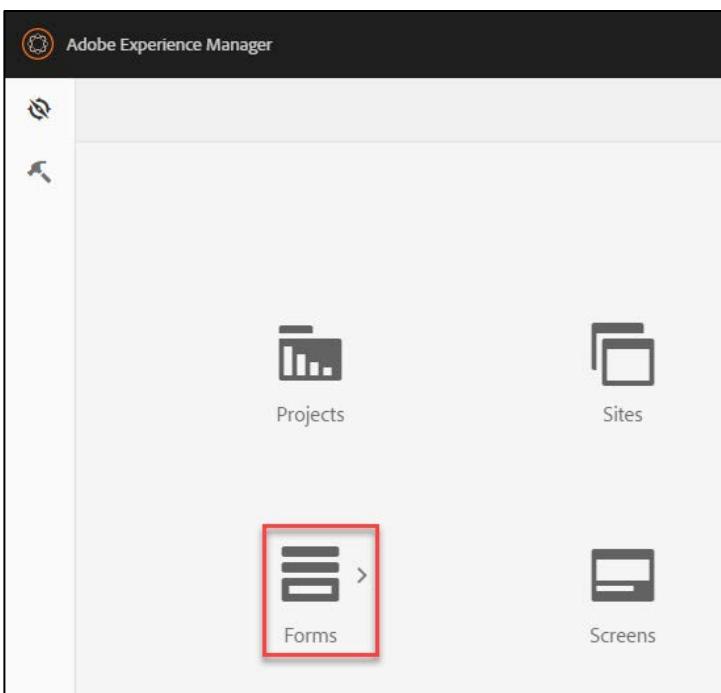
Part 1: AEM Sample Forms

Navigate to the sample forms provided in AEM Forms and get used to using the built-in sample forms.

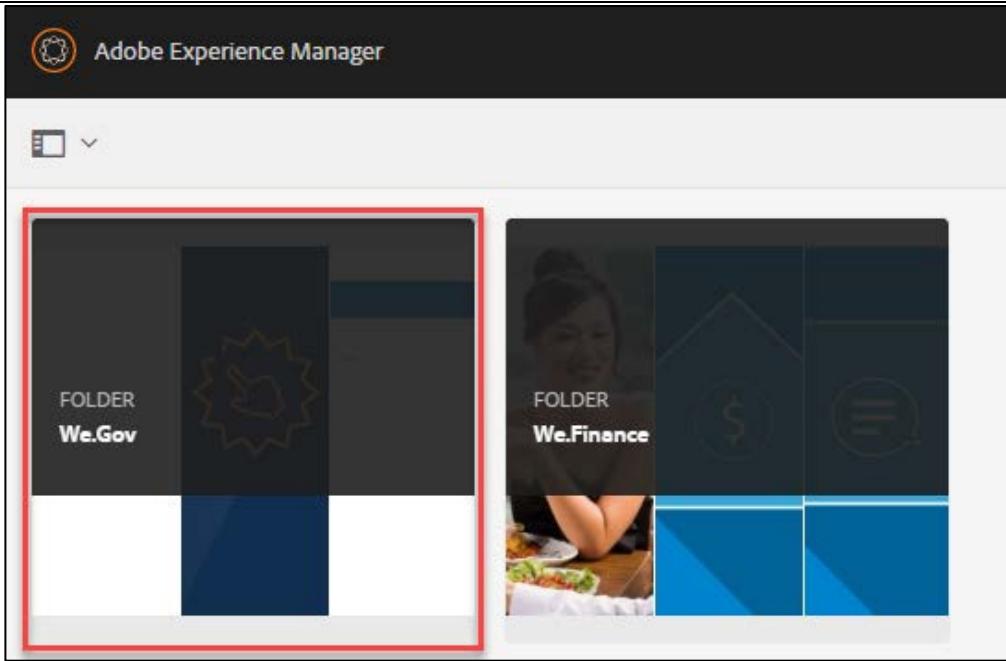
Step	Instructions
1.	<p>In your web browser, sign in to Adobe Experience Manager (AEM) using the URL you have been assigned. Your instance of AEM is accessible by using a URL like the following:</p> <p><code>http://aemforms###-&&.adobevlab.com</code></p> <p>(Where ### is a 2 or 3-digit number)</p> <p>(Where && represents the region. This can be "us", "emea", or "apac")</p> <p>Contact your instructor if you need this information. If you are not using this method, your instructor can provide specific details for signing into an AEM environment.</p>
2.	<p>Sign in using the following credentials:</p> <p>User name: designforms Password: adl\$formsUs3r</p>  <p>Only use this user name throughout this course, as most of the exercises will require use of this format.</p>



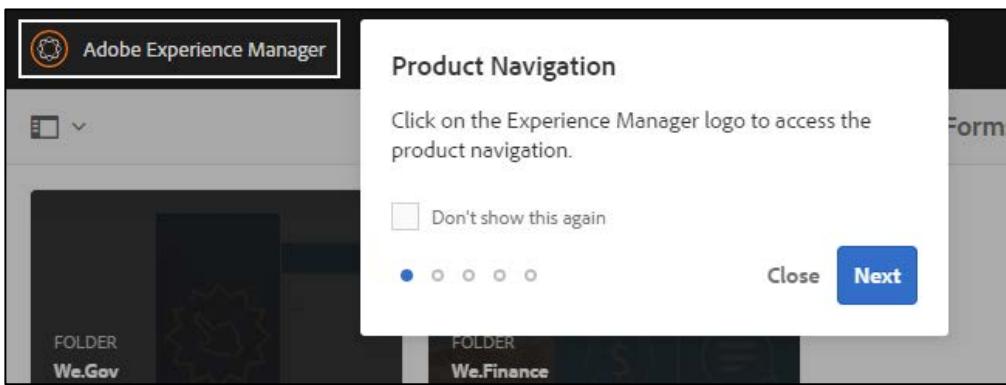
3. Click **Forms** in the AEM Product Navigation:



4. Click **Forms & Documents**, then the **We.Gov** folder.



NOTE: You may see a **Product Navigation** tutorial dialog guiding you through the navigation. You may click **Next** to proceed through the tutorial and learn the basic AEM user interface elements and navigation, or you may click **Close** to hide the tutorial.



- | | |
|----|--|
| 5. | In the We.Gov folder, you will see several We.Gov forms, form templates, and form fragments provided with the "GOV" reference implementation site you can install with AEM Forms. Click Personal Information GOV : |
|----|--|

The screenshot shows the WeGov interface with several adaptive forms listed. One form, 'ADAPTIVE FORM FRAGMENT Personal Information GOV' (1 year ago), is highlighted with a red border. To its right is a 'FORM TEMPLATE VA1010EZ-fillable.xdp' (2 days ago). Below these are icons for a 'FOLDER' and another 'Adaptive Form Fragment'.



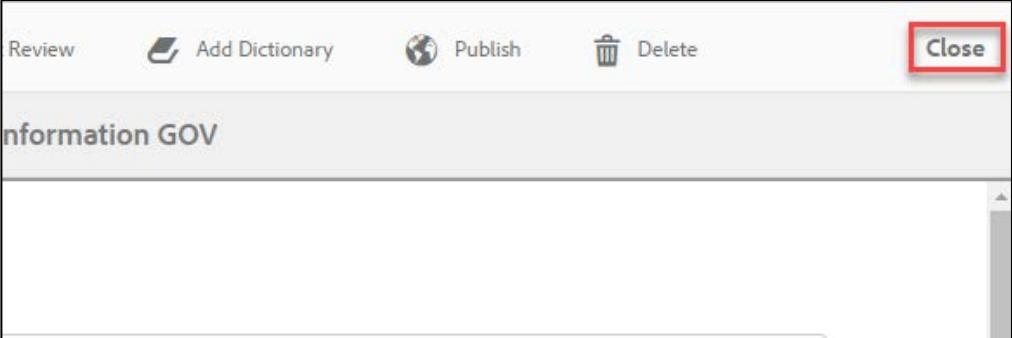
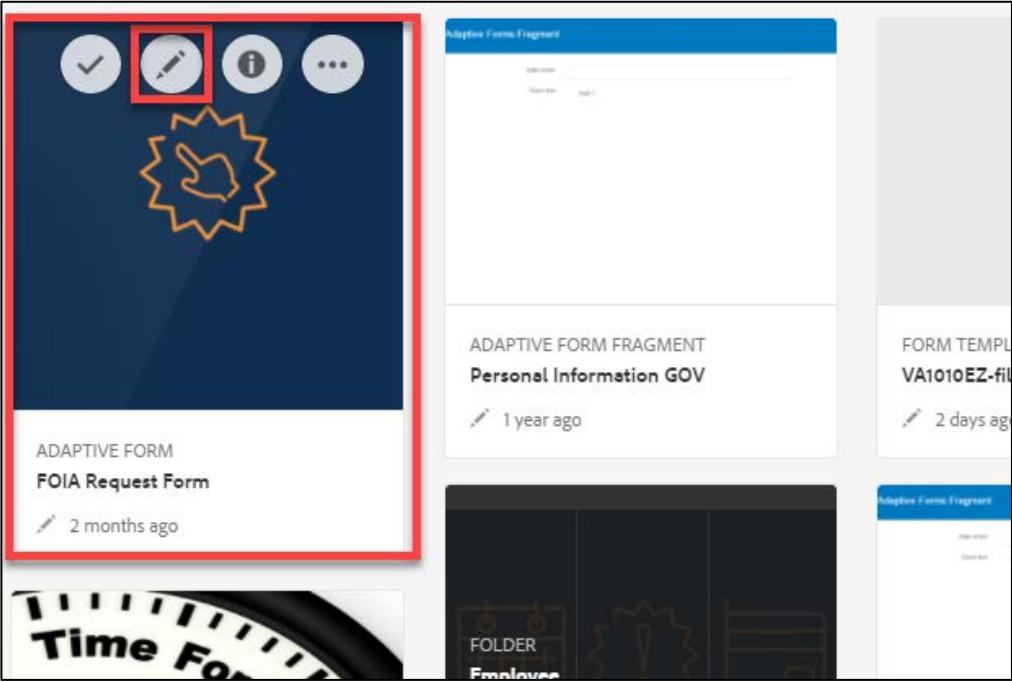
NOTE: This is a rudimentary sample form fragment. A form fragment is a "sub" form that could be re-used as a part of a larger form, or used in multiple forms because it contains common information/fields. This particular form is a "dummy" form that is only for basic testing purposes.



NOTE: You may notice four buttons that appear when you "mouse over" the form. You will learn about and use these buttons in later chapters. You will not edit this form in this exercise, so you do not need to edit the form. Clicking on the form name itself is sufficient in this exercise, because all you are doing is opening the form, which helps you become familiar with the mechanics of this Forms course.

The screenshot shows the 'Personal Information GOV' adaptive form fragment. At the top, there are four circular buttons: a checkmark, a pencil, an info icon, and three dots. The first button is highlighted with a red border. Below the form name, there is a note: 'ADAPTIVE FORM FRAGMENT Personal Information GOV'.

- | | |
|----|--|
| 6. | QUESTION 1.1: Are there any validation rules on the Date Of Birth field? What additional validation rules would you place on this field and why? |
| 7. | QUESTION 1.2: What happens if you type an invalid value in the Date Of Birth field? |

8.	<p>QUESTION 1.3: For Email, enter your name only. Tab to the next field. What happens?</p>
9.	<p>Click Close in the upper right to close the form:</p> 
10.	<p>In the We.Gov folder, locate the FOIA Request Form and mouse over it. Click the pencil (Open) icon to edit it:</p> 
11.	<p>The form opens in a new browser tab in Edit mode.</p>  <p>NOTE: You may see a Modes tutorial dialog guiding you through a quick explanation of AEM Modes. You may click Next to proceed through the tutorial and learn how modes work and how components are managed, or you may click Skip to hide the tutorial.</p>

12.	Click to select the Requestor name field, then click the wrench (Configure) icon to edit it:
13.	In the left-hand Side Panel, click the field and change the Placeholder Text to: Enter your full name as it appears on your government-issued ID. Save your change by using the checkmark (Done) button.

The screenshot shows the AEM Side Panel open, displaying configuration options for a form component. The component is a text input field labeled "Requestor name". The "Basic" tab is selected. The "Element Name" is set to "requestorName". The "Placeholder Text" is "Enter your full name as it appears on your go". A red box highlights this placeholder text. The "Required field" checkbox is checked. The "Required Field Message" is "Please enter the name of the requestor." A blue box highlights the "Requestor name" label and the input field below it.

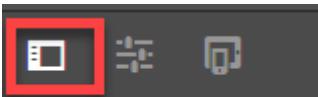


NOTE: This tool on the left side of the Form in Edit Mode is known as the **Side Panel**. It contains all the elements, objects and components you may configure in your form using the AEM user interface. You will see it often in this course. Save your changes in the Side Panel using the **Done** button (check mark icon). If you want to discard your changes in the Side Panel, use the **Cancel** button (x icon).

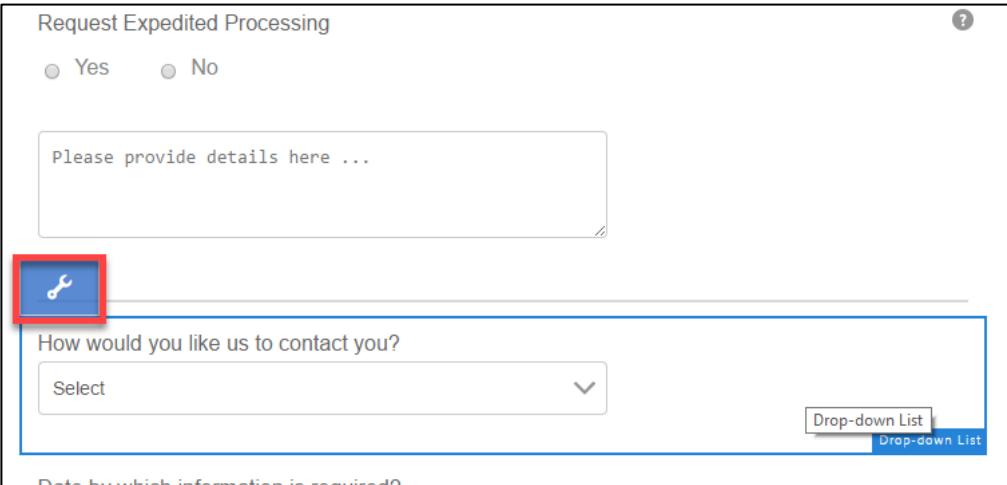
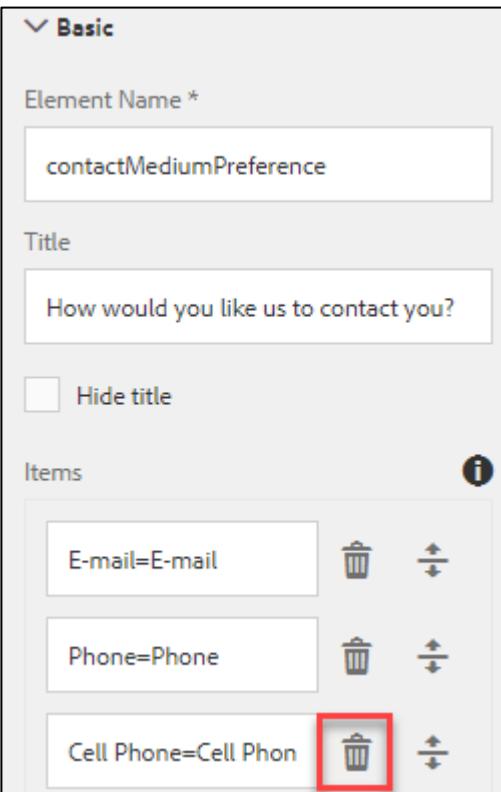


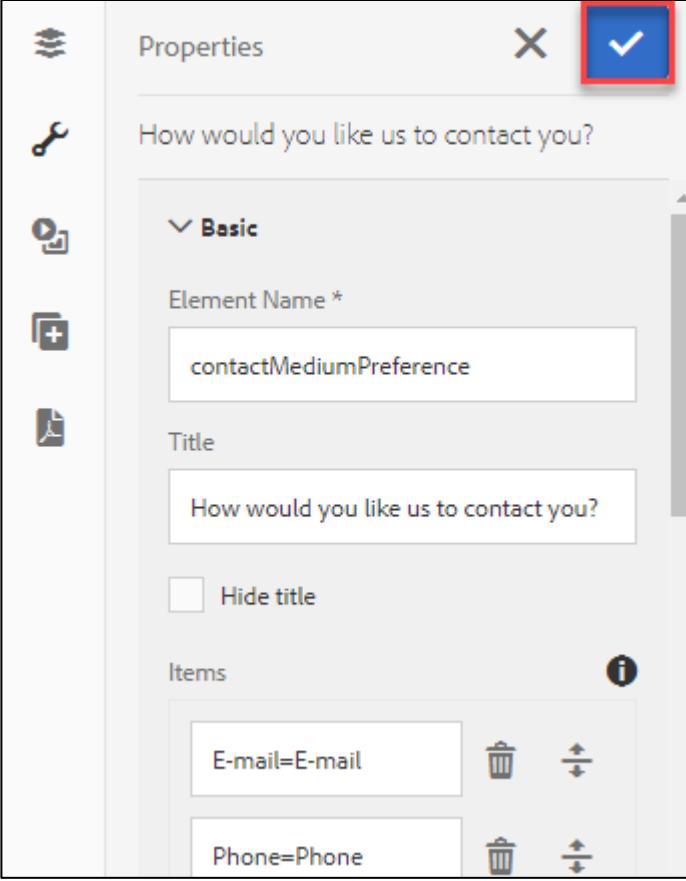
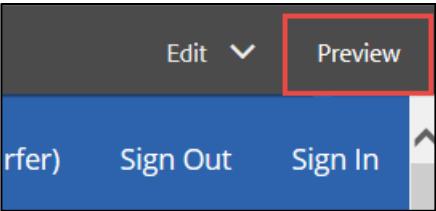
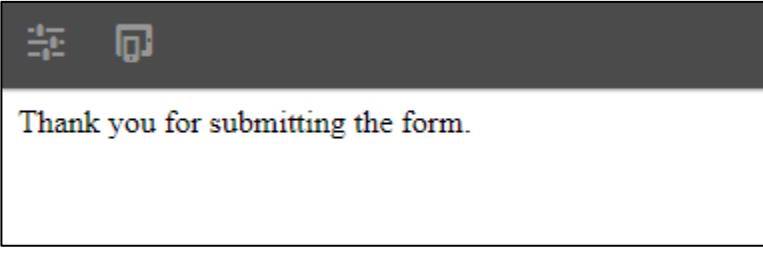
NOTE: The Side Panel is a toggle button. To show it, click the **Toggle Side Panel** button. To hide it, click it again. You may also click on a **Configure** icon next to a component you selected.

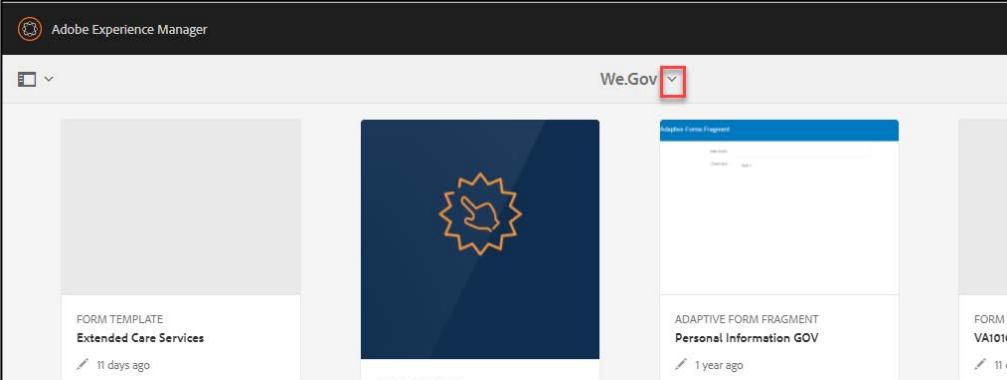
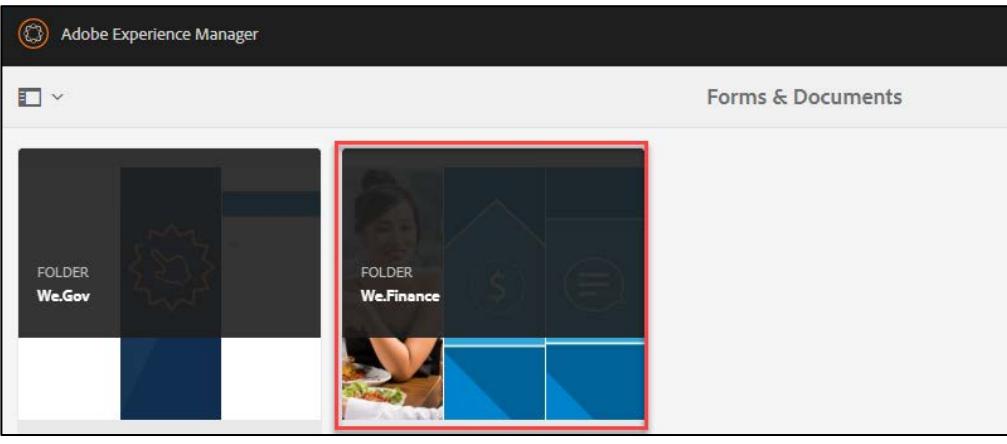
Toggle Side Panel button:



Configure icon for a component:

	 Request date
14.	<p>Scroll down to the "How would you like us to contact you?" question of the form (placed in the middle of the form) and click to select this field. Edit this question using the wrench icon (Configure):</p> 
15.	<p>In the left-hand Side Panel, scroll down to the Items and remove the Cell Phone item:</p> 
16.	<p>Save your change by clicking the checkmark (Done) button.</p>

	
17.	While in form editing mode, click Preview in the upper right corner: 
18.	Preview your form with the changes made. Ensure that: <ul style="list-style-type: none"> The placeholder text instructing the user to enter their name as it appears on their ID appears in the Requestor name field. Near the end of the form, the How would you like us to contact you? drop-down only shows E-mail and Phone as options.
19.	Complete and submit the form. 

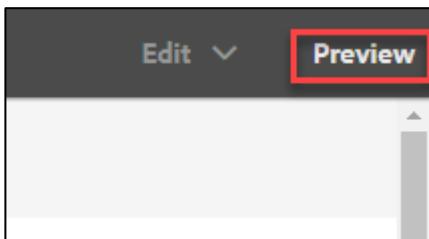
20.	Close the browser tab you used to edit and preview the form.
21.	Navigate back to Forms & Documents in AEM by clicking the drop-down ("breadcrumb") here at top center:
	
	Click Forms & Documents:
22.	Click on the We.Finance folder in AEM Forms.
	
23.	Locate the Application for Home Mortgage form and click Open:

The screenshot shows the We.Finance interface with several items listed:

- ADAPTIVE DOCUMENT**: Home Mortgage Welcome Kit, 1 year ago.
- ADAPTIVE FORM**: Application for Home Mortgage, 2 months ago, Modified. This item has a red box around its edit icon.
- ADAPTIVE FORM FRAGMENT**: Personal Information.
- FORM TEMPLATE**: customerNotification.xdp, 11 days ago.
- WE.FINANCE**: A preview of a form template showing fields like Card issued, Address, First name, Last name, Date of birth, Mailing label, Email address, and Phone number.



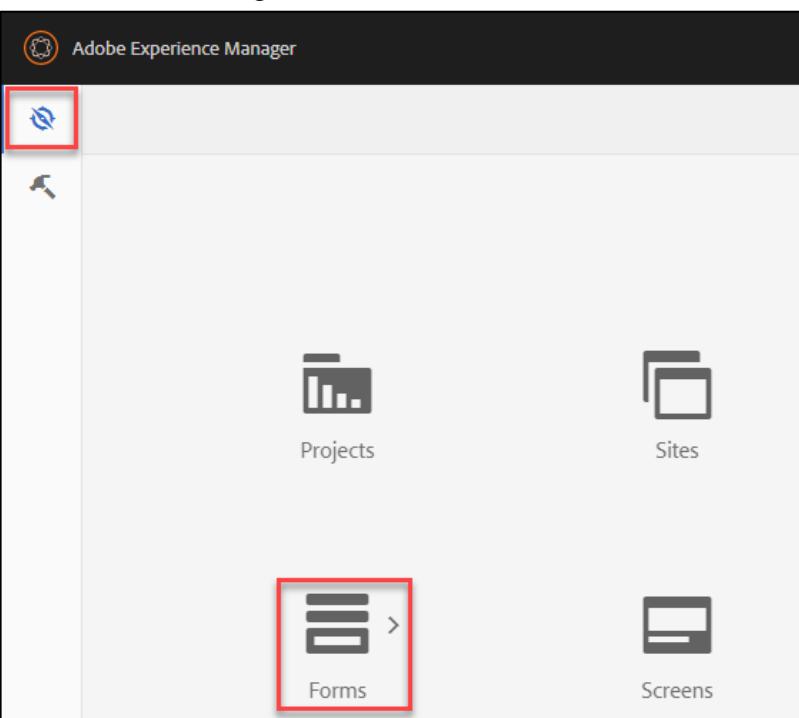
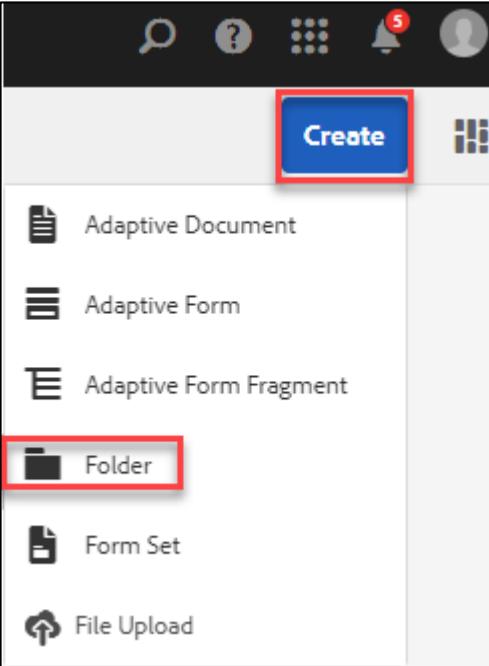
NOTE: The form should open in **Preview** mode, as that is the last mode you used in the FOIA form you just edited. If this is not the case, use **Preview** mode at upper right:

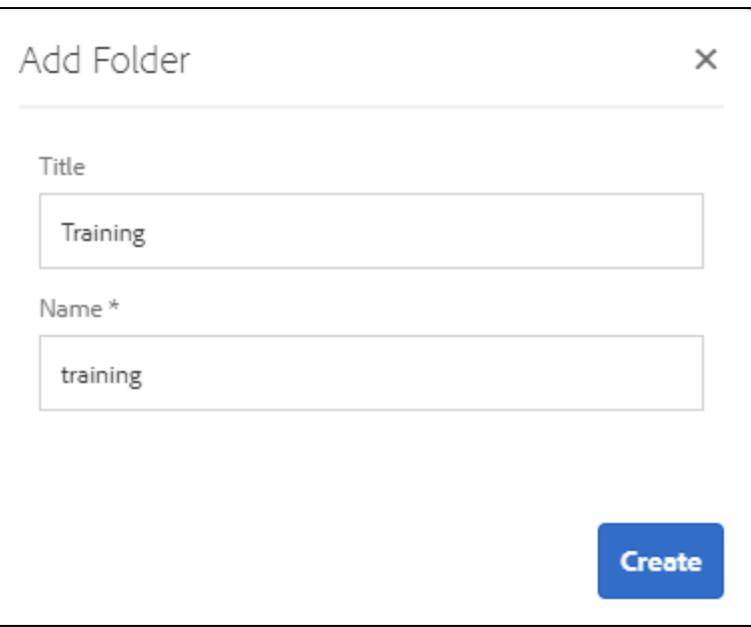
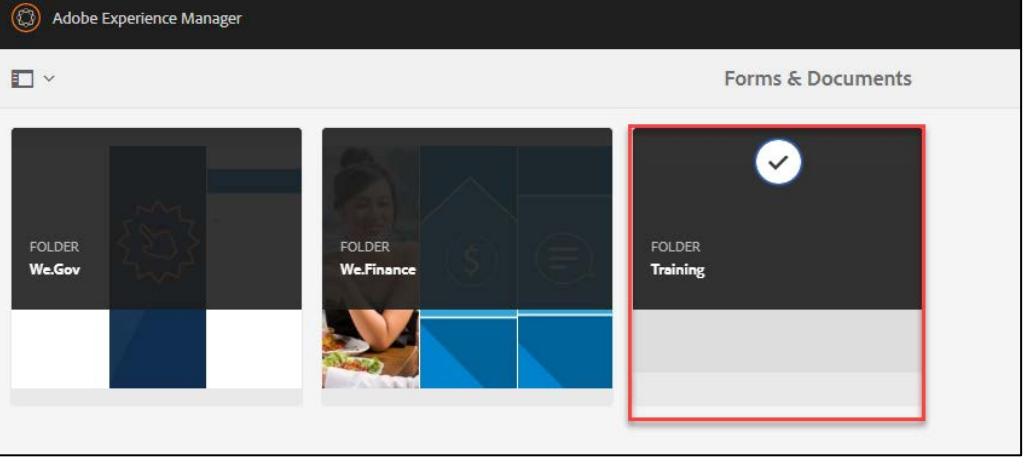


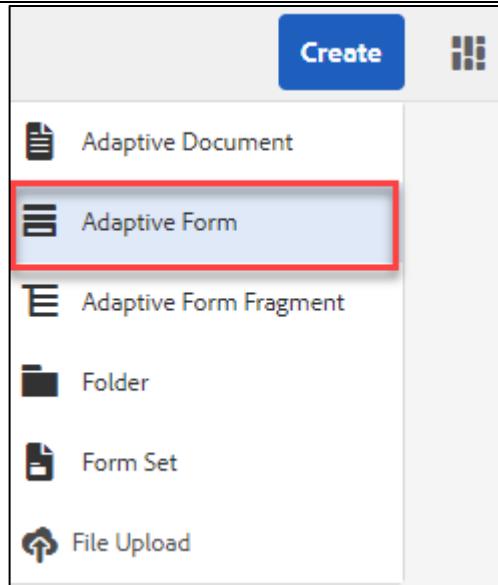
- | | |
|-----|--|
| 24. | QUESTION 1.4: For the Your credit score , what kinds of changes may be needed for your implementation? |
| 25. | QUESTION 1.5: Fill out the form partially. Click the Come back later link at bottom. What happens? |

Part 2: Creating an Adaptive Form from Scratch

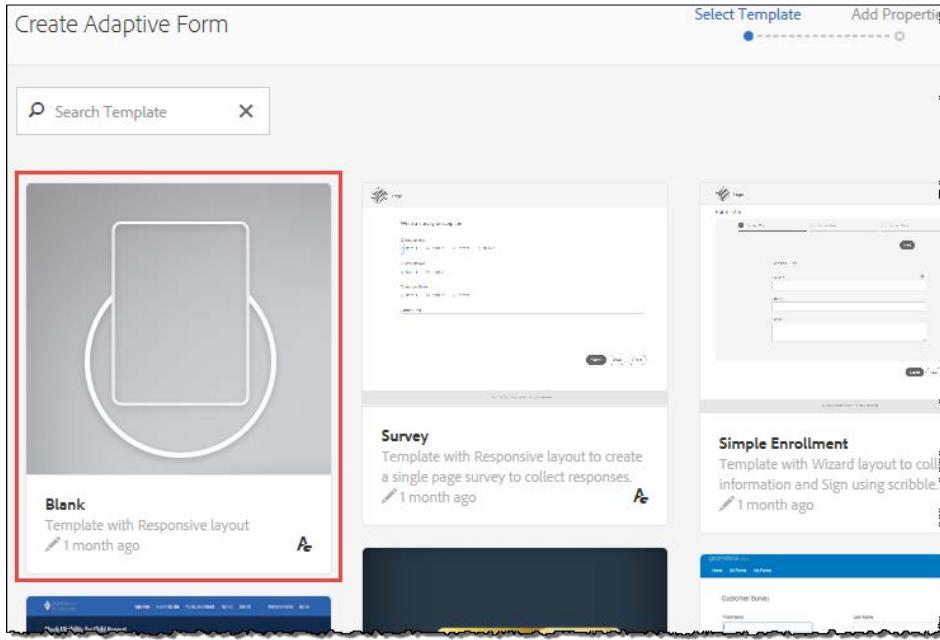
Create your own simple form from scratch in the AEM UI. Add components to your form by dragging and dropping them into your form.

Step	Instructions
1.	In the main AEM navigation, click Forms : 
3.	Click Forms & Documents , then click Create > Folder in the upper right corner. You will create a folder to house your forms at this point in the Exercises. 

4.	<p>In the dialog, title your folder Training and click Create:</p>  <p>Note: If you need to navigate to Forms & Documents directly, use this link: https://aemforms###-&&.adobeblab.com/aem/forms.html/content/dam/formsanddocuments (Where ### is a 2 or 3-digit number) (Where && represents the region. This can be "us", "emea", or "apac".)</p>
	<p>Click your Training folder:</p> 
5.	<p>In the Training folder, click Create > Adaptive Form in the upper right to create a new form:</p>



1. You will now use a wizard to create your new form from scratch. The wizard buttons **Next** and **Back** will appear in the upper right. For a form template, choose **Blank**:

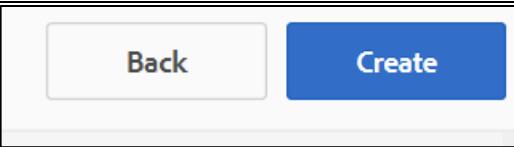
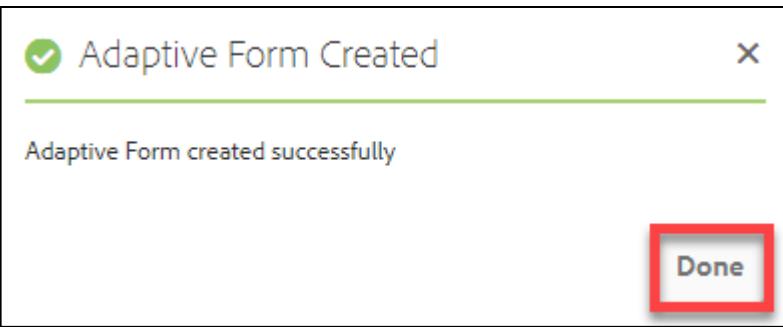
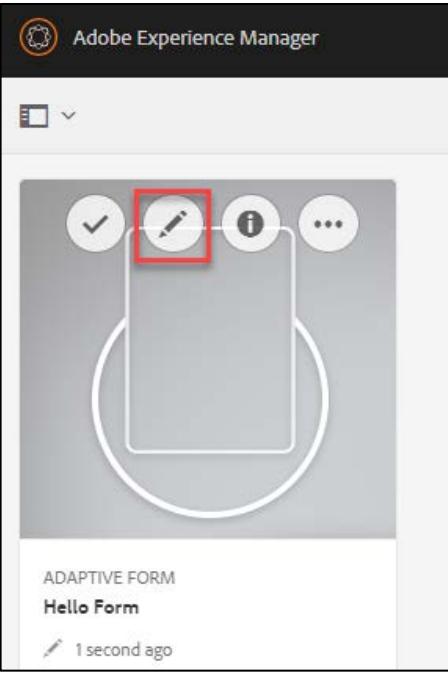
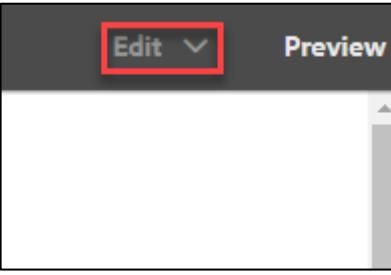


2. With the **Blank** template selected, click **Next**.

3. Enter the following form Properties:

- Title: **Hello Form**
- Name: **(leave as-is; it generates the form name for you)**
- Description: **Lab 1 Form from scratch**
- Tags: **(leave as-is)**

4. Click **Create** (in the upper right corner):

	
5.	<p>Click Done.</p> 
6.	<p>Click Open to open your form.</p> 
7.	<p>If not already selected, ensure you click Edit mode in the upper right:</p> 

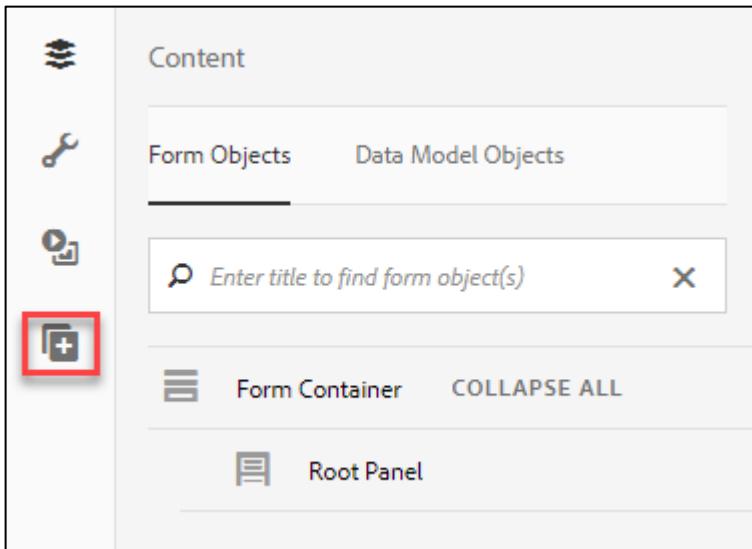


NOTE: You will now be working in **Edit** mode. There are generally two modes you can work in with your Adaptive Forms: Edit and Preview (in the upper right corner). To switch between these modes, click on either **Edit** or **Preview**.

8. You can now edit your form by dragging components onto your form. Click the **Toggle Side Panel** button to begin adding components:



9. Click the **Components** button in the **Side Panel**:



- 10.
-
- NOTE:** All the Components are listed alphabetically.
Scroll down and add a **Text Box** by dragging and dropping it onto your form in the **Drag components here** area:

Components

Filter

All

- A Static Text Adaptive Form
- Submit Button Adaptive Form
- Summary Step Adaptive Form
- Switch Adaptive Form
- Table Adaptive Form
- Telephone Adaptive Form
- Terms And Conditions Adaptive Form
- ABC Text Box Adaptive Form**
- A Title Adaptive Form

HELLO FORM

Drag component

ABC Text Box Adaptive Form

11. With your Text Box selected, click the wrench (Configure) icon to specify the properties of the text box:
- Title: **My expectations for this course:**
 - Placeholder text: **Enter your response here (255 characters maximum)**
 - Allow multiple lines: **Yes**
 - Maximum number of characters: **255**

The screenshot shows the Adobe Experience Manager interface for creating a form. At the top, there's a toolbar with icons for file operations and a title bar labeled "HELLO FORM". Below the toolbar is a "Text Box" component with a blue border. A context menu is open over the text box, featuring icons for edit, properties (which is highlighted with a red border), delete, and other form-related functions.

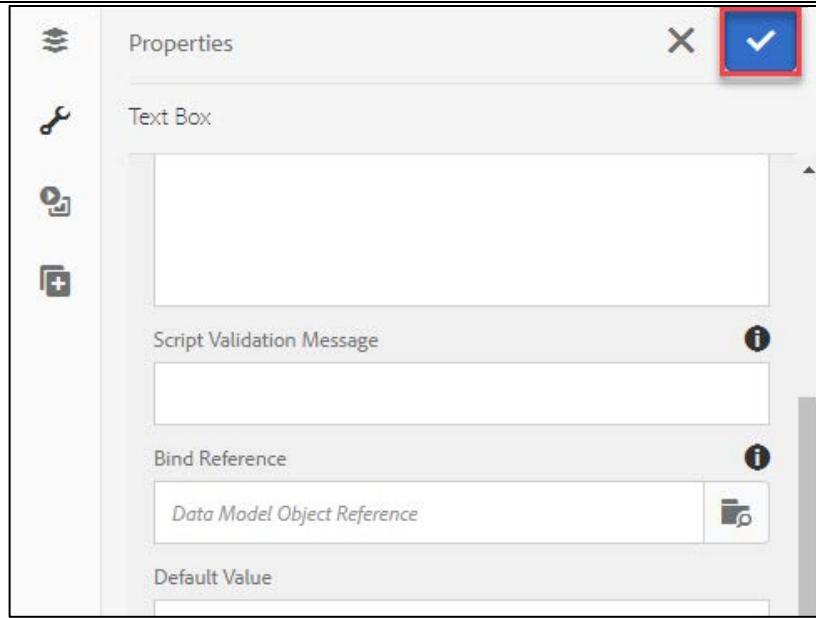
Below the main form area is a modal dialog for configuring the "Text Box" field. The dialog has the following sections:

- Title:** A text input field containing "My expectations for this course:"
- Placeholder Text:** A text input field containing "Enter your response here (255 characters minimum)"
- Default Value:** An empty text input field.
- Allow multiple lines:** A checked checkbox.
- Allow Rich Text:** An unchecked checkbox.
- Enable Autofill:** An unchecked checkbox.
- Maximum Number of Characters:** A numeric input field set to 255, with up and down arrow buttons to adjust the value.

At the bottom right of the configuration dialog is an information icon (a circle with an 'i').

Below the configuration dialog is a table row:

12.	When you finish setting your text box field's properties, click Done :
-----	---



NOTE: Going forward, you should save all changes to your form using this button. Technically, this is the **Done** button, although it appears as a large "checkmark". However, it is a visual cue that you are *"Done"* and therefore saving your work.

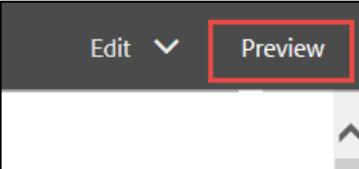
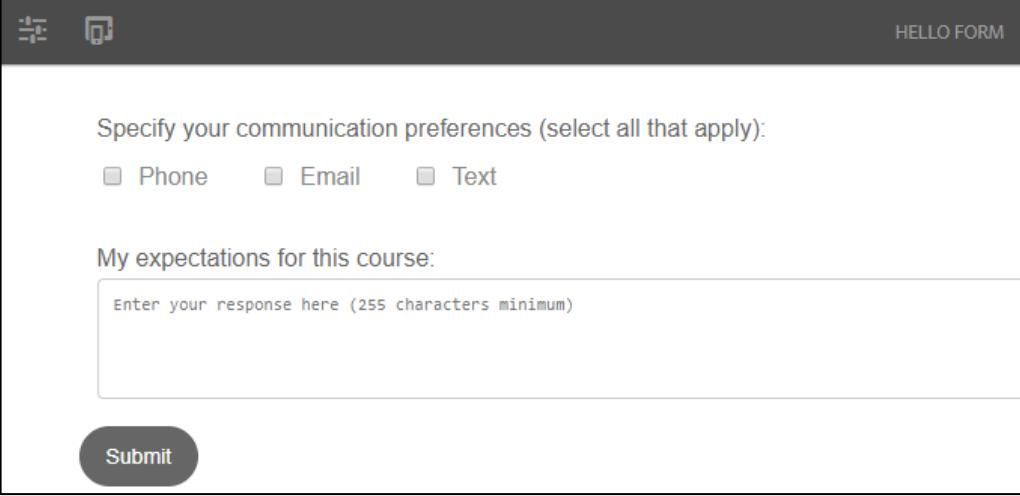
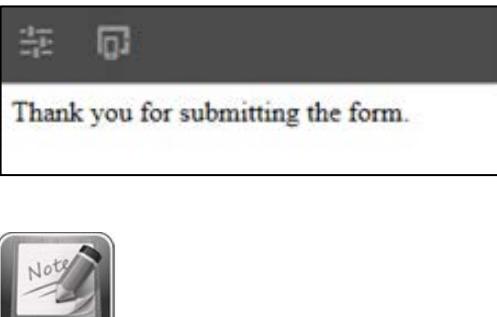
13. Drag and drop a **Check Box component** from the list of Components in the Side Panel to above the Text Field, using these requirements:

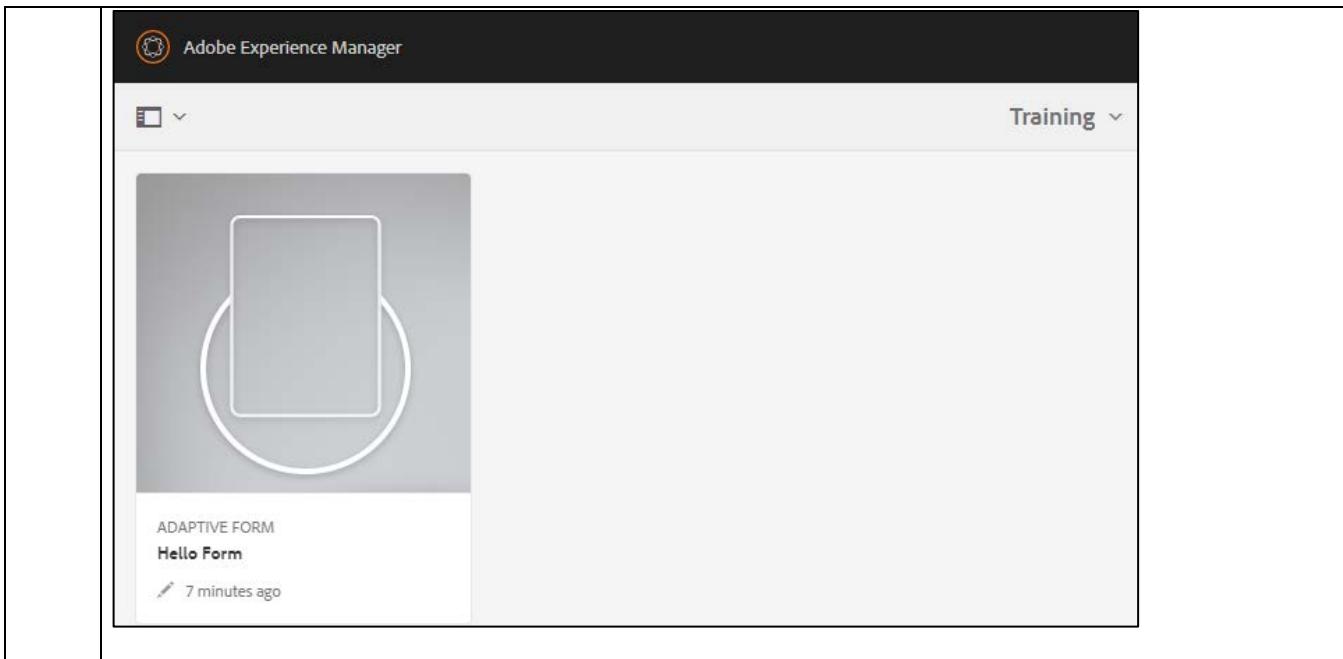
- Title: **Specify your communication preferences (select all that apply):**
- Items:
 - **Phone (0)**
 - **Email (1)**
 - **Text (2)**



NOTE: For each check box value (Items), use the integer above as the value stored in the database. You will notice it specifies "0=Phone" as the value for the first item. Therefore, Email is "1=Email".

14. Add a submit button at the bottom of your form:

	(No configuration is needed for the Submit button).
15.	Preview your form using the Preview link (upper right corner of the screen): 
	It should look like this: 
16.	Complete your form and submit it.  NOTE: You may want to enter several sentences of text to ensure the maximum of 255 characters is reached.
17.	Close your browser tab containing your form in preview mode.
18.	In your other browser tab, you should still have your Hello Form available in your Training folder :



Module 2: Adaptive Form Templates

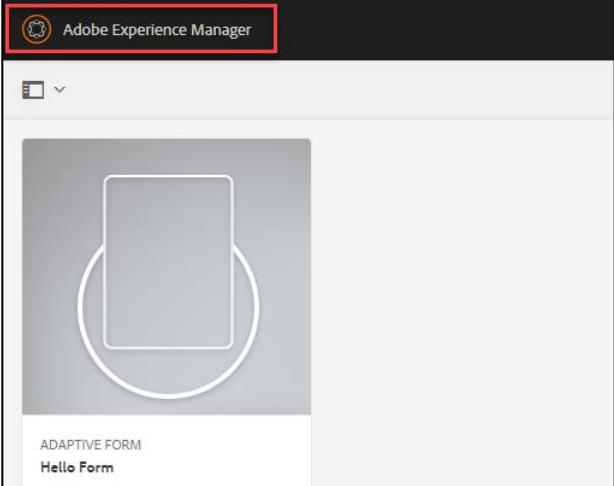
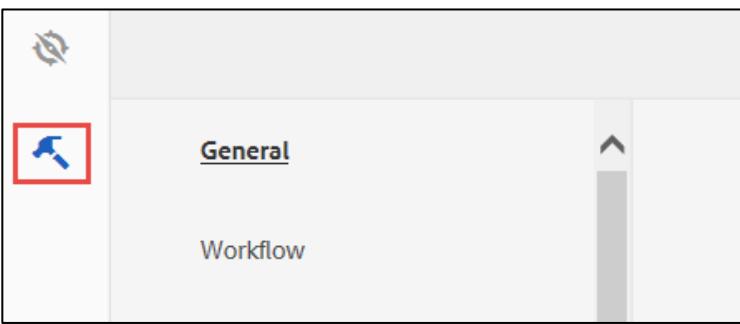
Overview

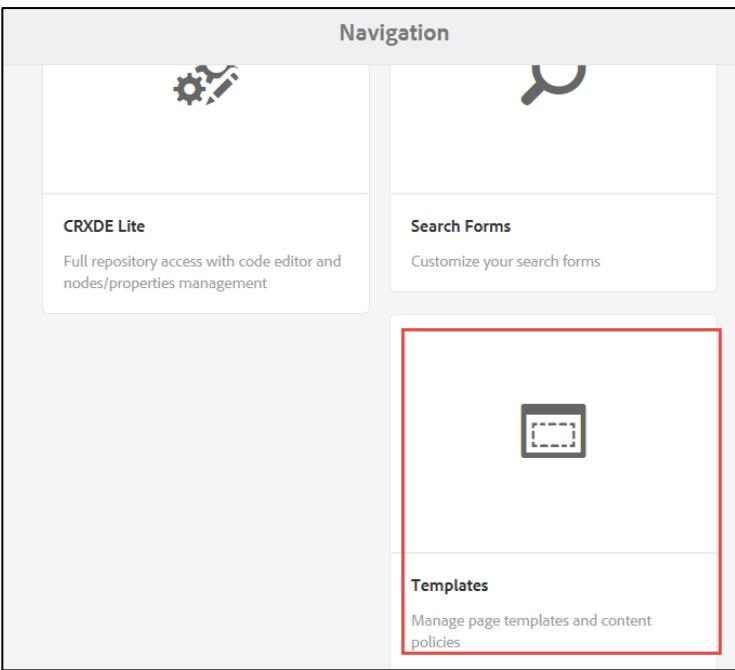
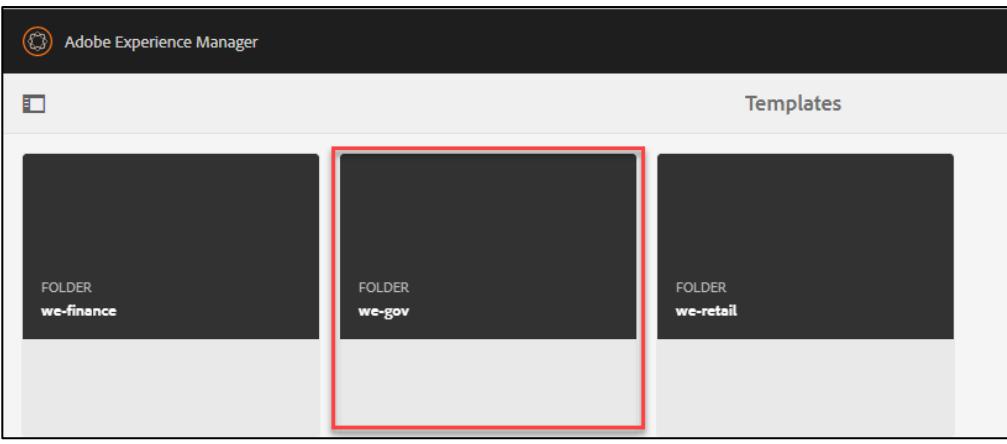
In this hands-on exercise, you will create a form template using the **Adaptive Form Template that comes with AEM Forms** and customize the footer and other properties. You will use the AEM template editor to create your template. You will also import an XDP template to import and examine a PDF form template.

TIME: It should take approximately 35 minutes to complete this exercise.

Part 1: Create a Template

Create a new Form Template with a custom footer and other custom properties.

Step	Instructions
1.	<p>Sign in to Adobe Experience Manager (AEM) using the URL you were assigned.</p> <p>Remember to always (unless otherwise specified) sign in as designforms.</p> <p>For detailed instructions, refer to the Exercise in Module 1. It is assumed you know how to sign in to AEM for the remainder of this course's exercises.</p>
2.	<p>Click the Adobe Experience Manager logo at top left to return to the main navigation:</p> 
3.	<p>Click Tools:</p> 

- | | |
|----|--|
| 4. | <p>Click Templates:</p>  <p>The screenshot shows the AEM navigation interface. It includes a 'Navigation' bar at the top with icons for gear and user. Below the bar are two cards: 'CRXDE Lite' (with a gear icon) and 'Search Forms' (with a magnifying glass icon). To the right is a large button labeled 'Templates' with a sub-label 'Manage page templates and content policies'. This 'Templates' button is highlighted with a thick red border.</p> |
| 5. | <p>Click to open the we-gov template folder:</p>  <p>The screenshot shows the 'Templates' interface in AEM. It displays three folder items: 'FOLDER we-finance' on the left, 'FOLDER we-gov' in the center highlighted with a red box, and 'FOLDER we-retail' on the right.</p> |
| 6. | <p>Select the Adaptive Form Template and click Create.</p> |

The screenshot shows the Adobe Experience Manager interface for managing templates. At the top, there's a navigation bar with the 'templates' dropdown. Below it, three adaptive form templates are listed:

- Blank**: Enabled, Adaptive Form Template. It has a large '5' icon and a 'Select' button with a checkmark icon. A red box highlights the 'Select' button.
- We Gov Child Template**: Enabled, Adaptive Form Template. It features a database icon and the 'geometrixx.GOV CHILD SUPPORT SERVICES' logo.
- We Gov Emp Template**: Enabled, Adaptive Form Template. It has a large '5' icon.

At the bottom, a toolbar includes 'Edit', 'Properties', 'Disable', 'Publish', 'Copy', 'Delete', and a 'Create' button. A note indicates '1 selected'.



NOTE: When you click **Create**, the Template Editor "wizard" starts and the wizard buttons **Cancel** and **Next** will appear in the upper right corner.

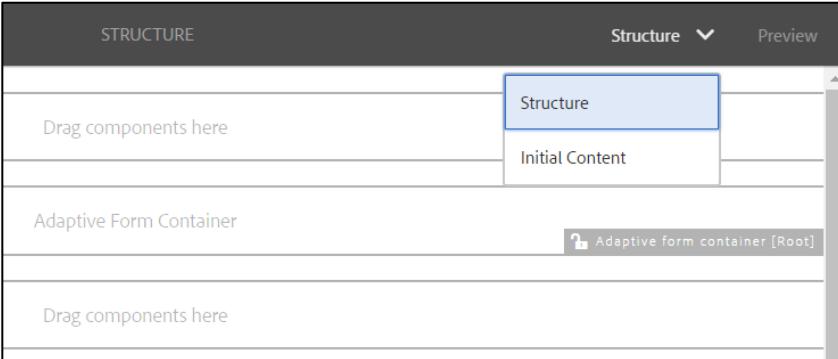
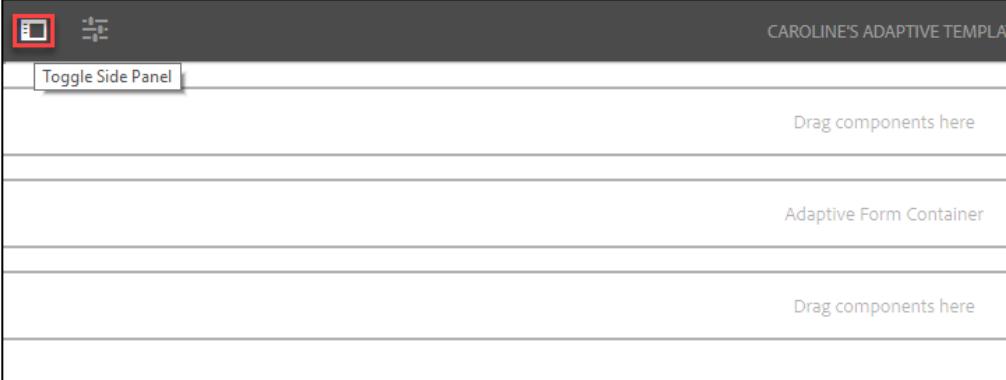
7. Select the **Adaptive Form Template** template type and click **Next**:

The screenshot shows the 'Create Template' dialog box. It has a header 'Create Template' and 'Pick a Template Type'. There are three options:

- HTML**: TEMPLATE FOR A CORE COMPONENT PAGE. Core Component Page.
- HTML**: TEMPLATE FOR A HTML5 CONTENT PAGE. HTML5 Page.
- FORM**: TEMPLATE FOR AN ADAPTIVE FORM. Adaptive Form Template. This option is highlighted with a red box.

At the top right, there are 'Cancel' and 'Next' buttons. The 'Next' button is highlighted with a red box.

8. Give your Template a (required) Title of <Your Name> Adaptive Template, then click **Create** at upper right. A Success dialog box displays. Click **Open** to open your newly created template:

	<p> Success</p> <p>Your template has been created.</p> <p>Done Open</p> <p>Be patient as it may take a few seconds to load.</p> <p></p> <p>NOTE: You may see an introductory tutorial screen for AEM Modes. You can close this.</p>
9.	<p>Select the Structure view (if it is not already selected):</p>  <p>Add a footer component to your template by clicking the Components view in the left Side Panel.</p> <p> HINT: If you do not see the Side Panel, click Toggle Side Panel in the toolbar at the top of the page:</p> 
10.	<p>Access the Adaptive Form components by clicking Components in the Side Panel as shown:</p>

The screenshot shows the 'Content' section of the AEM Forms interface. On the left, there's a sidebar with icons for 'Content', 'Form Objects', and 'File'. The 'Form Objects' section is expanded, showing a search bar with placeholder text 'Enter title to find form object(s)' and a list of objects. The first item in the list is 'Form Container' with the sub-item 'guideRootPanel' below it.

11. Scroll down in the list of components and drag and drop a **Footer** component from the **Side Panel** to the **bottom area** labeled **Drag components here**:

This screenshot shows the component library with a filter set to 'All'. It lists several components: 'File Attachment Listing' (Adaptive Form), 'Flash' (General), and 'Footer' (Adaptive Form). The 'Footer' component is highlighted with a red box. A dashed red arrow points from this highlighted component to the 'Drag components here' area at the bottom of the screen, which contains a placeholder text 'Drag components here'.

Your adaptive form template should now look like this:

This screenshot shows the 'CAROLINE'S ADAPTIVE TEMPLATE' in the AEM Forms template editor. The template structure includes an 'Adaptive Form Container' and a footer strip containing the text '© 2017 Company name | All rights reserved'. Below the footer is another 'Drag components here' area.

12. Select and edit using the inline editor the **Static Text** of your footer (gray strip at bottom). Change the footer text to a message or wording of your choice, or use: <Your Name>'s AEM Forms Training

This screenshot shows the inline editor for the 'Static Text' component in the footer. The text '© 2016 Company name | All rights reserved' is selected, indicated by a red box around the text area. The top of the editor shows various inline editing tools.

The screenshot shows the AEM Forms toolbar with various icons for text styling (B, I, U, A₁, A², X), layout (list, grid, table, form), and other functions. Below the toolbar is a status bar displaying the text "© 2017 Tom's AEM Forms Training | All rights reserved". A red box highlights the checkmark icon in the toolbar.

Save your changes to the Static Text by clicking the **checkmark** button. Verify the footer reflects the new changes.



NOTE: If you stop your work and close your browser, you can always resume working on your template in the **we.gov** folder as indicated. AEM automatically saves your templates with a "Draft" status. Be sure to edit the template using the **Structure** view.

13. Click on the **Static Text** component again. Notice the **lock** icon is "locked":

The screenshot shows the AEM Forms toolbar with various icons for text styling (pencil, wrench, etc.), layout (list, grid, table, form), and other functions. A red box highlights the lock icon in the toolbar.

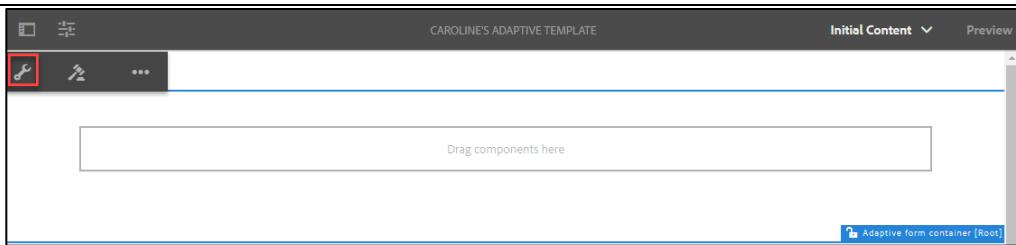


NOTE: This component is locked, which means it is only editable in the template. Forms created using this template will have this "Static Text" as a read-only object that other form designers cannot change. So, for components of your template that you want to "lock down" and make read-only, ensure the **lock** icon is "locked". You may unlock other parts of the template you want to make **editable** to designers that make forms based on your template.

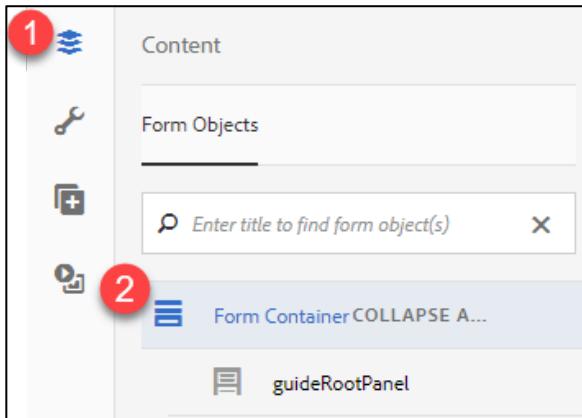
14. Select the **Initial Content** view in the upper right corner. You will now configure the initial view of the form:

The screenshot shows the AEM Forms Structure view. At the top, there are tabs for "Structure" and "Preview". Below the tabs, there are two tabs in a horizontal bar: "Structure" (which is selected and highlighted in blue) and "Initial Content" (which is also highlighted with a red box). The main area shows a single row with two columns, both of which are currently empty.

15. Select the **Adaptive form container [Root]** at the top of your template. Click the **Configure** (wrench) to edit it.

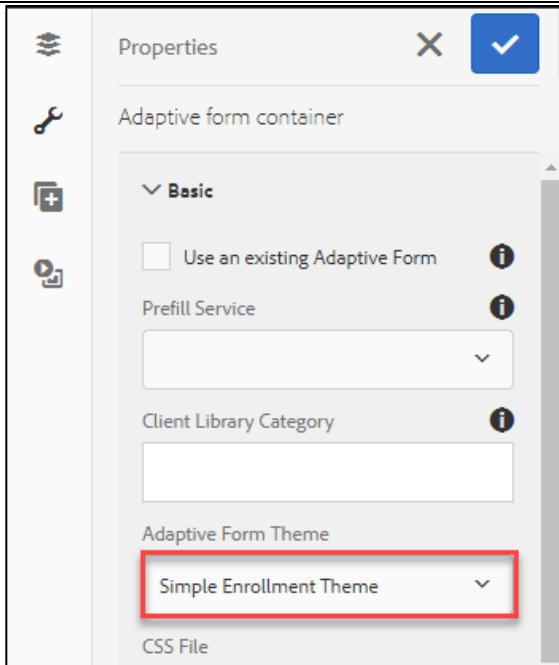


HINT: If you are having trouble locating this form object, click to toggle the Side Panel and display Content (1), and then select **Form Container** (2):



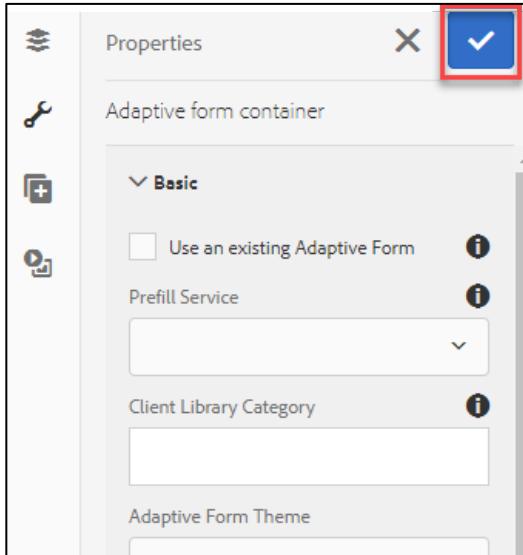
NOTE: This is the root container that controls all global properties for your adaptive form template. This is **not** the Root Panel.

16. With the **Configure** properties selected, specify a theme. In the Adaptive Form Theme drop-down, select **Simple Enrollment Theme**:



This sets the style for your template. Technically speaking, this is a set of predefined, built-in CSS files. These are modified using the Theme Editor, which is out of scope for this particular exercise but will be covered in a later exercise in this course.

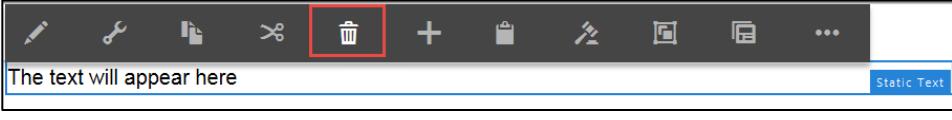
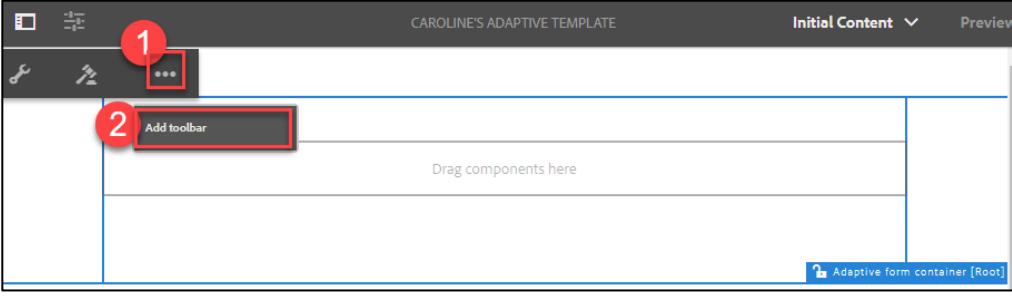
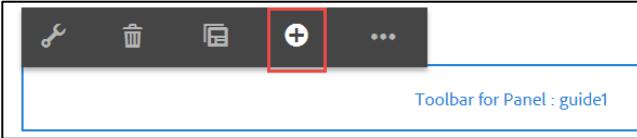
17. Save your change by using the **checkmark (Done)** button. Keep in mind that once you make a change to any element of the Properties panel, the **checkmark** changes from being deselected to blue.

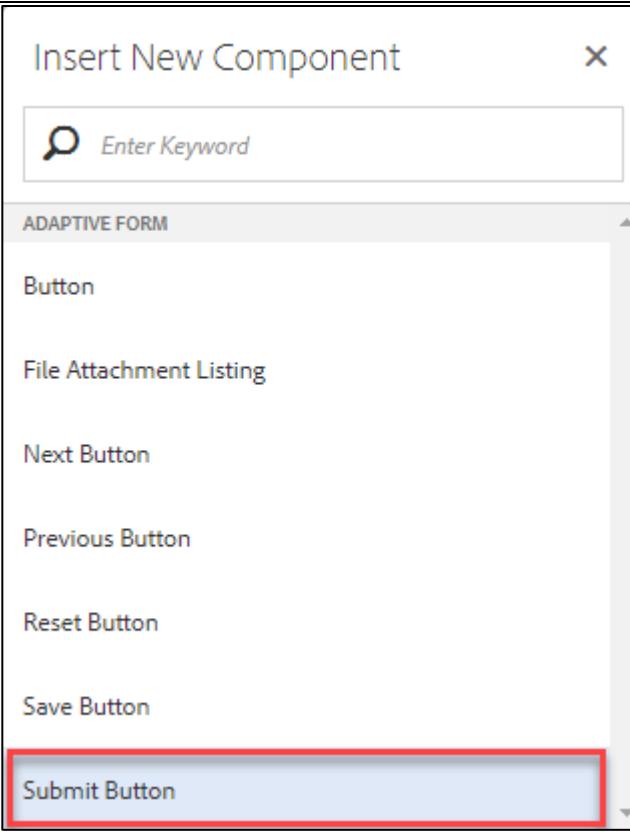


Once you save your work, the button is also grayed out:

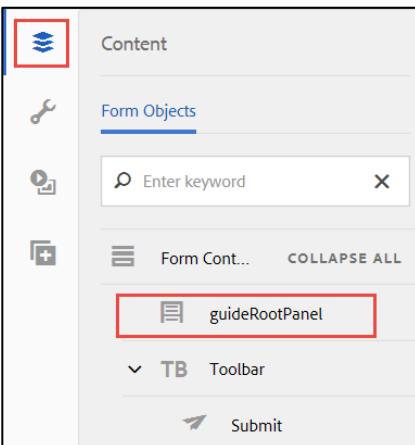


HINT: As you go along, if you add or drag a component you do not want or wish to remove, select it and click the **Delete** button to remove it. You will be prompted to remove the item:

	 <p>The text will appear here</p> <p>Static Text</p>
18.	<p>Add a toolbar to your template. Still at the Adaptive form container [Root] level, click the “...” button (ellipsis) and select Add toolbar.</p> 
19.	<p>With your toolbar selected, add a submit button. First, click the Add button on your toolbar:</p>  <p>Toolbar for Panel : guide1</p> <p>Next, select Submit Button from the components list:</p>



20. Now you must add properties to the **guideRootPanel**. Click the **layers** button (Content) in the Side Panel and select the **guideRootPanel**.

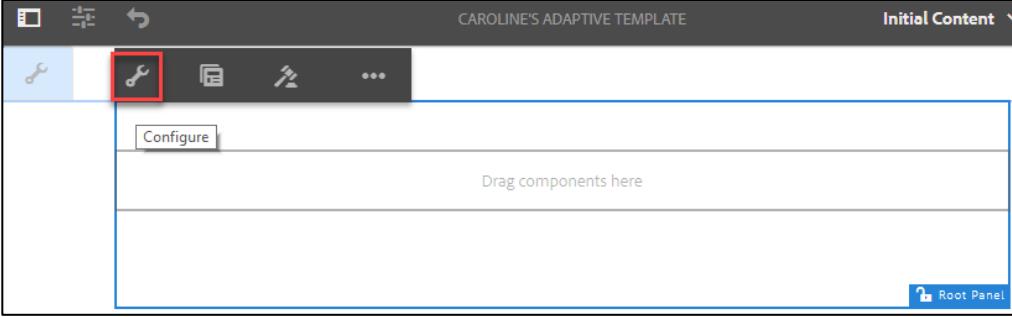
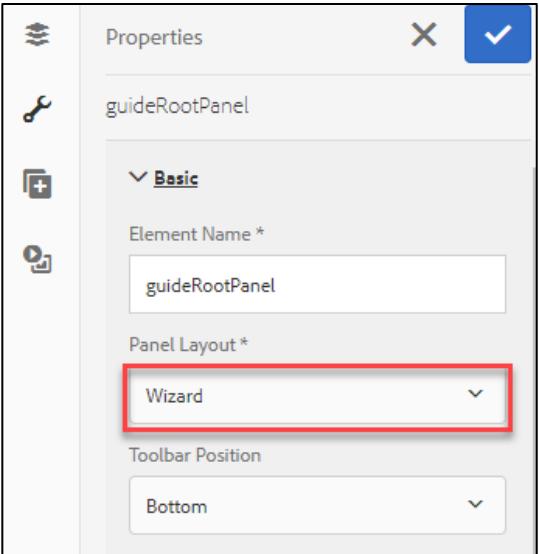
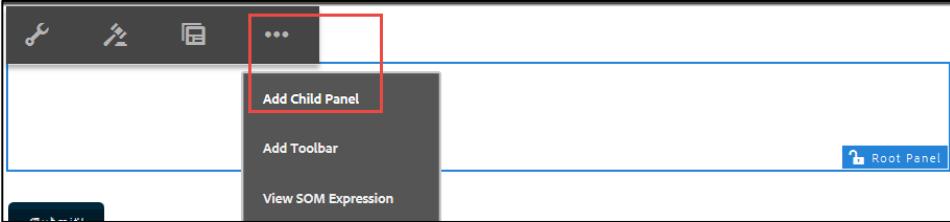


HINT: You may need to refresh your browser to see the current properties in AEM Forms. If you do not see the **guideRootPanel**, try refreshing your browser.



NOTE: The **guideRootPanel** is the **Root Panel** component you will now work with.

21. With the Root Panel selected, click the **wrench** icon to configure it:

	
22.	<p>Set the Panel Layout to Wizard:</p>  <p>Be sure to click Done in the Side Panel to save this change. It is assumed for the rest of the exercises, you will always click Done after changing the properties of a component or object in AEM Forms.</p>
23.	<p>Still in the initial content view, add child panels to your Root. Select the Root Panel again and click the ellipsis (...) button. Select Add Child Panel:</p>  <p>An Add Child Panel dialog opens, allowing you to set the child panel properties.</p>
24.	<p>Set the properties as Panel1 as shown:</p>

Add Child Panel

Title *

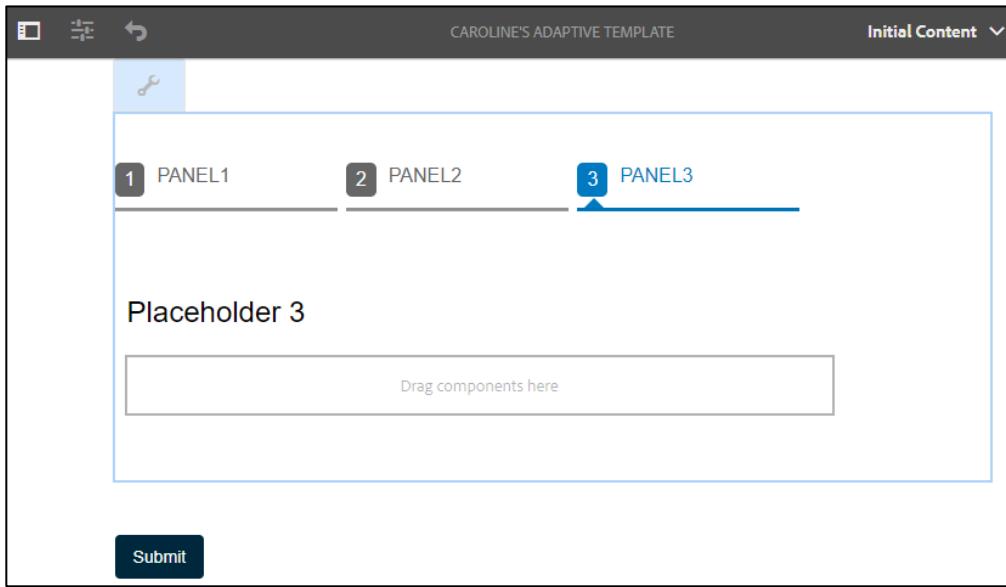
Description

Name

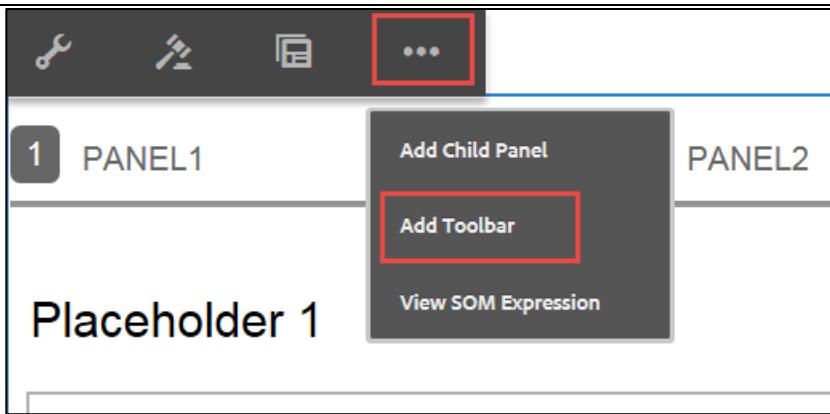
Use the checkmark (**Done** button) at the upper right of the dialog to save your entries for the new child panel.

25. Repeat the process outlined in steps 23 and 24, adding **Panel2** and **Panel3**.

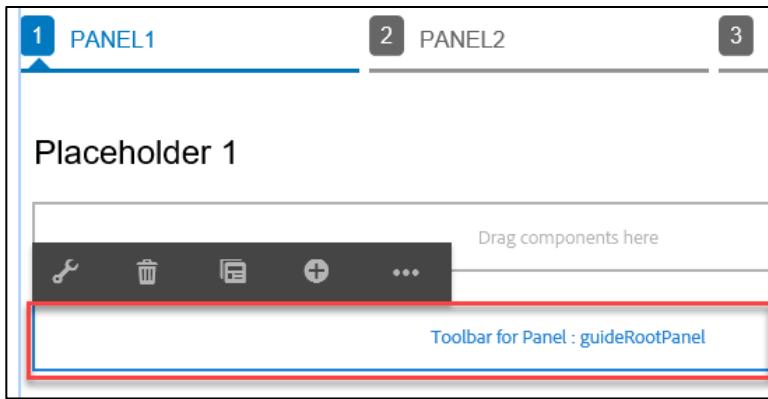
26. Your form template in Initial Content view should now look like this:



27. Add a toolbar to your root panel. Select the **Root Panel** again and click the ellipsis (...) button. Select **Add Toolbar**:

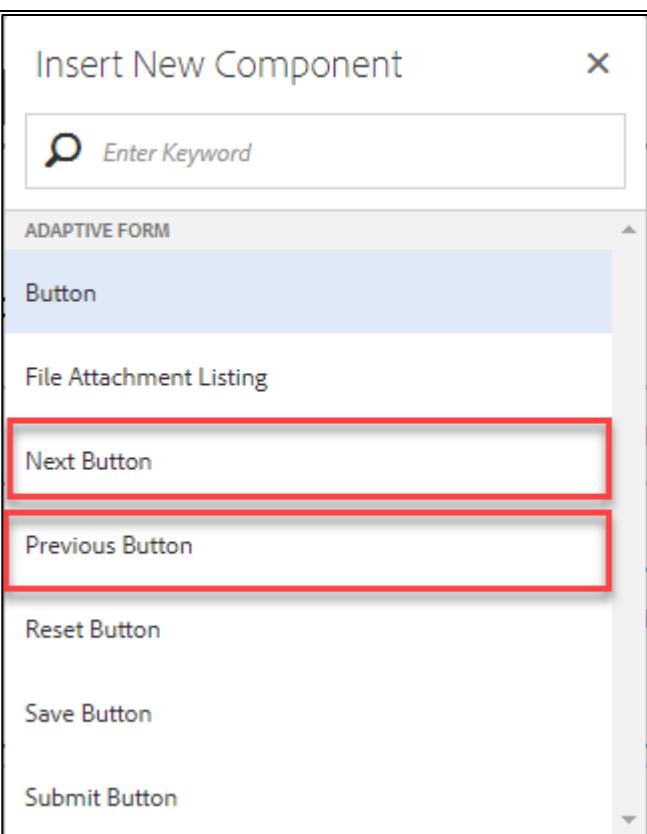


28. Select your newly created toolbar:



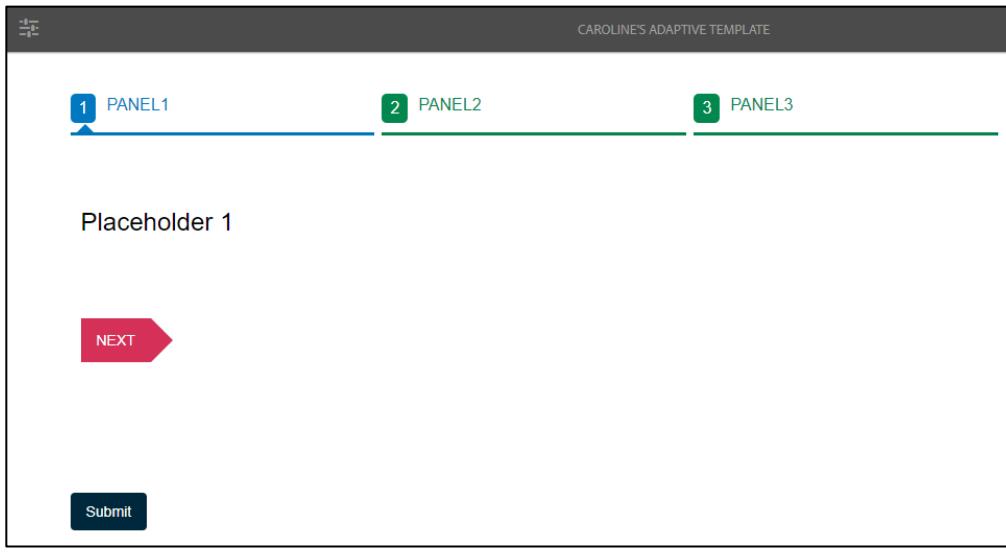
NOTE: The position is at **bottom**. This was specified previously in the Properties of the **guideRootPanel**.

29. Add buttons to your Toolbar. Click the + button to add **Previous** and **Next** buttons:



NOTE: The buttons you add already have a styling and theme already since you previously chose the **Simple Enrollment Theme** which acts as a CSS (Cascading Style Sheets) styling for your form template.

30. Click **Preview** to check if your template looks correctly and works. The **Next** button should allow you to advance to **PANEL2** and **PANEL3**:



The currently selected panel should be **blue**. To advance to the next or previous panel, use the buttons at the bottom:

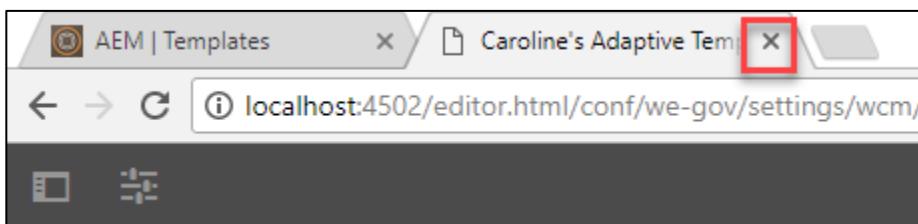
PANEL1 2 PANEL2 3 PANEL3

Placeholder 2

BACK NEXT

Submit

31. Close the browser tab in which you have done your work in the **Initial Content** view. Remember, your changes are always saved!



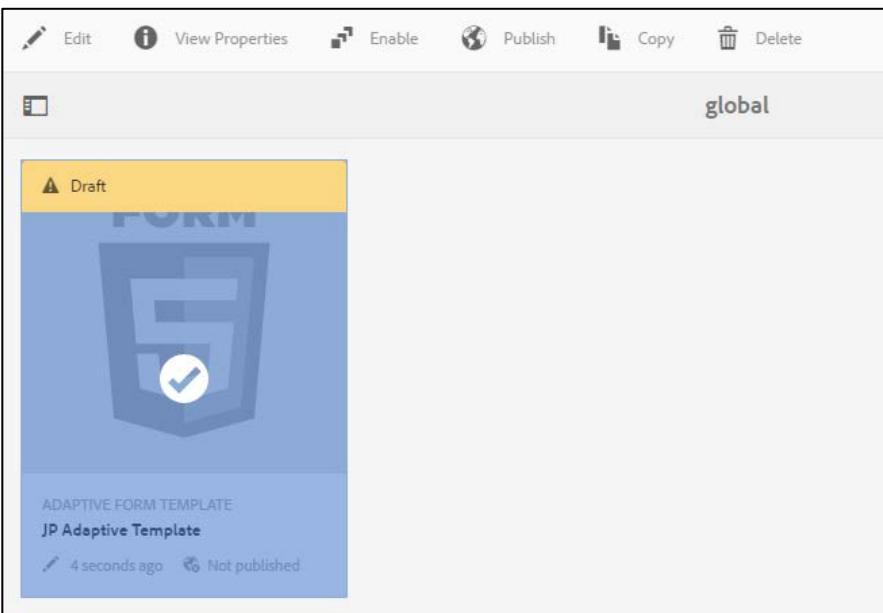
NOTE: The URL shown in this screenshot may look different to you because this is an example of how AEM is run in a **local** install (localhost:4502). If you were to follow the instructions in the Appendix to install AEM locally on your machine, this is how the URL would look for an AEM author installation. Since this course uses a cloud environment, the URL is different.



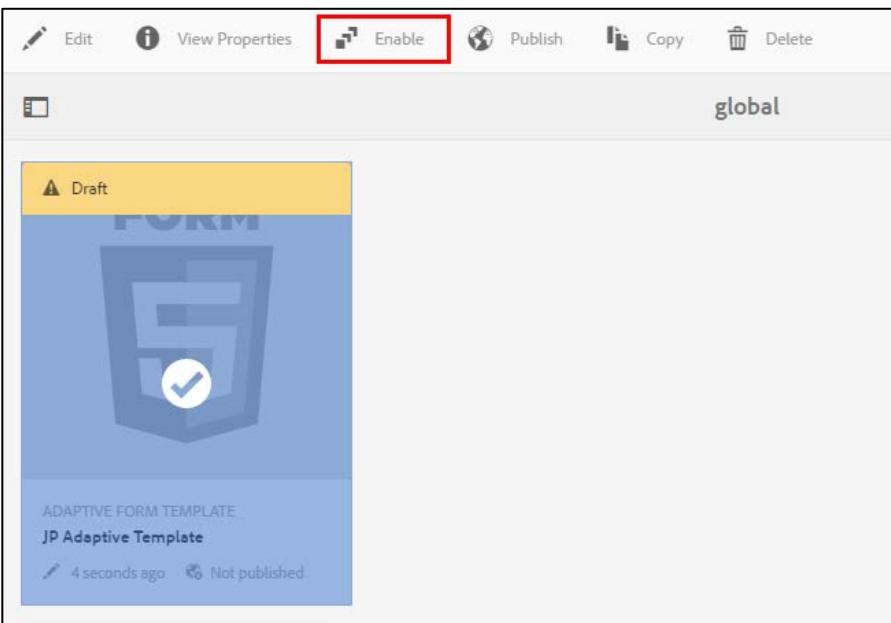
HINT: If you do reopen your template in **Preview** mode, it is fine if the template appears to be blank. Be sure to click **Initial Content** view to see your work:



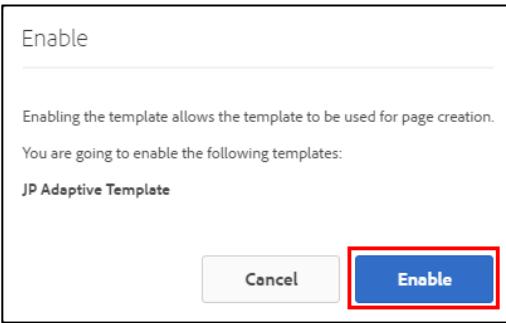
32. If not already open, navigate to AEM > Tools > General > Templates in the we-gov folder. Select your template using the Checkmark button in the middle. Notice it is in "Draft" mode:



33. With your template selected, enable it using the **Enable** button in the toolbar:



When the Enable dialog box appears, click **Enable**.





NOTE: Enabling your template immediately makes it ready for use by authors and designers when they create new Adaptive Forms.

34. With your Template selected, click **Properties**:

The screenshot shows the 'Properties' dialog for an Adaptive Form template named 'Caroline's Adaptive Template'. At the top, there are buttons for 'Properties' (highlighted with a red box), 'Disable', 'Publish', 'Copy', and 'Delete'. Below this, the template is shown with its title 'Caroline's Adaptive Template' and status 'Enabled' (indicated by a green checkmark). The template preview shows a stylized 'FORM' logo. On the left, there is a sidebar with the template's title, a thumbnail, and creation details ('8 months ago', 'Not published').

35. To replace the default thumbnail, set the image for the template by clicking **Upload Image** and using the **thumbnail.png** image provided with your Exercise_Files (located in the "Module 2 – Templates" folder):

The screenshot shows the properties page for 'Caroline's Adaptive Template'. It displays the template's title, a placeholder thumbnail image, and fields for 'Template Title' (set to 'Caroline's Adaptive Template') and 'Description'. At the bottom, there are buttons for 'Generate Preview' and 'Upload Image' (highlighted with a red box).

36. Click **Save & Close** to save your thumbnail image. A Success message displays at the top of the page, indicating the form was submitted successfully.

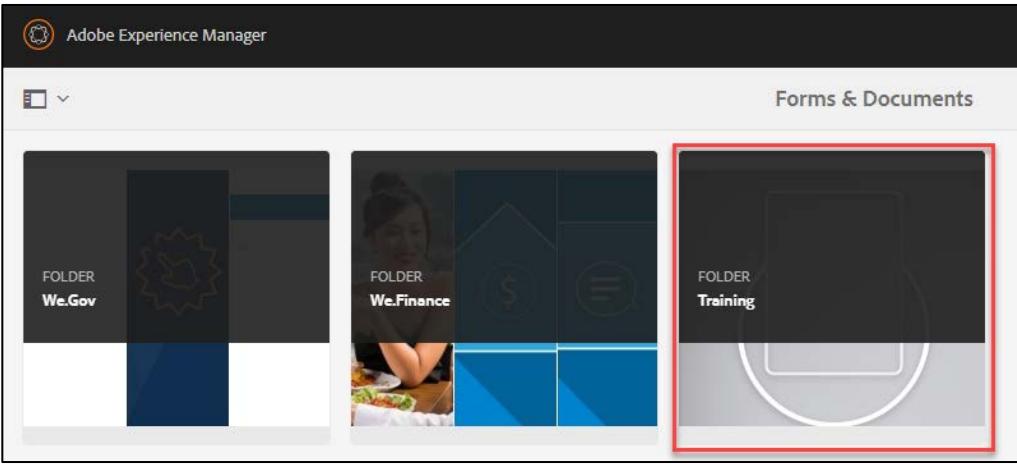
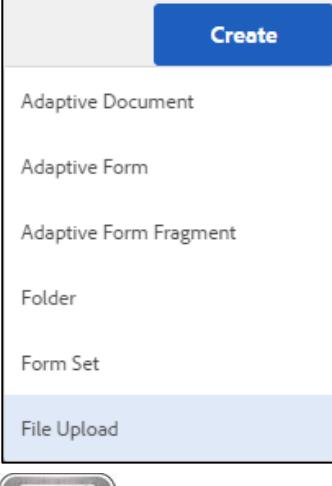
37. To verify your template works, attempt to create a new Adaptive Form by navigating to the AEM navigation home and selecting **Forms**, then **Forms & Documents**. Click **Create** and select **Adaptive Form** from the drop-down. Your form template is now available for you to create a form:

The screenshot shows the AEM Forms & Documents library interface. On the left, there's a card for a 'Blank' template with a responsive layout. In the center, there's a card for a 'Template with Responsive layout' titled 'AEM Training Application'. This card has a red border around it. On the right, there are two cards: one for a 'Simple Enrollment' template and another for a 'Geometrixx Gov Enrollment Adaptive Form'. The 'AEM Training Application' card includes a preview window showing a single-page survey with fields for name, address, and phone number.

38. Your template work to create a new template is done!

Part 2: Upload an XDP

Upload an *.xdp file that contains an “Extended Care Services” PDF form template. Extended Care Services is a sample form used by insurance companies for extended healthcare services.

Step	Instructions
1.	<p>Click Forms & Documents, then click your Training folder you created in an earlier exercise (Module 1, Part 2):</p> 
2.	<p>In your Training folder, click Create > File Upload:</p>  <p>Note: This feature of AEM is only available if the AEM Forms add-on package is installed. While the configuration of this add-on package was performed in this training environment, note that you must do this to fully use AEM Forms and use this and other features. Contact your IT staff or administrator if you need to install the AEM Forms Add-on package. In addition, instructions are provided in the last Appendix for this course to provide guidance on installing the AEM Forms Add-on package.</p>
3.	<p>In the upload dialog, click Browse and navigate to the Extended-Care-Services.xdp file provided with your Exercise_Files for this course (located in the “Module 2 – Templates” folder). Upload the file:</p>

File Upload X

The following asset(s) will be updated:

Name	Section	Path
Extended-Care-Services.xdp	Forms & Documents	.../training

Cancel Upload

You have now successfully imported a form template ([Application for Extended Care Services](#)).



NOTE: This is a PDF form template that is different in several ways from the Adaptive forms we used previously. Note that you may preview it as a PDF.

Module 3: Form Data Model, Binding, and DoR (Document of Record)

Overview

In this hands-on exercise, you will create a Document of Record (DOR) from an uploaded file and create a form based on your template you created previously.

TIME: It should take approximately 40 minutes to complete this exercise.

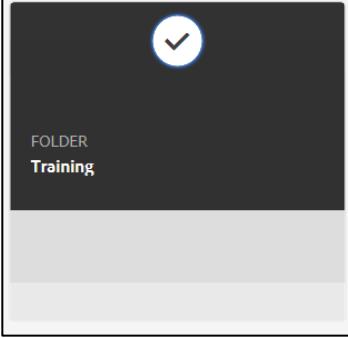
Pre-requisites

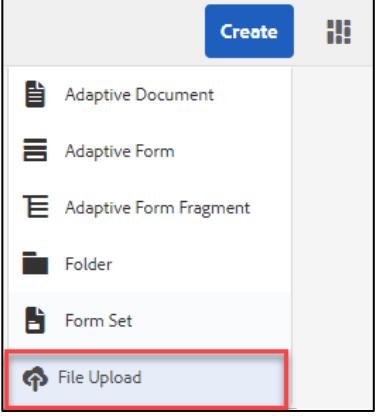
Before you begin this exercise, you must complete the following exercise:

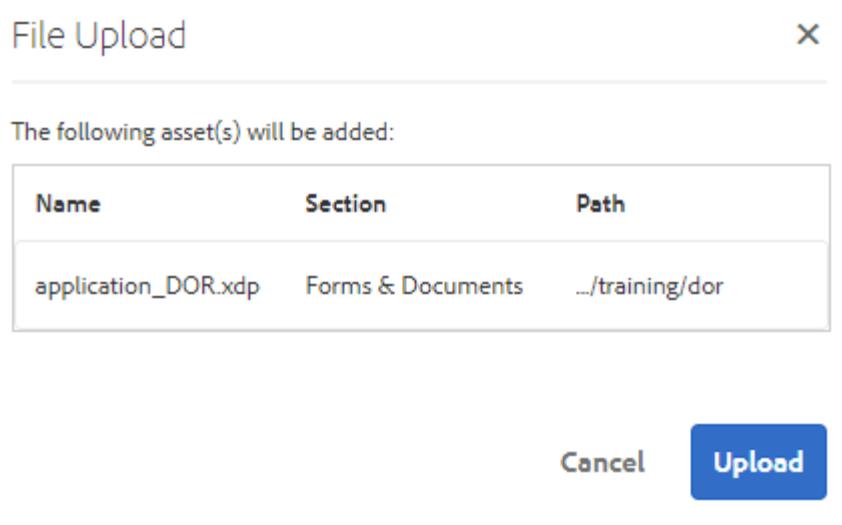
Module 2: Adaptive Form Templates

Part 1: Upload a DoR

Create a Document of Record (DoR) by uploading an XDP file. You will use this Document of Record in Part 2 when you create a Form based on your Form template you built in the previous exercise.

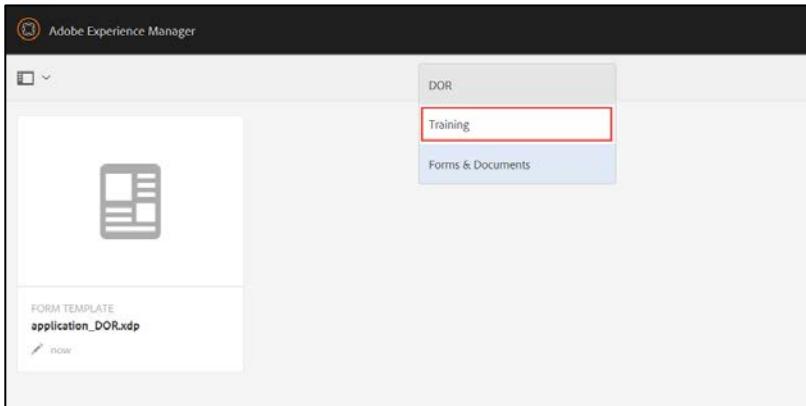
Step	Instructions
1.	<p>In Forms & Documents, click the newly created Training folder:</p> 
2.	<p>Click the Create > Folder button again to create a subfolder in your Training folder. You will create this subfolder to house your DOR (Document of Record).</p> <p>For the subfolder title, enter: DOR</p>

	<p>Add Folder</p> <p>Title</p> <p>DOR</p> <p>Name *</p> <p>dor</p> <p>Create</p>
	<p>Click Create.</p>
3.	Click the newly-created DOR folder. Now you will create something in your folder based on a file from local storage. In this case, we are using an XDP file provided in the Exercise_Files (Module 3 – Doc of Record).
4.	Click Create > File Upload: 
5.	In the Upload form(s) or package dialog, select the *.xdp file to select the “ application_DOR.xdp ” file from where your Exercise_Files are stored on your local file system:



Click **Upload**. Be patient as it may take a few additional seconds for the page to load after your upload.

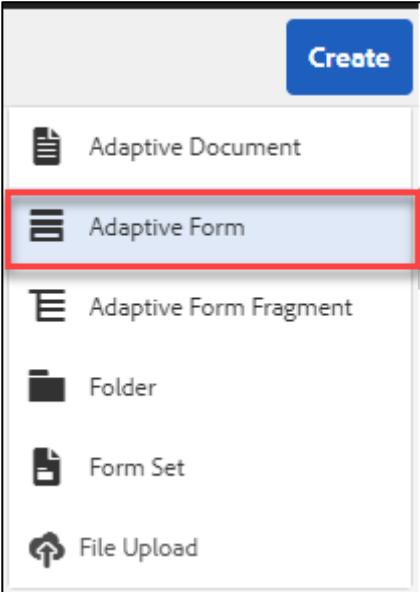
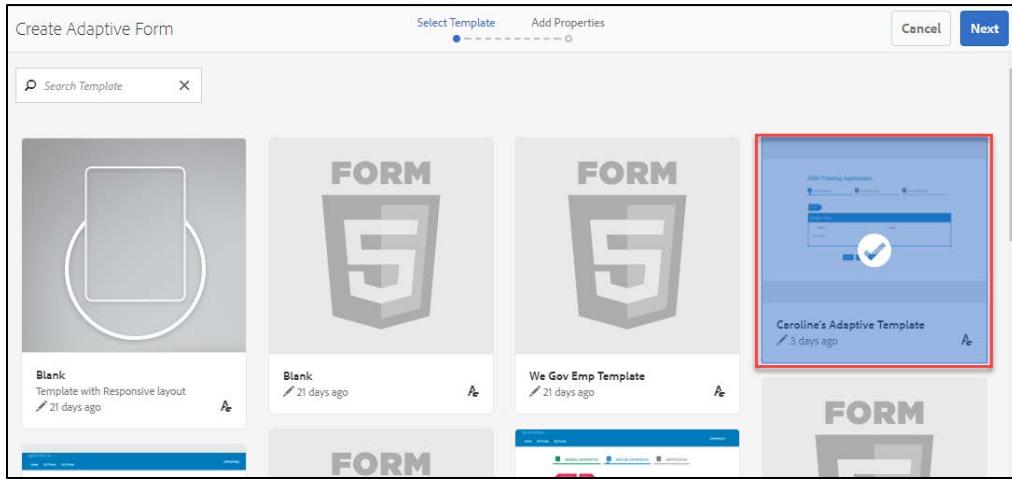
6. With your DOR (Document of Record) uploaded, click the **DOR** label in the center of the page to navigate back up to your **Training** folder:

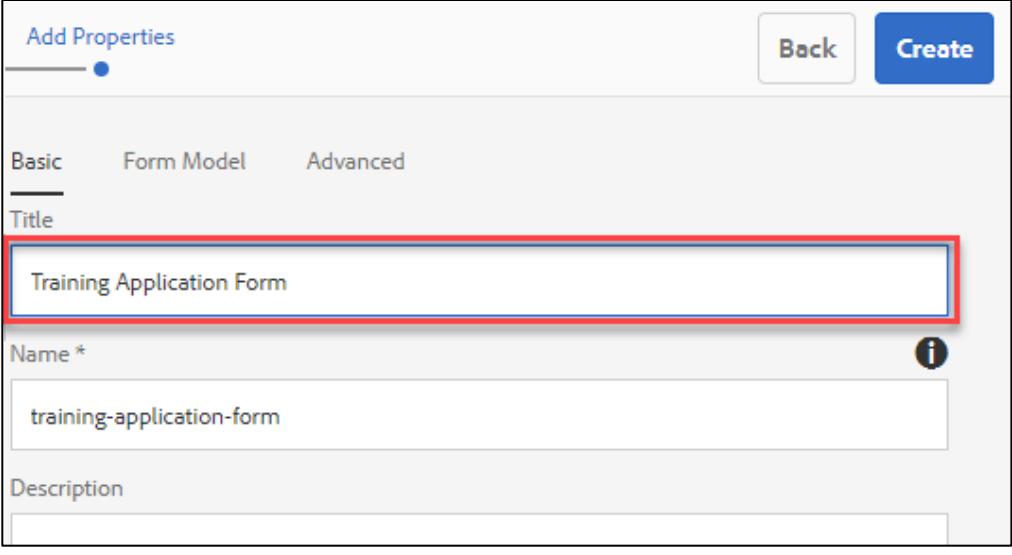
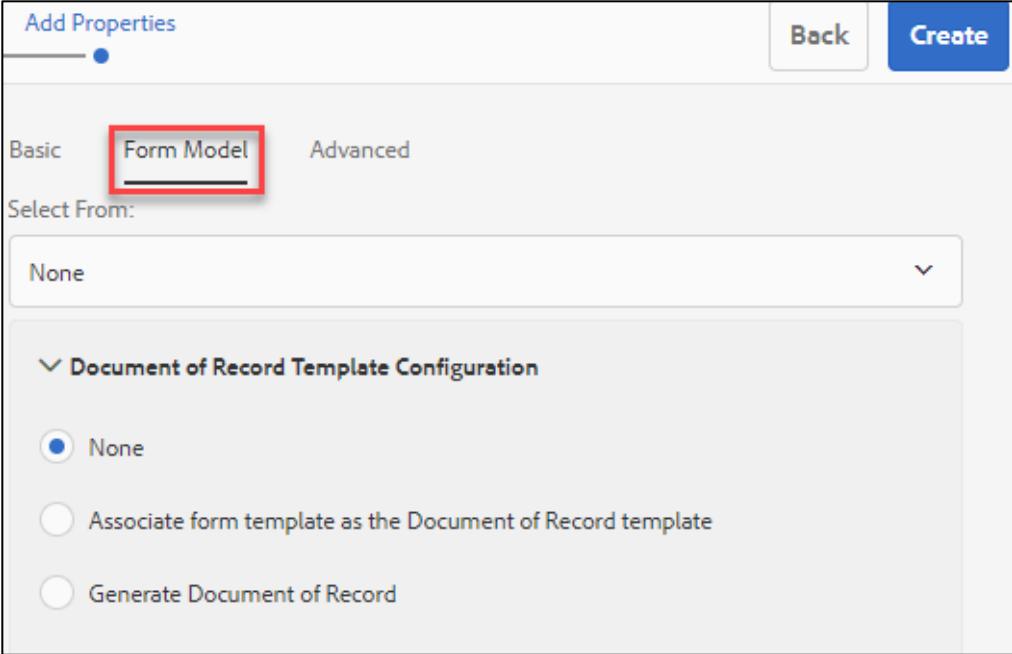


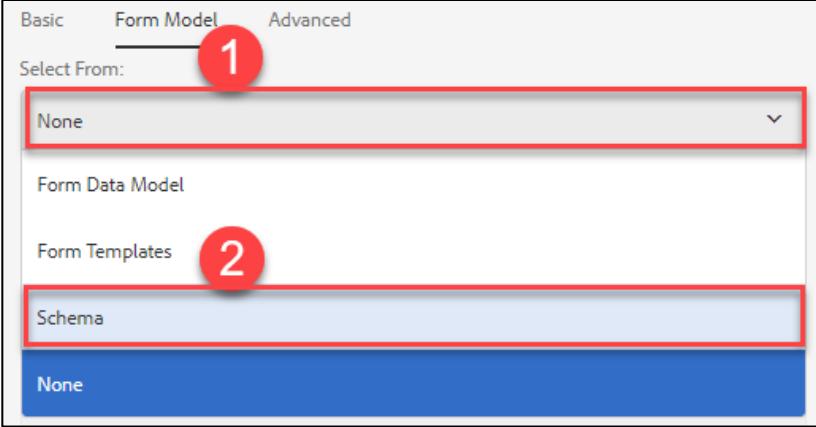
 **NOTE:** Use this navigation mechanism to move up the hierarchy of folders in AEM. For example, you may use this to navigate directly to **Forms & Documents**.

Part 2: Create a Schema-Based Form from your Template and associate it with a DOR

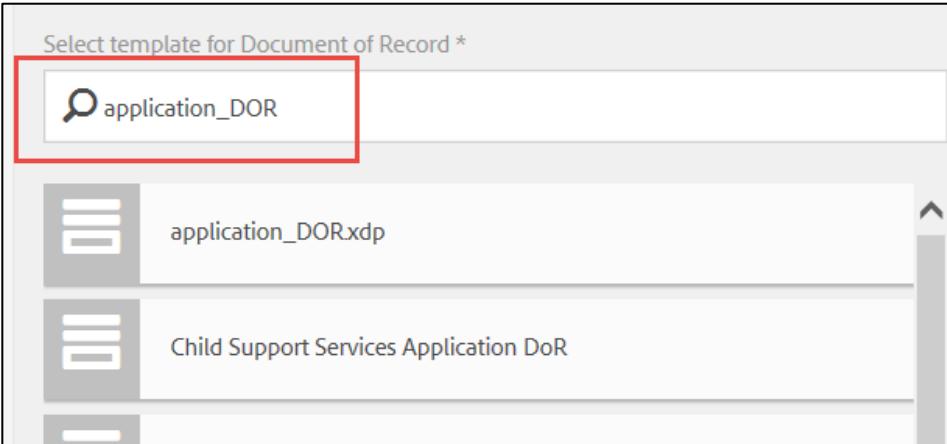
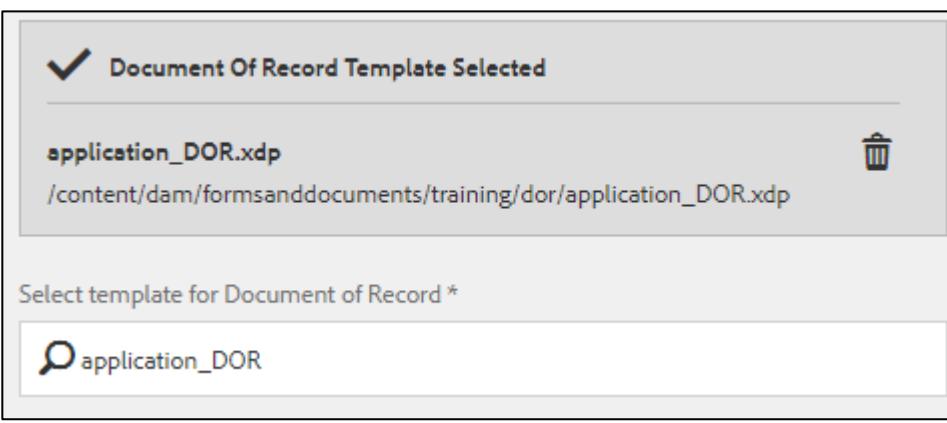
Create a Form based on your template and associate it with a Schema and a DOR (Document of Record).

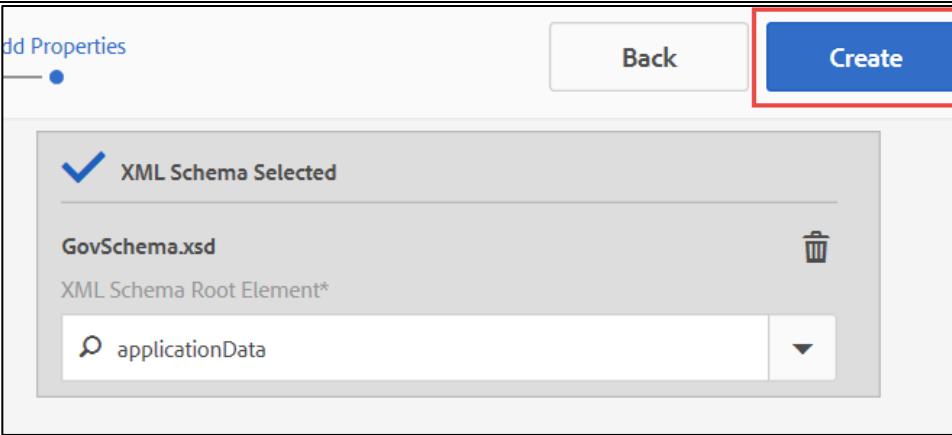
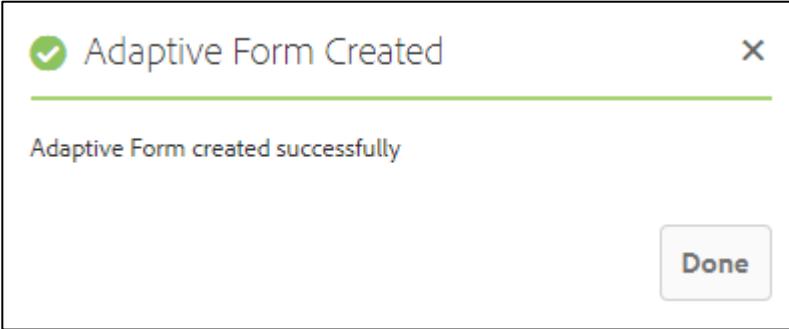
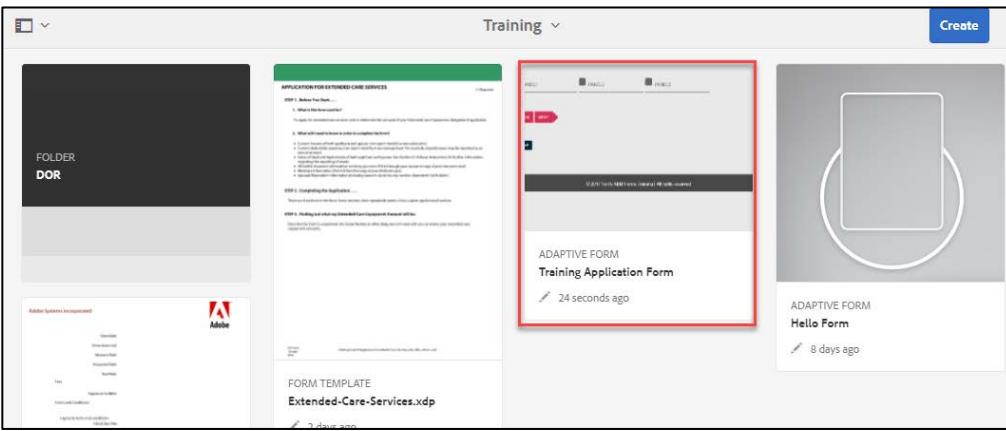
Step	Instructions
1.	<p>Now that you have navigated to your Training folder, you are ready to create your form. Click Create > Adaptive Form at the upper right:</p> 
2.	<p>For the template to use, locate your template you created in Exercise 2: Adaptive Form Templates.</p> <p>HINT: Your template should be named <Your Name Adaptive Template>.</p> 
3.	Click Next .
4.	For the title of your form, enter: Training Application Form

	
5.	<p>Click the Form Model tab to configure the Form Model:</p> 
6.	<p>For Form Model, select using the Select From drop-down (1). Select Schema (2):</p>  <p>NOTE: Ignore the radio button choices at the bottom at this time.</p>

	
7.	Click to expand Select Schema . Leave Upload from Disk selected. Click the Upload Schema Definition button:
8.	In the dialog, upload the GovSchema.xsd file from the Exercise Files (Module 3 – Doc of Record) provided with this course. Your wizard should now look like this:

	<p>Basic Form Model Advanced</p> <p>Select From:</p> <p>Schema</p> <p>✓ Select Schema</p> <p>XML Schema Selected</p> <p>GovSchema.xsd</p> <p>XML Schema Root Element*</p> <p>Select or type a Root Element</p> <p><input checked="" type="radio"/> Upload from Disk <input type="radio"/> Search in Repository</p> <p>Upload Schema Definition</p> <p>> Document of Record Template Configuration</p>
9.	<p>Still in the dialog, specify applicationData as the XML Schema Root Element:</p> <p>✓ XML Schema Selected</p> <p>GovSchema.xsd</p> <p>XML Schema Root Element*</p> <p><input checked="" type="radio"/> applicationData</p> <p> </p> <p>HINT: You can use the drop-down menu or auto-fill (the drop-down menu) as you type.</p> <p>NOTE: The next step is where you associate the DOR (Document of Record).</p>
10.	<p>Click to expand Document of Record Template Configuration. Click the radio button to specify Associate form template as the Document of Record template:</p>

	<p>Document of Record Template Configuration</p> <p><input type="radio"/> None</p> <p><input checked="" type="radio"/> Associate form template as the Document of Record template</p> <p><input type="radio"/> Generate Document of Record</p>
11.	<p>Next, start typing "application_DOR" in the search box to select the application_DOR.xdp file:</p>  <p>HINT: You may need to press the ENTER button on your computer to search for and select the application_DOR.xdp file.</p>
12.	<p>Select the application_DOR.xdp file in the search results and click it. Confirm the "checkmark appears (on the left) when you select this Document of Record:</p> 
13.	<p>Click Create in the upper right corner:</p>

	
14.	<p>Click Done to confirm your Adaptive Form was created successfully.</p> 
	<p>The content of your Training folder should look like this with your newly created form visible:</p> 
15.	<p>Open your Training Application Form in Edit mode and confirm you can see the "Application Data" structure in the Data Model Objects view (that you brought in from the schema) as shown here:</p> <p>HINT: Open the form in Edit mode and open the Side Panel.</p> 

The screenshot shows the AEM Forms interface. On the left, there's a sidebar with icons for Content, Form Objects, and Data Model Objects. The Data Model Objects tab is highlighted with a red box. Below it is a search bar with the placeholder "Enter title to find form object(s)". The main area displays a hierarchical form structure under "Application". It includes sections like "Section 1" and "Section 2", each containing fields such as "F Name", "L Name", and "Phone Num". To the right of the form, there's a vertical toolbar with icons for "PANEL", "Placeholders", "BAC", and "Submit". A red arrow points from the "BAC" icon towards the "Section 1" field.

16.



NOTE: You can now drag data model elements directly into your form which AEM will automatically convert as form components. While this will be explored in more detail in the next module, this will be introduced briefly here to allow you to see how the data model objects work.

Select and drag the **L Name** object onto your form to the **Drag components here** area.

This screenshot shows a side panel titled "Section 1" containing a list of data model objects, including "ABC L Name". A red box highlights the "ABC L Name" item. A dashed red arrow points from this item to a "Drag components here" area on the right, which is part of a panel labeled "PANEL1". The panel also contains a placeholder labeled "Placeholder 1".

17.

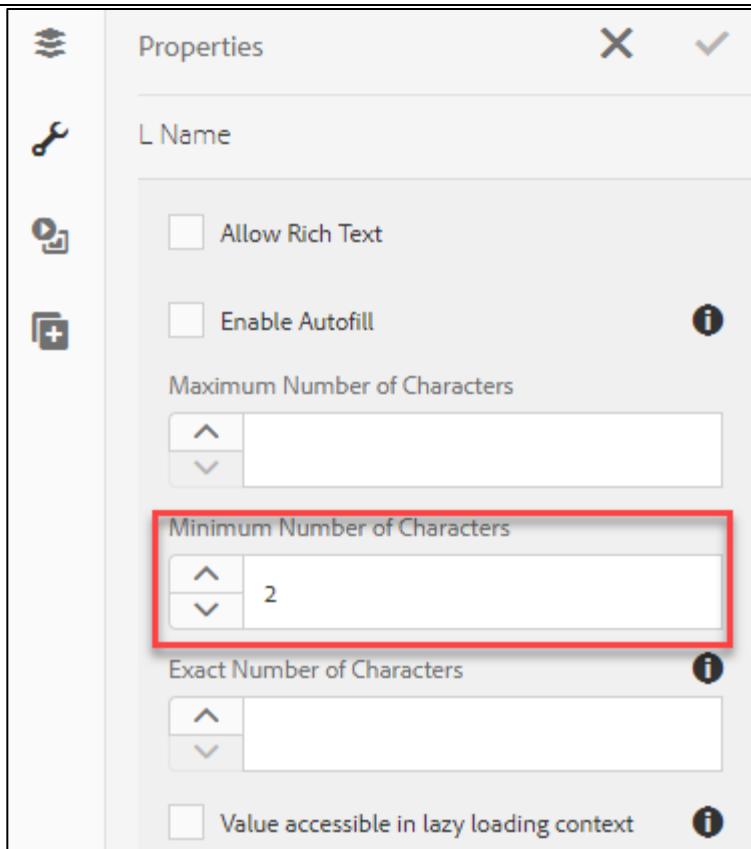
Scroll down in the Side Panel to **Section 4**. Select and drag the **Source** object onto your form to the **Drag components here** area.

18. Click on each of the components you dragged onto your form. Using the **Configure** ("wrench" button), examine the properties of each component.



NOTE: L Name is a required field and has a requirement of 2 characters minimum already set. This means for the user, a last name must be provided on the form, and the last name entered must be at least two characters long. These restrictions come from the Schema you used to serve as the Data Model for this form.

Properties	
	X ✓
	L Name
	Element Name *
	IName
Title	
<input type="text" value="L Name"/> L Name	
<input type="checkbox"/> Hide title	
Placeholder Text	
<input type="text"/>	
<input checked="" type="checkbox"/> Required field	



- | | |
|-----|---|
| 19. | QUESTION 3.1: What requirements were set by the Schema for the Source field? |
| 20. | QUESTION 3.2: Preview your form. What instructions appear for the L Name field? What happens if you type a single character into this field and click Next ? |

Module 4: Panels and Fields

Overview

In this hands-on exercise, you will add and configure panels on an adaptive form and implement some usability features available in AEM Forms as well as best practices for form design.

The purpose of using panels in this exercise is to organize and divide up an application form into sections of information from an applicant – financial information, reason for request, dependents' info, and so on.

TIME: It should take approximately 60 minutes to complete this exercise.

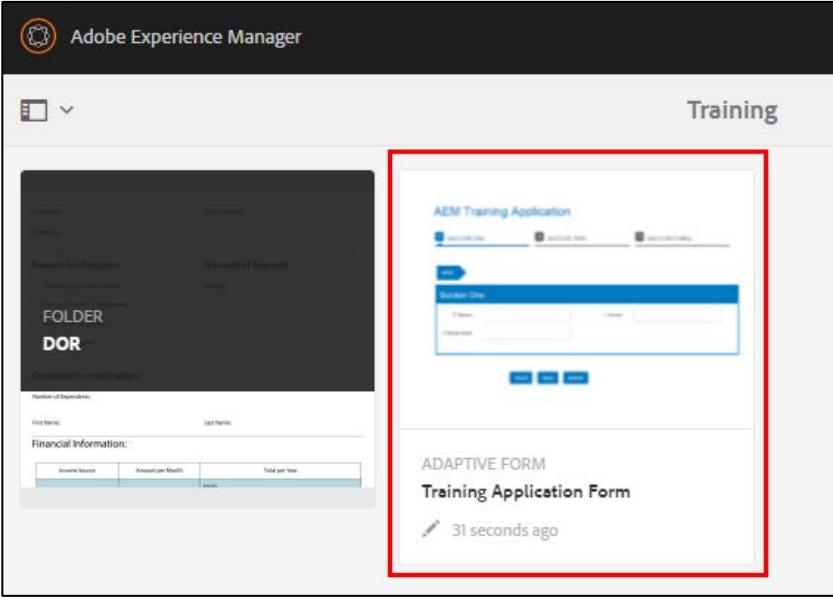
Prerequisites

Before you begin this exercise, you must complete the following exercises:

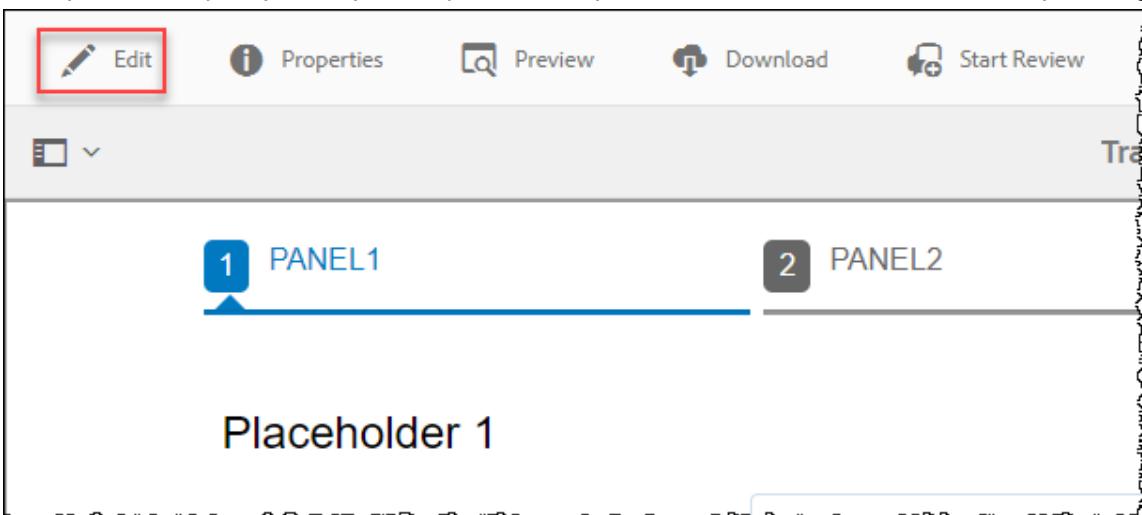
Module 2 – Adaptive Form Templates

Module 3 – Form Data Model, Binding and DOR

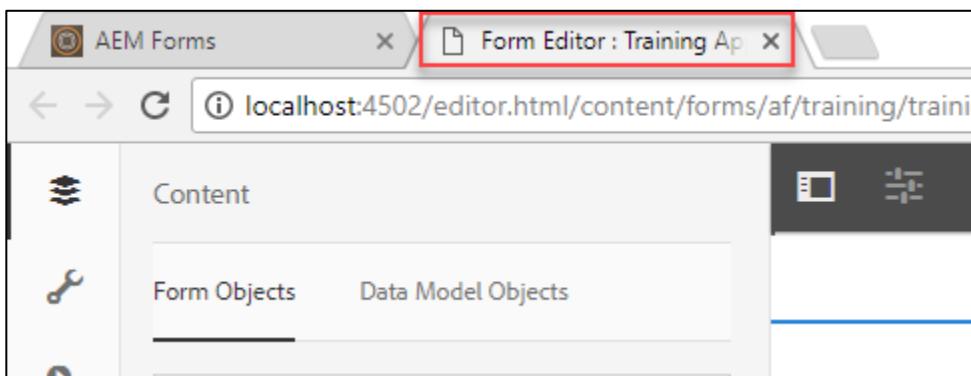
Part 1: Add and configure Panels on your form

Step	Instructions
1.	<p>In your Training folder, click on your newly-created form (from the previous exercise) to open it (if you have not done so already).</p>  <p>Note: At this point, you are going to open the form in Edit mode using a slightly different method. If you already have your form in Edit mode and do not want to navigate using this method, you may skip to Step #2.</p>

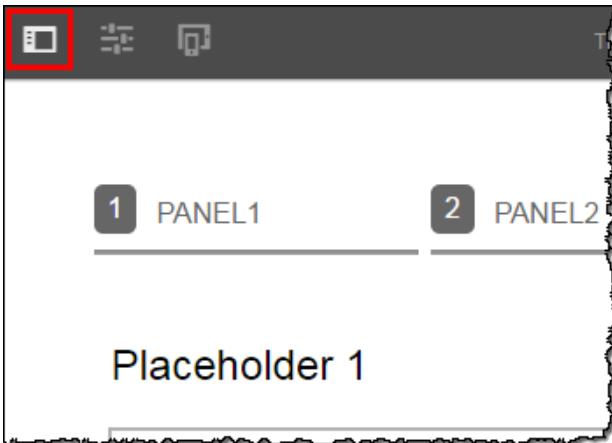
2. With your form open, you may now open it directly in edit mode in a new browser tab by clicking **Edit**:



The form opens in Edit mode in a new browser tab with the Side Panel on:



NOTE: Recall you may open/close the Side Panel by clicking the **Toggle Side Panel** button:



3. Configure the first panel. Select **PANEL 1**. Once you select this panel, it turns blue:

PANEL1

PANEL2

PANEL3

Placeholder 1

L Name



HINT: You know that Panel1 is selected if it is selected (in blue) in the Side Panel list of **Form Objects**. You may use this feature of the Side Panel to select form objects you want to configure, or you may select them in the form editor itself.

Content

Form Objects Data Model Objects

Enter title to find form object(s)

Form Container COLLAPSE ALL

guideRootPanel

Panel1

4. In the **Side Panel**, click the **Data Model Objects** tab:

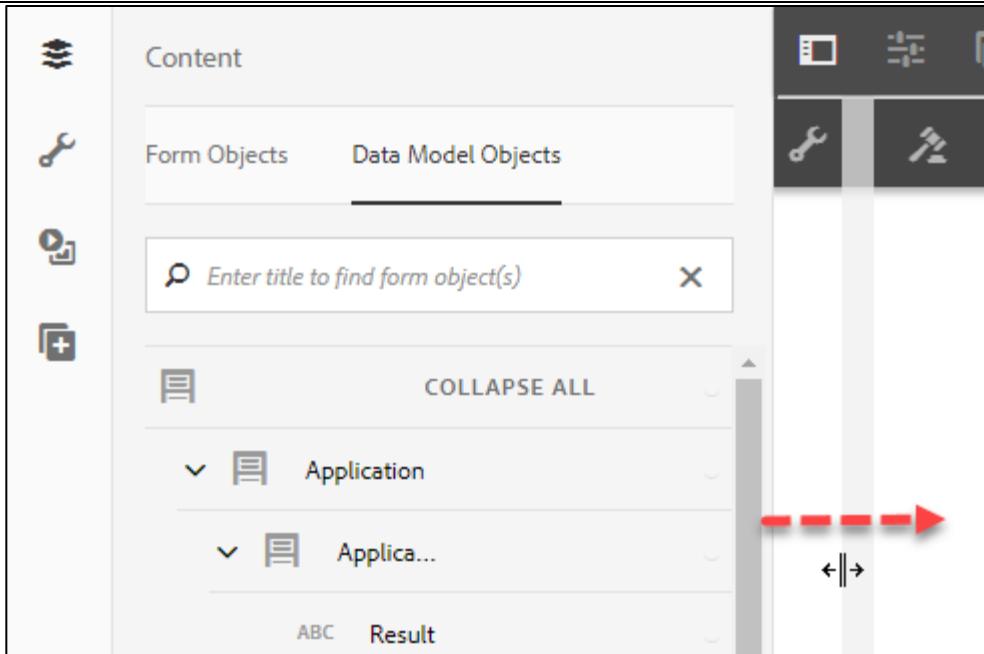
Content

Form Objects Data Model Objects

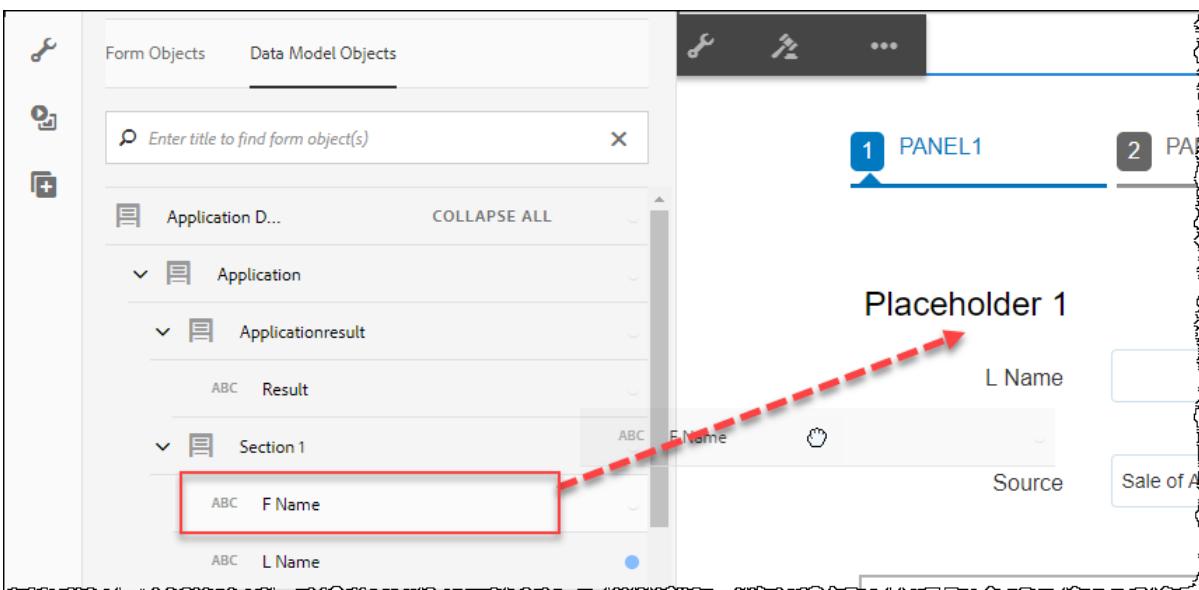
Enter keyword



HINT: Depending on your screen size and/or resolution, you may need to drag the Side Panel over to fully see the list of **Data Model Objects**. To do this, resize the Side Panel by dragging it to the right:



5. Drag and drop **F Name** and **Phone Num** from **Section 1** in the **Side Panel** to **Placeholder 1** in your form:



When dropping your data model objects, wait until this "half circle" blue symbol appears before "dropping". This is a signal that you have a location on the form where the component will reside. In this case, the **F Name** field is placed above **L Name**. So, the white carat symbol is pointing above the **L Name** field, which means that is the location for this component.



When you have dragged all the fields in, your form (still in **Edit mode**) should look like this:

TRAINING APPLICATION FORM

1 PANEL1 2 PANEL2 3 PANEL3

Placeholder 1

F Name

L Name

Phone Num

Source



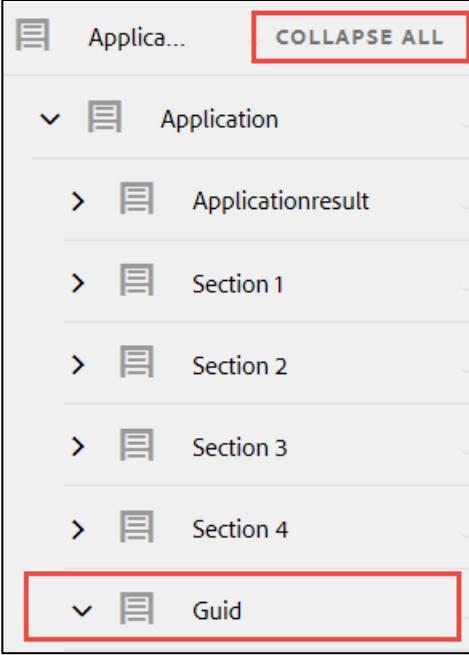
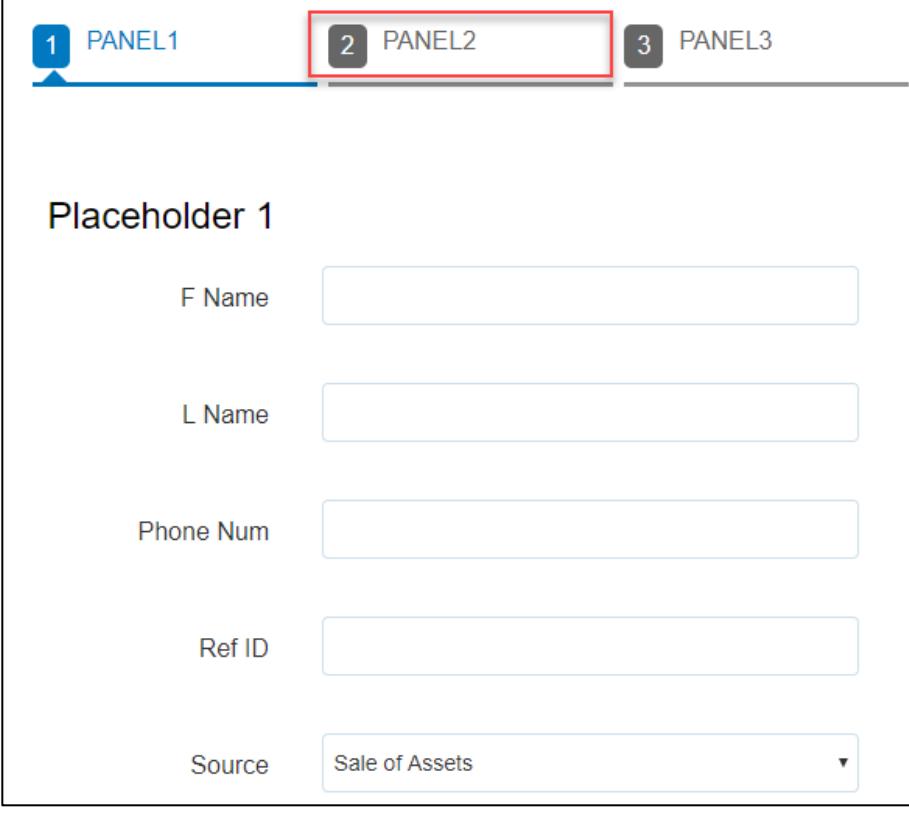
NOTE: Your changes are always saved. If you accidentally close the browser tab where you did your work, you can always navigate back to Edit mode and resume your work. Be sure to click **Data Model Objects** in the Side Panel as this will not be the default tab that opens.

6. In the Side Panel, scroll down to the **Guid** section at the bottom:

The screenshot shows the AEM Side Panel interface. On the left is a tree view of data model objects. The nodes are as follows:

- 123 Dependents Num
 - ABC Info
 - DependentF Name
 - DependentL Name
 - ABC Section 4
 - ABC Financial
 - ABC Details
 - Source
 - 123 Monthly
 - 123 Totalyear
 - ABC Guid
 - ABC Ref ID

You may need to collapse the other Data model objects so you can easily see and configure the **Guid** section. To do this, you can click each of the panels, like shown here. You may also use **COLLAPSE ALL**

	 <p>The screenshot shows the AEM Content tree. At the top, there is a 'COLLAPSE ALL' button. Below it, under the 'Application' node, there are five children: 'Applicationresult', 'Section 1', 'Section 2', 'Section 3', and 'Section 4'. The 'Guid' node is located at the bottom of the list, under 'Section 4'. Both the 'Guid' node and the 'COLLAPSE ALL' button are highlighted with red boxes.</p>
7.	Drag and drop Ref ID to your form below Phone Num .
8.	<p>Click on PANEL 2:</p>  <p>The screenshot shows a form with three panels at the top: 'PANEL1' (blue), 'PANEL2' (red box), and 'PANEL3' (grey). Below the panels is a placeholder field labeled 'Placeholder 1'. Underneath are five input fields: 'F Name', 'L Name', 'Phone Num', 'Ref ID', and 'Source' (a dropdown menu with 'Sale of Assets' selected).</p>
9.	Make sure the Data Model Objects tab is selected on the left Side Panel (in the Content menu). Scroll up and drag and drop Reason Select , Explain and Amount from Section 2 in the Side Panel to Placeholder 2 in PANEL 2 of your form:

The screenshot shows the AEM Form Editor interface. On the left, the 'Data Model Objects' panel is open, displaying a search bar and a list of objects: 'ABC Phone Num', 'Section 2', 'Reason', and 'Request Amt'. The 'Reason' object is selected, showing its properties: '123 Reason Select', 'ABC Explain', and '123 Amount'. On the right, the form structure is displayed in a panel labeled 'PANEL2'. It contains a placeholder labeled 'Placeholder2' and a 'Reason Select' component. Navigation buttons 'BACK' and 'NEXT' are at the bottom, along with a 'Submit' button.

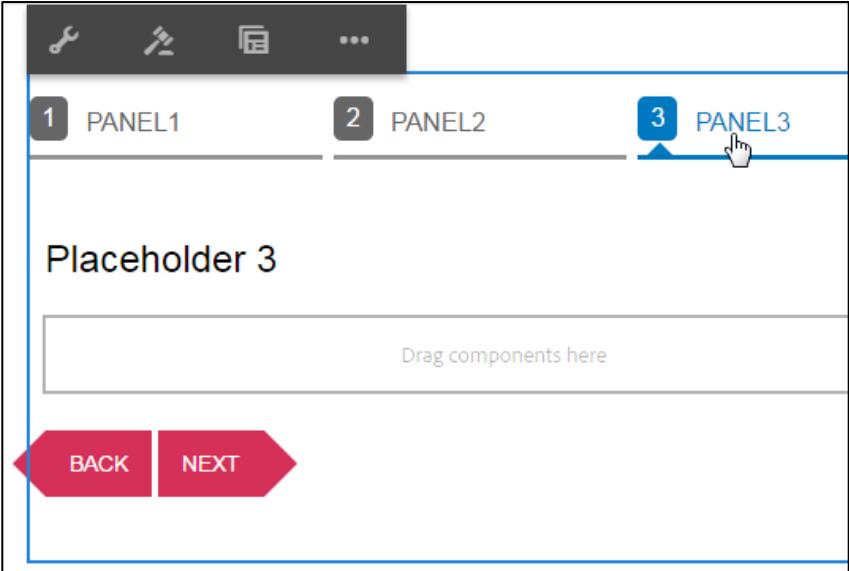
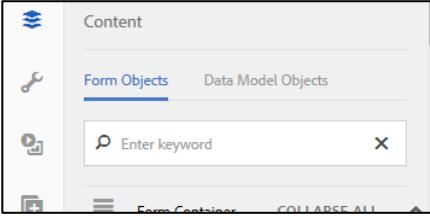
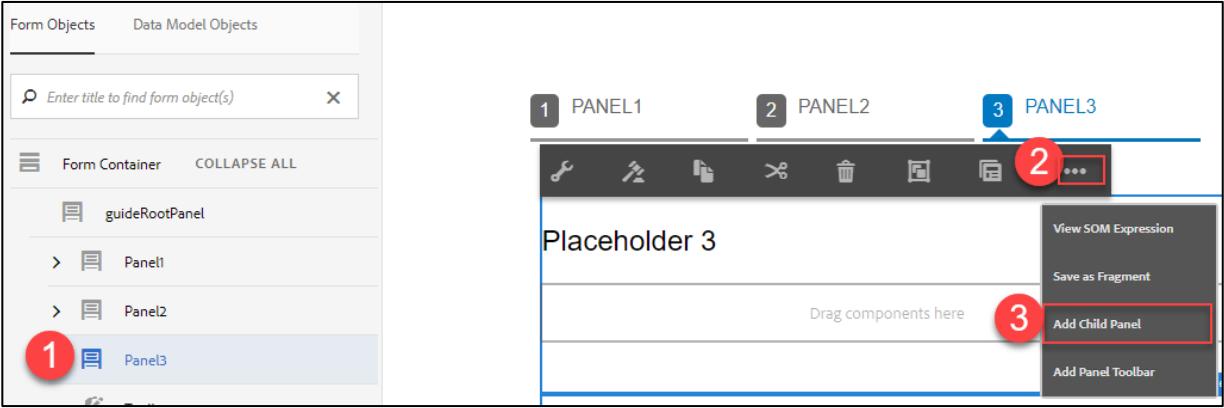
When you have dragged all the fields in, your form should look like this:

The screenshot shows the completed form structure. The 'Reason Select' field is now positioned at the top of the panel, above the 'Explain' and 'Amount' fields. The panel also contains a placeholder labeled 'Placeholder2'.



HINT: If you need to rearrange your form components you dragged in from the Data Model Objects, drag and drop them within the form editor. For example, here you can move **Reason Select** vertically to the top of the panel:

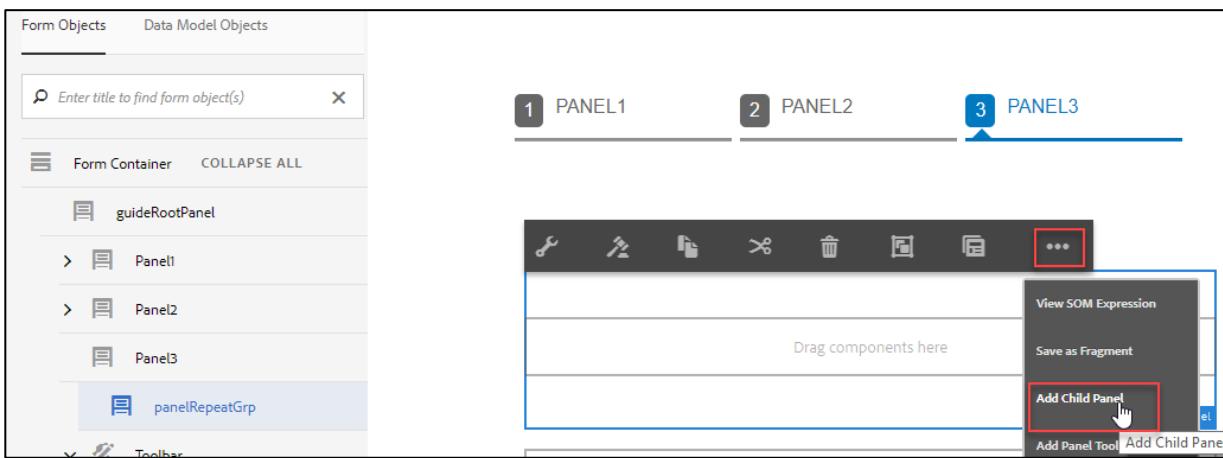
The screenshot shows the 'Reason Select' field being dragged from its current position at the bottom of the panel to a new location at the top. A red dashed arrow indicates the direction of the drag. The panel also contains a placeholder labeled 'Placeholder 2' and fields for 'Explain' and 'Amount'.

10.	<p>Click on PANEL 3:</p> 
11.	<p>We will now work with information about dependents. The use case is that an individual could have one or many dependents. We will create a repeatable panel to allow for the entry of multiple dependents. This is to allow entry of two, three, four or more dependents. In the Side Panel, click the Content view and then Form Objects:</p> 
12.	<p>With Panel 3 selected in the Side Panel (1), click the ellipsis (...) button (2) and then click Add Child Panel (3):</p> 
13.	<p>In the Add Child panel dialog, fill in the following details for Title and Name:</p> <p>Title: panelRepeatGrp</p> <p>Name: panelRepeatGrp</p>

Click **Done** to save your changes and close the dialog:



14. With **panelRepeatGrp** selected in the Side Panel, click the **ellipsis (...)** button in the form editor and then click **Add Child Panel**.



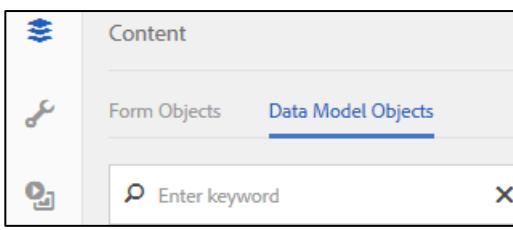
15. In the **Add Child panel** dialog, fill in the following details for **Title** and **Name** (similar to how you did two steps previously):

Title: dependent

Name: dependent

Click **Done**.

16. In the **Side Panel**, click **Data Model Objects**:

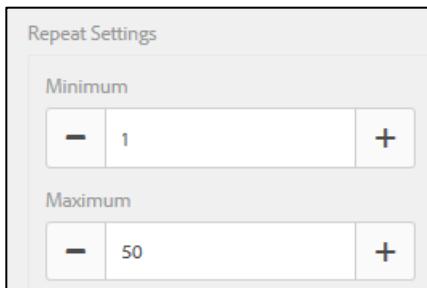


17. From **Section 3** in the Data Model Objects, drag **DependentF Name** and **DependentL Name** to the dependent panel you just created.

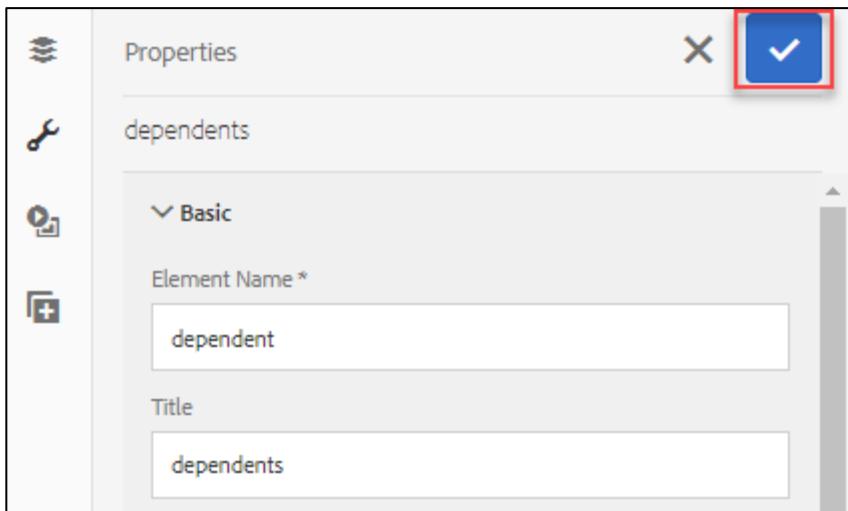
Your form should look like this. Be sure your **dependent** panel is a child of **panelRepeatGrp**:

18. Select the new **dependent** child panel and click the **wrench (icon) Configure** button.

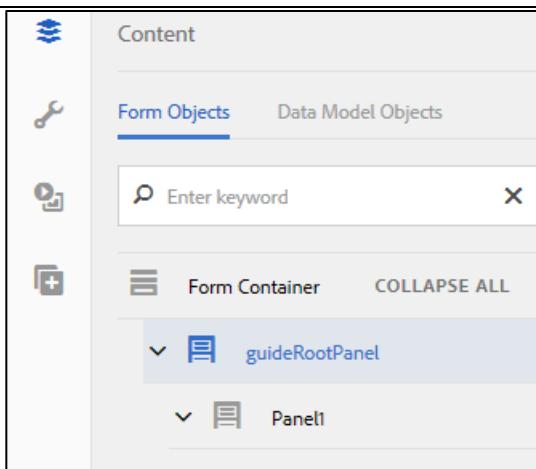
Scroll down in the **Side Panel** and set the child panel properties to repeatable by specifying the minimum number of occurrences (dependents) to 1 and the maximum number of occurrences (dependents) to 50:



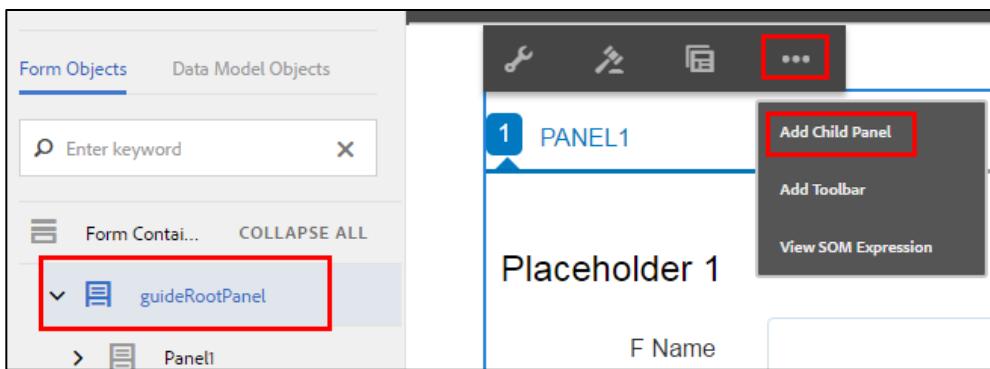
Save your changes in the **Side Panel** by clicking **Done**:



19. Click the **Content** view in the **Side Panel** and then click **Form Objects**. Select the **guideRootPanel** at the top of the **Form Objects** list.



20. With **guideRootPanel** selected, click the Ellipsis (...) button in your form and then **Add Child Panel**:



HINT: This button may appear at the **bottom**, due to your screen resolution and/or browser zoom settings.]

21. In the **Add Child panel** dialog, fill in the following details for **Title**, **Description** and **Name**, then click **Done**:

Add Child Panel

Title *

Financial

Description

Financial Information

Name

financialInfo



NOTE: The **Name** property must be unique. It may be a good idea to follow a naming convention such as Camel Case, in which the first word is lowercase and the second, uppercase, which we are doing here.

22. In the **Side Panel**, navigate back to **Panel1**:

Content

Form Objects Data Model Objects

Enter keyword

Form Cont... COLLAPSE ALL

guideRootPanel

Panel1

Panel2

23. Configure **Panel1** by clicking the **Wrench (Properties)** button:

Properties

Panel1

Basic

Element Name *

panel1

Title

Panel1

24. Change the name of Panel1 to **applicantInfo**. Change **Title** to **Information** and **Description** to **Applicant Information**:

Panel1

Basic

Element Name *

applicantInfo

Title

Information

Description

Application Information

25. At the top of the **Side Panel**, click **Done**:

Properties

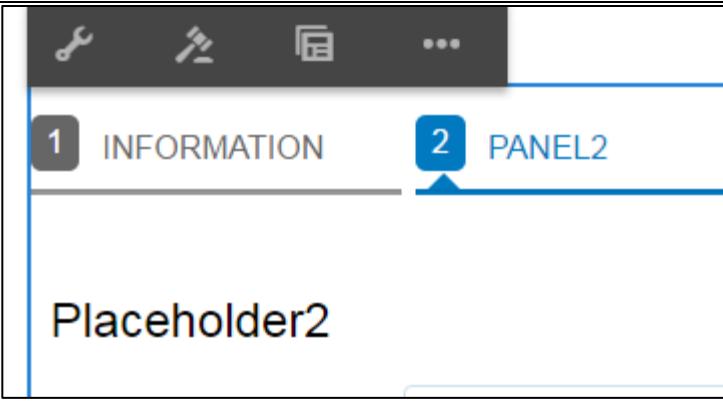
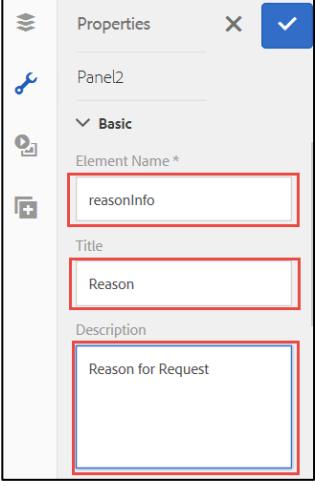
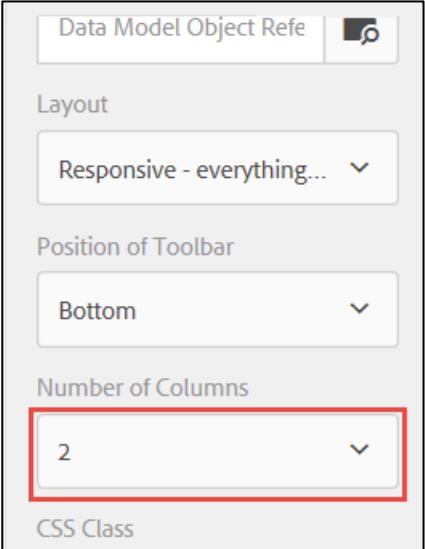
Information

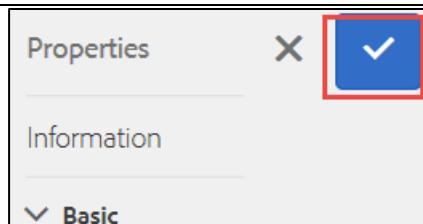
Basic

Note

NOTE: Be patient as your browser may refresh and then reload after a few seconds.

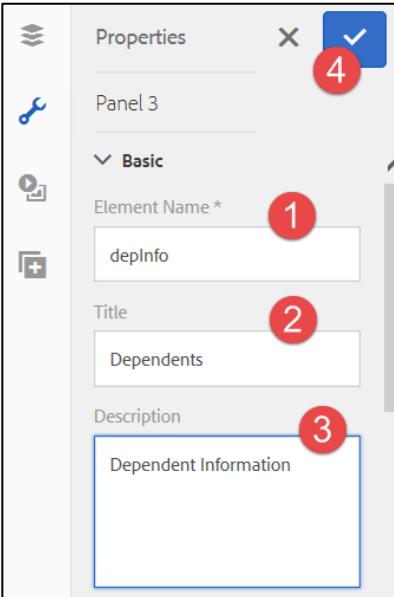
26. Select **PANEL 2**. Note your first panel is now titled "INFORMATION":

	
27.	<p>Change the name of Panel2 to reasonInfo. Change Title to Reason and Description to Reason for Request:</p> 
28.	<p>Scroll down in the Side Panel and set the Number of Columns to 2:</p> 
29.	<p>At the top of Side Panel, click Done:</p>



NOTE: Be patient as your browser may refresh and then reload after a few seconds.

30. Similarly, change **Panel3** to how you changed the other panels with only these properties. Save your changes by clicking **Done** when you are finished:



31. Preview your Form by temporarily hiding the Side Panel (toggle) and clicking **Preview** at upper right:



It should look like this:

LIZZY'S TRAINING APPLICATION FORM

1 INFORMATION 2 REASON 3 DEPENDENTS 4 FINANCIAL

Application Information

F Name
This Field is a required field.

L Name

Phone Num

Ref ID

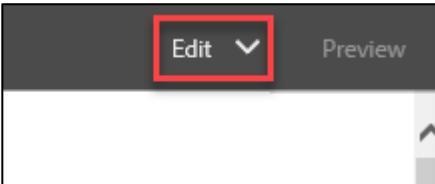
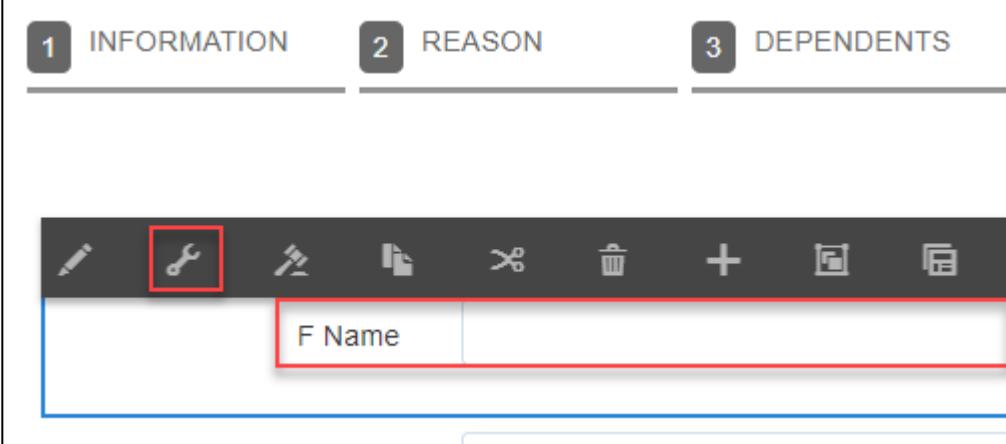
Source

NEXT

Submit

Part 2: Form Development and Enhancement

Add and configure fields on an adaptive form by altering existing fields on your form and adding a new field. Enhance the functionality and usability of your form by using AEM Forms capabilities and best practices.

Step	Instructions
1.	Edit your Training Application Form using Edit Mode at upper right: 
2.	Click to show the Side Panel : 
3.	In your Training Application Form select the F Name field in the Information panel and click the wrench icon: 
4.	The properties of this field are available in the Side Panel :

The screenshot shows the 'Properties' panel for a field named 'F Name'. The 'Basic' section is expanded, displaying the 'Element Name *' as 'fName', the 'Title' as 'F Name', and a checked 'Hide title' option. The 'Placeholder Text' field is empty.



NOTE: The wrench icon in the Side Panel represents properties of an object and is in blue.

5. Change the **Title** of **F Name** to **First Name**. Set the placeholder text to **Enter your first name**. Click **Done** when you have made these changes:

The screenshot shows the 'Properties' panel for the 'F Name' field after changes. Step 1 highlights the 'Title' field which now contains 'First Name'. Step 2 highlights the 'Placeholder Text' field which now contains 'Enter your first name'. Step 3 highlights the 'Done' button at the top right of the panel.



NOTE: In this case, we are making our form easier to use. The title is a label that will appear on the form to the user as well as placeholder text inside of the box to guide users on what to enter.

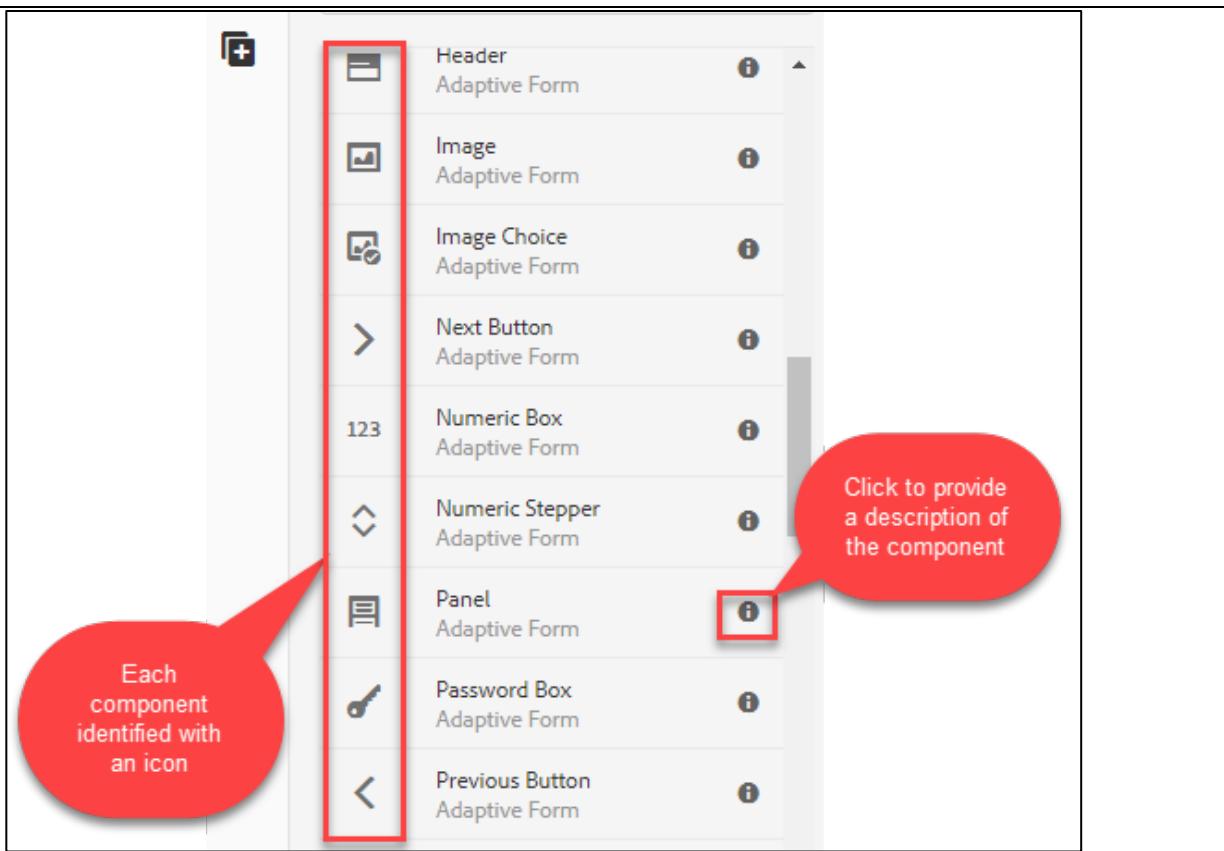
6. Repeat the same changes you made to **F Name** for the **L Name** field (except for the obvious change to **Last Name** title and placeholder text). Save your changes in the Side Panel using **Done**. Your form should look like this (Side Panel included in the screenshot to highlight the requiredness of Last name):

7. In the **Side Panel**, click **Components**:

NOTE: A convenient list of Adaptive Form components is presented, with each type of component possessing its own unique icon. In addition, each component comes with a brief description to aid the user in understanding the nature of each component and how it could be used.



NOTE: Each of the components listed comes with built-in functionality. For example, the **Email** field you will use here contains validation for ensuring the value entered contains an @ symbol. Later in this exercise, you will test this functionality in Preview mode.



8. Drag and drop an **Email** component onto your form below the **Last Name** field and above **Phone Num**.

The screenshot shows the AEM Forms builder interface with the following fields:

- First Name: Placeholder 'Enter your first name' with a wrench icon.
- Last Name: Placeholder 'Enter your last name'.
- Email: Placeholder 'Enter your email address' with an envelope icon. This field is highlighted with a red box.
- Phone Num: Placeholder 'Enter your phone number'.

9. Click to **Configure** your **Email** component.

Application Information

The screenshot shows a form titled "Application Information". It contains fields for "First Name" and "Last Name", each with an "Enter your first name" placeholder. Below these is a toolbar with icons for edit, key, delete, plus, and others. A red box highlights the "Email" field, which has a placeholder "Enter your last name". To the right of the "Email" field is a blue "Email" button. At the bottom is a "Phone Num" field.

10. In the properties of the **Email** component, notice the **Bind Reference** is empty.
QUESTION 4.1: Why do you think this reference is empty?

11. Click the second panel (**REASON**):

The screenshot shows a panel titled "REASON" (tab 2) of a form. Above the panel are tabs: 1 INFORMATION, 2 REASON (highlighted with a red box), 3 DEPENDENTS, and 4 FINANCIAL. Below the tabs are "BACK" and "NEXT" buttons. The main area is titled "Reason for Request" and contains three input fields: "Reason Select", "Explain", and "Amount".

12. Select the **Reason Select** field and then click the **Ellipsis (...)** button. Click **Replace**:

The screenshot shows the toolbar of the "REASON" panel. It includes icons for edit, key, delete, plus, and others. The "Ellipsis (...)" button is highlighted with a red box. A context menu is open, showing "View SOM Expression" and a "Replace" button, which is also highlighted with a red box.

13. In the **Replace Component** dialog, select **Drop-down List**:

Replace Component X

Enter Keyword

Button

Captcha

Chart

Check Box

Date Input Field

Date Picker

Document Fragment

Document Fragment Group

Drop-down List

The result should now look like this (Reason Select is now a drop-down):

Reason Select	<input type="button"/>
Amount	<input type="text"/>



NOTE: If you are using another Browser, such as Safari or Internet Explorer, your field may look slightly different. For example, this is how it may appear in Internet Explorer:

Reason for Request

Reason Select	<input type="button"/>
Explain	<input type="text"/>

14. Click **Configure** to modify the **Reason Select** field further. Change the **Title** to **Reason for Application** in the Side Panel:

The screenshot shows the 'Basic' configuration panel for a field named 'reasonSelect'. The 'Element Name' is set to 'reasonSelect' and the 'Title' is set to 'Reason for Application:'. The 'Basic' tab is expanded, showing the field name and title.



HINT: Be sure to click the **Done** button (checkmark) in the upper right corner of the **Side Panel** to save your changes.

15. Now, you will configure the drop-down choices (items) of this field. Currently the field is a drop-down menu, but it has no choices in it. In the **Side Panel**, still with the newly re-titled **Reason for Application** selected in the **Properties** view, scroll down to **Items**. Click the **Add** button (four times) to add items according to the following:

- 1=Reduction of household income
- 2=Increase in number of dependents
- 3=Higher cost of living
- 4=Other, please explain

As you click Add, your items can be set by successively adding items and typing them in, like shown:

Items

1=Reduction of househ			
2=Increase in number			
3=Higher cost of living			
4=Other, please explain			

Add



HINT: Ensure there are no whitespaces in between the number, equals sign, the Capital letter. For example, the first entry should **not** appear as:

1 = Reduction... Also, you may use the **up and down** arrow buttons to drag and drop reorder each item, if necessary. In addition, for longer phrases (such as Reduction of Household Income), you may see the text "run over" the Delete icon and up and down arrow buttons. If this happens, use your mouse to hover over the separating line (between the left Side Panel and the main UI) to expand the left Side Panel to see all the words within the Add area.

Click **Done** to save your changes.

16. Select the **Amount** field. Click the **Configure** to configure it in the Side Panel. Ensure **Use HTML5 Number Input Type** is **NOT** selected. You will learn more on this option for adaptive forms later on in this exercise.

Amount

Hide title

Placeholder Text

Required field

Required Field Message i

Script Validation Message i

Bind Reference i

/applicationData/application/section2/requestAmt/amount p

Use HTML5 Number Input Type i

Click **Done** to save your changes.

17. Scroll down far in the **Side Panel** to the bottom where a **Pattern** can be set. Expand the **Patterns** option:
 Note: If you cannot see the Pattern panel, collapse the Basic panel.

CSS Class

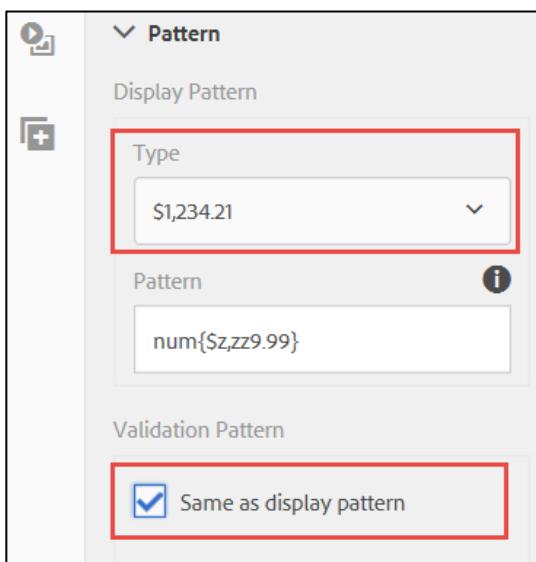
Exclude from Document of Record i

> **Pattern**

> Help Content

> Accessibility

18. Set the field's **Design Pattern** to the first currency option available. Select **Same as display pattern** for the **Validation Pattern**:



Click **Done** in the **Side Panel** to save your work.



NOTE: The pattern will NOT appear if **Use HTML5 Number Input type** is selected for this field. You will learn more on this option later on in this exercise.

19. Configure the **Explain** field. Scroll down in the Properties and set two properties on this field:

- Allow multiple lines
- Allow Rich Text

Explain

Script Validation Message i

Bind Reference i

/applicationData/application/sec/ i

Default Value

Allow multiple lines Allow Rich Text

Enable Autofill i

Click **Done** in the **Side Panel** to save your work.

20. Click the third panel (**DEPENDENTS**):

1 INFORMATION 2 REASON 3 DEPENDENTS 4 FINANCIAL

Dependent Information

HINT: Note that once selected, the panel turns blue.



21. Change the titles of **Dependent F Name** and **Dependent L Name** to the following (as shown):

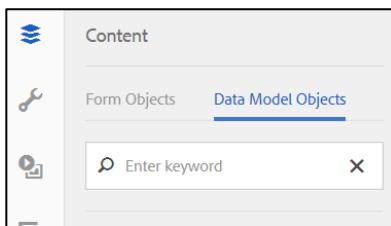
Dependent First Name

Dependent Last Name

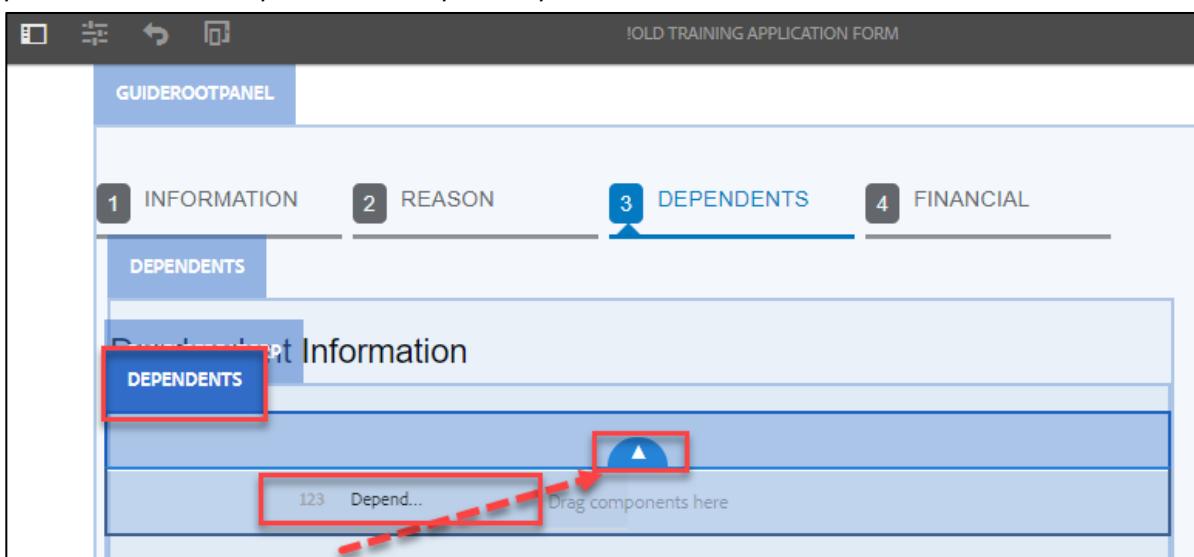


HINT: Be sure to click **Done** to save your changes on each field you change. In other words, you will get an error / warning if you try to make changes to a field without clicking **Done**.

22. In the **Side Panel**, click the **Data Model Objects** tab:



23. Scroll down in the list of Data Model Objects and drag and drop the **Dependents Num** field to your 3rd panel (DEPENDENTS panel) at the top of the panel:



24. Configure the **Dependents Num** component to adhere to the following requirements:

Title: Number of Dependents

Your panel should look like this (still in Edit mode):

1 INFORMATION 2 REASON 3 DEPENDENTS 4 FINANCIAL

Dependent Information

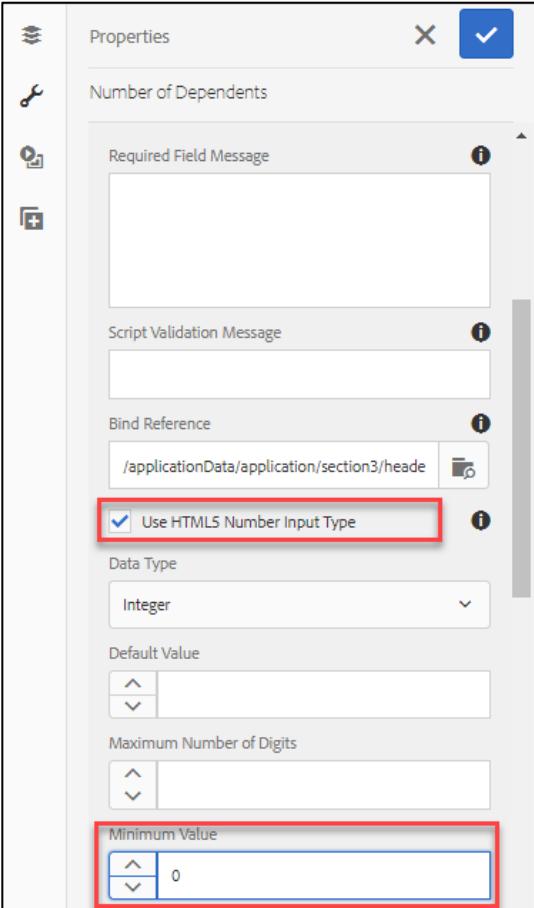
Number of Dependents

Drag components here

Dependent First Name

Dependent Last Name

25. Configure the field further to allow users to easily work with numeric values. Select **Use HTML5 Number Input Type** and set the **Minimum Value** to 0:



Save your changes by clicking Done.



NOTE: Because this object from the Schema is a numeric value field, AEM Forms allows you to designate it to use an HTML5 numeric input, which aids mobile device users by displaying a numeric input keyboard for this field, and provides a numeric "up/down" button as well. If this option is not selected, the standard keyboard input is provided and no "up/down" button is provided. When this form is tested at the end of this exercise, the result will be explored further.

26. Click back to the second panel (**REASON**):

TRAINING APPLICATION FORM

1 INFORMATION 2 REASON 3 DEPENDENTS 4 FINANCIAL

Reason for Request

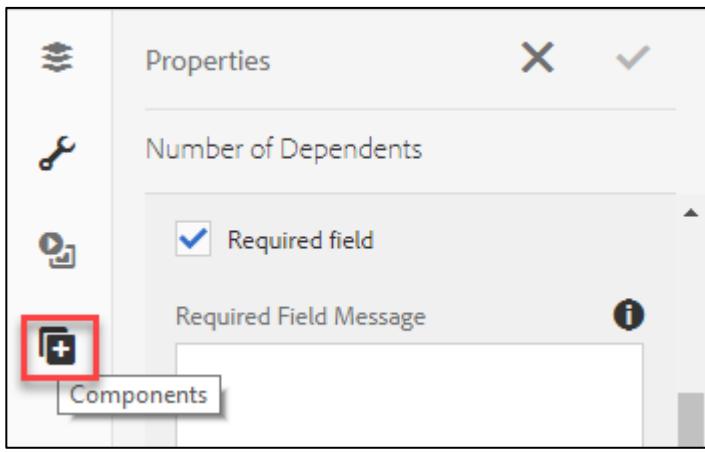
Reason for Application: Reduction of household income ▾ Explain

Amount

Drag components here

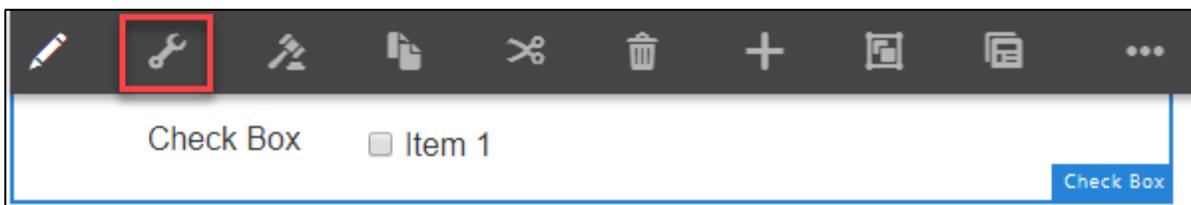
BACK NEXT

27. Add a new field to this panel by switching the **Side Panel** to the **Components** view.

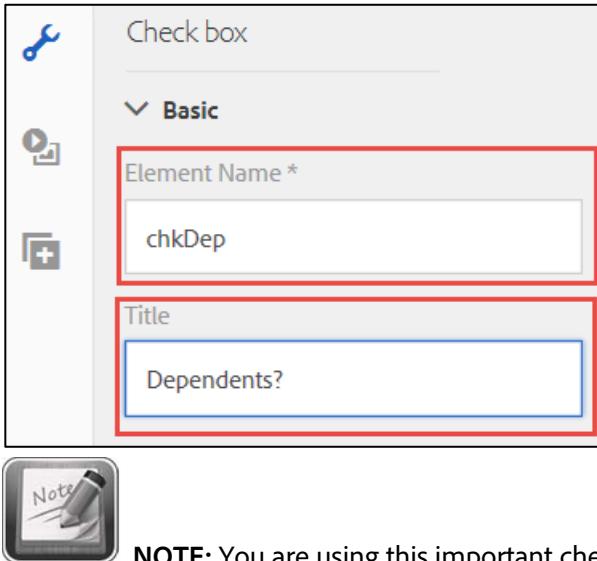


28. Drag and drop a **Check Box** field onto your form below the **Explain** field. Your form panel should look like this in the editor:

29. Select the newly created **Check Box** field and configure it in the **Side Panel**:



30. Change the **Element Name** and **Title** as shown below:



NOTE: You are using this important check box as a "toggle" or control on the visibility of the **DEPENDENTS** panel. This means you will eventually configure our form to display the **DEPENDENTS** panel only if a user selects this field ("checks the box") and hides the **DEPENDENTS** panel if a user **does not** select this field ("unchecks the box").

31. Still in the **Side Panel** for this field, scroll down and configure the Item values as:

1=Yes

So, your **only item** should be the following:

The screenshot shows the 'Items' dialog with one item listed. The item has the label '1=Yes' and a trash icon for deletion. Below the item is an 'Add' button.

Click **Done** to save your changes.

The screenshot shows the 'Properties' dialog for a field named 'Dependents?'. The 'Basic' tab is selected. The 'Element Name' is set to 'chkDep'. The 'Title' is 'Dependents?'. There is a checked checkbox labeled 'Hide title'. Below the properties is the 'Items' dialog, which contains the same single item as the previous screenshot ('1=Yes').

QUESTION 4.2: Why is there not another item for the case if someone does **not** select the Dependents? option? Why do we need only one item for this field?

32. Now, you must ensure your panels for Dependents is correct. Your panel parent/child structure should appear like this. If it does not, drag and drop the components/panels to rearrange them appropriately:

Content

Form Objects Data Model Objects

Enter title to find form object(s)

123 Amount

Dependents?

Dependents

123 Number of Dependents

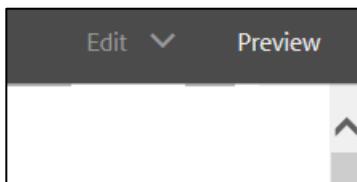
panelRepeatGrp

dependents

Dependent First Name

Dependent Last Name

33. Preview your form to check for completeness. To preview your form, click the **Preview** link in the upper right corner.



Check for the following:

PANEL 1: INFORMATION

- **First Name** and **Last Name** should have placeholder text present and both fields are required (there should be gray text indicating this below the field once you click on each field).
- **Email** should only accept email addresses. Enter www.adobe.com into the field and see what happens. After typing, mouse or hover over the field to see the tooltip message specifics.



HINT: To move to the next panel in Preview mode, click the **Next** button (at the bottom of your form).

PANEL 2: REASON

- **Reason for Application** should be a working drop-down that looks similar to this:

Reduction of household income
Increase in number of dependents
Higher cost of living
Other, please explain

The drop-down should only be able to accept these choices; meaning, you cannot type in some other value.

- **Amount** should only accept numeric values, and then convert those to currency values:

Amount \$1,000.00

- **Explain** should allow multiple lines as well at **Rich Text** formatting abilities (bold, italics, bullet points, underline, and so on).
- **Dependents** should be a working checkbox.
- This panel should contain two columns.

PANEL 3: DEPENDENTS (On a Desktop Computer)

- **Number of Dependents** should only accept numeric values greater than 0 and a small increment/decrement button should appear at the right of the box allowing the user to increase/decrease whole numbers:

Dependent Information

Number of Dependents 2

- **Dependent First Name** and **Dependent Last Name** should be required fields.
- NOTE: At this time, your panel is NOT yet repeatable. You will add additional functionality that will enable the ability to add multiple dependents, but that will be in a later exercise.

PANEL 3: DEPENDENTS (On a phone or mobile device)

To access your training environment on a device, point your device or phone browser at the same instance URL you were given for this training course. Sign in just as you would on your computer, navigate to **Forms & Documents** in AEM, and load your form in Preview mode in your device's web browser.

As a reminder, your instance URL should be:

<https://aemforms###-&&.adobeblab.com>

(Where ### is a 2 or 3-digit number)

(Where && represents the region. This can be "us" "emea" or "apac")

User: **designforms**
Password: **adl\$formsUs3r**

- **Number of Dependents** should display a numeric keyboard on your device that looks something like the following:



NOTE: The screenshot above was taken on an Android device. The look and feel may vary depending on your device type and operating system. Notice that in addition to a numeric keypad, there is an "increment/decrement" button available at right (below the **Go** button) that mirrors what appears on a PC or computer.

PANEL 4: FINANCIAL

- No requirements/configurations to test.

Module 5: Theme Editor

Overview

In this hands-on exercise, you will import and edit a custom theme and learn how to edit and manage CSS/less-based themes in your Forms environment. You will also apply your custom theme to your Training Application Form you are building in this course and make a theme change specific to your form. Lastly, you will learn how to use a parameter in your form's URL to override a theme for testing purposes or for personalization.

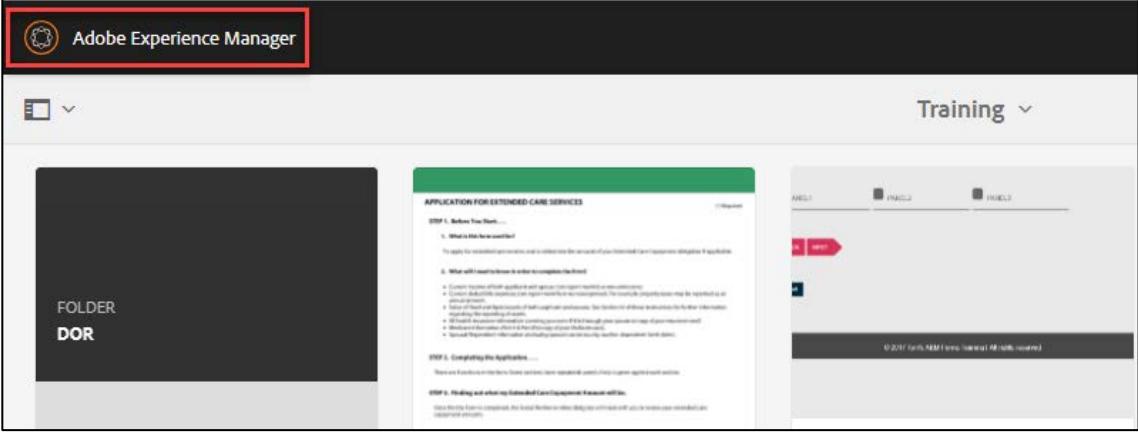
TIME: It should take approximately 40 minutes to complete this exercise.

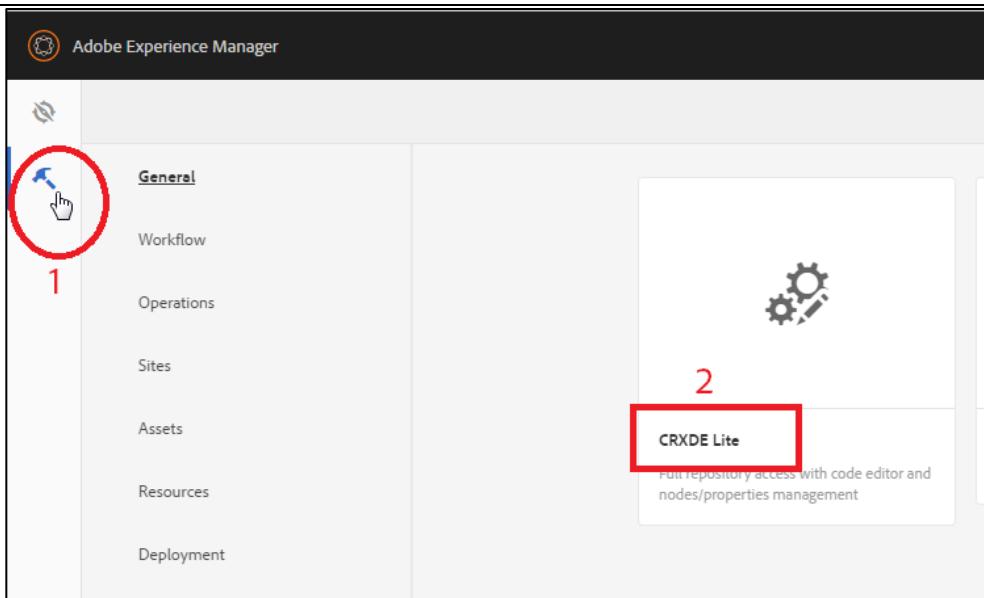
Pre-requisites

Before you begin this exercise, you must complete the following exercise:

Module 4: Panels and Fields

Part 1: Editing Themes

Step	Instructions
1.	<p>In AEM, click the main navigation, or point your browser at https://aemforms###-&&.adobevlab.com (Where ### is a 2 or 3-digit number)</p> <p>(Where && represents the region. This can be "us" "emea" or "apac")</p> <p>Contact your instructor if you need this information. If you are not using this method, your instructor can provide specific details for logging into an AEM environment.</p>  <p>This will take you to the main AEM start page.</p>
2.	Click the Tools option (1) and then click the CRXDE Lite link (2).



NOTE: While CRXDE Lite is primarily a Developer's tool, you may need to use it as a Forms Designer or Power User to import packages in situations like these, where a theme is provided.

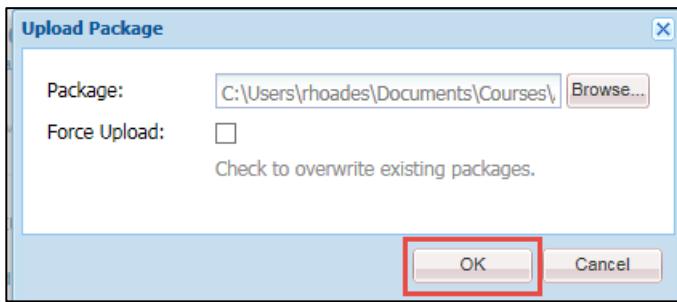
3. Click **Package** to open Package Manager:



4. Click **Upload Package**:



5. In the **Upload Package** dialog, search for and select the **CustomThemePackage.zip** file from the locally downloaded exercise files provided with this course (located in the **Module 5- Theme Editor** folder). Click **Open**, which will populate the Package field then click **OK** to upload the package:

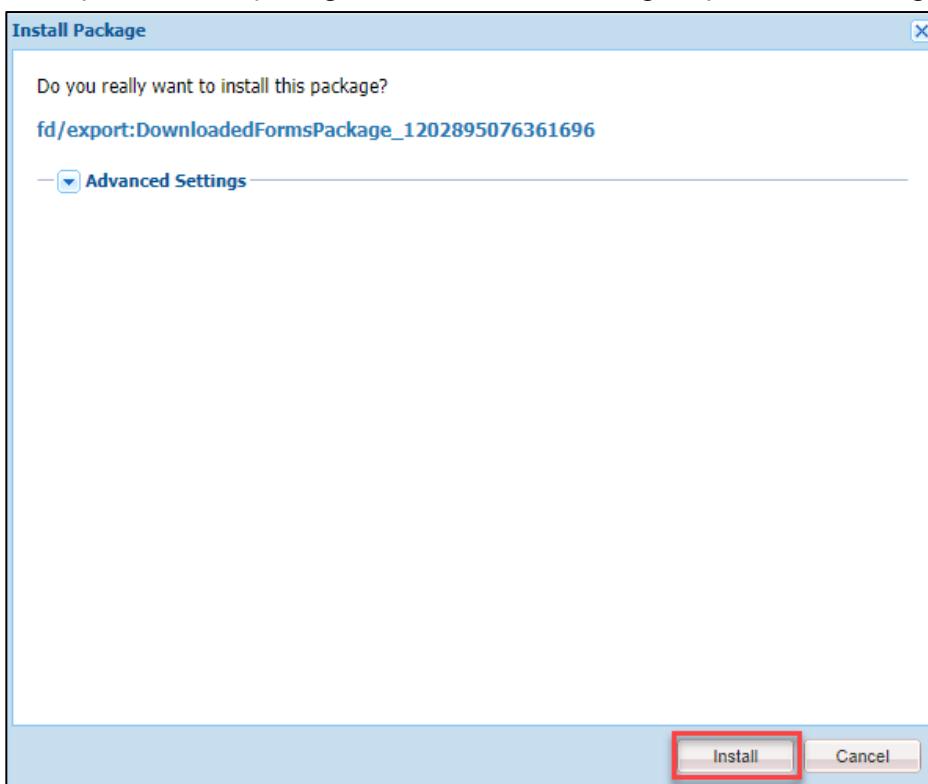


6. After the upload, install your package. Your uploaded package will appear at the top of the list and should be named **DownloadedFormsPackage_<long_number>.zip**. Click **Install** to install.

The screenshot shows the CRX Package Manager interface. At the top, there are icons for search, create package, and upload package. Below that, a search bar says 'Search packages' and a 'Create Package' button. A package titled 'DownloadedFormsPackage_1202895076361696.zip' is listed. It has a blue icon, a build number of 1, and was last built on 2016/04/10 by admin. The package is categorized under 'fd/export'. The 'Install' button is highlighted with a red box. Other buttons include 'Edit', 'Build', 'Download', 'Share', and 'More'. Below the package details, there is a table with columns 'Package', 'Download', 'Group', and 'Filters'.

Package:	DownloadedFormsPackage_1202895076361696
Download:	DownloadedFormsPackage_1202895076361696.zip (35.5 KB)
Group:	fd/export
Filters:	/content/dam/formsanddocuments-themes/Training/simpleEnrollmentTheme /etc/clientlibs/fd/themes/Training/simpleEnrollmentTheme

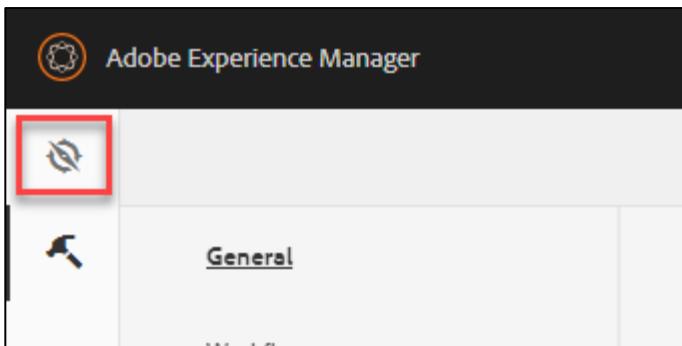
When you install the package, there's no need to change any advanced settings. Click **Install**.



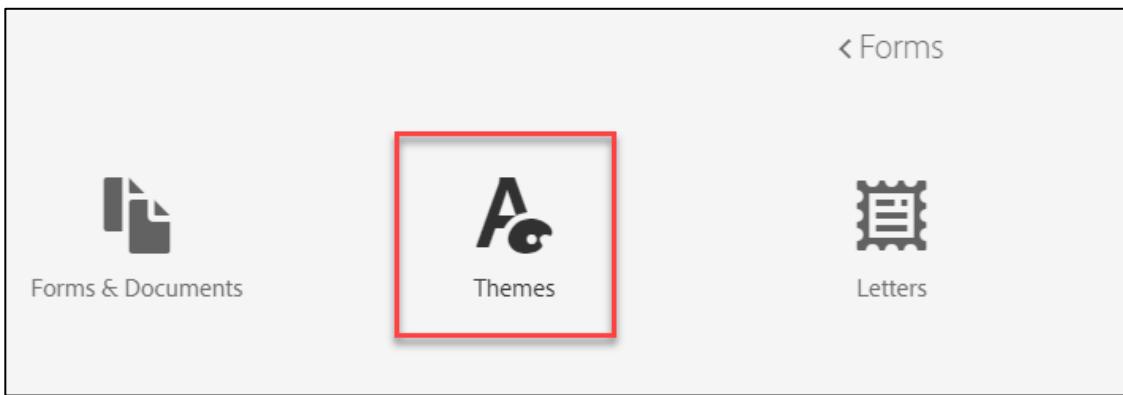
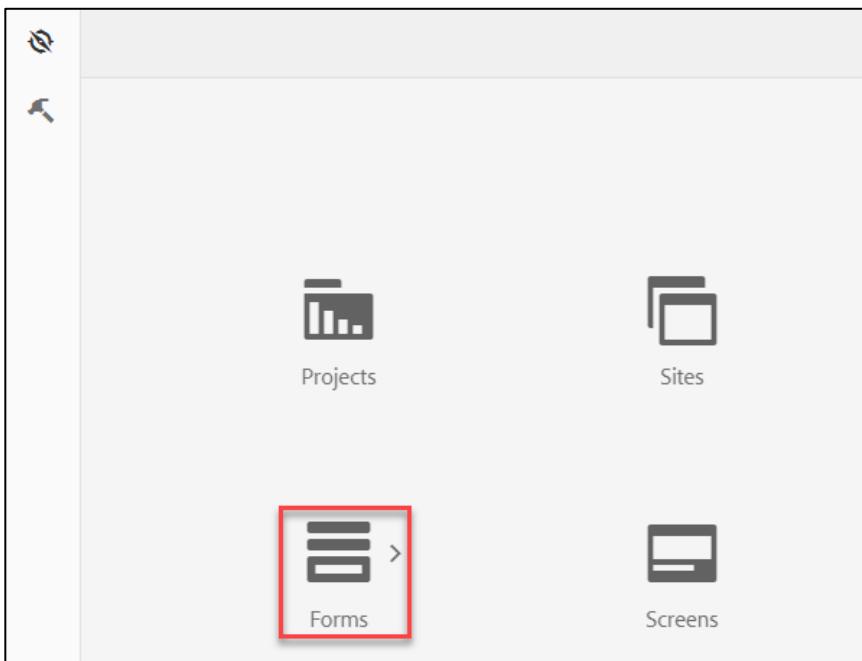
7. Now that the package is installed, you may close the **CRX Package manager** tab in your browser.

The screenshot shows a browser window with three tabs: 'AEM Forms', 'Form Editor : Training Ap...', and 'CRX Package Manager'. The 'CRX Package Manager' tab is closed. The main content area shows the 'CRX Package Manager' interface with a search bar, a 'Sort by' dropdown set to 'Last used', and a package card for 'DownloadedFormsPackage_1202895076361696'. The package has a build number of 1 and was last installed at 14:23 by brain.

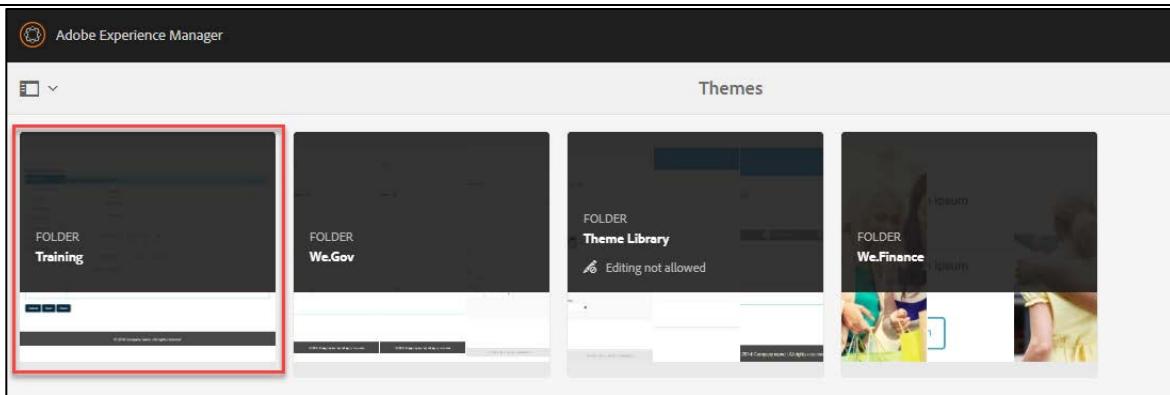
8. In your AEM (or AEM Forms) browser tab, click **Navigation** to return to AEM Forms.



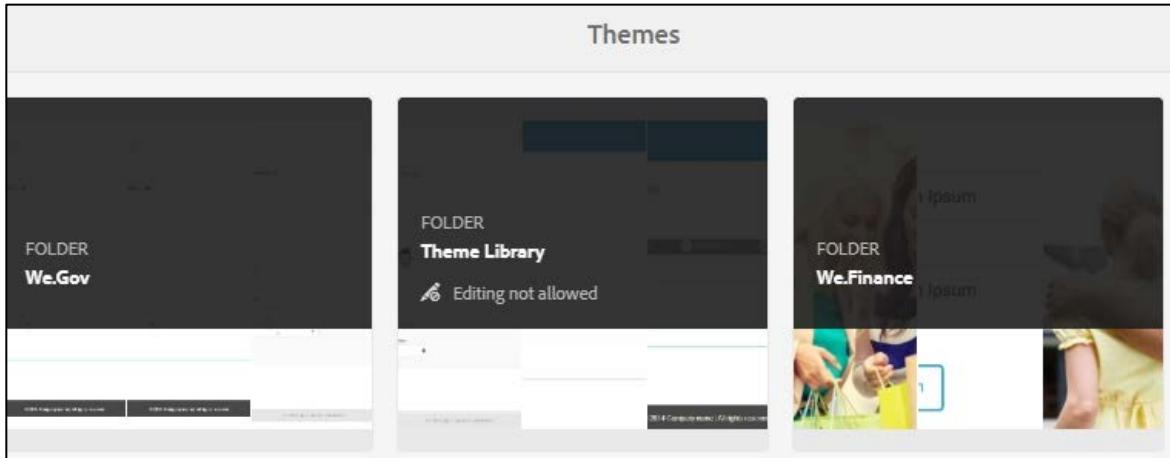
9. Click **Forms > Themes**:



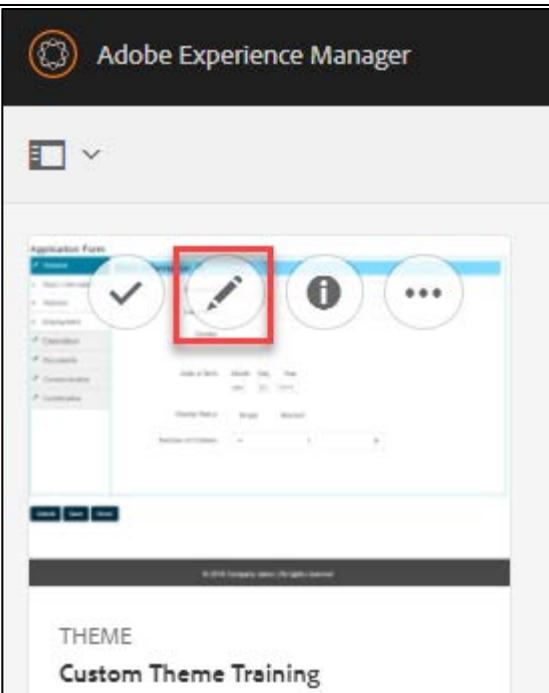
10. Click on the **Training** folder (which contains the themes you just installed in the package).



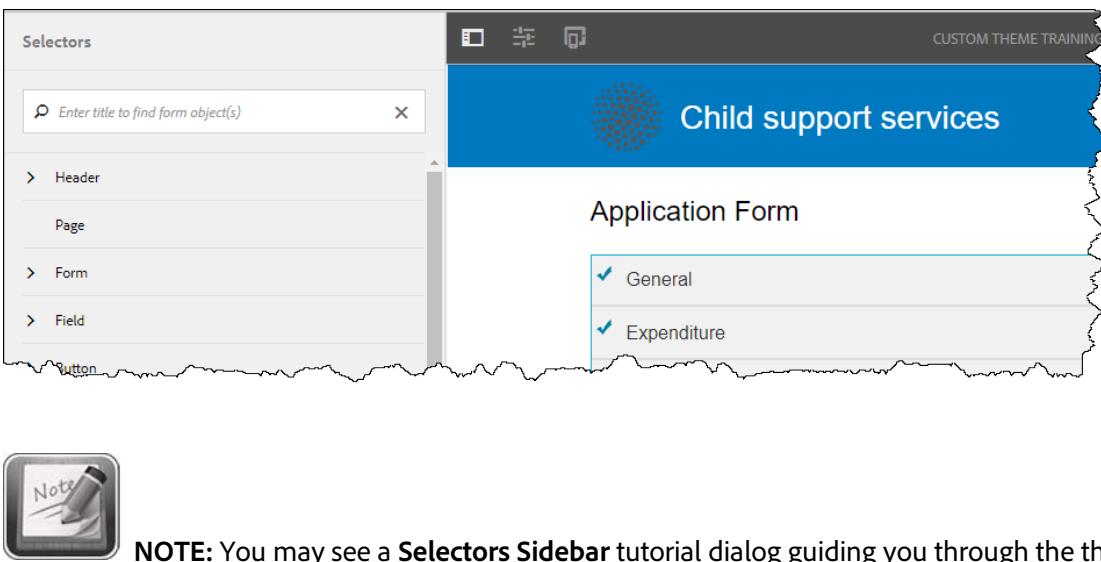
NOTE: There should be three other folders present here. The read-only **Theme Library** contains built-in AEM Forms themes and samples that are provided for AEM Forms. **We.Gov** contains themes provided with the **We.Gov** reference site for AEM Forms installed for this course. The same is true for the **We.Finance** folder. Refer to the Appendix for more information on the AEM Forms installation process.



- | | |
|-----|--|
| 11. | Edit the Custom Theme Training theme. |
|-----|--|



12. The **Theme Editor** appears with the **Side Panel** already enabled.



NOTE: You may see a **Selectors Sidebar** tutorial dialog guiding you through the theme editor. You may click **Next** to proceed through the tutorial and learn the basic of styling objects and simulating your theme, or you may click **Close** to hide the tutorial.

13. Now, you will modify the style of the fields in this form. Click the **First Name** field on the form. To change the style of all fields associated with this sample theme, click **Field Widget**.

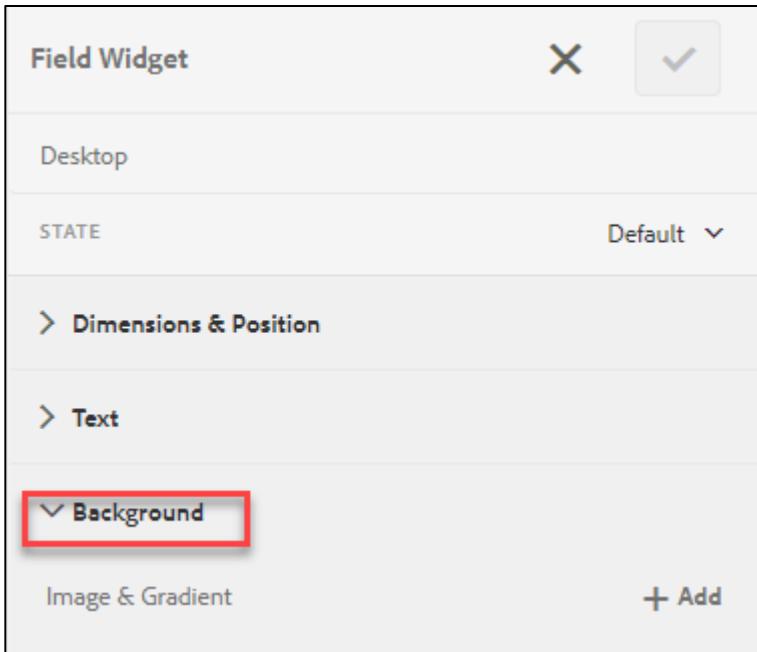
Basic Information

Text Box Widget Field Widget

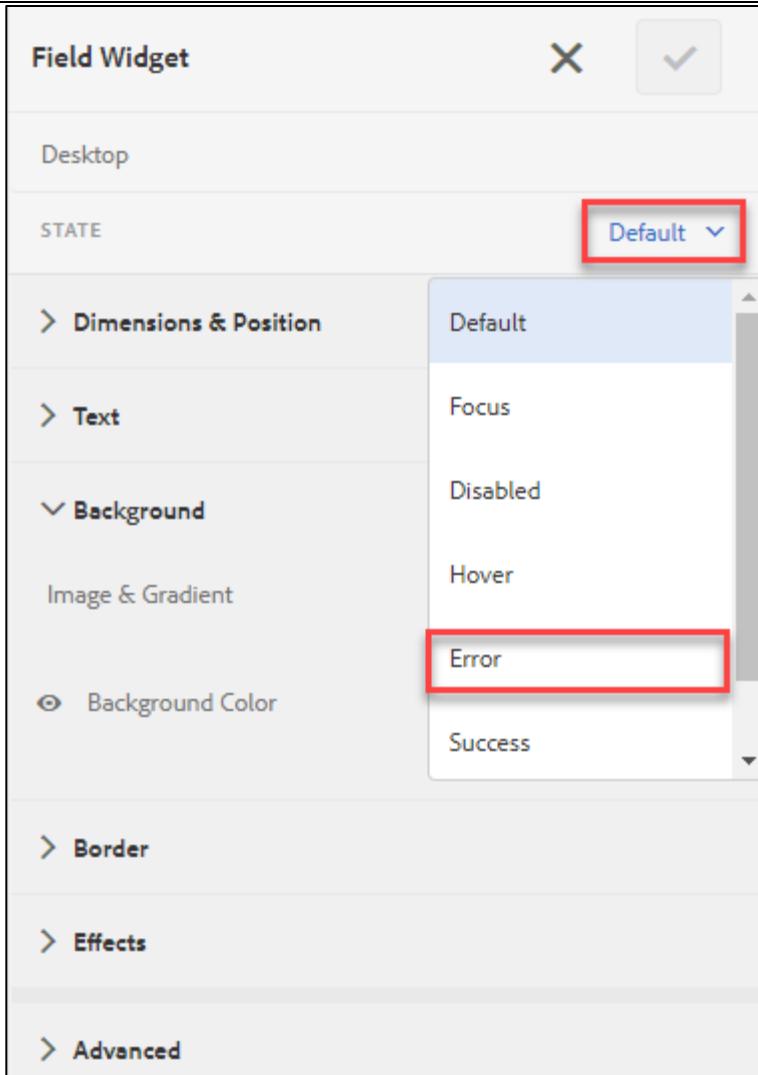
First Name

Last Name

14. In the Side Panel, click to expand **Background**.

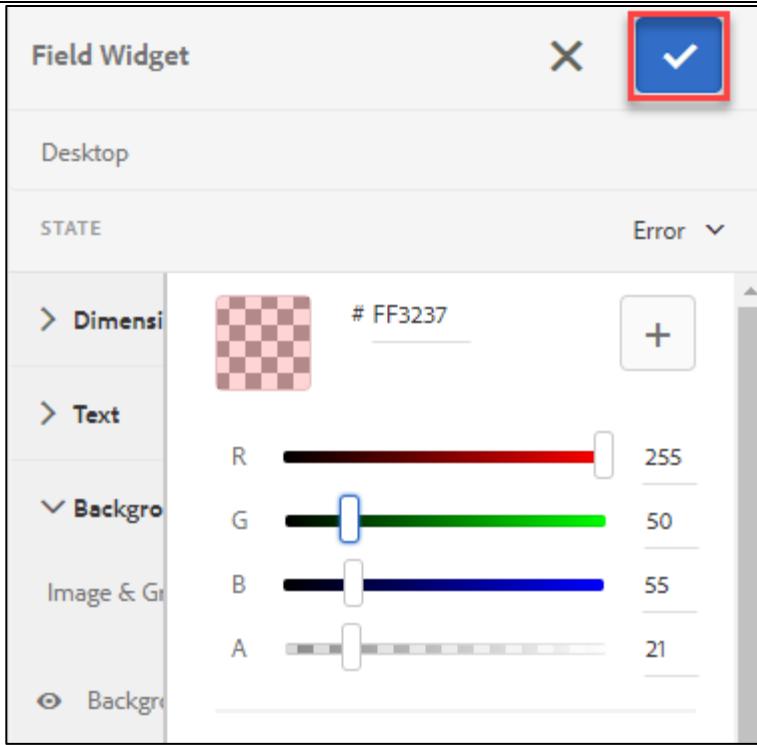


15. You will be modifying the color of the background inside the field when an error or invalid data is entered into this field, so in the **State** drop-down menu, choose **Error**. In other words, the **State** represents the state of the form you want to modify the style of.



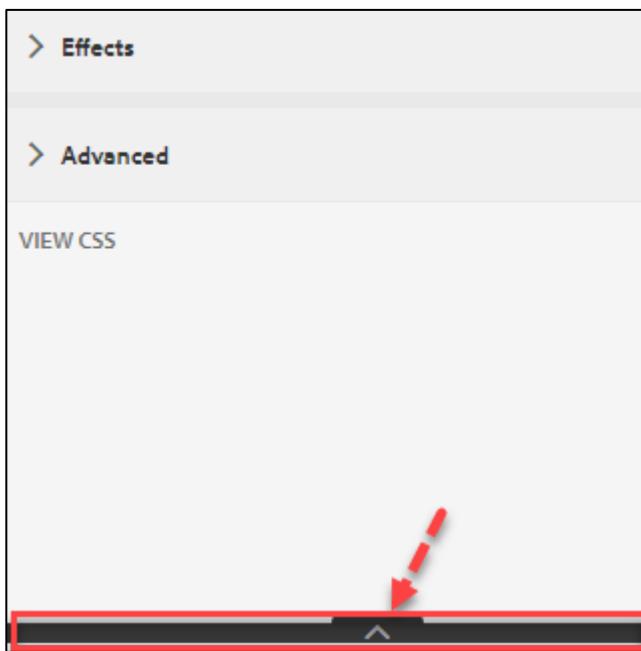
16. Click the white box with the diagonal line to select the background color and style (1). Then, in the color selector, make the necessary changes to set the color to red, as shown (2):

	<p>Field Widget</p> <p>Desktop</p> <p>STATE Error</p> <p>> Dimensions & Position</p> <p>> Text</p> <p>> Background</p> <p>Image & Gradient + Add</p> <p>Background Color (1)</p> <p># FF4136</p> <p>R 255</p> <p>G 65</p> <p>B 54</p> <p>A 23</p>
17.	<p>HINT: Since red is desired, you can lower the "G" (Green) and "B" (Blue) hues and keep the R value as-is. Then, to reduce opacity, lower the "A" value to 20 – 25 as shown above.</p> <p>NOTE: Note that you may change the background color using a different method, that is, the hex code that matches the color you want, for example, #9932CC (Dark Orchid).</p> <p>Save your style changes using the Done button in the Side Panel.</p>



18. Simulate your changes. So, you have the ability now to simulate the way the background color of a field will look if the user encounters an error.

At the bottom of the Side Panel, click the small bar to enable simulations:

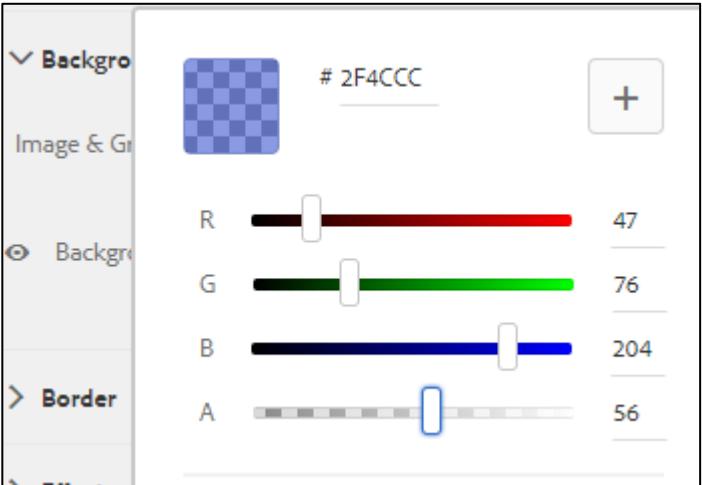
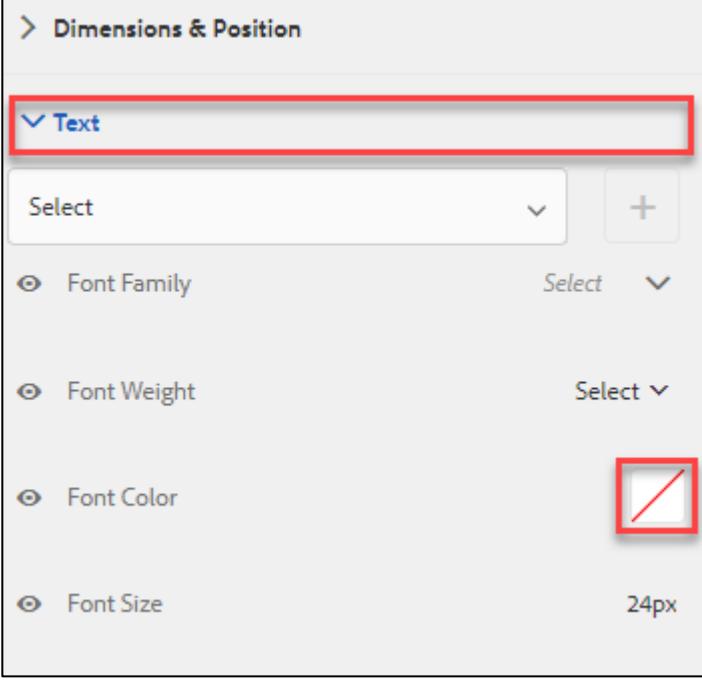


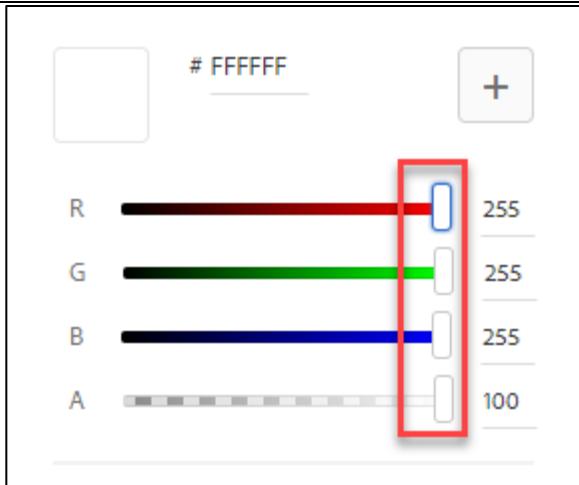
19. In this bottom bar, click the slider to **Simulate Error**:

When you simulate error in a field, your fields on your mock form should change to the color you selected previously.

20. Next, you will change some of the basic properties of one of the objects in the theme. Select the **Basic Information panel description** object:

21. Click **Responsive Panel Description**.

22.	<p>In the Side Panel, change the background color to blue:</p> 
23.	<p>Select the Text to change the font color of the text in the Side Panel. Change it to white:</p> 

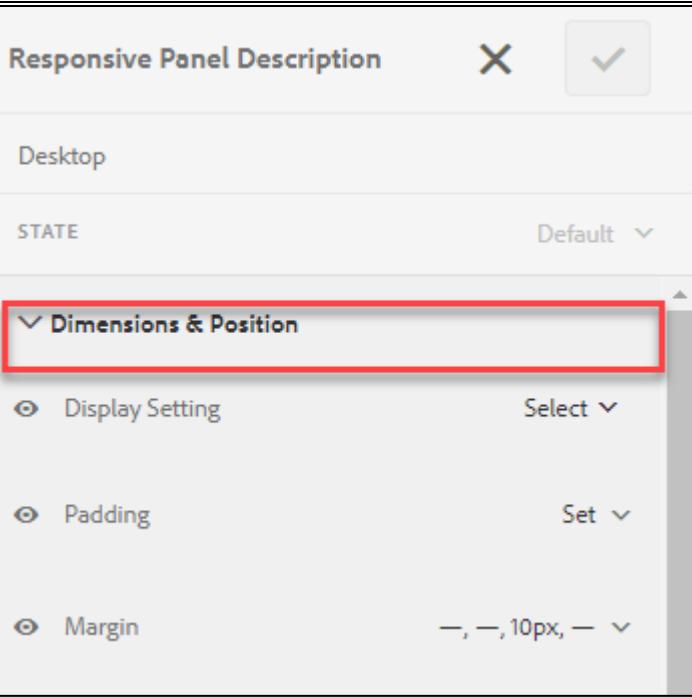


Click **Done** to save your changes in the Side Panel.

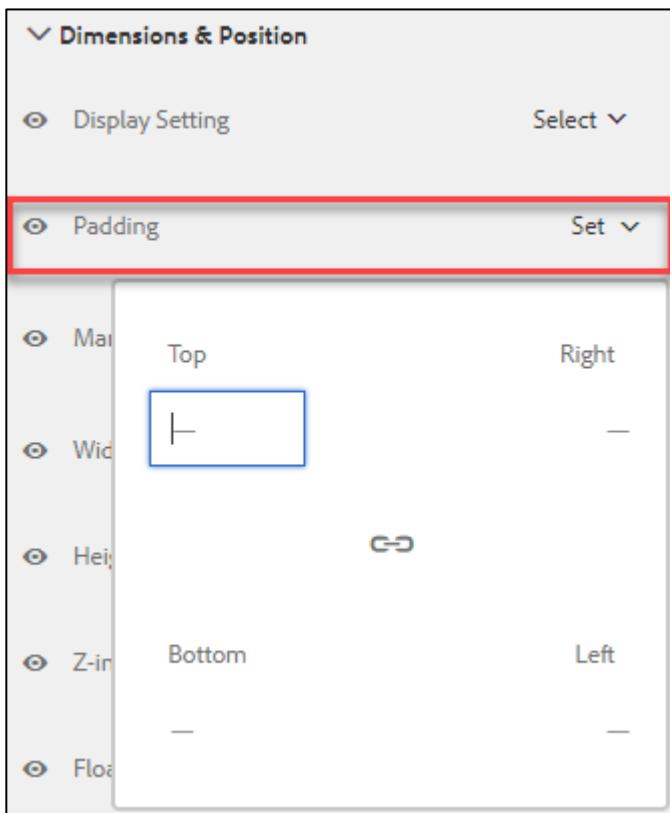
24. Your theme should look like this. Notice that the **Basic Information** label needs a little larger border around it.

A screenshot of an adaptive form interface. On the left, there is a sidebar containing a list of items with checkmarks: 'Expenditure', 'Documents', 'Communication', and 'Confirmation'. The main panel on the right has a blue header bar with the text 'Basic Information' and a question mark icon. Below the header, there are two input fields: 'First Name' and 'Last Name', each with a light gray placeholder text. The 'Basic Information' header has a thicker blue border compared to the other labels in the sidebar.

25. You can fix this by altering the size using **Dimensions & Position**.



26. Increase the padding to **2 px (pixels)**. Note that this will increase proportionally, so that the top, bottom, left, and right values are all in "sync":



▼ Dimensions & Position

Display Setting Select ▾

Padding 2px ▾

Main Top Right
Width 2px 2px

Height Bottom Left
Z-index 2px 2px

Float



NOTE: You may **break** this simultaneous automatic population of padding values by clicking the **link** button in the center. This allows you to edit only one of the padding values (such as top & bottom).

Top Right
2px 2px

Bottom Left
2px 2px

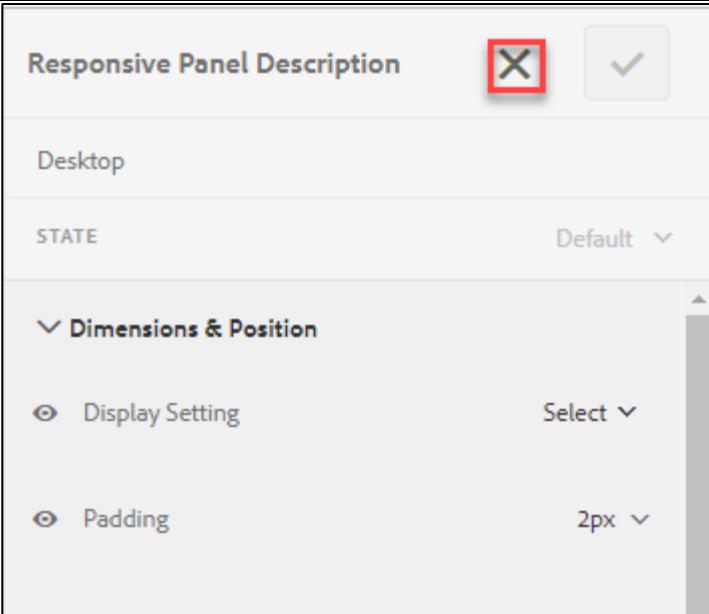
Click **Done** to save your changes.



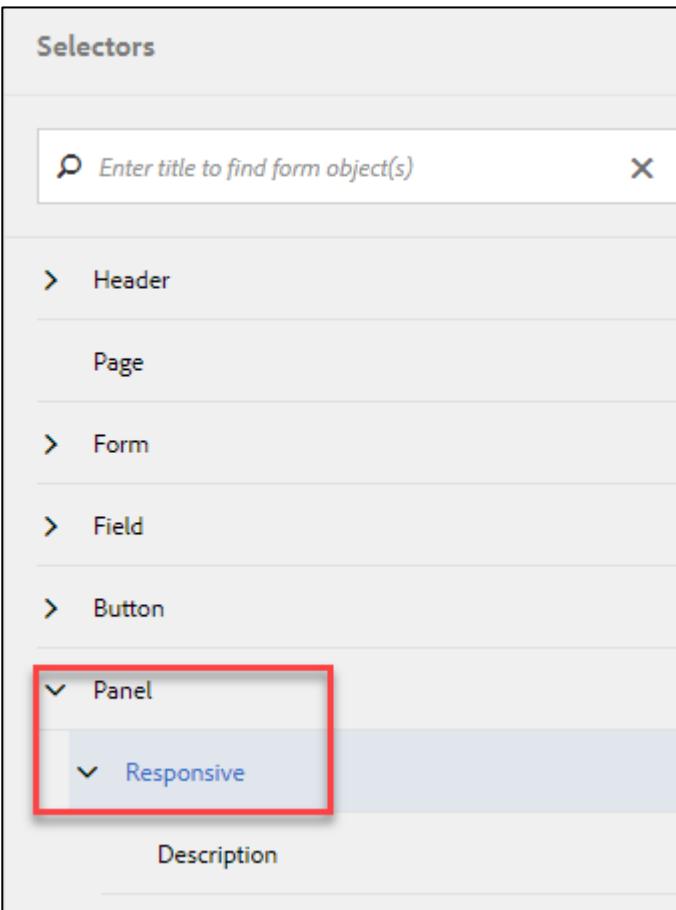
NOTE: As you work to edit your theme, you may undo changes you have made. This undo option is also available in the Form Editor as well.

The screenshot shows the Adobe Experience Manager Form Editor interface. At the top, there is a toolbar with several icons. The second icon from the left is a red square containing a white arrow pointing left, which is highlighted with a red box. Below the toolbar, the main content area has a title "Application Form". To the left of the main content is a "Side Panel" with a blue header bar. The side panel contains a list of categories, each preceded by a green checkmark and a small triangle icon: "General", "Expenditure", "Documents", "Communication", and "Confirmation". Below this list is a black bar labeled "Responsive Panel Description" with a small icon. The main content area below the side panel has a blue header bar with the text "Basic Information" and a question mark icon. At the bottom of the main content area, there is a text input field with the placeholder text "First Name".

- | | |
|-----|---|
| 27. | Click X in the Side Panel to return to the main set of theme selectors. |
|-----|---|



28. Expand **Panel** in the Side Panel, then select **Responsive**. Now, you will alter the panel styling your **Training Form** uses, which is **Responsive**. Notice that the other panel types available with AEM Forms appear here as well (Accordion, Tabs on Left, Top, Wizard, and so on).



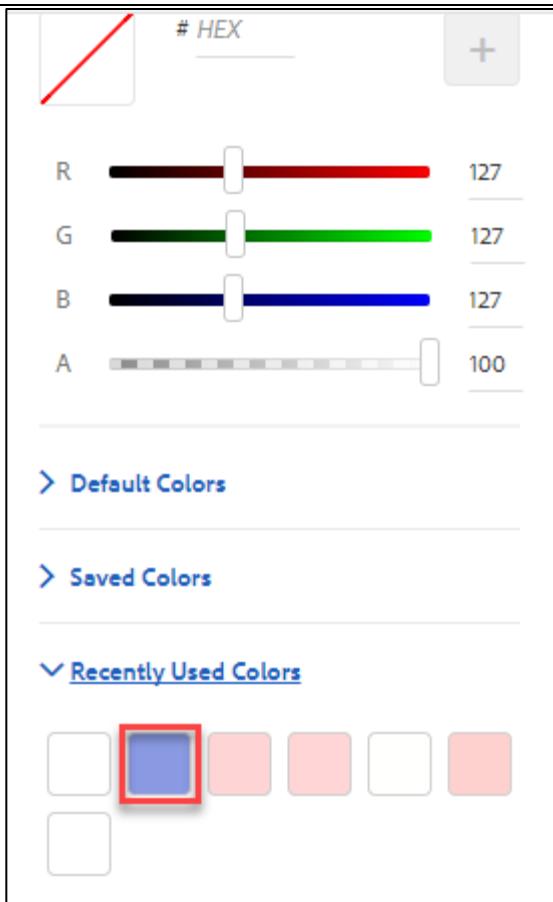
29. Mouse over the **Responsive** option and edit it.

The screenshot shows the AEM Forms Side Panel. Under the 'Panel' section, the 'Responsive' panel is expanded. On the right side of the panel, there is a color picker icon, which is highlighted with a red box.

30. Give the Responsive panel in AEM Forms a blue border. Scroll down in the Side Panel, expand **Border** and then click the color picker to set the **Border Color**.

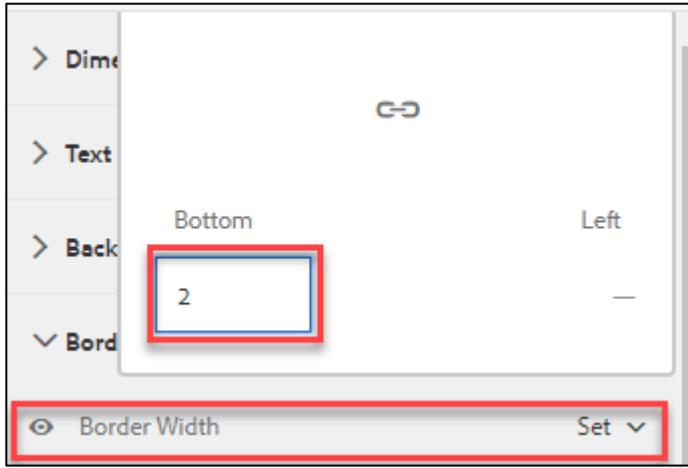
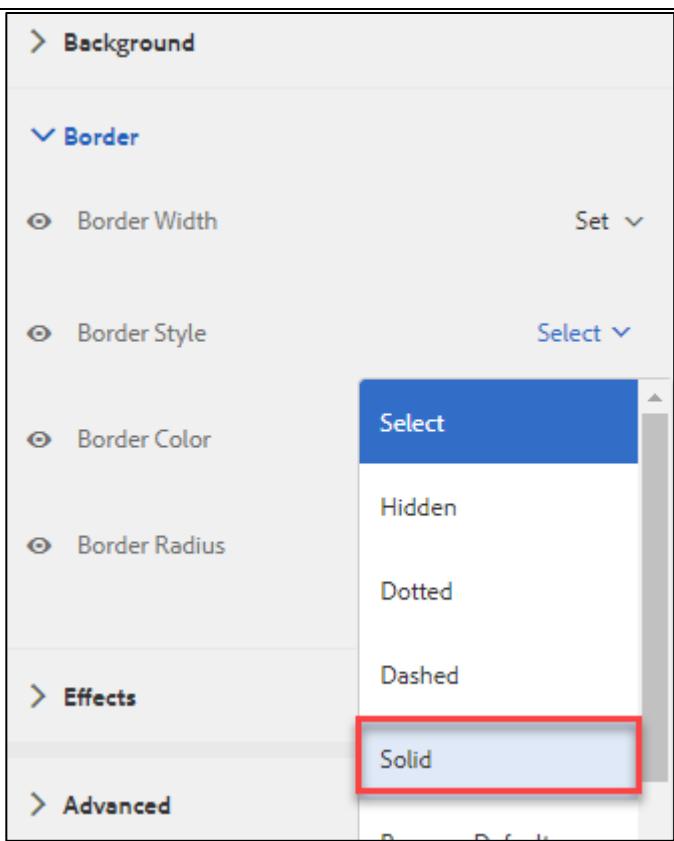
The screenshot shows the 'Responsive Panel Container' properties dialog. The 'Border' section is selected and highlighted with a red box. Within the 'Border' section, the 'Border Color' color picker is also highlighted with a red box.

31. Instead of manually specifying a color like you did previously, you may select from a palette of recently used colors under **Recently Used Colors**. Select the blue color you generated previously.



Save your changes in the Side Panel using **Done**.

32. Set your border style to **Solid** with a width of **2 pixels**:



Save your changes in the Side Panel using **Done**. Your Border options should look like this (the blue color may not be as exact as this screenshot):

Border

Border Width: 2px

Border Style: Solid

Border Color: rgba(47,76,204,0.57)

Border Radius: Set

33. Your theme editor should now reflect the new color, settings, and border as shown here:

Basic Information ?

First Name:

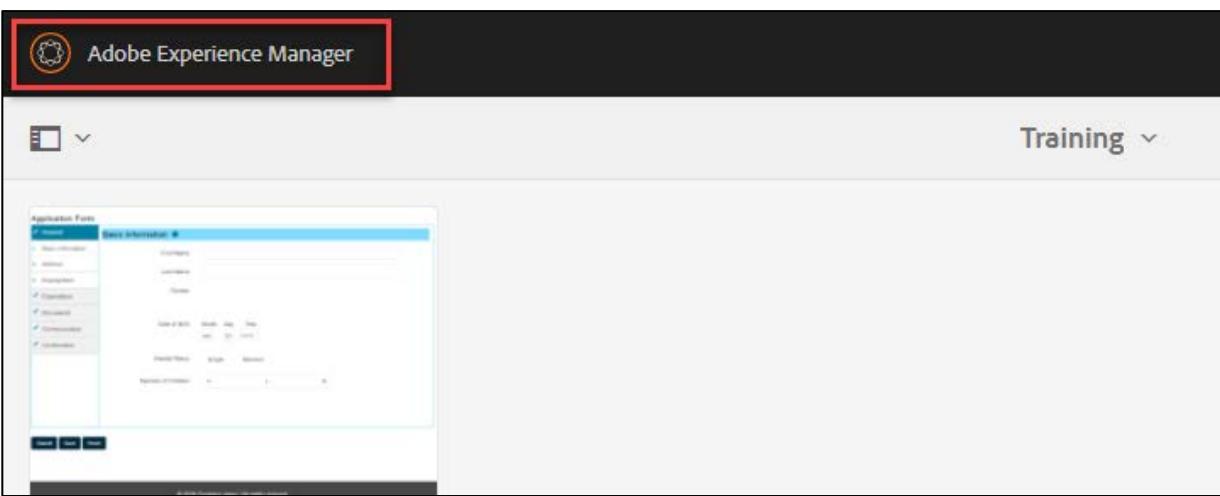
Last Name:

Gender:  

Date of Birth: Month: MM Day: DD Year: YYYY

Marital Status: Single Married

Part 2: Applying Custom Themes to Forms, Changing a Form's Style

Step	Instructions
1.	<p>Now that you have configured/styled your custom theme, you need to apply it to the Training Application Form you are building.</p> <p> HINT: You may keep the theme editor open in its own browser tab, or close it if you want. Since you most likely have a separate browser tab with AEM Forms already open at this point, for convenience, you may now switch back to that tab.</p> 
2.	<p>Click Adobe Experience Manager to return to the AEM start page.</p> 
3.	<p>Click Forms & Documents. In your Training folder, click to edit your Training Application Form.</p>

The screenshot shows the Side Panel in Adobe Experience Manager. At the top, there are four circular icons: a checkmark, a pencil, an information symbol, and three dots. Below them is a red arrow pointing right. A dark grey bar contains the text "O 2017 Oracle and/or its affiliates. All rights reserved." Underneath, a section titled "ADAPTIVE FORM" lists "Training Application Form" with a creation date of "3 days ago". To the right, a card displays "FORM TEMPLATE Extended-Care-Services.xdp" and was last modified "13 days ago".

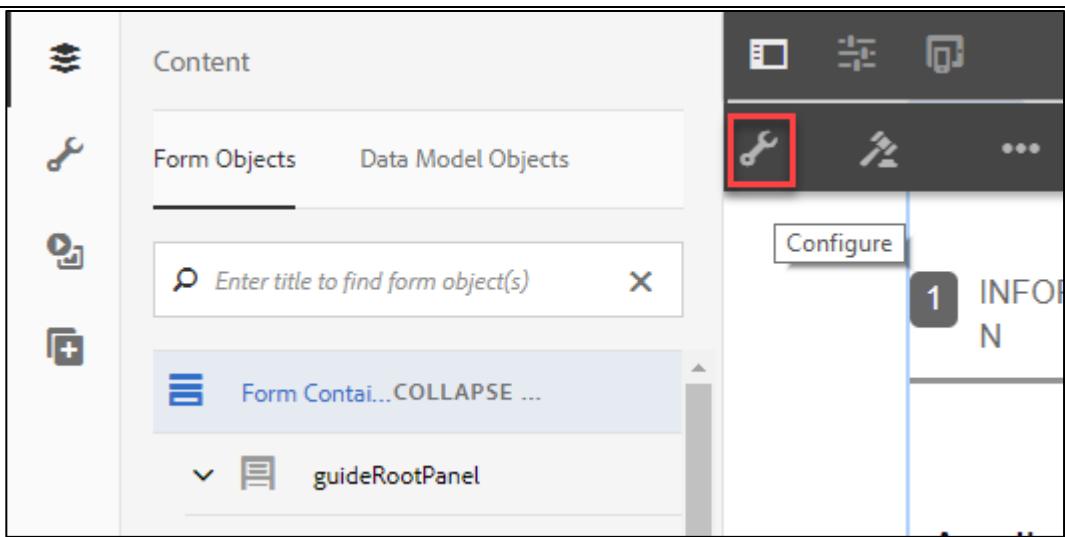
4. In the Side Panel, navigate to the main parent **Form Container** at the top of the hierarchy of **Form Objects**:

The screenshot shows the "Content" section of the Side Panel. On the left, there are four icons: a stack (highlighted with a red box), a wrench, a video camera, and a plus sign. The "Form Objects" tab is selected and highlighted with a red box. Below it is a search bar with the placeholder "Enter title to find form object(s)". The main area shows a tree view of form objects. The root node, "Form Contai... COLLAPSE ...", is highlighted with a red box. It has three children: "guideRootPanel", "Information", and "Reason".

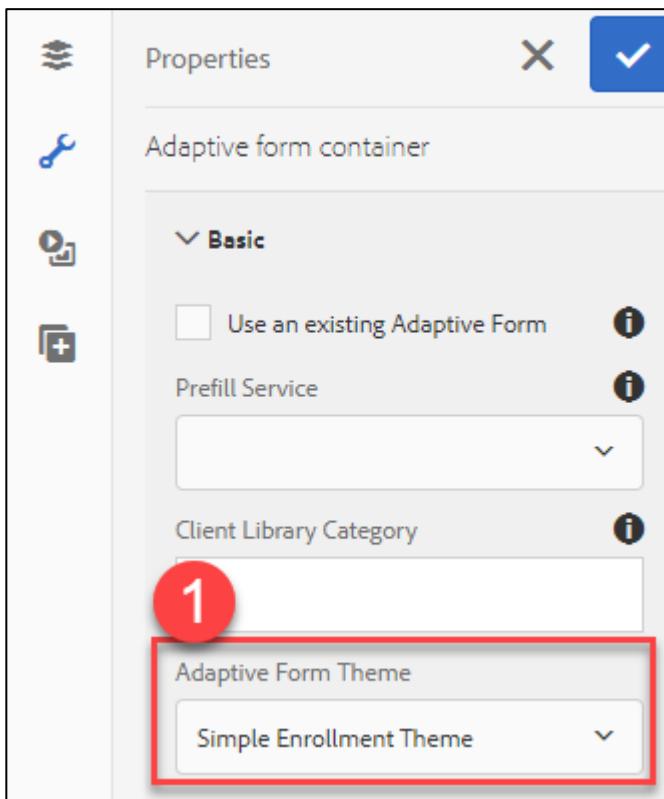
HINT: The selected object in the **Form Objects** is always in blue.

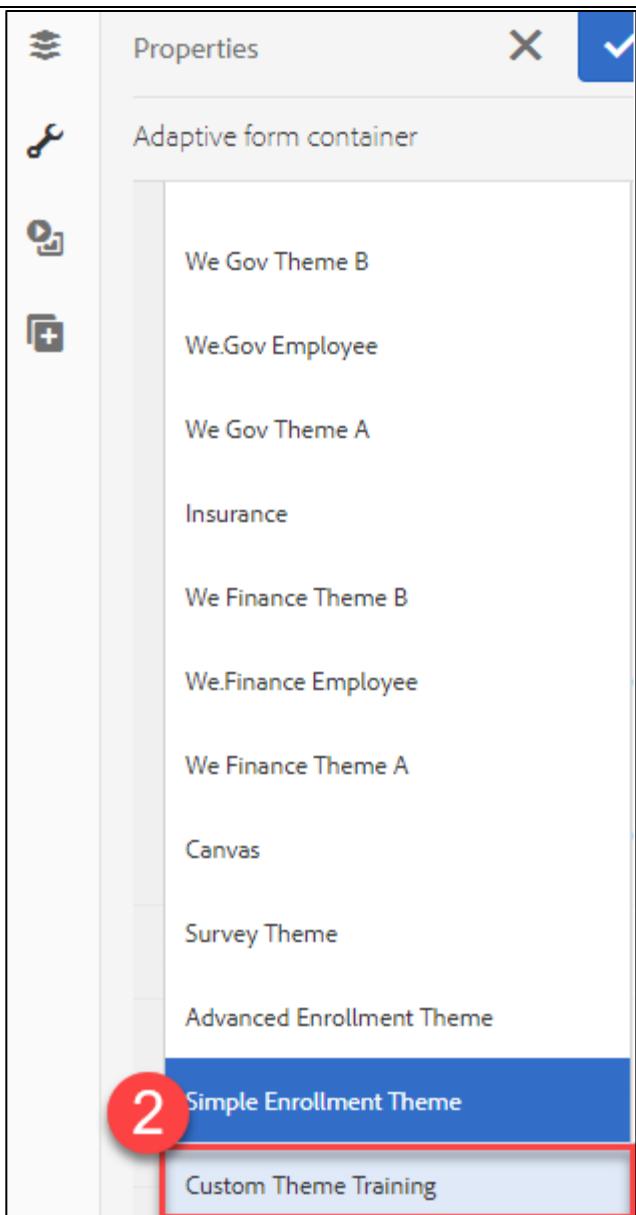


5. Configure your **Container**.



6. In the Side Panel, click the **Adaptive Form Theme** drop-down (1), and, now that you have a custom theme (**Custom Theme Training**), select it by choosing it from the list of available built-in and reference site themes (2).





The screenshot shows the 'Properties' dialog for an 'Adaptive form container'. The left sidebar contains icons for 'Properties', 'Structure', and 'Preview'. The main area lists various themes:

- We Gov Theme B
- We.Gov Employee
- We Gov Theme A
- Insurance
- We Finance Theme B
- We.Finance Employee
- We Finance Theme A
- Canvas
- Survey Theme
- Advanced Enrollment Theme
- Simple Enrollment Theme** (highlighted with a red circle containing the number 2 and a red border)
- Custom Theme Training

Save your changes in the Side Panel by clicking **Done**.



NOTE: All themes in AEM Forms appear here. This includes any built-in Themes provided with AEM Forms, any themes shipped with the GOV (We.Gov) and FSI (We.Finance) reference sites you installed, and any custom themes.

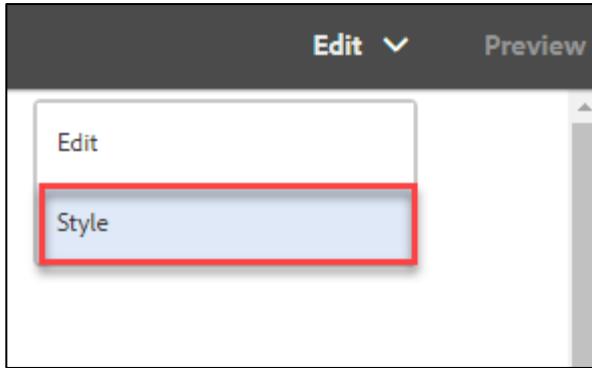
Be patient as your form may take a few seconds to refresh and then display its new look and feel.

The screenshot shows the Adobe Experience Manager interface for creating adaptive forms. On the left, the 'Properties' panel is open, displaying various configuration options under the 'Basic' tab, such as 'Use an existing Adaptive Form', 'Client Library Category', 'Adaptive Form Theme' (set to 'Custom Theme Training'), 'CSS File', 'Mobile Layout', 'Mobile Navigation' (set to 'Layout with panel titles and menu...'), and a checkbox for 'Add navigable items of responsive'. On the right, the 'TRAINING APPLICATION FORM' is displayed with four tabs at the top: INFORMATION, REASON, DEPENDENTS (which is selected and highlighted in blue), and FINANCIAL. Below the tabs, a sub-panel titled 'Application Information' is shown, containing input fields for First Name, Last Name, Email, Phone Num, and Ref ID, each with a placeholder text 'Enter your first name', 'Enter your last name', etc.

Optionally, you may preview your form (using **Preview** mode) to fully test and realize the stylistic changes you applied.

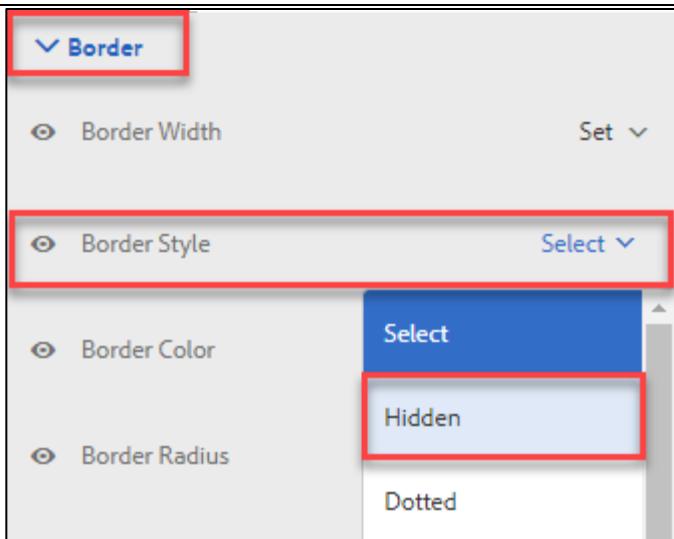
7. While the Custom form theme you applied makes your overall form follow a different style of your choosing, there may be situations where you as a designer or power user need to change styles to an individual form object independent of the global themes. You can achieve this using **Style** mode.

Switch to **Style** mode using the mode options at upper right:



8. You will now make a small change to the style for one sub-panel. Because all panels now have a border around them, this does not look too good for your “**Dependents**” sub-panel. If you were to Preview this sub-panel currently, it may look like this (with a “double border”):

9.	<p>To change this, navigate to the 3rd panel (DEPENDENTS) and remove the border for the child panel that currently contains Dependent First Name and Last Name. Select this sub-panel and click the Edit button:</p>
10.	<p>Note the Side Panel reflects stylistic properties identical to the style properties you altered to create a custom theme in Part 1. Change the border style to Hidden:</p>



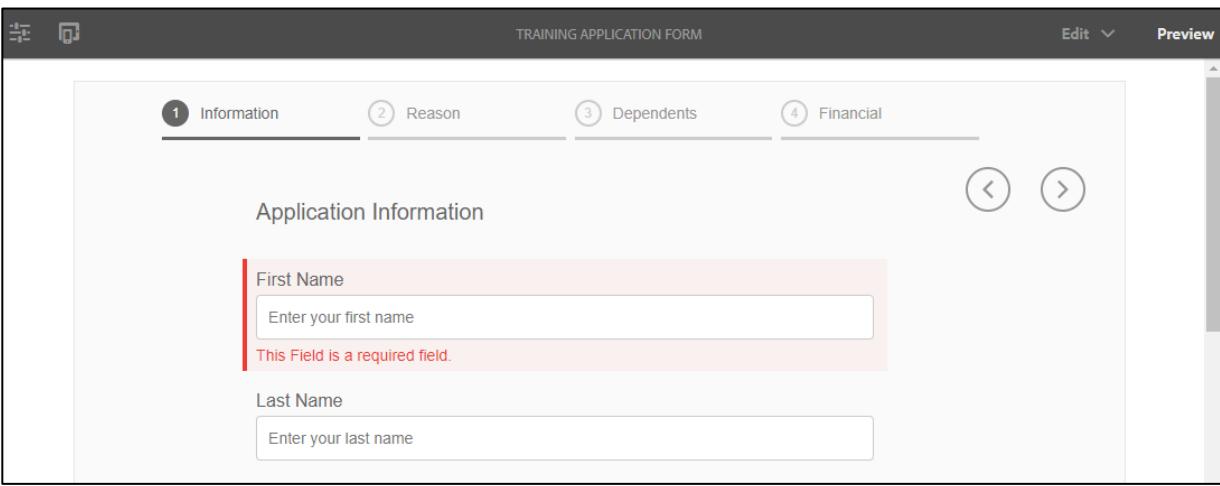
Save your changes in the Side Panel. Preview your form DEPENDENTS panel. The “double border” effect should be gone.



HINT: In Preview mode, you need to click the red **Next** button at bottom to advance to the third panel. Note your red field background in your **INFORMATION** panel may appear when you advance to the **REASON** panel because it is flagging an error in your field – your first name field is empty.

The screenshot shows the 'DEPENDENTS' panel of the 'TRAINING APPLICATION FORM'. The panel title is 'Dependent Information'. It contains three input fields: 'Number of Dependents', 'Dependent First Name', and 'Dependent Last Name'. The 'Number of Dependents' field has a red border, indicating an error or validation issue. The other two fields have a standard light blue border. The navigation tabs at the top are labeled 1 INFORMATION, 2 REASON, 3 DEPENDENTS, and 4 FINANCIAL. The 'DEPENDENTS' tab is active.

Part 3: Overriding a Theme using the “themeOverride” parameter

Step	Instructions
1.	<p>Still using your Training Application Form in preview mode from Part 2, explore how the basicTheme provided with AEM Forms looks by appending the following parameter and path to the URL in your browser:</p> <p>?themeOverride=/content/dam/formsanddocuments-themes/themeLibrary/basicTheme</p>
2.	<p>Your form should now look like this:</p>  A screenshot of the "TRAINING APPLICATION FORM" in "Preview" mode. The top navigation bar includes "Edit" and "Preview" buttons. Below the title, there are four tabs: 1 Information, 2 Reason, 3 Dependents, and 4 Financial. The "Information" tab is selected. The main content area is titled "Application Information". It contains two input fields: "First Name" and "Last Name", both with placeholder text "Enter your first name" and "Enter your last name" respectively. A red error message "This Field is a required field." is displayed below the "First Name" field. Navigation arrows are visible on the right side of the form area.
3.	<p>Now that you know how to override a theme at runtime, explore the differences between the "A" and "B" We.Finance themes. Use the Application for Credit Card form in the We.Finance folder found under Forms & Documents.</p> <p>The paths to append are as follows:</p> <p>?themeOverride=/content/dam/formsanddocuments-themes/we-finance/we-finance-theme-a</p> <p>?themeOverride=/content/dam/formsanddocuments-themes/we-finance/we-finance-theme-b</p>

Adobe Experience Manager

We.Finance

The screenshot shows the Adobe Experience Manager interface with a dark header bar. Below it, a white header says "We.Finance". There are three main cards displayed:

- ADAPTIVE FORM**
Application for Credit Card
2 months ago Modified
- ADAPTIVE DOCUMENT**
Home Mortgage Account Statement
1 year ago Modified
- ADAPTIVE DOCUMENT**
Credit Card Welcome Kit
2 years ago

4. Experience "A":

The screenshot shows a web-based application titled "APPLICATION FOR CREDIT CARD". At the top, there are "Edit" and "Preview" buttons. The main heading is "we.FINANCE". Below it, a navigation bar shows steps 1 through 5: "Choose a card", "Personal Information", "Employment", "Finances", and "Review & Sign". Step 1 is highlighted with a blue background.

The next section asks "Please choose the card you want to apply for" and displays four sample credit cards:

Card Type	Card Number	Name	Expiration Date
we.FINANCE	1234 1231 1231 6488	NAME SURNAME	01/23
we.FINANCE	1236 1231 1231 6488	NAME SURNAME	01/23
we.FINANCE	1266 1231 1231 6488	NAME SURNAME	01/23
we.FINANCE	1266 1231 1231 6488	NAME SURNAME	01/23

At the bottom left is a "Save my progress" button.

Experience "B":

APPLICATION FOR CREDIT CARD

Edit ▾ Preview

we.FINANCE

Choose a card Personal Information Employment Finances Review & Sign

Please choose the card you want to apply for



ADOBECOPYRIGHT PROTECTED

Module 6: Captcha Components

Overview

In this hands-on exercise, you will add an AEM Captcha component to your form.

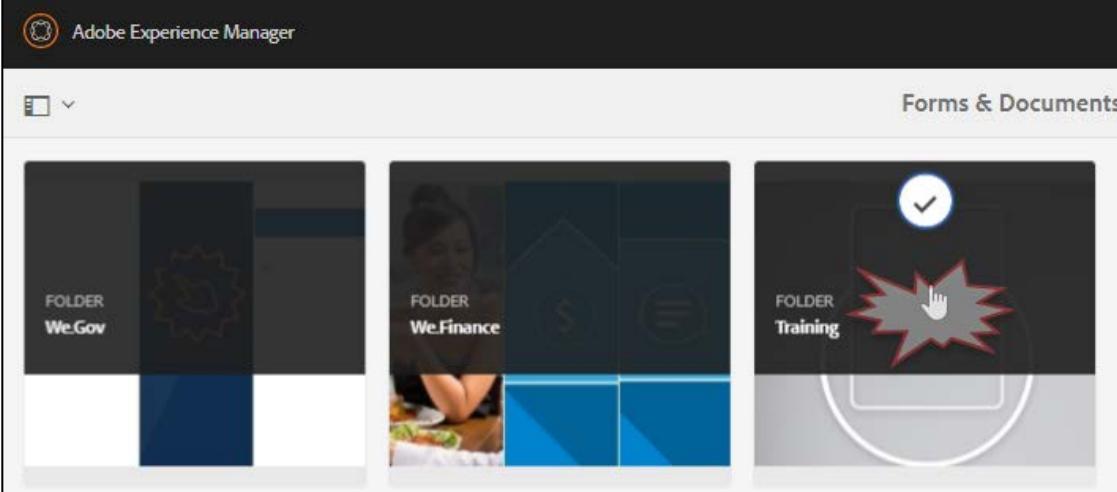
TIME: It should take approximately 10 minutes to complete this exercise.

Pre-requisites

Before you begin this exercise, you must complete the following exercise:

Module 1: Introduction to AEM Forms

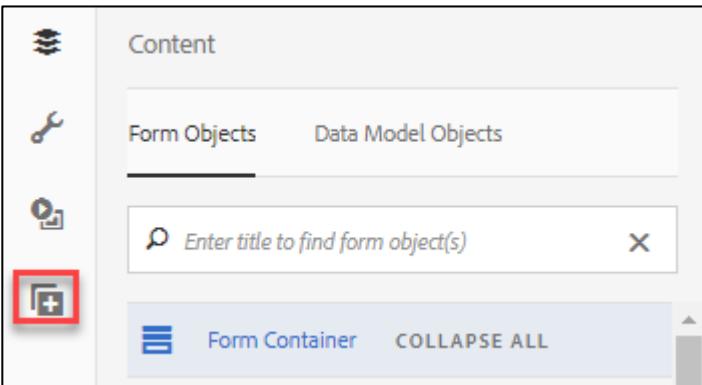
Part 1: Add an AEM Captcha component to your form

Step	Instructions
1.	<p>Navigate to Forms > Forms & Documents, and click to open your Training folder:</p>  <p>Note: in the screenshot above, notice that clicking anywhere in the folder object will allow you to open the folder directly. If you were to click the checkmark floating icon that will not open the folder. It will select the folder. This selection option is consistent throughout AEM to allow you to select an object and view or edit its properties. In this case, be aware that clicking anywhere else inside the Training folder will open that folder's contents.</p>
2.	Edit (open) your Hello Form .

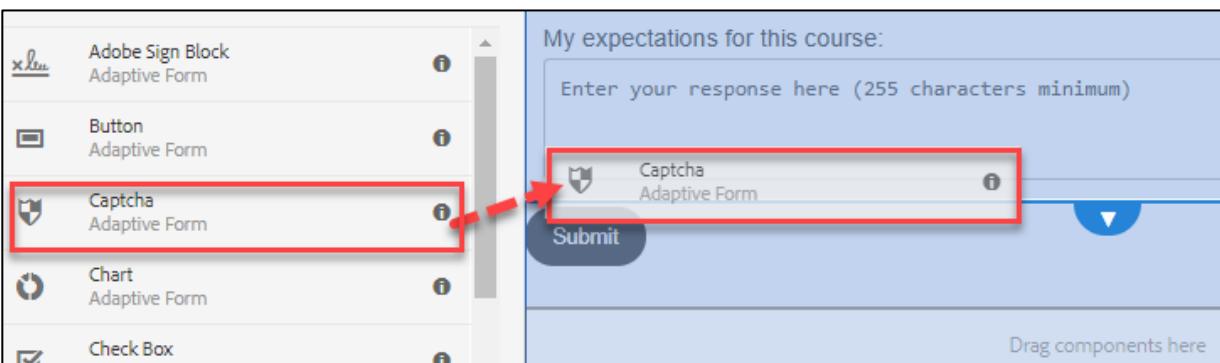


NOTE: For simplicity's sake, to rapidly test your Captcha, you will use this simple form you created at the very beginning of this course.

3. In the Side Panel, click **Components**:



4. Drag and drop a **Captcha component** onto your form in the **Drag components here** area.



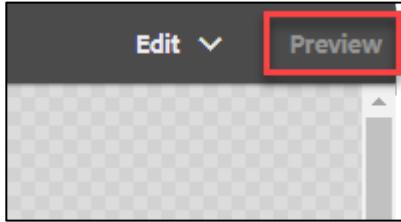
5. Edit your Captcha's title. Change it to: **Verify you are not a robot**.

A screenshot of an Adaptive Form interface. At the top left is a blue icon with a wrench and gear. Below it is a light blue header bar with the word "Captcha". Underneath is a white input field containing the text "Verify you are not a robot:". At the bottom is a dark grey rounded rectangle button labeled "Submit".

A screenshot of the "Properties" dialog for a form element. On the left is a vertical toolbar with icons for Properties, Preview, and other settings. The main area shows the element name "captcha1501799000689" and a title field containing "Verify you are not a robot:", which is highlighted with a red border. A "Basic" section is expanded, showing an "Element Name *" input field and a "Title" input field.

Click **Done** to save your changes.

6. Preview your form by clicking **Preview** at upper left.



7. Test filling out and submitting your form. Provide an **incorrect** response to the Captcha. Your form should produce an error and prevent you from submitting it.

	<p>Specify your communication preferences (select all that apply):</p> <p><input type="checkbox"/> Phone <input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/> Text</p> <p>My expectations for this course:</p> <p>To not be a robot.</p> <p>Verify you are not a robot:</p> <p>ad302</p> <p><input type="text"/> <input type="button" value="Reload"/></p> <p>Invalid Captcha. Try again.</p> <p><input type="button" value="Submit"/></p>
8.	Provide a correct response to the captcha. Your form should submit successfully.
9.	Optionally, you may reload your form and attempt to submit it again. Wait 60 seconds after reloading in Preview mode. The captcha should reload and generate another 5-character code. This is one additional security feature of the built-in captcha component in AEM Forms.
10.	Close the browser tab containing your Hello Form .

Module 7: Rule Editor and Form Logic

Overview

In this hands-on exercise, you will add adaptive behavior using rules into your form. You will hide fields and panels conditionally using rules you create wholly in AEM Forms. You will also make your repeatable panel fully functional with the addition of buttons to add/remove dependents.

TIME: It should take approximately 45 minutes to complete this exercise.

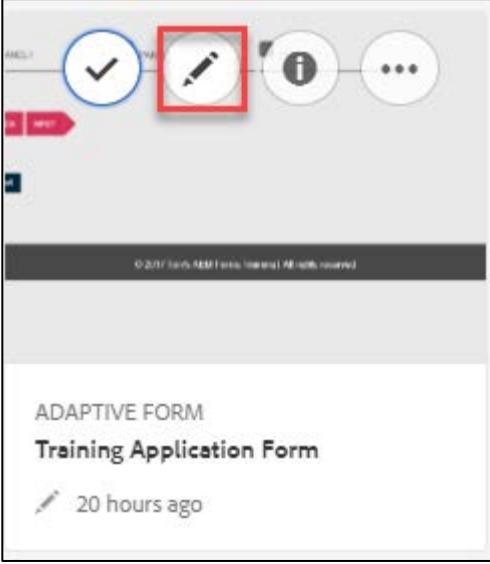
Pre-requisites

Before you begin this exercise, you must complete the following exercise:

Module 4: Panels and Fields

Part 1: Hide a Field

Use the rule editor to hide a field until a specific value is selected in a drop-down menu. Specifically, you want to enable the *Explain* field only if *Reason for Application* is "Other". Right now, your form always displays the *Explain* field regardless.

Step	Instructions
1.	<p>In your Training folder, open your Training Application Form.</p> 
2.	<p>In Edit mode, open the Side Panel by clicking Toggle Panel:</p>

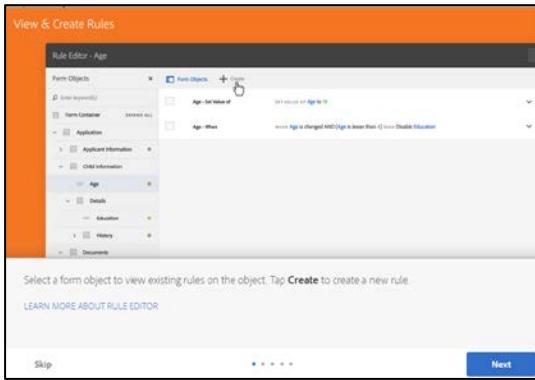
3. Select the **Reason** panel.

4. Select the **Explain** field.

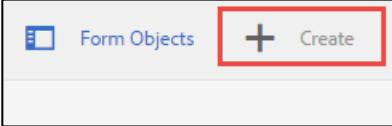
5. Click **Edit Rules**:



NOTE: You may see a **View & Create Rules** tutorial dialog guiding you through a quick explanation of the AEM Forms Rule Editor. You may click **Next** to proceed through the tutorial and learn how to build rules for Forms and the Rule Editor interface, or you may click **Skip** to hide the tutorial.



The Rule editor is now open in AEM.

6.	<p>Click Create:</p> 
7.	You are now going to configure the rule that AEM Forms must follow regarding the Explain field in your form. Click the When drop-down and select Hide .

Explain - When

Form Objects and Functions

WHEN ▾

When

Set Value of

Clear Value of

Hide

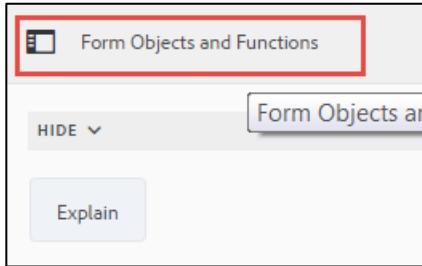
Show

Add Statement

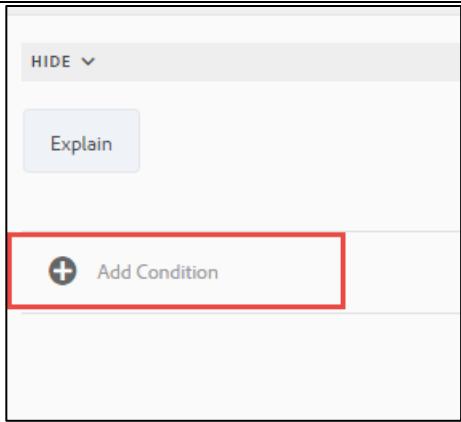


NOTE: You are telling AEM what to do (Hide it) to the **Explain** field as a result of some piece of logic.

8. Click **Form Objects and Functions** to display the Rule Editor's **Side Panel**:



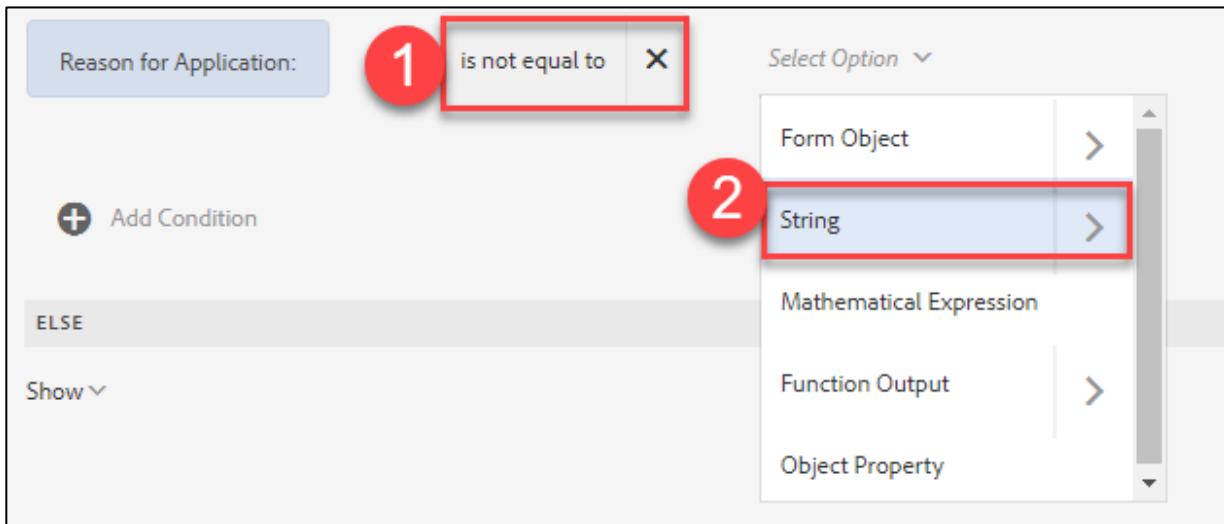
9. Click **Add Condition** in the Rule Editor:



10. In the Side Panel, click and drag the **Reason for Application** field onto your Rule Editor in the **Drop Object or select here** area:

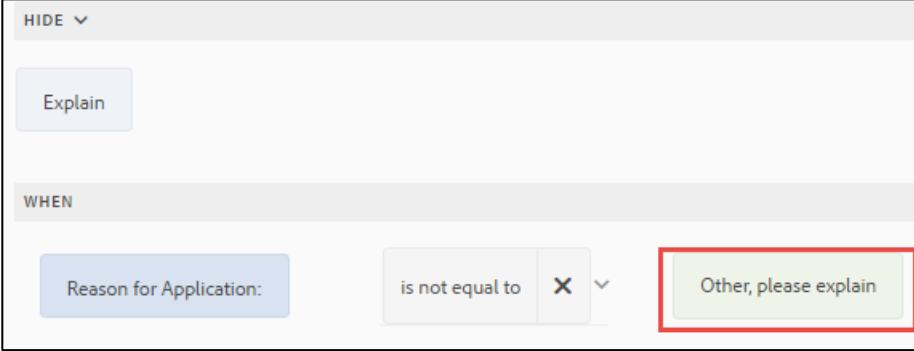


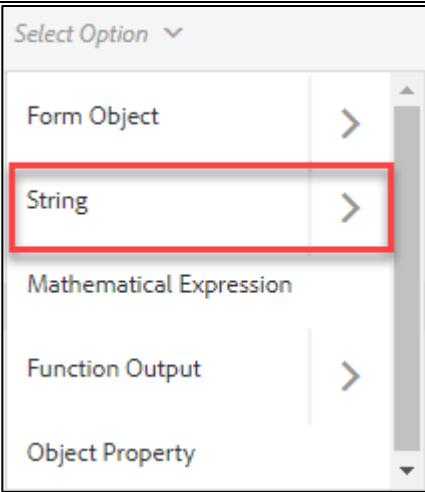
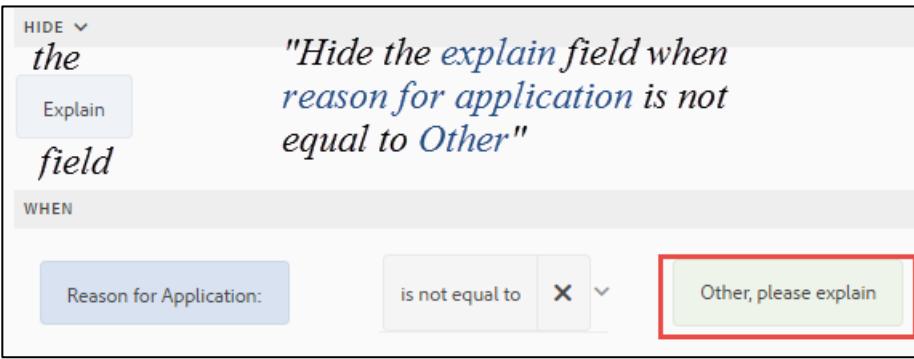
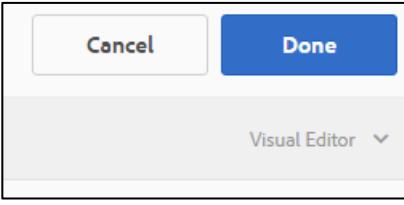
11. Now, you will set the operator. The operator is the logic used to evaluate a value. Choose **is not equal to** (1) for the operator, and **String** (2) for the Option:



NOTE: Operators (for String values) are generally comprised of things like:

- is equal to
- is not equal to
- contains
- starts with

	<p>For numeric values, operators consist of things like:</p> <ul style="list-style-type: none"> • greater than • less than • is equal to • greater than or equal to • lesser than or equal to
12.	<p>Specify the String value of Other, please explain:</p>  <p>HINT: If you cannot see Select Option, try these steps: Select an erroneous option, then cancel [X] out of the option. The Select String option should appear. In addition, you may need to ensure you are selecting the "parent" option, and not a Form Object. If you see "Form Object", click back and Select String.</p>

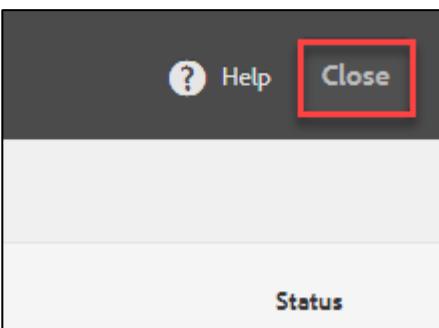
	
13.	 <p>NOTE: Now your rule editor logic should look like this below. You may read your piece of logic like this:</p> 
14.	<p>In the upper-right corner, click Done:</p> 
15.	<p>After you click Done your rule editor should look like this:</p>

The screenshot shows the 'Form Objects' section of the rule editor. A single rule is listed:

Title	Content	Status
Explain - Hide	HIDE Explain WHEN (Reason for Application: ≠ 4) ELSE Show	<input checked="" type="checkbox"/> Enabled

You may click the **Explain – Hide** title if you need to re-edit or view your logic again.

16. Close the rule editor.



17. Preview your form. Your **Explain** field should only be visible if the value of **Reason for Application** is **Other, please explain**:

The screenshot shows a form titled 'Reason for Request'. It contains the following fields:

- Reason for Application: Other, please explain
- Explain: (Text area)
- Amount: (Text input)
- Dependents?: Yes

At the bottom are navigation buttons: BACK and NEXT.

18. Test changing the value of **Reason for Application** and ensure the **Explain** field vanishes:

Reason for Request

Reason for Application: Reduction of household income ▼

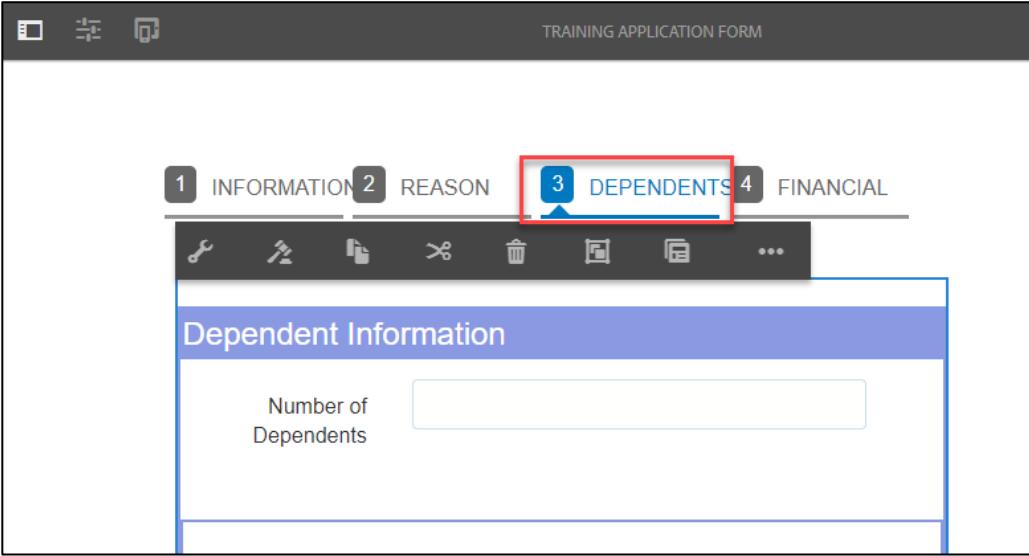
Amount

Dependents? Yes

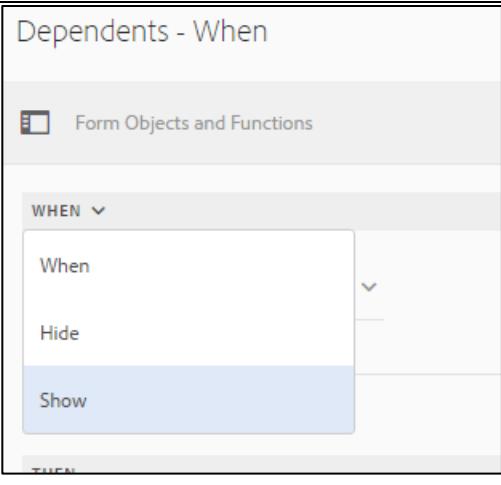
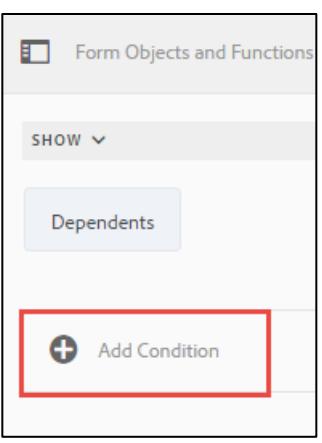
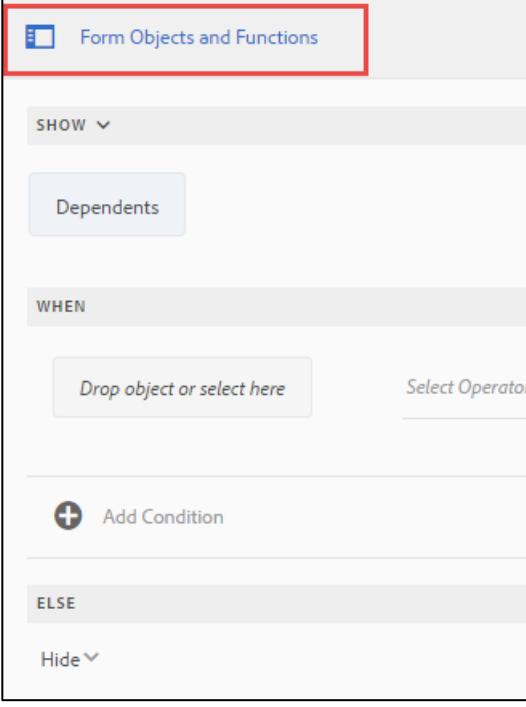
 BACK |  NEXT

Part 2: Hide a Panel

Use the rule editor to hide an entire panel if the value of a field changes. Specifically, you want to only display the Dependents panel if the user selects "Yes" for Dependents? Right now, your form always displays this panel regardless.

Step	Instructions
1.	<p>Open your form in Edit mode, and select your DEPENDENTS panel:</p>  <p>The screenshot shows the 'TRAINING APPLICATION FORM' interface in edit mode. At the top, there are four tabs labeled 1 INFORMATION, 2 REASON, 3 DEPENDENTS (which is highlighted with a red box), and 4 FINANCIAL. Below the tabs is a toolbar with various icons. A blue box highlights the 'Dependent Information' panel, which contains a field labeled 'Number of Dependents'. A blue arrow points from the 'DEPENDENTS' tab to this panel. In the bottom-left corner of the panel area, there is a small icon of a white exclamation mark inside a dark gray rounded square.</p> <p>HINT: You will know your panel is selected (in blue) correctly by paying attention to the Side Panel, which should look like this when viewing the Content > Form Objects pane:</p>

	<p>The screenshot shows the AEM Forms Content panel. On the left is a sidebar with icons for Content, Form Objects, Data Model Objects, and a search bar. The main area displays a list of form objects. At the top is a section titled "Reason for Application:" with items "ABC Explain" and "123 Amount". Below this is a section titled "Dependents?" with a checked checkbox. Underneath is a section titled "Dependents" with a dropdown menu open, showing "123 Number of Dependents".</p>
2.	<p>Click Edit Rules for your panel to open the rule editor in AEM Forms.</p> <p>The screenshot shows the Rule Editor interface. It features four tabs at the top: "INFORMATION", "REASON", "DEPENDENTS" (which is highlighted with a blue arrow), and "FINANCIAL". Below the tabs is a toolbar with icons for edit, delete, and other functions. The main content area is titled "Dependent Information".</p>
3.	<p>In the Rule Editor, click Create:</p> <p>The screenshot shows the Rule Editor toolbar. A red box highlights the "Create" button, which is represented by a plus sign icon and the word "Create".</p>
4.	<p>Click WHEN and in the drop-down, select Show:</p>

	
5.	Click Add Condition: 
6.	Click Form Objects and Functions at the top of the Rule Editor to open the Side Panel: 

7. Drag the **Dependents?** checkbox from the **Reason** panel to the **Drop object or select here** of your **WHEN** area in the Rule Editor:

The screenshot shows the Rule Editor interface. On the left, there's a tree view with nodes like 'Form Objects', 'Functions', 'Enter keyword(s)', 'ABC Phone Num', 'ABC Ref ID', 'Source', 'Reason', 'Reason for Application:', 'ABC Explain', '123 Amount', and 'Dependents?' (which is highlighted with a red box). On the right, there's a 'Form Objects and Functions' panel with tabs for 'SHOW' and 'Dependents'. Below it is a 'WHEN' section with a 'Drop object or select here' box (also highlighted with a red box), an 'Add Condition' button, and an 'ELSE' section. A red dashed arrow points from the 'Dependents?' checkbox in the tree view to the 'Drop object or select here' box in the 'WHEN' section.

HINT: Ensure you are not dragging the **Panel** of a similar name right below it. This should be the checkbox you are dragging. Note the checkbox icon present next to the component. Avoid dragging the wrong component:

This screenshot shows the same Rule Editor interface as above, but with a mistake. The 'Dependents?' checkbox from the tree view is now highlighted with a red box and has a large red 'X' drawn over it, indicating it was not successfully moved. The 'Dependents?' panel in the tree view is also highlighted with a red box.

8. Build your logic as follows. Select **is equal to** as your operator, and **Yes** as the value:

The screenshot shows the completed logic step. The 'WHEN' section contains three components: 'Dependents?', 'is equal to', and 'Yes'. The 'Dependents?' and 'Yes' boxes are highlighted with red boxes, while the 'is equal to' box is not.



HINT: You may need to click back on **Form Object** to get **String** to appear:

The screenshot shows a dropdown menu titled "Drop object or select here". At the top left, it says "is equal to". Below that is a search bar with the placeholder "Filter Objects". At the bottom, there is a note "Reason for Application: DROP". The "Form Object" option is highlighted with a red box.

9.



NOTE: You may read your piece of logic like this:

The screenshot shows the "Form Objects and Functions" rule editor. It displays a condition: "SHOW the Dependents panel when the Dependents? box is selected." The condition details are: "WHEN the Dependents? box is equal to Yes (selected)". There is also a "Add Condition" button at the bottom.

10.

In the upper-right corner, click **Done**:

The screenshot shows the "Visual Editor" interface with a "Done" button highlighted in blue.

Your rule should now look like this:

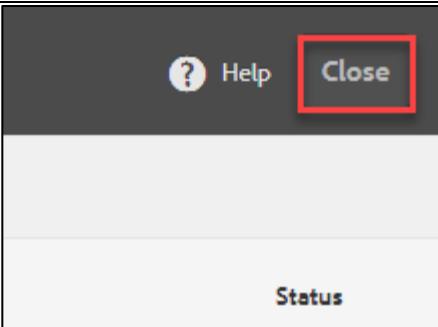
The screenshot shows the "Rule Editor" interface with the following rule definition:

```

Title          Content
Dependents - Show      SHOW Dependents WHEN (Dependents? is equal to 1) ELSE Hide
  
```

11.

Close the rule editor.



12. Preview your form. Navigate to the **REASON** panel. Your **Dependents** panel should only be visible if the **Dependents?** box is selected:

Reason for Request

Reason for Application:

Amount: Dependents? Yes

BACK | **NEXT**



NOTE: Recall that the style for your form dictates that panels that have been navigated to turn **green**. The panel you are currently previewing is in **blue**.

13. Test by de-selecting the **Dependents?** box and the Panel vanishes:

1 INFORMATION 2 REASON 3 FINANCIAL

Reason for Request

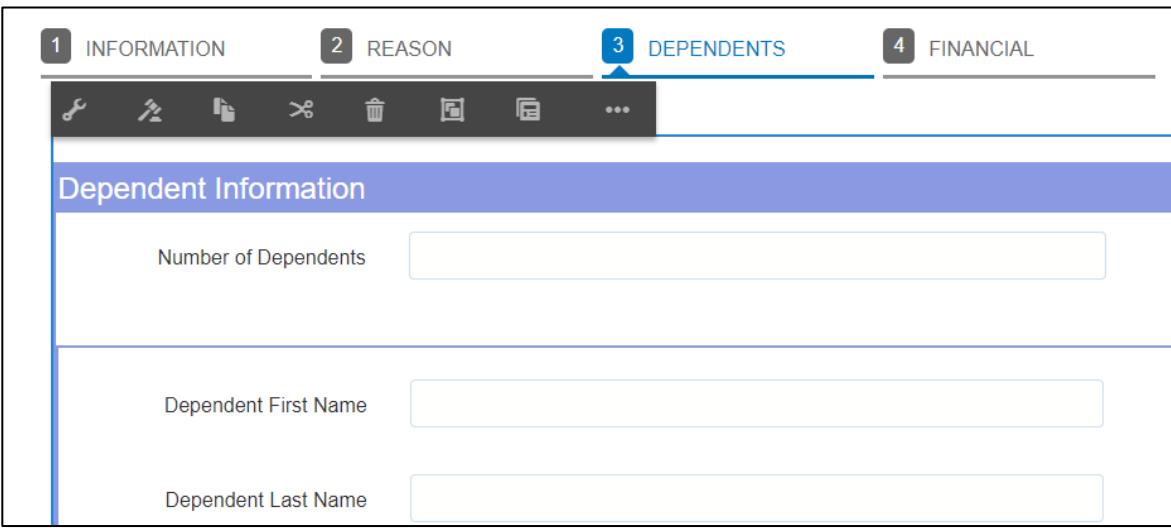
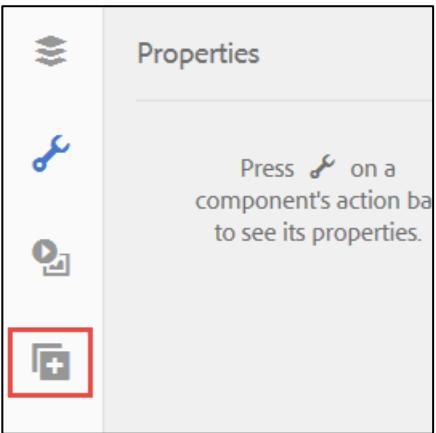
Reason for Application:

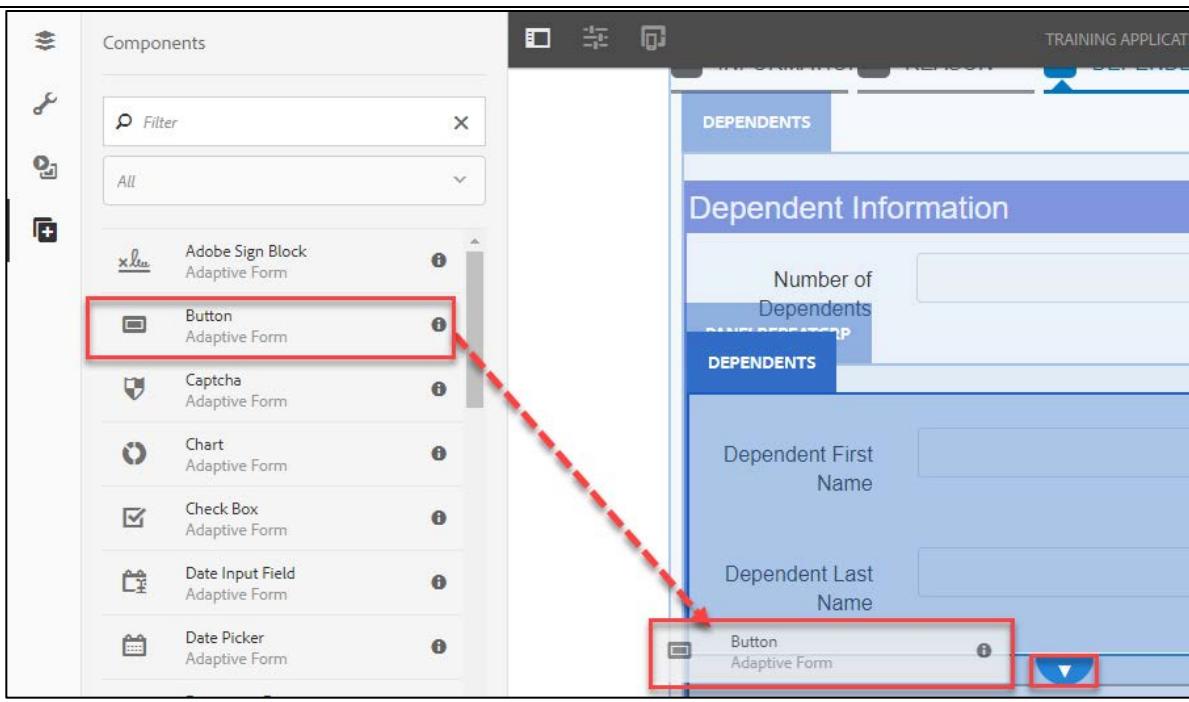
Amount Dependents? Yes

BACK **NEXT**

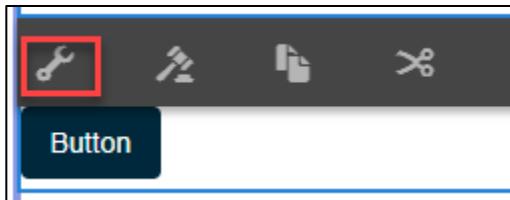
Part 3: Dynamic Dependents

Use the rule editor to make your dependents section dynamic and fully realize the repeatable panel properties.

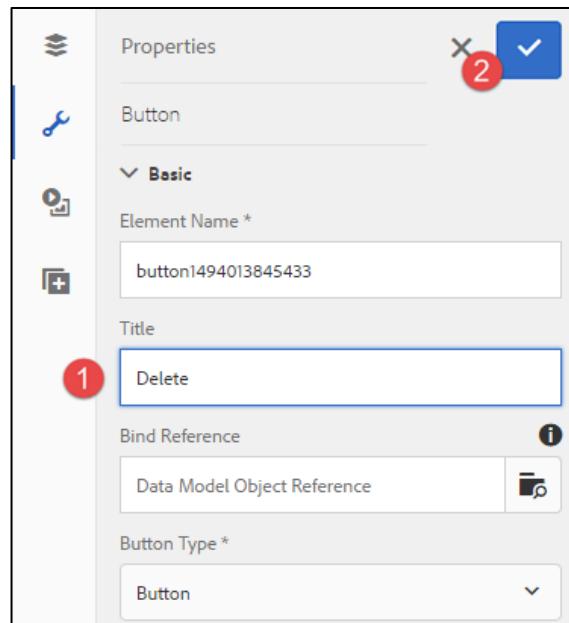
Step	Instructions
1.	<p>Open your form in Edit mode, and select your DEPENDENTS panel in the Forms object hierarchy:</p>  <p>The screenshot shows the 'Forms' object hierarchy with four panels: INFORMATION (1), REASON (2), DEPENDENTS (3, highlighted in blue), and FINANCIAL (4). Below the hierarchy is a form interface titled 'Dependent Information'. It contains three input fields: 'Number of Dependents', 'Dependent First Name', and 'Dependent Last Name'.</p>
2.	<p>Click Components in your Side Panel:</p>  <p>The screenshot shows the Side Panel with the 'Components' icon highlighted with a red box. The panel also displays the 'Properties' tab and a tooltip: 'Press ⚙️ on a component's action bar to see its properties.'</p>
3.	<p>Select a Button Adaptive Form component. Click it and drag and drop it onto your form directly underneath the Dependent Last Name field:</p>



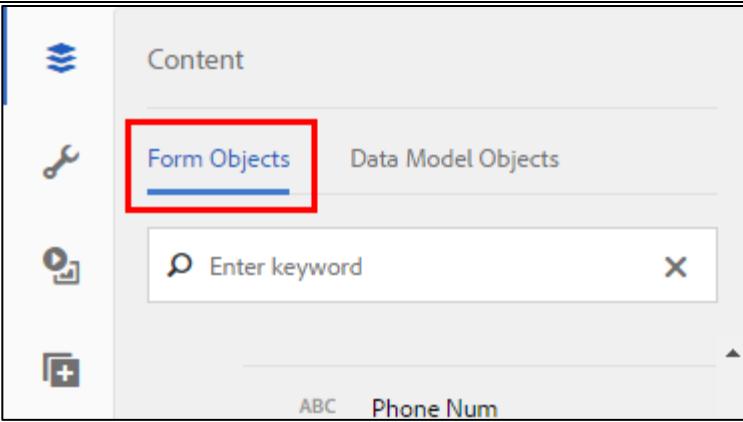
4. Configure your newly created Button component by selecting it and clicking **Configure**:



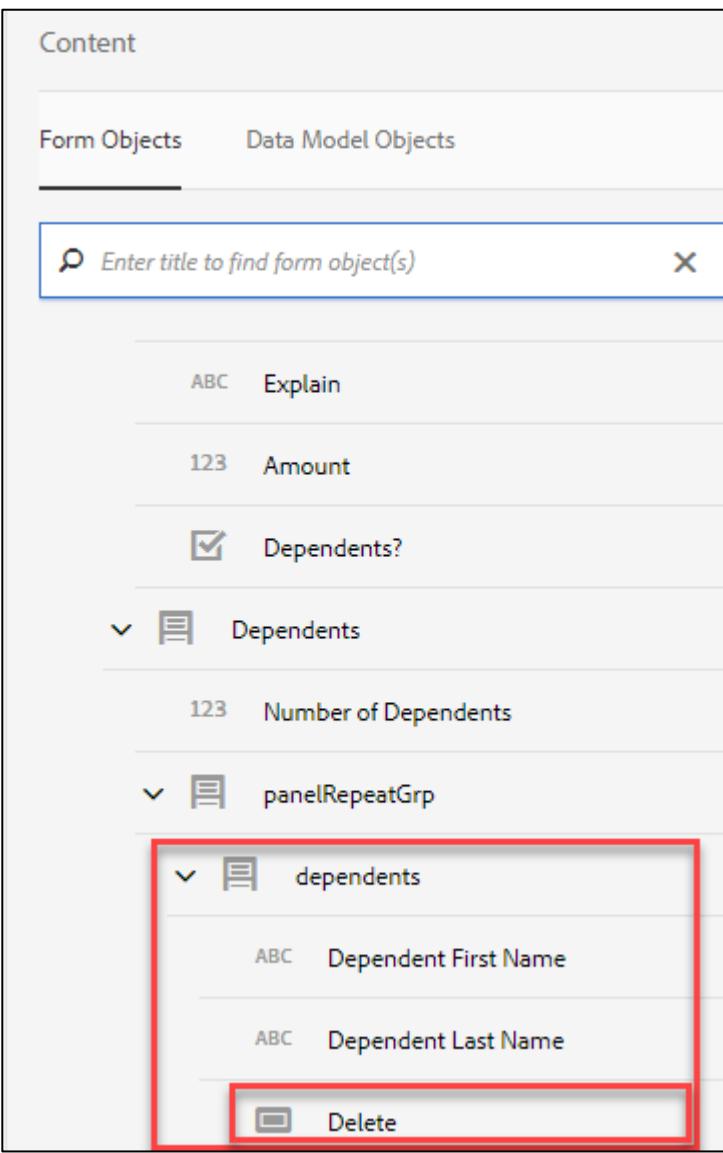
5. Specify the title as **Delete** (1) and click **Done** to save your changes (2).



6. Click the **Content** view in the **Side Panel** and then click **Form Objects**:



7. Scroll down in the Side Panel and ensure your new Delete button is contained within the **dependent** panel:



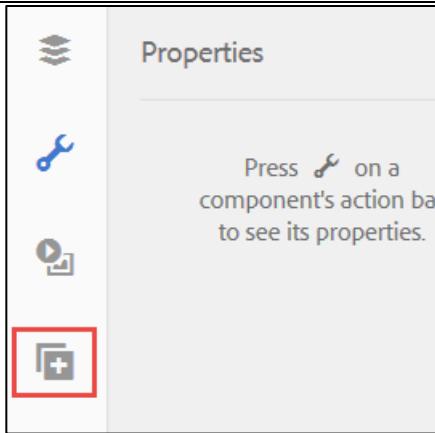


HINT: If your Delete button is not located in the correct place in the Form Objects hierarchy, select the object in the Form Objects panel and drag it to the correct position directly in the Side Panel.

8. Select the **panelRepeatGrp** in the Form Objects panel:

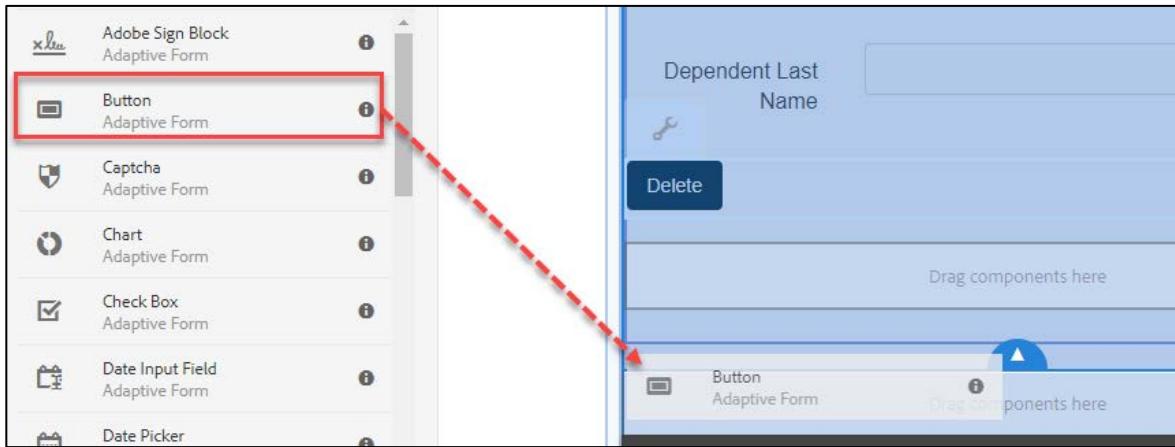
The screenshot shows the 'Form Objects' panel in Adobe Experience Manager. The panel has two tabs: 'Form Objects' (selected) and 'Data Model Objects'. A search bar at the top contains the placeholder 'Enter title to find form object(s)'. Below the search bar, there is a list of objects. One object, 'Dependents?', has a checked checkbox next to it. Under the 'Dependents?' object, there is a collapsed section labeled 'Dependents'. Inside this section, there is another object named 'Number of Dependents'. Below 'Number of Dependents', there is a collapsed section labeled 'dependents'. Inside this section, there are three objects: 'Dependent First Name', 'Dependent Last Name', and a 'Delete' button. At the bottom of the list is an 'Add another dependent' button. The 'panelRepeatGrp' object is highlighted with a red rectangular box.

9. Click Components in your Side Panel:



10. Select a **Button** Adaptive Form component. Click it and drag onto the bottom of the **Drag components here** box located inside the selected **panelRepeatGrp** panel.

In other words, this second button is to be located at the bottom of the panel that is outlined in blue in the form editor.



11. Configure your newly created Button component by clicking **Configure**:

Dependent First Name

Dependent Last Name

Delete

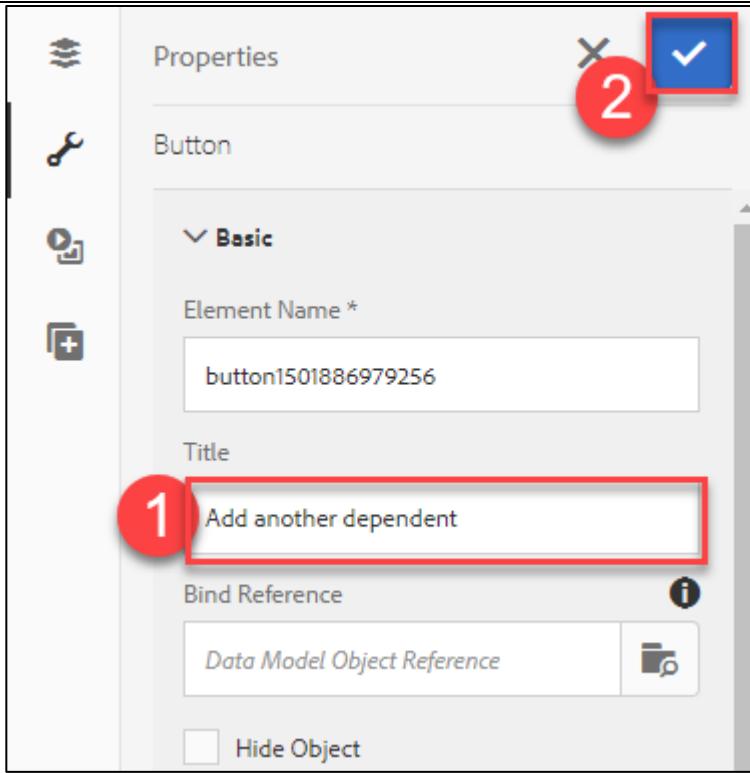
Button

Drag components here

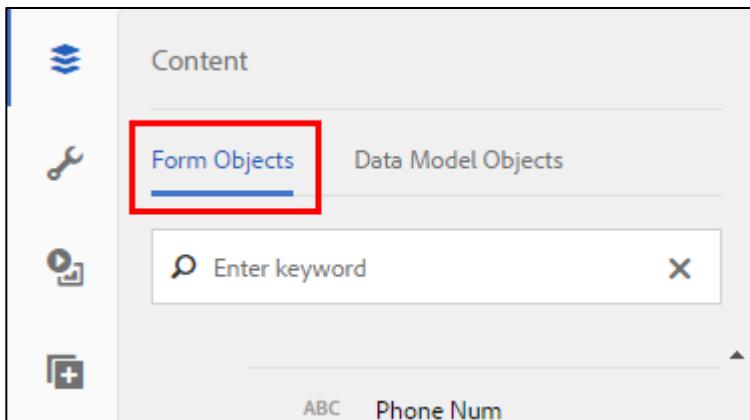
Button

Drag components here

12. Change the **Title** property of your button to **Add another dependent** (1) and then click on the **Done** button to save your changes (2):



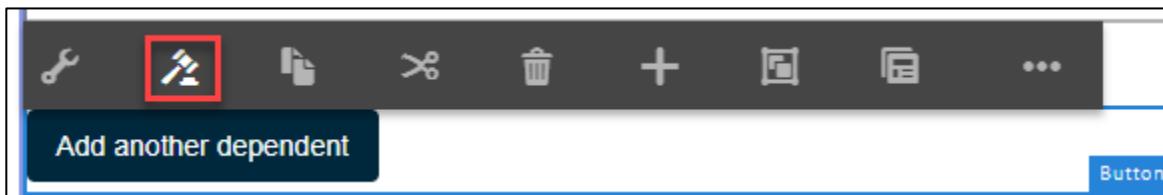
13. Click the **Content** view in the **Side Panel** and then ensure **Form Objects** is selected:



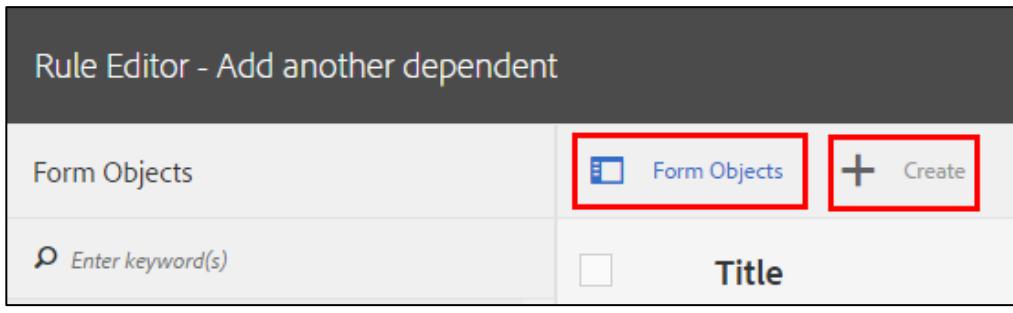
14. Ensure your new **Add new dependents** button is contained within the **panelRepeatGrp** panel directly underneath the **dependent** panel:

The screenshot shows the 'Form Objects' tab selected in the 'Form Objects' Side Panel. At the top is a search bar with placeholder text 'Enter keyword'. Below it is a list of objects. One object, 'Dependents', is expanded, revealing a repeating group 'panelRepeatGrp' which contains a single item labeled 'dependent'. This item has fields for 'Dependent First Name' and 'Dependent Last Name', along with a 'Delete' button and an 'Add another dependent' button. The entire 'dependent' section is highlighted with a red box. At the very bottom of the list is another object labeled 'Financial'.

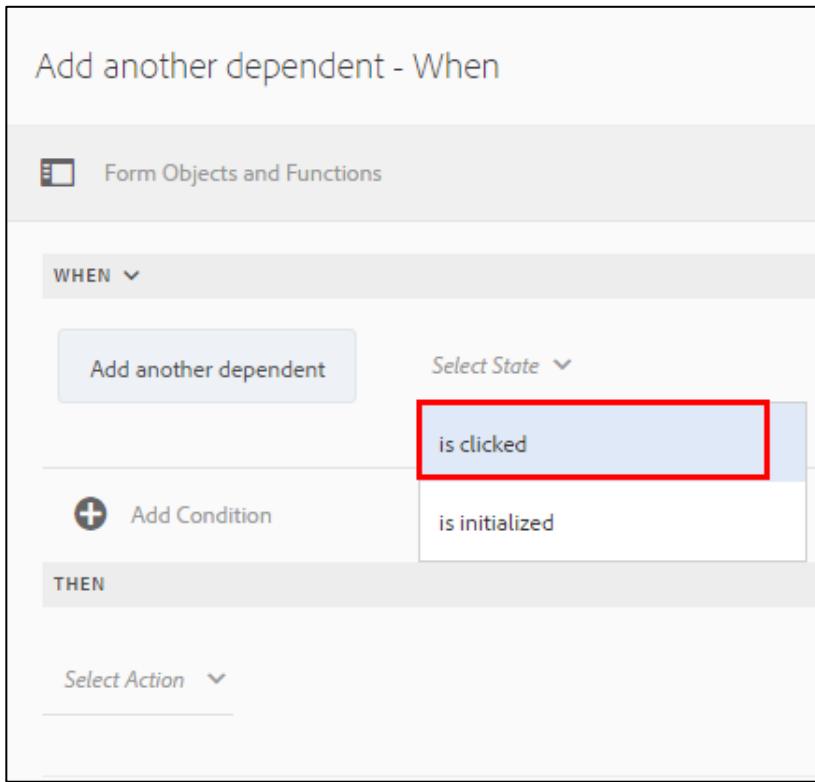
15. Now that you have your buttons in their proper places, you need to add logic to them for them to function.
Click on the **Add another dependent** button and select the **Edit Rules** button (gavel icon):



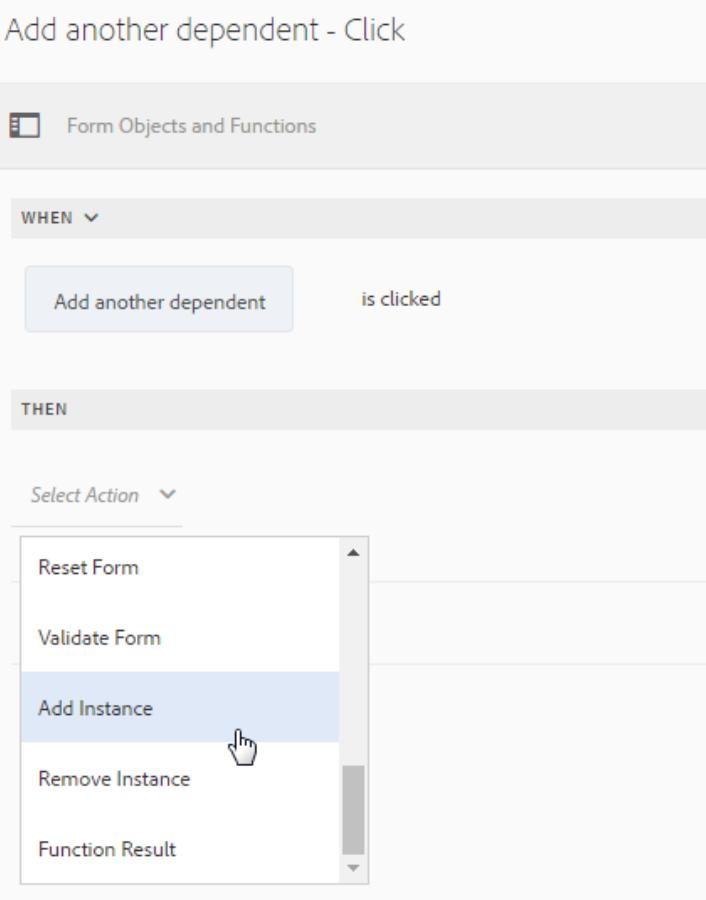
16. In the **Rules Editor**, select the **Form Objects** button to open the **Form Objects** Side Panel (if it is not already open), then click **Create**:



17. Under the **When** condition, open the **Select State** menu and choose **is clicked**. This will enact your new function on your button's click event.



18. Under the **Then** statement, open the **Select Action** menu and select **Add Instance**:



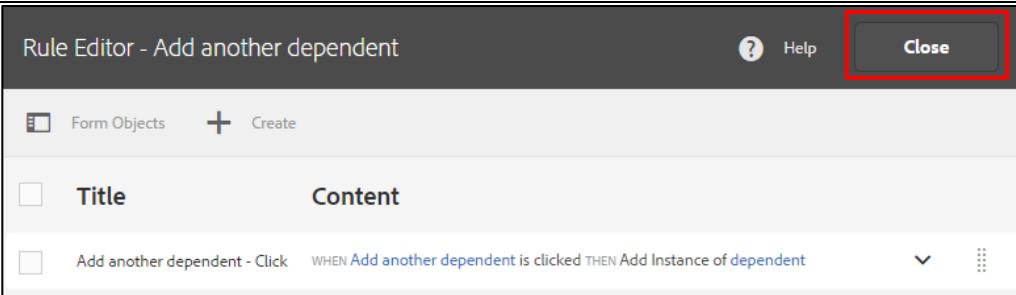
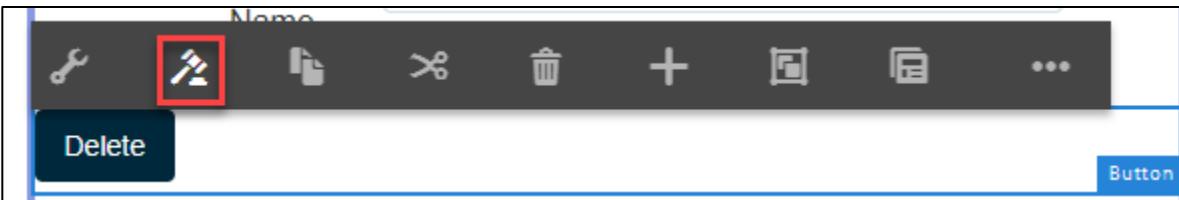
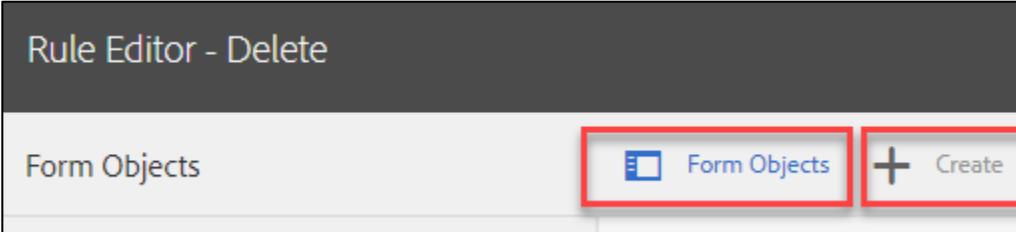
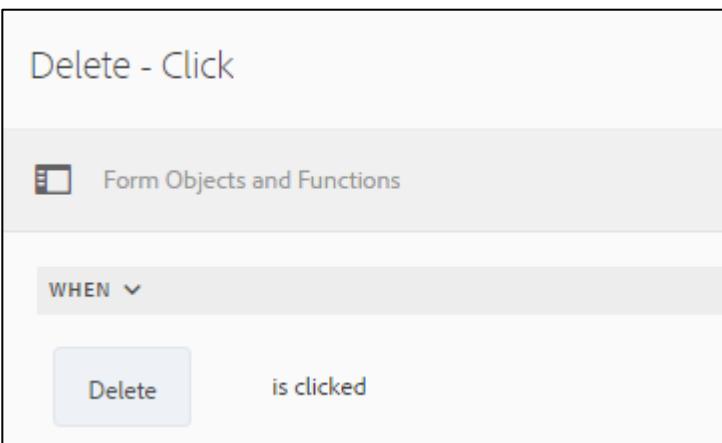
19. Select the **dependents** panel in the **Form Objects** panel and drag it on top of the **Drop object or select here** box next to your new **Then** statement:

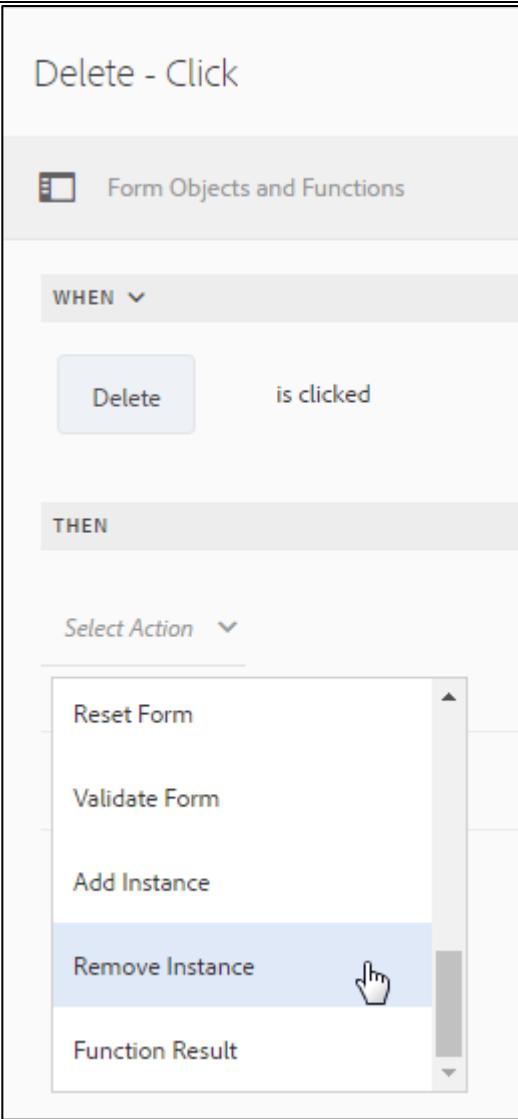
The screenshot shows the 'Form Objects' and 'Functions' tabs selected in the top navigation bar. In the left panel, under 'Dependents', there is a section for 'Number of Dependents'. Below it, a 'panelRepeatGrp' section is expanded, showing a list item 'dependents'. This list item is highlighted with a red box. A dashed red arrow points from this highlighted item to a 'Drop here' placeholder in the 'THEN' section of the rule editor on the right. The rule editor shows a 'WHEN' condition 'Add another dependent is clicked' and a 'THEN' action 'Add Instance of dependent'.

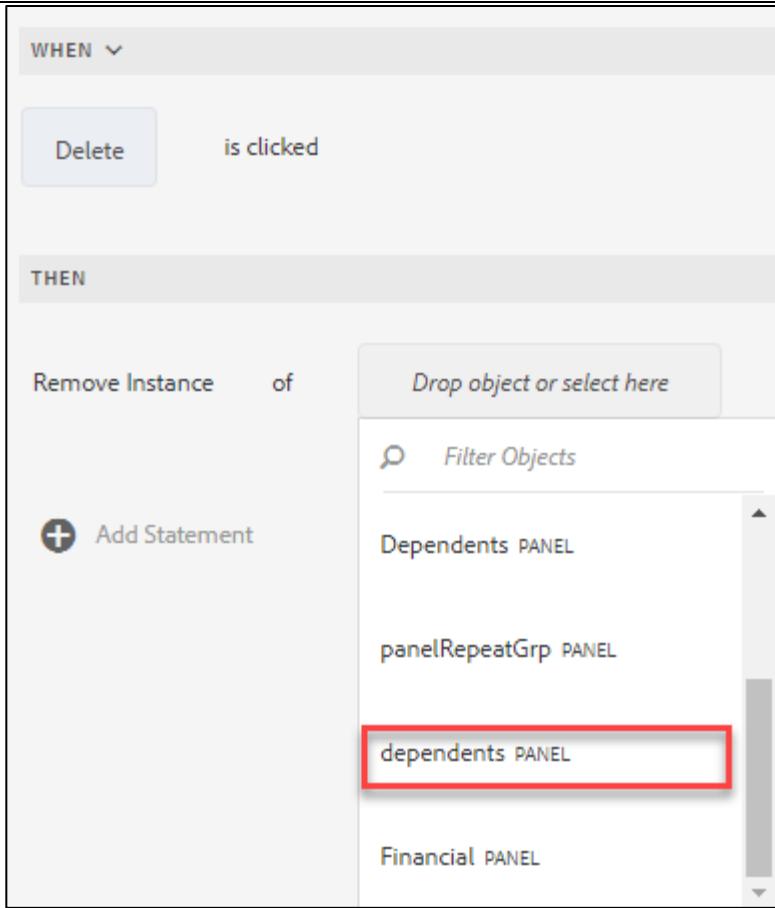
20. The rule for your **Add another dependent** button is now configured as shown below. Click **Done** to save your new rule.

This screenshot shows the 'Add another dependent - Click' rule configuration dialog. It includes a 'Help' button, a 'Cancel' button, and a large blue 'Done' button which is highlighted with a red box. The dialog displays the rule configuration with the 'WHEN' condition 'Add another dependent is clicked' and the 'THEN' action 'Add Instance of dependent'.

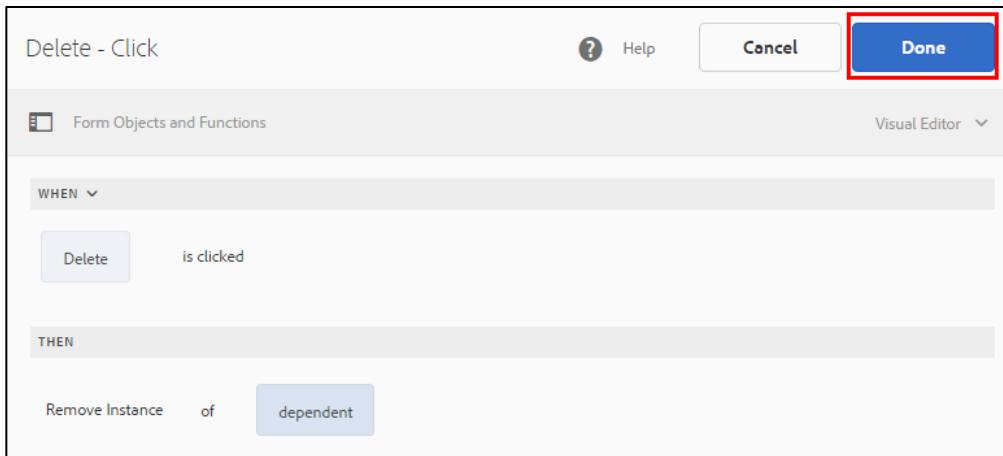
21. Your new rule is now listed in the **Rule Editor** list of rules for the Add another dependent button. Click the **Close** button.

	
22.	Select the Delete button and select the Edit Rules button (gavel icon): 
23.	In the Rules Editor , select the Form Objects button to open the Form Objects Side Panel (if it is not already open), then click Create : 
24.	Under the When statement, choose the is clicked in the Select State menu: 
25.	Under the Then statement, select Remove Instance in the Select Action menu:

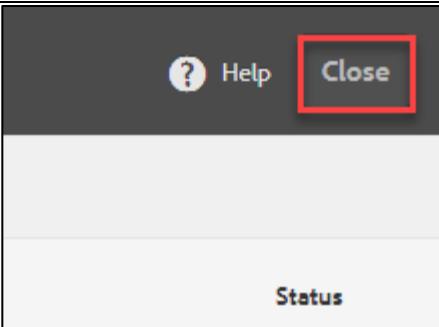
	 <p>The screenshot shows the configuration of a rule named "Delete - Click". The rule is triggered by the event "Delete is clicked". In the "THEN" section, the "Select Action" dropdown is open, displaying a list of actions: "Reset Form", "Validate Form", "Add Instance", "Remove Instance", and "Function Result". The "Remove Instance" action is selected, indicated by a blue background and a cursor icon pointing at it.</p>
26.	Click the Drop object or select here box and select dependents (LOWERCASE) panel.



27. The rule for your **Delete** button is now configured. Click **Done** to save your new rule:



28. Close the rule editor.



29. In **Preview** mode, click **NEXT** to navigate to the **Reason** Panel. Select **Dependents**. As previously configured, the **Dependents** panel should appear. Click **NEXT** again to go to the **DEPENDENTS** (third) panel.

Click the **Add another dependent** button. A new instance of the **dependent** panel should be added to the form:

The screenshot shows a navigation bar with four tabs: 1 INFORMATION, 2 REASON, 3 DEPENDENTS (which is active), and 4 FINANCIAL. Below the tabs, there's a section titled "Dependent Information". It contains two sets of input fields for "Dependent First Name" and "Dependent Last Name", each with a "Delete" button below it. A third set of these fields is shown, enclosed in a red rectangle. At the bottom of this section is a "Delete" button and an "Add another dependent" button.

30. Now click **Delete** on one of the dependent repeatable panels. The instance should now be removed from the form.

LAB 4 TRAINING APPLICATION FORM

1 INFORMATION 2 REASON 3 DEPENDENTS 4 FINANCIAL

Dependent Information

Dependent First Name

Dependent Last Name

[Delete](#)

[Add another dependent](#)

(OPTIONAL) Part 4: Adaptive Form Fragments

Introduction

This is an optional exercise and training material covering Adaptive Form Fragments.

Forms can contain reusable sections that you can save as Fragments in AEM Forms. For instance, many Insurance and Financial forms can include a *bankingAndPayment* section such as the following:

Account Type: Checking Savings

We **CANNOT** establish electronic payments from some brokerage, mutual funds or from foreign bank accounts (unless it is being paid in U.S. Dollars through a U. S. correspondent bank.)

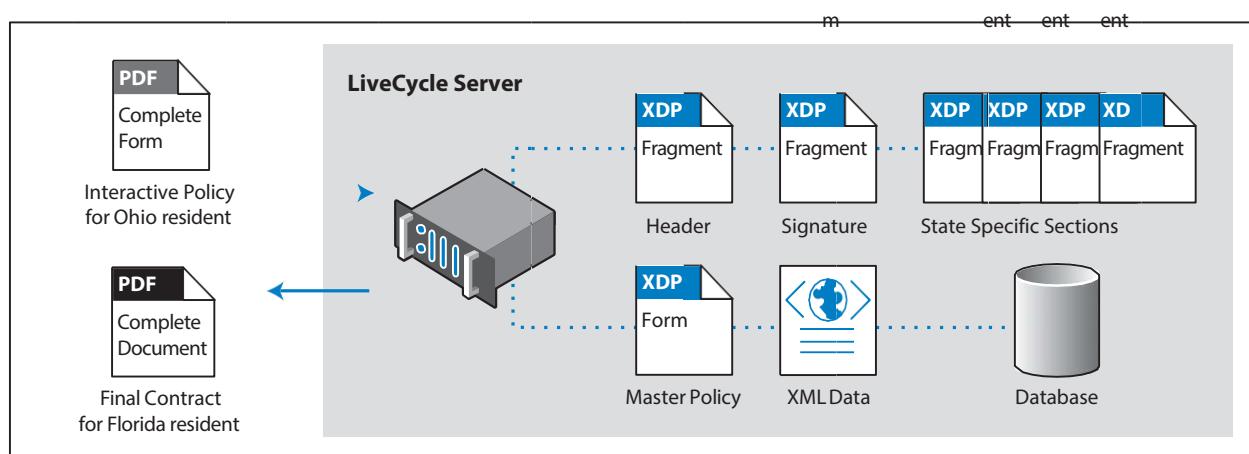
Banking institution routing number

Account number

Name of bank

If this is a brokerage account, please provide firm name

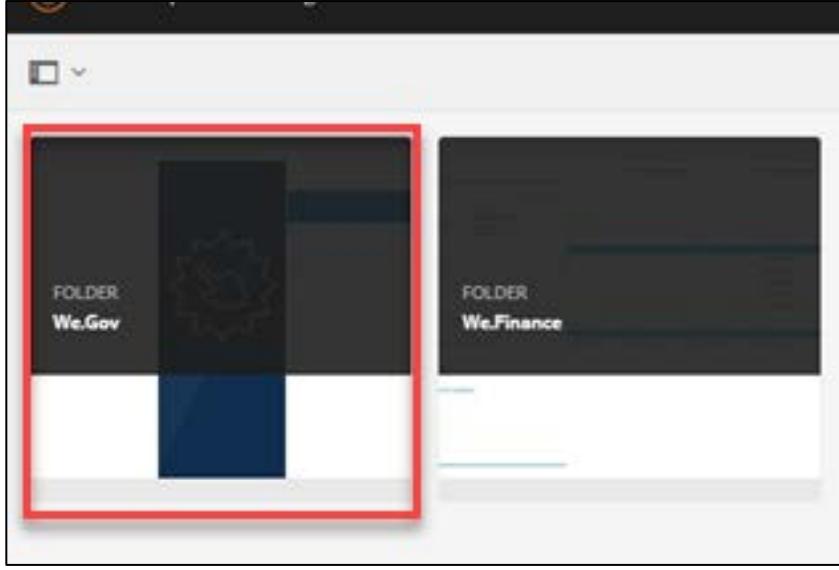
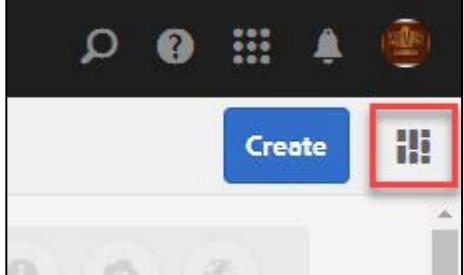
You can create these reusable sections in Adobe Form Designer and in AEM Forms as form fragments. **The benefit is efficiency and reuse of common pieces of information across your forms. It is critical that form fragments be used for large Forms implementations for things like address information, payment/financial details/ACH, contact information, and so on.** This illustration below shows an example of an XDP fragment system. Note how many unique documents you can generate with reusable modular form fragments.



(OPTIONAL) 4a. Create a copy of a Form Fragment and Customize it

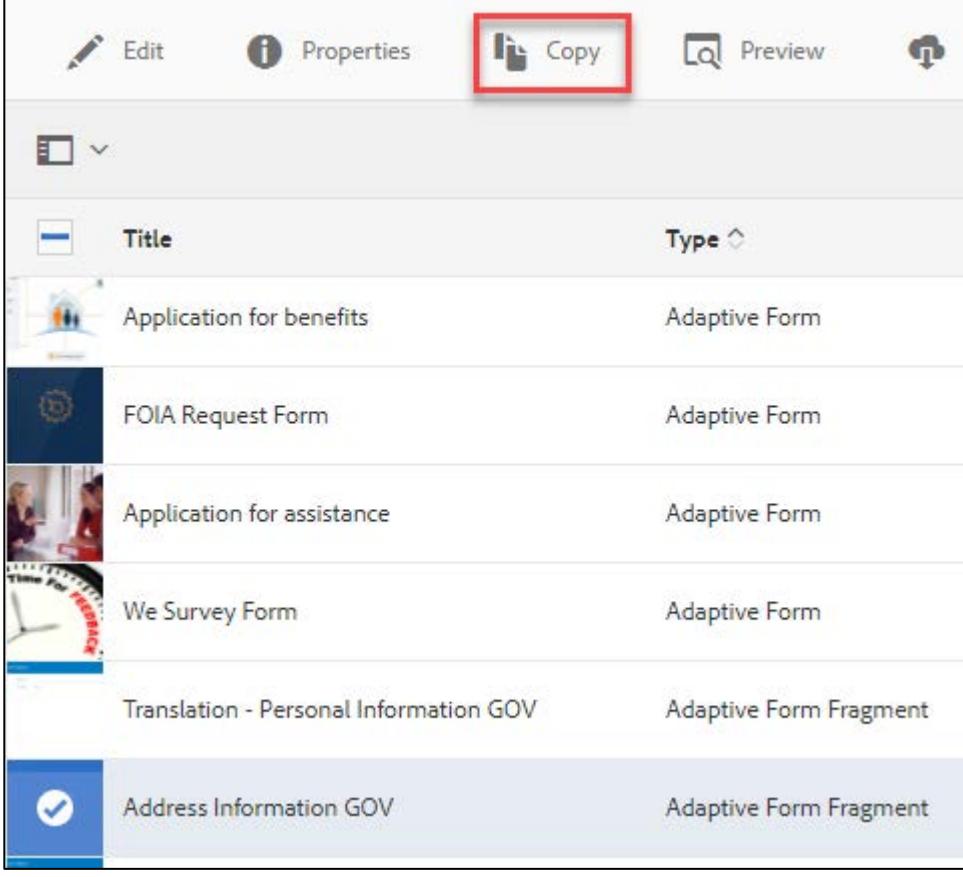
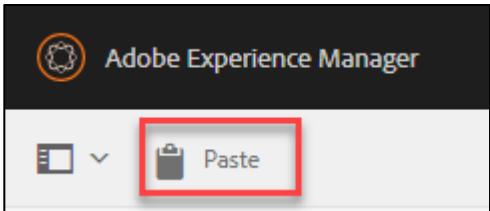
In this exercise, you will create and use AEM Adaptive Form Fragments. First, you will create a Form Fragment by using an existing built-in fragment, making a copy of it, and editing it for your purposes.

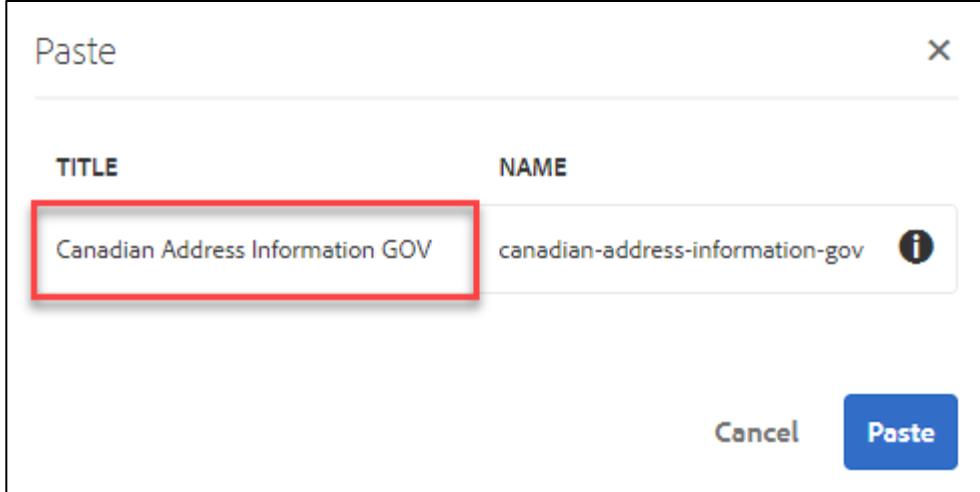
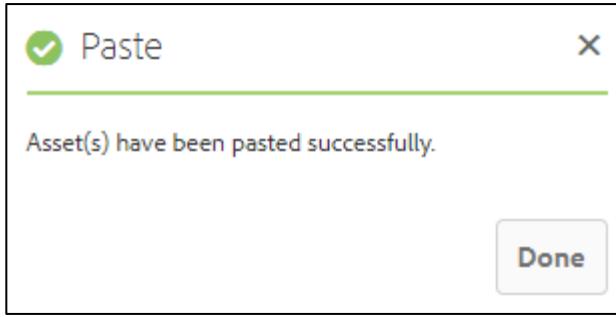
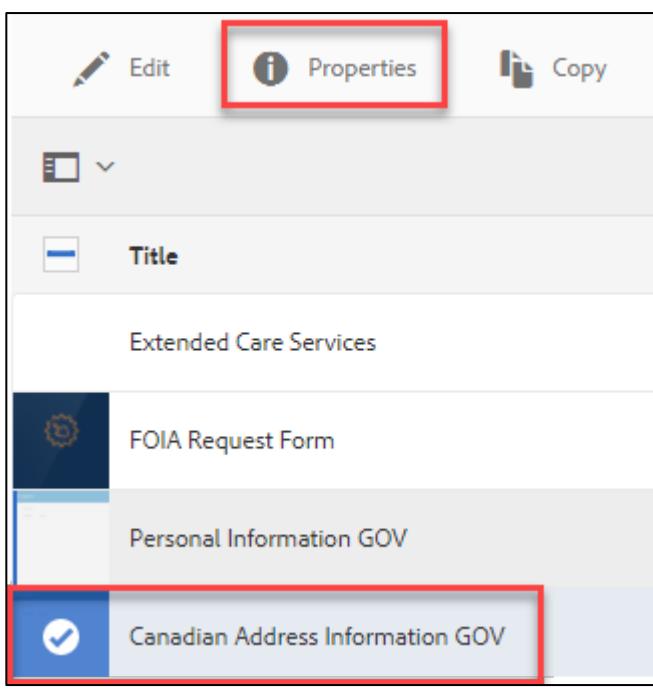
Prerequisites: None

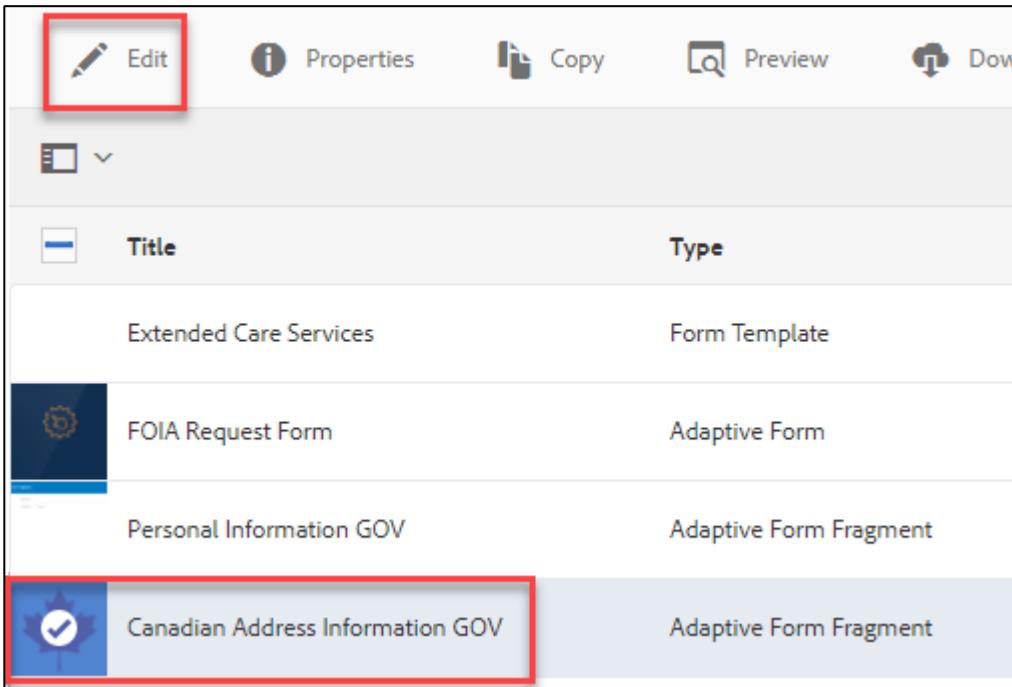
Step	Instructions
1.	<p>Navigate to Adobe Experience Manager > Forms > Forms & Documents > We.Gov.</p> 
2.	<p>Click Card View at the upper right.</p>  <p> NOTE: Card view is a toggle. When clicked, it changes to List View. List view is useful for form, template, and fragment management. You may select, sort, and delete objects from this view.</p>
3.	<p>Sort by Type. Notice the purpose of this step is to group by type (Template, Adaptive Form, Folder, Adaptive Form Fragment, and so on).</p>
4.	<p>Locate the Address Information GOV Adaptive Form Fragment and select it.</p>

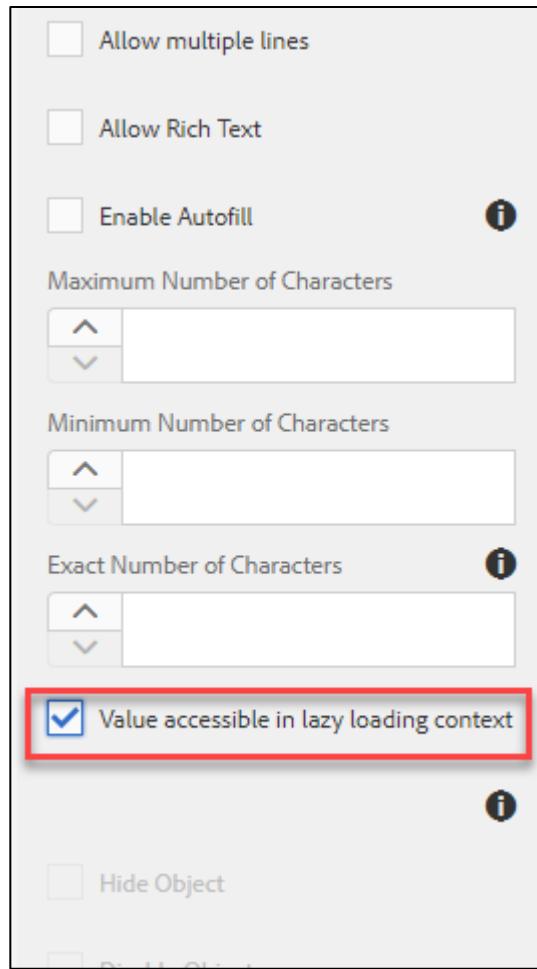
	List of available form fragments		
	Title	Type	Size
	Application for benefits	Adaptive Form	
	FOIA Request Form	Adaptive Form	
	Application for assistance	Adaptive Form	
	We Survey Form	Adaptive Form	
	Translation - Personal Information GOV	Adaptive Form Fragment	
	Address Information GOV	Adaptive Form Fragment	
	Personal Information GOV	Adaptive Form Fragment	

5. Copy this built-in form fragment.

	
6.	Paste the fragment. 
7.	When prompted, rename the pasted fragment title and name according to the following: Canadian Address Information Gov

	 <p>Paste</p> <p>TITLE NAME</p> <p>Canadian Address Information GOV canadian-address-information-gov i</p> <p>Cancel Paste</p>
	<p>Click Paste.</p>
8.	<p>When prompted, click Done:</p>  <p>✓ Paste</p> <p>Asset(s) have been pasted successfully.</p> <p>Done</p>
9.	<p>Select the newly pasted Form Fragment and click Properties.</p>  <p>Edit Properties Copy</p> <p>Title</p> <p>Extended Care Services</p> <p>FOIA Request Form</p> <p>Personal Information GOV</p> <p>Canadian Address Information GOV</p>

10.	Reset the thumbnail for the form fragment. Be patient as the Properties page may take a while to load. To reset the thumbnail, click Upload Image and upload the Canada.png file provided with the Exercise_Files (found in the Module 7 - Optional Form Fragments Exercises folder).										
11.	Click Save & Close at upper right.										
12.	Select and open your Canadian Address Information GOV fragment for editing.  The screenshot shows a list of form fragments in a table. The first column contains icons and dropdown menus. The second column contains the fragment titles, and the third column contains their types. A red box highlights the 'Edit' button in the top toolbar. Another red box highlights the row for 'Canadian Address Information GOV'. <table border="1"> <thead> <tr> <th>Title</th><th>Type</th></tr> </thead> <tbody> <tr> <td>Extended Care Services</td><td>Form Template</td></tr> <tr> <td>FOIA Request Form</td><td>Adaptive Form</td></tr> <tr> <td>Personal Information GOV</td><td>Adaptive Form Fragment</td></tr> <tr> <td>Canadian Address Information GOV</td><td>Adaptive Form Fragment</td></tr> </tbody> </table>	Title	Type	Extended Care Services	Form Template	FOIA Request Form	Adaptive Form	Personal Information GOV	Adaptive Form Fragment	Canadian Address Information GOV	Adaptive Form Fragment
Title	Type										
Extended Care Services	Form Template										
FOIA Request Form	Adaptive Form										
Personal Information GOV	Adaptive Form Fragment										
Canadian Address Information GOV	Adaptive Form Fragment										
13.	Make the following changes to the component properties in your fragment: <ol style="list-style-type: none"> Change Zip Code to Postal Code (Title) Change ZipCode_Numericbox to PostalCode_CA (Element Name) Enable Value accessible in lazy loading context (scroll down to enable this option): 										



- d. Below the Basic menu for Postal Code, expand the **Patterns** menu.
- e. In the Display Pattern area, click the **Type** drop-down menu and select **Custom**.
- f. Set the pattern type to **Custom** and enter this code pattern in the **Pattern** field:
`text {A9A9A9}`

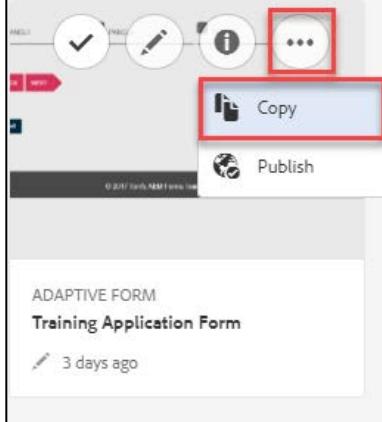
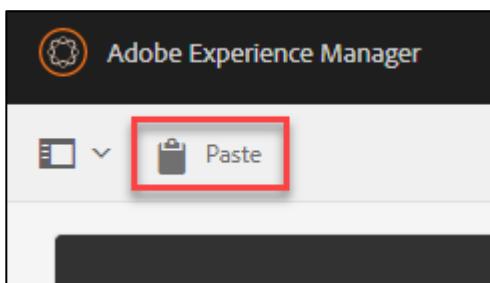
Make the Validation Pattern the same as the display pattern:

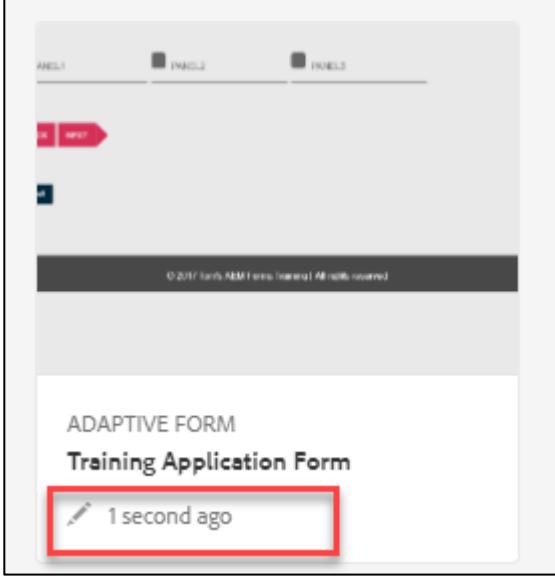
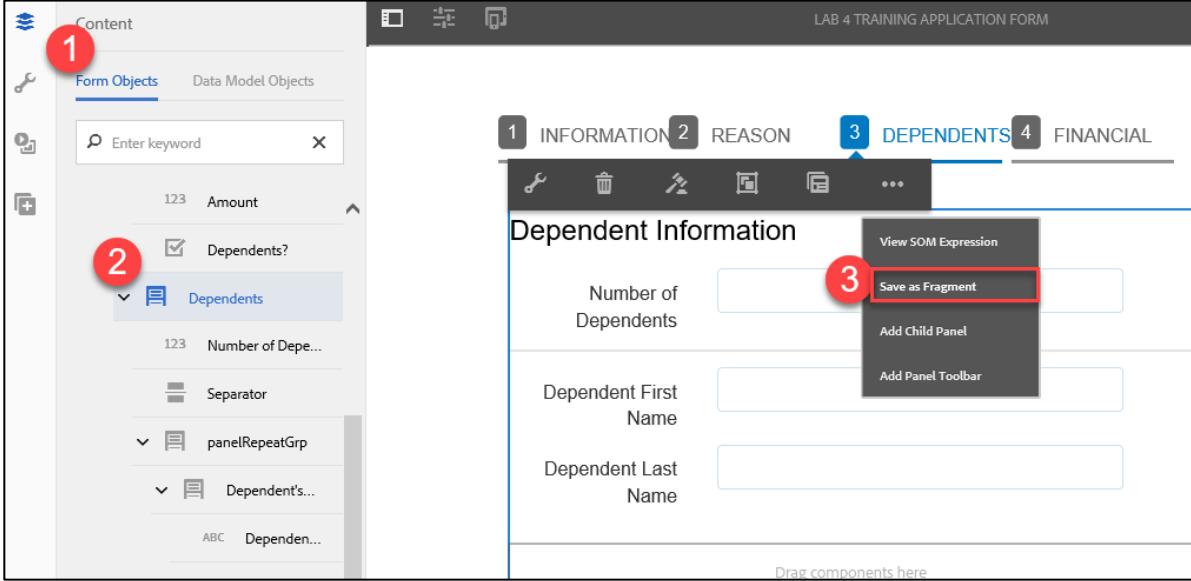
	<p>g. Open the Help Content menu, and make the Help Content to read: A Canadian Postal Code must follow the letter/number format A#B#C#.</p>
	 <p>NOTE: There must not be any whitespaces in your pattern, before or after the pattern. If there are whitespaces, the pattern will not validate.</p>
14.	<p>Change State to Province (Title) and state_textbox to province_textbox. Click Done to save your changes in the Side Panel.</p>
15.	<p>Test your fragment in Preview mode. You should observe the following:</p> <ul style="list-style-type: none"> • An error when you try to deviate from the pattern prescribed for Postal Codes. • Postal code is a required field. • Postal code has the help text shown below. • Province instead of State.

	<p>Address Information</p> <p>Postal Code</p> <p>12345</p> <p>Field not filled in expected format.</p> <p>Street Address</p> <p>123 Old<u>Colonie</u> Rd</p> <p>City</p> <p>Schenectady</p>
	<p>Address Information</p> <p>Postal Code</p> <p>M2N7K1</p> <p>Street Address</p> <p>1 Willowdale Avenue</p> <p>City</p> <p>North York</p> <p>Province</p> <p>ON</p>

	<p>Address Information</p> <p>Postal Code</p> <p>H0H0HO</p> <p>Street Address</p> <p>Santa's Workshop</p> <p>City</p> <p>North Pole </p>
16.	<p>Check how your fragment looks in different aspect ratios. For example, if you resize your browser window, you will see the name of the field you are on at the top instead of at left. Also, the field sizes will automatically adjust to the sizing.</p>

(OPTIONAL) 4b. Create a fragment from an existing panel

Step	Instructions
1.	In your Training folder, locate the 4-panel Training Application Form adaptive form you created previously.
2.	<p>Make a copy of the Form by clicking the ellipsis icon and selecting Copy:</p> 
3.	<p>Paste using the button at upper left:</p> 
4.	<p>Rename the title of your pasted form to Fragment Exercise – Training Application Form. Click Paste and when prompted by the dialog box, click Done.</p> <p>To rename your form's title, open the Form properties.</p> <p> HINT: Your pasted form will be recognizable by the fact that it was recently edited (1 second ago)</p>

		
5.	<p>Open your pasted Fragment exercise- Training Application Form. Make sure you are in Edit mode.</p>	
6.	<p>Select the third “Dependents” panel. Click the ellipsis (...) and select Save as Fragment in the panel toolbar.</p>  <p>NOTE: If the panel you are saving as fragment contains a child panel, the resulting fragment will include it.</p>	



NOTE: Once you save as a Fragment, the selected panel will be replaced with the fragment you created.

Specify the following information in the Fragment Creation dialog:

- **Name:** Name of the fragment (mandatory). Defaults to the name of the panel. Set the name as **dependents_FormFragment**. All fragment names must be unique in AEM Forms. If there already exists another fragment with the same name, the fragment fails to create.
- **Title:** Title of the fragment. The default value is the title of the panel.
- **Description:** Description of the fragment.
- **Tags:** Tags metadata for the fragment to aid in searching within AEM and categorization of your fragment.

Save as Fragment

Name *	dependents_FormFragment
Title	Dependents
Description	Fragment to enter multiple dependents
Tags	dependents, repeatable
Target Path	/content/dam/formsanddocuments/training
Form Model *	xmleschema
Fragment Model Root	

Save as Fragment

Dependents	
Description	Fragment to enter multiple dependents
Tags	dependents, repeatable
Target Path	/content/dam/formsanddocuments/training
Form Model *	xmlschema
Fragment Model Root	/
Xsd Ref	/assets/xsdRef.xsd



NOTE: The additional properties listed here are not required to be populated into your fragment, but they are described here for your reference:

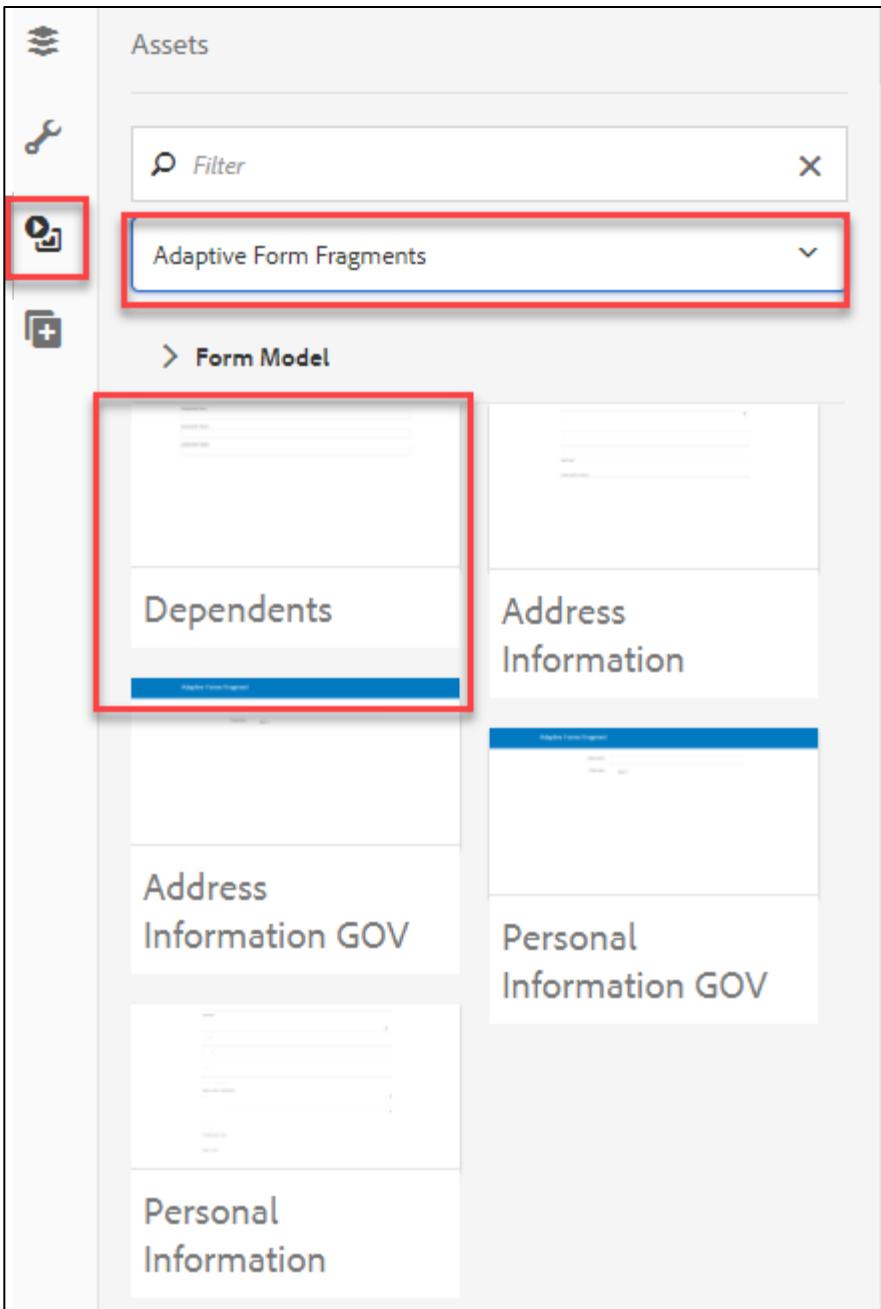
- **Target Path:** Repository path where the fragment will be saved. If you do not specify a path, a node with the same name as that of the fragment gets created next to the node containing the adaptive form. The fragment is saved in this node.
- **Form Model:** Depending on the form model for the adaptive form, this field displays the **XML Schema**, **Form Template**, or **None**. It is a non-editable field.
- **Fragment Model Root:** Appears only in XSD-based adaptive forms. It specifies the root for the fragment model. You can choose **/** or the XSD complex type from the drop-down. Note that you can reuse the fragment in another adaptive form only if you select the complex type as the fragment model root.
If you choose **/** as the fragment model root, the complete XSD tree from the root is visible in the adaptive form data model tab. For a complex type fragment model root, only the descendants of the selected complex type are visible in the adaptive form data model tab.
- **XSD Ref:** Appears only in XSD-based adaptive forms. It displays the location of the XML schema.
- **XDP Ref:** Appears only in XDP-based adaptive forms. It displays the location of the XDP form template.

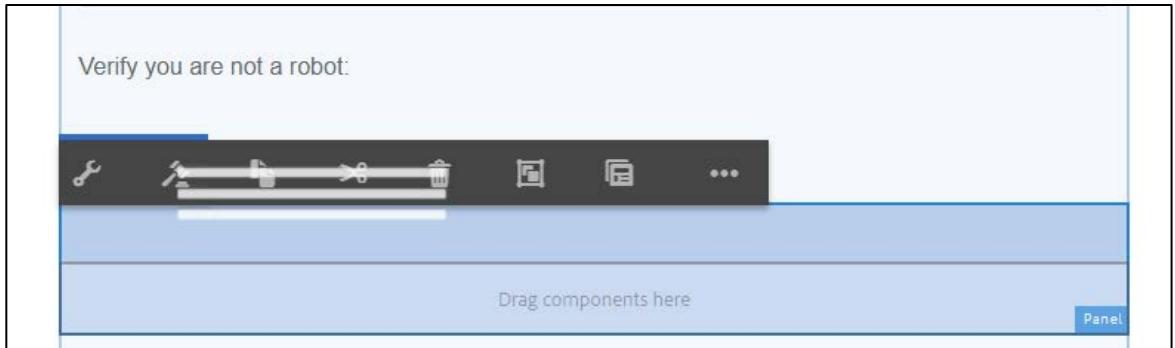
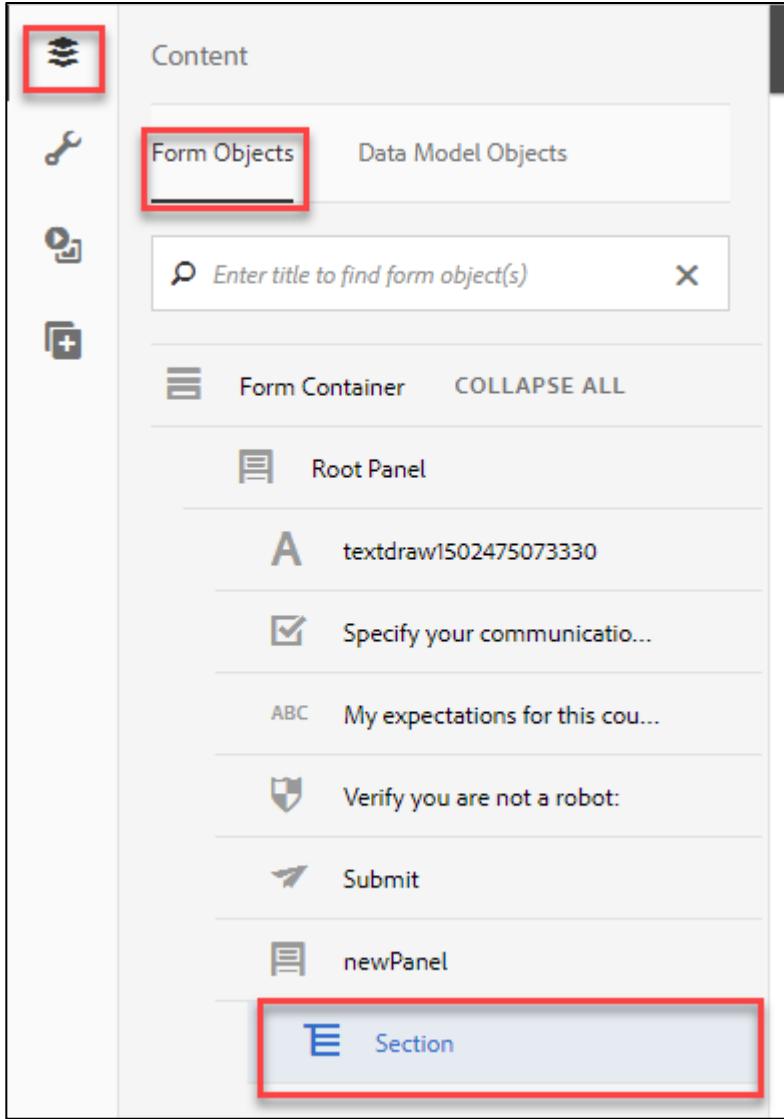
7.

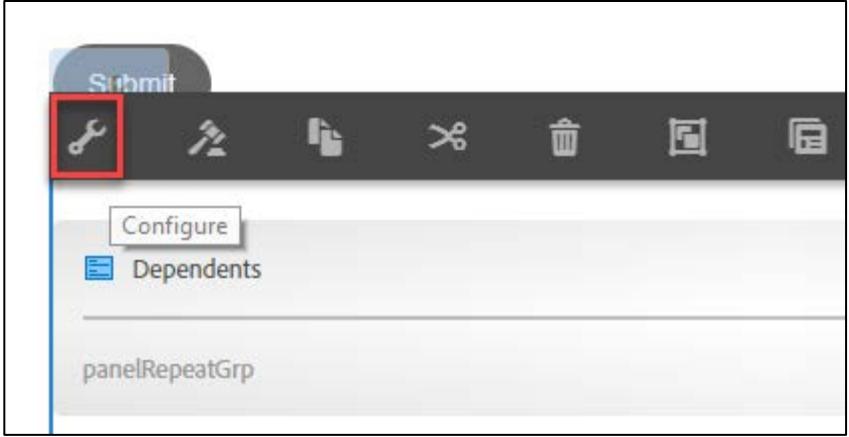
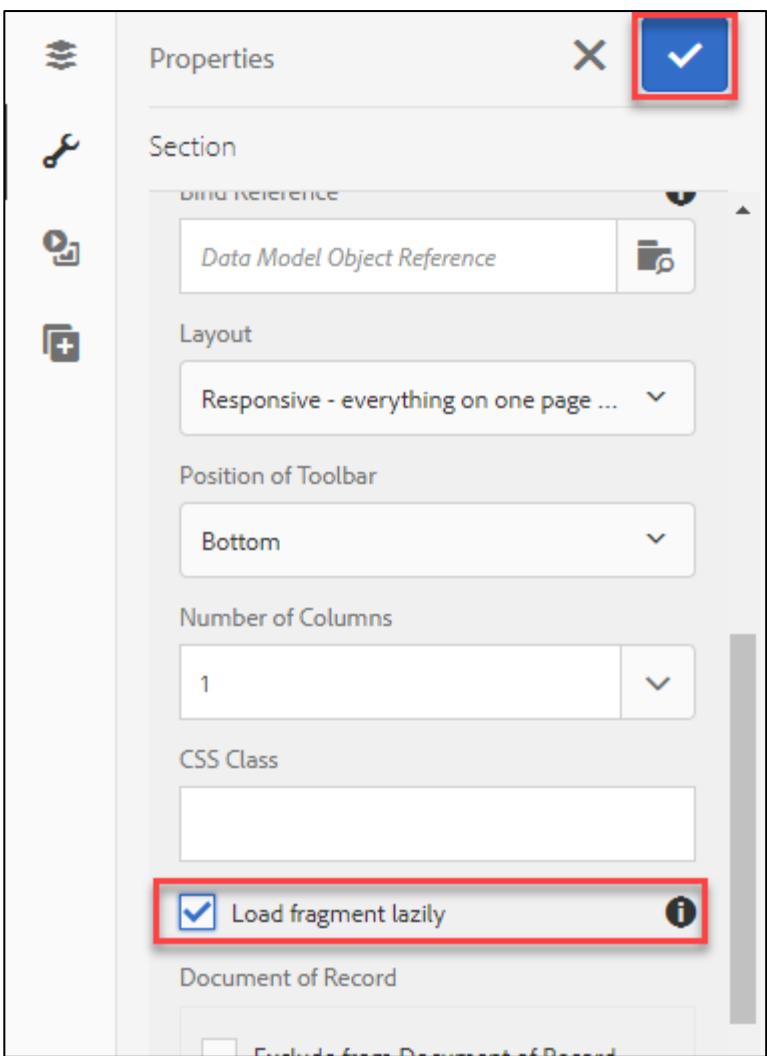
Click the checkmark (**Done**) in the upper right to save your changes.

(OPTIONAL) 4c. Using an adaptive form fragment

Step	Instructions
1.	Open your Hello Form adaptive form, in edit mode, if it is not already opened.
2.	Add a new child panel to the Root Panel called newPanel .
3.	Click Assets in the Side Panel. In the assets browser, select Adaptive Form Fragments from the drop-down. You can also choose to display all adaptive form fragments or filter based on their form model - Form Template, XML Schema, or Basic.

	 A screenshot of the Adobe Experience Manager Assets interface. On the left, there's a sidebar with icons for Assets, Tools, and a plus sign. The main area is titled 'Assets' and contains a search bar with a magnifying glass icon and the word 'Filter'. Below the search bar is a dropdown menu with the option 'Adaptive Form Fragments' selected. A red box highlights this dropdown. To the right of the dropdown is a section titled 'Form Model' with a small arrow icon. Below the dropdown are several adaptive form fragments listed vertically: <ul style="list-style-type: none">DependentsAddress InformationAddress Information GOVPersonal InformationPersonal Information GOV Each fragment has a blue header bar with the text 'Adaptive Form Fragment'. The 'Dependents' fragment is highlighted with a red box.
4.	<p>Drag-and-drop your adaptive form fragment onto the newPanel in your adaptive form.</p>  A note icon featuring a pencil writing on a piece of paper with the word 'Note' written on it. <p>NOTE: The adaptive form fragment will not be enabled for authoring from within the adaptive form.</p>

	
5.	In your Form Objects, select the Section fragment child object. 
6.	Configure this fragment by clicking Configure .

	
7.	<p>In the Side Panel properties, scroll down and set the fragment to Load fragment lazily. Save your changes by clicking Done.</p> 

8.

You may want to optionally preview your use of a fragment inside your Hello Form. Note the Delete and Add Dependent buttons will not be functional as the rules configured previously pertain to the other form.

Form Fragments and Lazy Loading

You can configure form fragments to defer initialization or loading of fragments until the fragment needs to be visible. This is referred to as lazy loading. In addition, the fragments configured for lazy loading are unloaded once the user navigates to other sections in the form and the fragments are no longer visible.

Design Considerations

Follow these steps to get the maximum value out of lazy loading.

1. Identify and create fragments. Only adaptive form fragments can be configured for lazy loading.
2. Identify values that are used in scripts or referred to in other fragments. You need to make sure these values are global so they are still available after the fragment is unloaded.
3. Define rules to control the visibility of panels and fields in lazily loaded fragments.

Forms include some fields and panels that are not applicable to all users and in all conditions. Use show/ hide rules to control the visibility of these form objects so they are only shown when they are required. Your rules can be based on values in the data merge and/or user inputs.

Other Considerations and best practices for configuring lazy loading fragments

Here are some limitations, recommendations, and important points to keep in mind when working with lazy loading:

- Use schema-based (*XSD*) adaptive forms instead of XFA-based (*XDP*) adaptive forms for configuring lazy loading on large forms. The performance gain is more significant in *XSD*-based adaptive forms.
- Do not configure lazy loading on fragments in a responsive grid layout. It can result in degraded performance.
- Do not configure lazy loading on fragments in the first panel that renders on the adaptive form.
- Lazy loading is supported up to two levels in the fragment hierarchy.
- Ensure that fields marked as global are uniquely named across an adaptive form.
- The *File attachment* and *Terms and conditions* components are not supported in lazily loaded fragments.
- Do not make a lazily loaded fragment panel repeatable. Also, do not use lazy fragments inside repeatable panels.
- You can use this script to reset all the visible fields on a panel.

```
guideBridge.resolveNode(guideBridge.getFocus({ "focusOption": "navigablePanel" })).resetData()
```

Changing the Fragment Placeholder (NOTE: For developers/technical audience only)

Perform the following steps to show complete fragments in forms:

1. Go to the AEM System Console configuration page.

[http:\[host\]:\[port\]/system/console/configMgr](http:[host]:[port]/system/console/configMgr)

2. Click **Ctrl-F** and search for **Adaptive Form Configuration Service**.

3. Select the pencil icon to open it in edit mode.
4. Deselect the **Enable Placeholder in place of Fragment** checkbox.
5. Click **Save**.

You will now see the complete fragment displayed in your form.

Although the fragment looks like the other panels on your adaptive form, you cannot edit it.

Embedding a fragment

You can choose to embed a form fragment in your form. When you do this, the embedded fragment is no longer linked with the standalone fragment. You can edit the components in the embedded fragment from within the adaptive form.

1. Select your fragment.
2. Select the ellipsis icon (...) on your toolbar.
3. Select **Embed**.

Module 8: Form Translation and Accessibility

Overview

In this hands-on exercise, you will localize forms at runtime into another language using machine and human translation, test the localizations and download the source XLIFF files, and then optionally configure a form for accessibility using a screen reader.

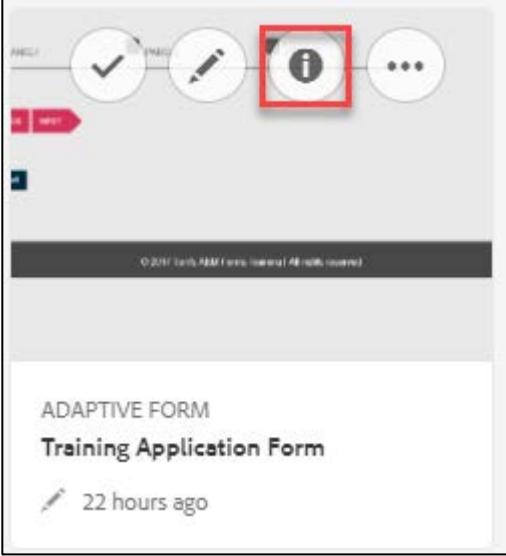
TIME: It should take approximately 35 minutes to complete this exercise.

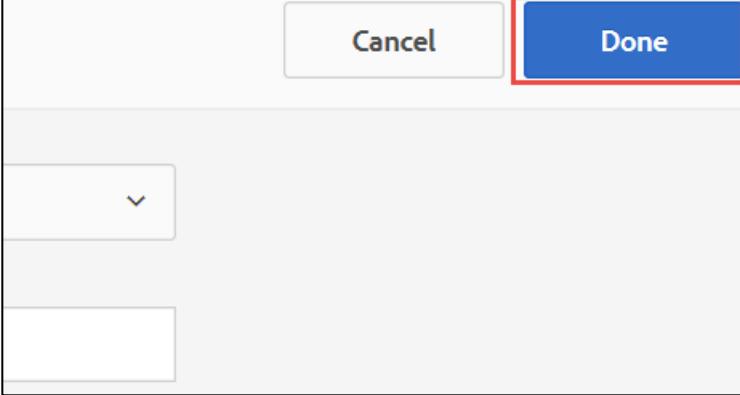
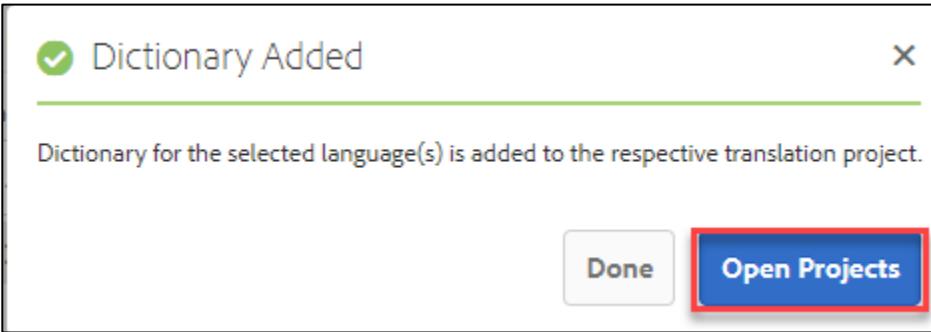
Pre-requisites

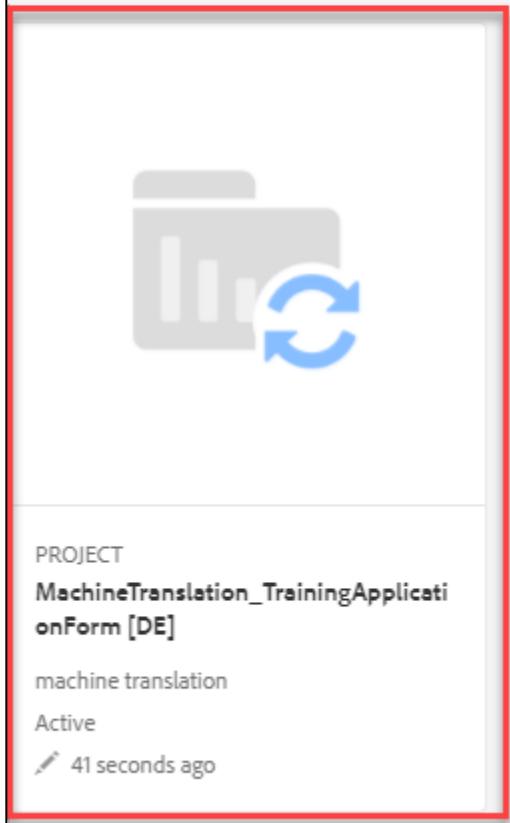
Before you begin this exercise, you must complete the following exercise:

Module 4: Panels and Fields

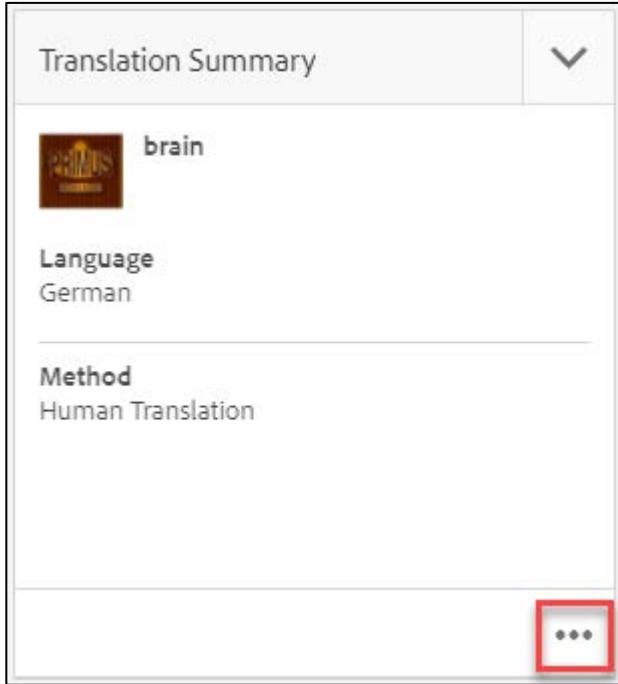
Part 1: Machine (Automated) Translation of Adaptive Forms

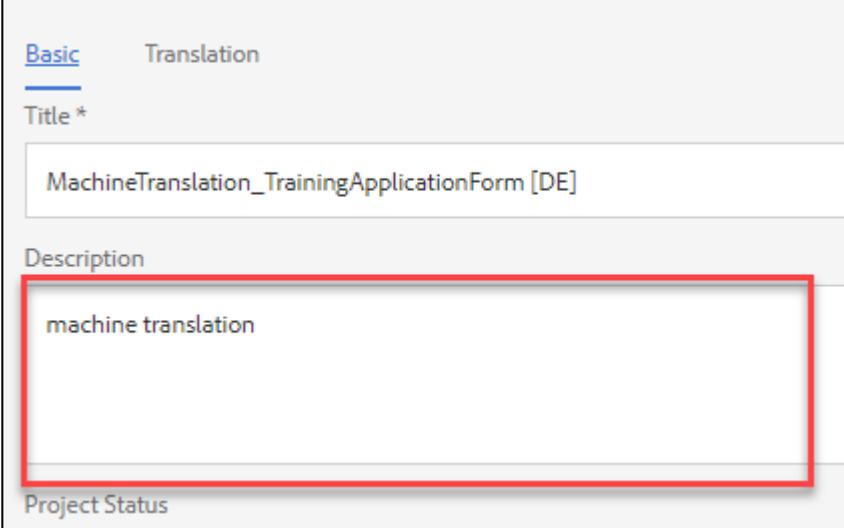
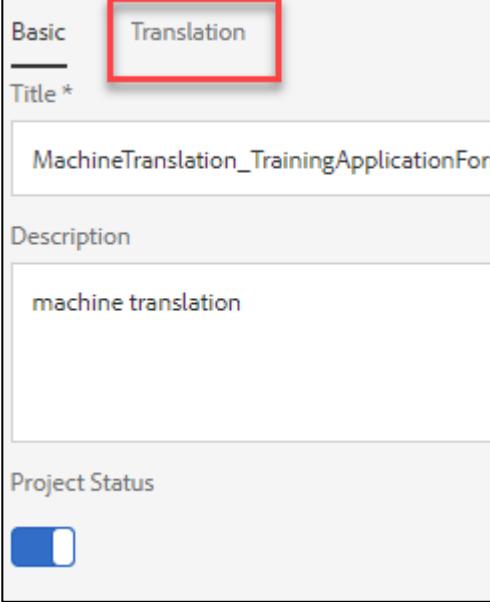
Step	Instructions
1.	<p>In your Training folder, open the Properties of your Training Application Form.</p> 
2.	<p>In the toolbar, click Add Dictionary:</p> 
3.	<p>Start your translation project. Name it MachineTranslation_TrainingApplicationForm and select German(de) as the Target Language:</p>

	<p>Project</p> <p>Create a new translation project</p> <p>Project Title *</p> <p>MachineTranslation_TrainingApplicationForm</p> <p>Source Language *</p> <p>English(en)</p> <p>Target Languages *</p> <p>Select</p> <p>X German(de)</p>
4.	In the upper right, click Done :
	
5.	In the dialog, click Open Projects :
	
6.	Open your translation project in the list of projects (by clicking it, not selecting it):

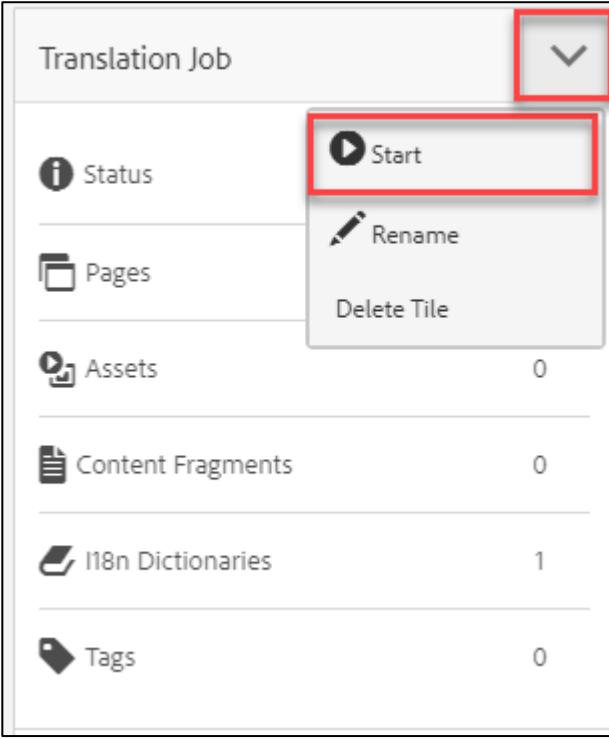
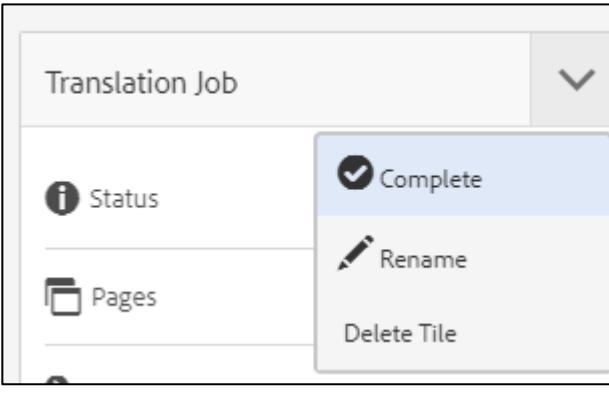


7. In the **Translation Summary** card, click the **Ellipsis**:



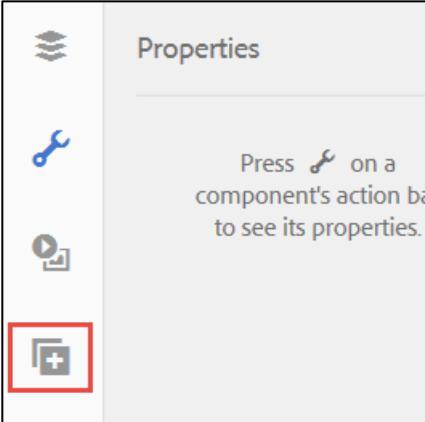
8.	<p>Change the Description to Machine Translation:</p> 
9.	<p>Click the Translation tab:</p> 
10.	<p>Set the translation method to Machine Translation:</p>

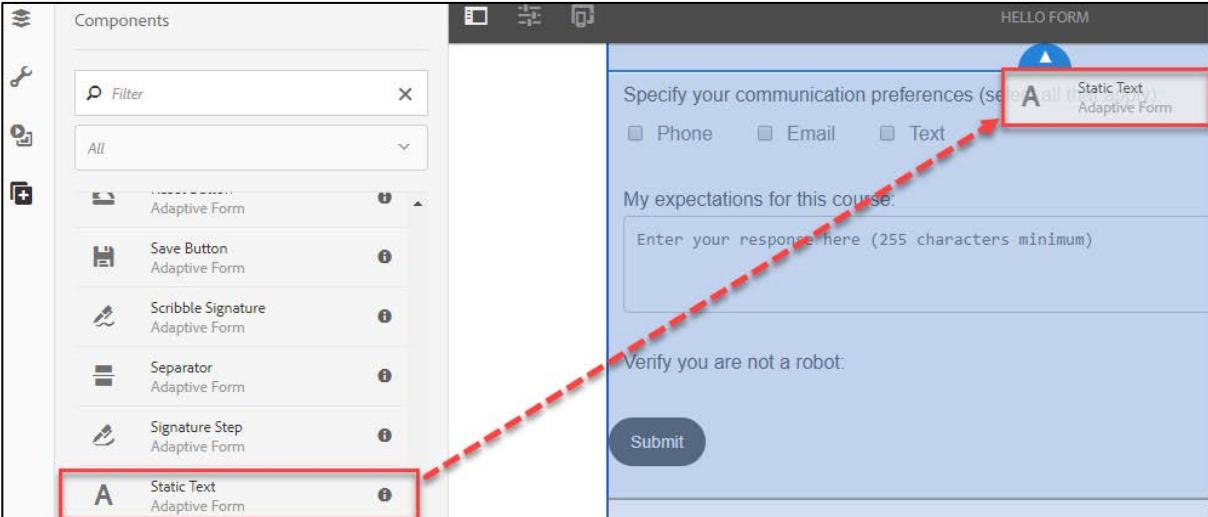
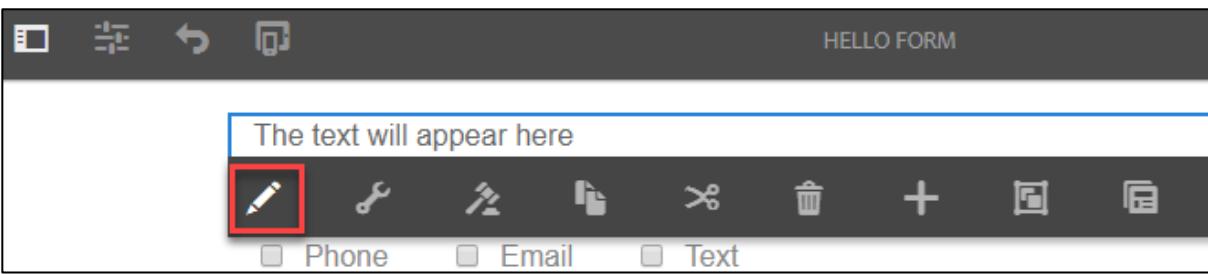
	<p>Basic Translation</p> <p>Source Language</p> <p>English (en)</p> <p>Target Language</p> <p>German (de)</p> <p>Translation Method</p> <p>Machine Translation</p> <p>Translation Provider</p> <p>Microsoft</p> <p>Content Category</p> <p>General</p> <p>Cloud Config</p>
11.	 <p>NOTE: AEM Forms comes with a built-in Translation service provided by Microsoft®. Therefore, the Translation provider shows this value.</p>
12.	<p>Save and close your project at upper right:</p> 
13.	<p>Now you will simulate your translation job by starting the job, confirming the review / approval, then completing the job. In the real world, the job will require someone to approve it, but we are accelerating this process for training purposes.</p>

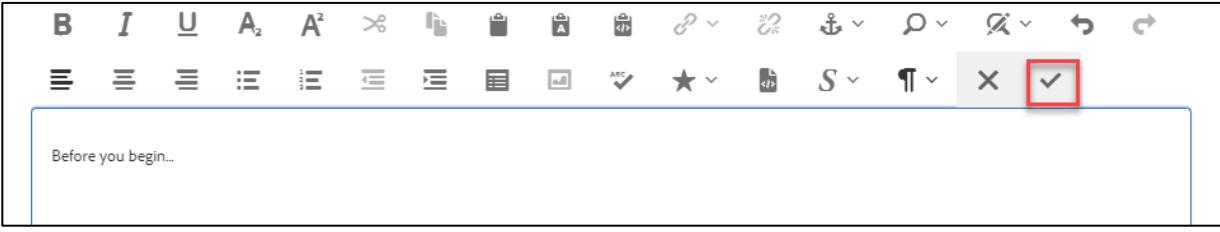
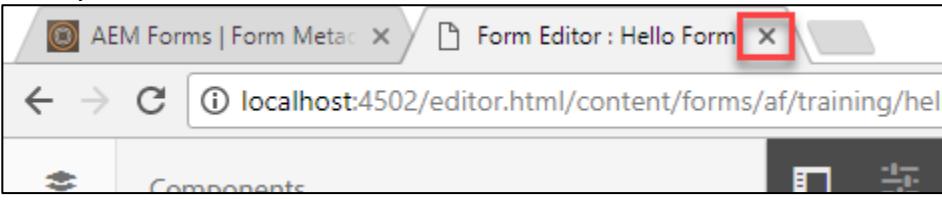
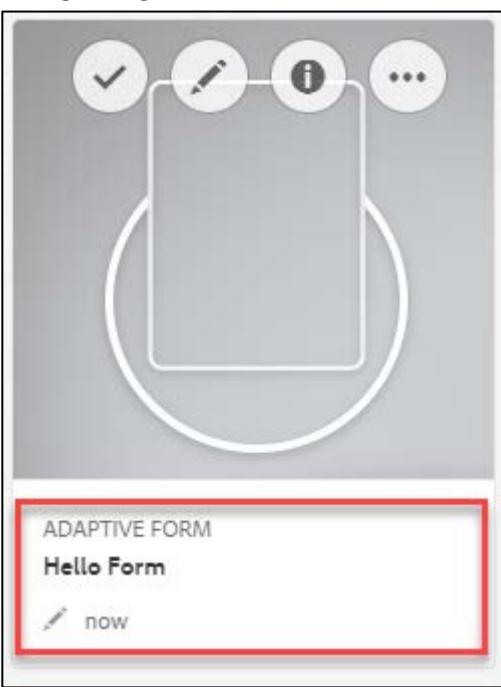
14.	
15.	<p>Refresh your browser. Note that now the status changes to In Progress.</p> <p>Then Complete the project:</p> 
16.	<p>Open your Training Application Form in Preview mode. To test your automated translation result, append the following parameter to the end of the URL in your browser:</p> <p>?wcmmode=disabled&afAcceptLang=de</p> <p>Refresh your browser.</p>
17.	 <p>NOTE: The preferred method to test any translation (human or machine) in AEM Forms is to use this URL parameter in Preview mode.</p>

	You may also set the browser's language manually if you want to test it that way. Instructions for setting the browser's (Chrome/Internet Explorer) language are provided in the Appendices .
18.	Notice the form has been machine translated and should appear like shown below. Notice that the titles of the components (fields) have been translated, along with any Help Content or Placeholder text.

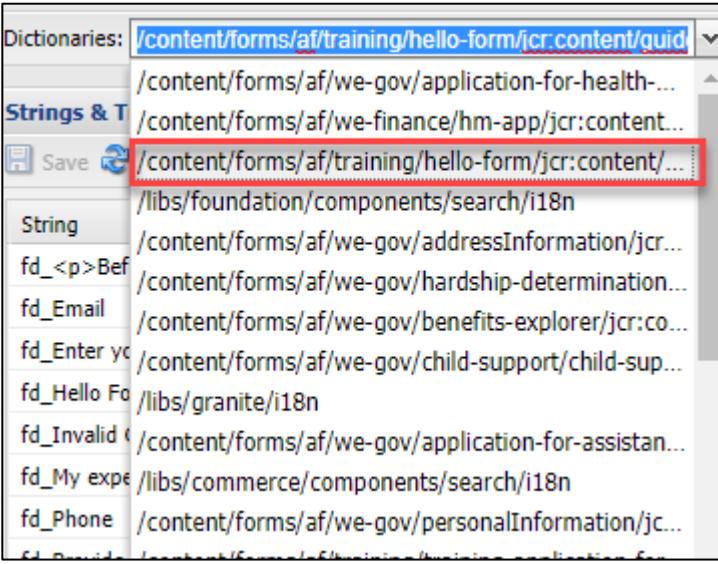
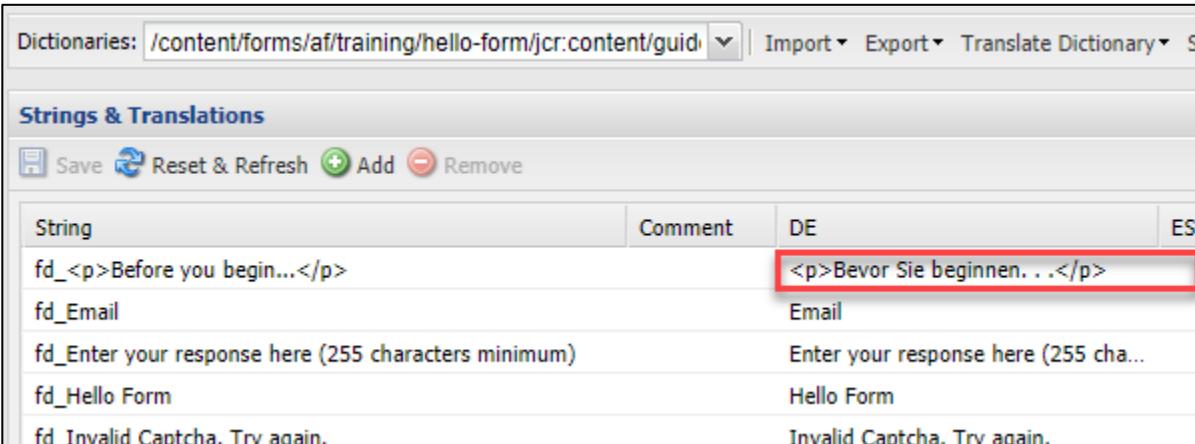
Part 2: Human Translation of Adaptive Forms

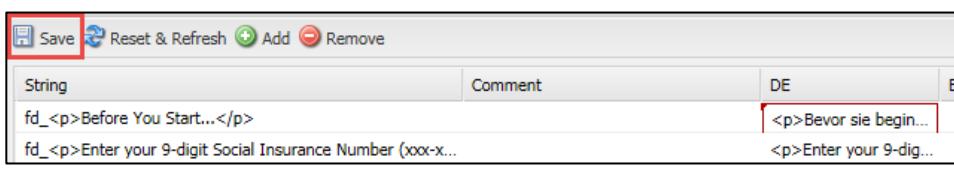
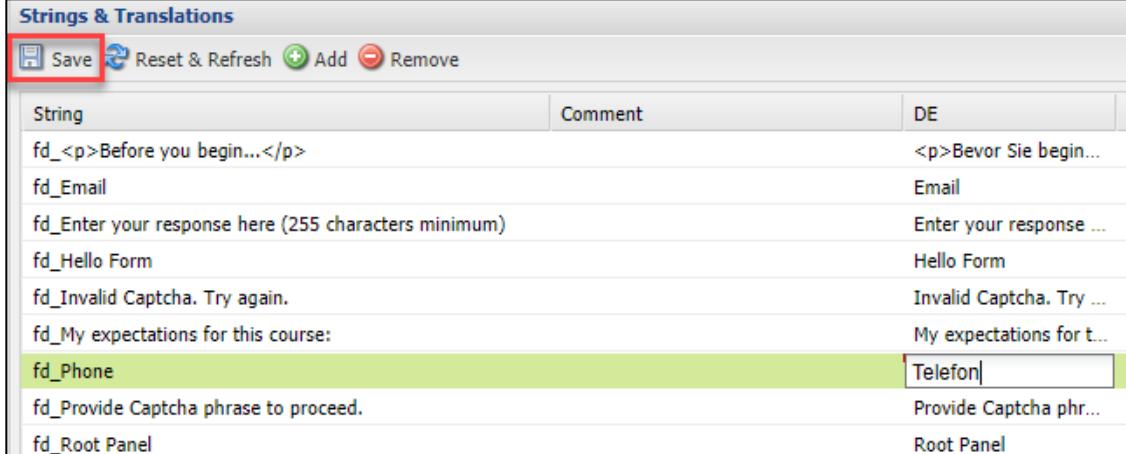
Step	Instructions
1.	In your Training folder, open your Hello Form for editing in Edit Mode :  <p>The screenshot shows a mobile-style interface for an 'ADAPTIVE FORM' named 'Hello Form'. At the top, there are four circular icons: a checkmark, a pencil (highlighted with a red box), an info symbol, and three dots. Below these is a large, empty rectangular input field. The entire interface is labeled 'ADAPTIVE FORM' and 'Hello Form' at the bottom.</p>
2.	Click Components in your Side Panel:  <p>The screenshot shows the 'Properties' tab of the Side Panel selected. It displays a message: 'Press ⌘ on a component's action bar to see its properties.' On the left, there is a vertical list of icons: a grid, a wrench (highlighted with a red box), a play button, and a plus sign.</p>
3.	Now add an adaptive form component to the very top of your form. Scroll down in the list of components and drag a Static Text component to your form:

	 <p>The screenshot shows the 'Components' dialog in Adobe Experience Manager. On the left, a list of components is shown, with 'Static Text' highlighted by a red box. On the right, a preview of an 'Adaptive Form' titled 'HELLO FORM' is displayed. In the form, there is a static text field with the placeholder 'Specify your communication preferences (separated by commas)'. This field is also highlighted by a red box.</p>
4.	<p>Enter the value of your static text component by selecting it and using the Inline Editor:</p>  <p>The screenshot shows the 'HELLO FORM' adaptive form in the AEM editor. A blue box highlights the text input field 'The text will appear here'. Below the field is an inline editor toolbar with various icons. The first icon, a pencil, is highlighted by a red box. At the bottom of the toolbar, there are three checkboxes for 'Phone', 'Email', and 'Text'.</p> <div data-bbox="208 1098 1264 1573"> <p>Text</p> <p>B I U A₂ A² X</p> <p>Before you begin...</p> </div> <p>Hint: You will replace the existing text and instead type in the text shown above.</p>
5.	<p>Click Done to save your changes in the inline editor.</p>

	
6.	<p>Close your Form Editor tab.</p> 
7.	<p>Navigate again to your Hello Form but this time just click the name of the form to open it:</p> 
8.	<p>In the toolbar, click Add Dictionary:</p> 
9.	<p>On the Add Dictionary to Translation Project page that opens in a new tab in your browser, specify the Project Title as HumanTranslation_HelloForm:</p>

10.	In the upper right, click Done to start your translation project:
11.	In the confirmation dialog, click Done :
12.	In a new browser tab, navigate to the AEM Translator:

	<p>http://aemforms###-&.adobeblab.com/libs/cq/i18n/translator.html (Where ### is a 2 or 3-digit number) (Where && represents the region. This can be "us" "emea" or "apac") Contact your instructor if you need this information. If you are not using this method, your instructor can provide specific details for signing into an AEM environment.</p>
13.	<p>Using the Dictionaries drop-down, select your Hello Form (the form path is shown):</p>  <p>Note icon</p> <p>NOTE: The behavior and functionality of this AEM Translator tool is like that of a spreadsheet.</p>
14.	<p>Select the first string entry in the first row. Double-click the DE column:</p>  <p>Note icon</p> <p>NOTE: Your screenshot may look different than the one above. The one above has additional fields configured apart from this exercise.</p>

	 <p>NOTE: This is your Static Text component you added earlier.</p>																														
15.	<p>With the DE cell selected, you may edit the German (Deustch) text for this component. Enter (between the <p> tags):</p> <p>Bevor Sie beginnen. . .</p>																														
16.	<p>Click Save:</p>  <table border="1"> <thead> <tr> <th>String</th> <th>Comment</th> <th>DE</th> </tr> </thead> <tbody> <tr> <td>fd_<p>Before You Start...</p></td> <td></td> <td><p>Bevor sie begin...</td> </tr> <tr> <td>fd_<p>Enter your 9-digit Social Insurance Number (xxx-x...</td> <td></td> <td><p>Enter your 9-dig...</td> </tr> </tbody> </table>	String	Comment	DE	fd_<p>Before You Start...</p>		<p>Bevor sie begin...	fd_<p>Enter your 9-digit Social Insurance Number (xxx-x...		<p>Enter your 9-dig...																					
String	Comment	DE																													
fd_<p>Before You Start...</p>		<p>Bevor sie begin...																													
fd_<p>Enter your 9-digit Social Insurance Number (xxx-x...		<p>Enter your 9-dig...																													
17.	<p>Select the seventh string entry (Phone). Double-click the DE column and enter: Telefon and click Save:</p>  <table border="1"> <thead> <tr> <th>String</th> <th>Comment</th> <th>DE</th> </tr> </thead> <tbody> <tr> <td>fd_<p>Before you begin...</p></td> <td></td> <td><p>Bevor Sie begin...</td> </tr> <tr> <td>fd_Email</td> <td></td> <td>Email</td> </tr> <tr> <td>fd_Enter your response here (255 characters minimum)</td> <td></td> <td>Enter your response ...</td> </tr> <tr> <td>fd_Hello Form</td> <td></td> <td>Hello Form</td> </tr> <tr> <td>fd_Invalid Captcha. Try again.</td> <td></td> <td>Invalid Captcha. Try ...</td> </tr> <tr> <td>fd_My expectations for this course:</td> <td></td> <td>My expectations for t...</td> </tr> <tr> <td>fd_Phone</td> <td></td> <td>Telefon</td> </tr> <tr> <td>fd_Provide Captcha phrase to proceed.</td> <td></td> <td>Provide Captcha ph...</td> </tr> <tr> <td>fd_Root Panel</td> <td></td> <td>Root Panel</td> </tr> </tbody> </table>	String	Comment	DE	fd_<p>Before you begin...</p>		<p>Bevor Sie begin...	fd_Email		Email	fd_Enter your response here (255 characters minimum)		Enter your response ...	fd_Hello Form		Hello Form	fd_Invalid Captcha. Try again.		Invalid Captcha. Try ...	fd_My expectations for this course:		My expectations for t...	fd_Phone		Telefon	fd_Provide Captcha phrase to proceed.		Provide Captcha ph...	fd_Root Panel		Root Panel
String	Comment	DE																													
fd_<p>Before you begin...</p>		<p>Bevor Sie begin...																													
fd_Email		Email																													
fd_Enter your response here (255 characters minimum)		Enter your response ...																													
fd_Hello Form		Hello Form																													
fd_Invalid Captcha. Try again.		Invalid Captcha. Try ...																													
fd_My expectations for this course:		My expectations for t...																													
fd_Phone		Telefon																													
fd_Provide Captcha phrase to proceed.		Provide Captcha ph...																													
fd_Root Panel		Root Panel																													
18.	Now you are ready to test your sample human translation work.																														
19.	In your Training folder, open your Hello Form and switch to Preview mode :																														

	 <p>The screenshot shows the AEM Forms interface. At the top, there are four circular icons: a checkmark, a pencil, an information sign, and three dots. The pencil icon is highlighted with a red box. Below this is a large gray area containing a white rounded rectangle. At the bottom of this area, the text "ADAPTIVE FORM" and "Hello Form" is visible. Below this is a dark header bar with the text "HELLO FORM" on the left, "Edit" with a dropdown arrow in the middle, and a button labeled "Preview" on the right, which is also highlighted with a red box. The main content area below the header contains the form fields: "Before you begin...", "Specify your communication preferences (select all that apply):" with checkboxes for "Phone", "Email", and "Text", and a text area labeled "My expectations for this course:" with placeholder text "Enter your response here (255 characters minimum)".</p>
19.	<p>To test your human translation result, append the following parameter to the end of the URL in your browser:</p> <p>?wcmmode=disabled&afAcceptLang=de</p>
20.	<p>NOTE: The preferred method to test any translation (human or machine) in AEM Forms is to use this URL parameter in Preview mode.</p> <p>You may also set the browser's language manually if you want to test that way. Instructions for setting the browser's (Chrome/Internet Explorer) language are provided in the Appendices.</p>
20.	<p>View your form with the translated values:</p>

HELLO FORM

Bevor Sie beginnen. . .

Specify your communication preferences (select all that apply):

Telefon Email Text

My expectations for this course:

Enter your response here (255 characters minimum)

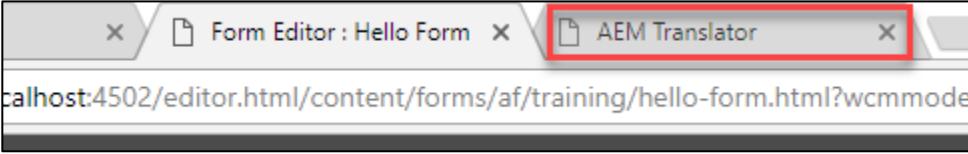
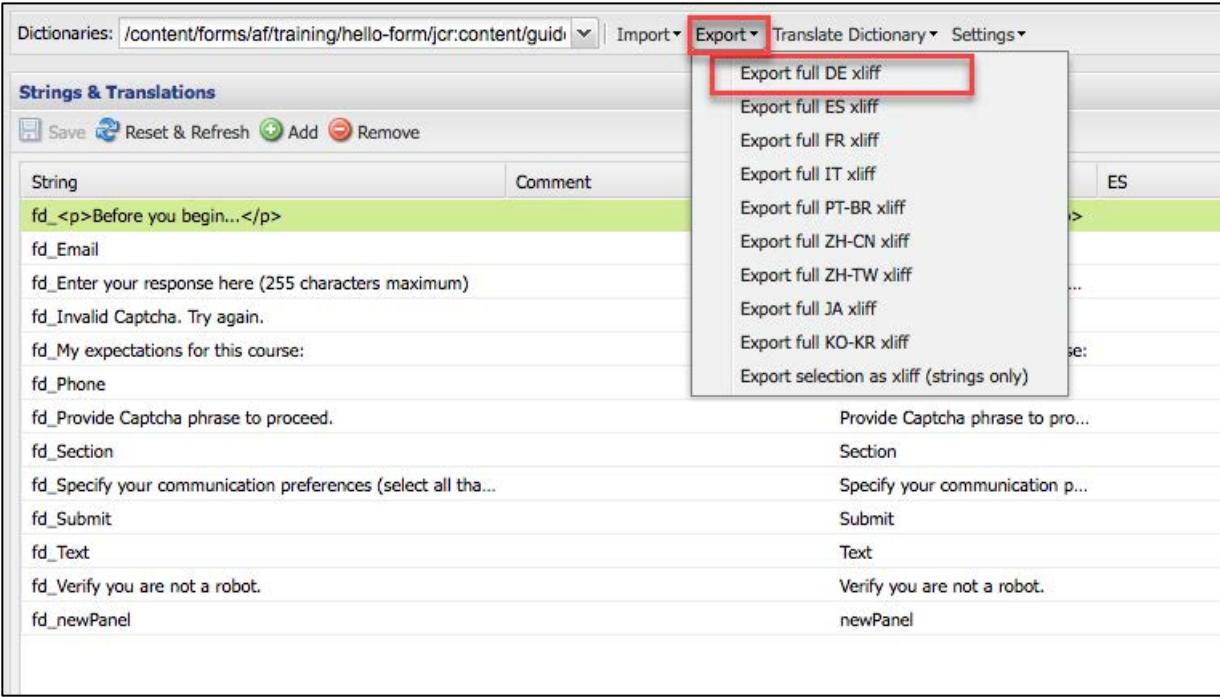
Verify you are not a robot:

5fc57

Reload

The screenshot shows a user interface for a form titled "HELLO FORM". At the top, there's a red box highlighting the text "Bevor Sie beginnen. . .". Below it, instructions say "Specify your communication preferences (select all that apply)". Three checkboxes are shown: "Telefon" (which is highlighted with a red box), "Email", and "Text". Next, there's a section for "My expectations for this course" with a text input field that says "Enter your response here (255 characters minimum)". Following that is a "Verify you are not a robot" section containing a reCAPTCHA challenge code "5fc57", a text input field, and a "Reload" button.

Part 3: View the source XML for your Human-Translated Form

Step	Instructions
1.	Navigate back to the AEM Translator: 
2.	In the Export drop-down menu, choose Export full DE xliff : 
3.	The file opens in the browser. Press Ctrl+S to save the HTML page to your local directory (Desktop or My Documents):

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

<xliff version="1.1">
  <file original="/libs/cq/i18n">
    <header>
      <tool tool-id="com.day.cq.i18n">
        <body>
          <trans-unit id="0">
            <source xml:lang="en"><![CDATA[ fd_Once the the Form...</p><p>Once the the Form...</p></source>
            <target xml:lang="de"><![CDATA[ fd_Eine Einmal die Form...</p><p>Eine Einmal die Form...</target>
          </trans-unit>
          <trans-unit id="1">
            <source xml:lang="en"><![CDATA[ fd_Once the the Form...</p><p>Once the the Form...</source>
            <target xml:lang="de"><![CDATA[ fd_Eine Einmal die Form...</p><p>Eine Einmal die Form...</target>
          </trans-unit>
          <trans-unit id="2">
            <source xml:lang="en"><![CDATA[ fd_Once the the Form...</p><p>Once the the Form...</source>
            <target xml:lang="de"><![CDATA[ fd_Eine Einmal die Form...</p><p>Eine Einmal die Form...</target>
          </trans-unit>
          <trans-unit id="3">
            <source xml:lang="en"><![CDATA[ fd_Once the the Form...</p><p>Once the the Form...</source>
            <target xml:lang="de"><![CDATA[ fd_Eine Einmal die Form...</p><p>Eine Einmal die Form...</target>
          </trans-unit>
        </body>
      </header>
    </file>
  </xliff>

```

Save As dialog box showing the XML file being saved as "de.dictxliff.xml". The "Save" button is highlighted with a red box.

4. Open the file from your desktop in a text editor such as Notepad ++.

5. View the XML of the source and target of one of the translated text you provided (should be on lines 56-64):

```

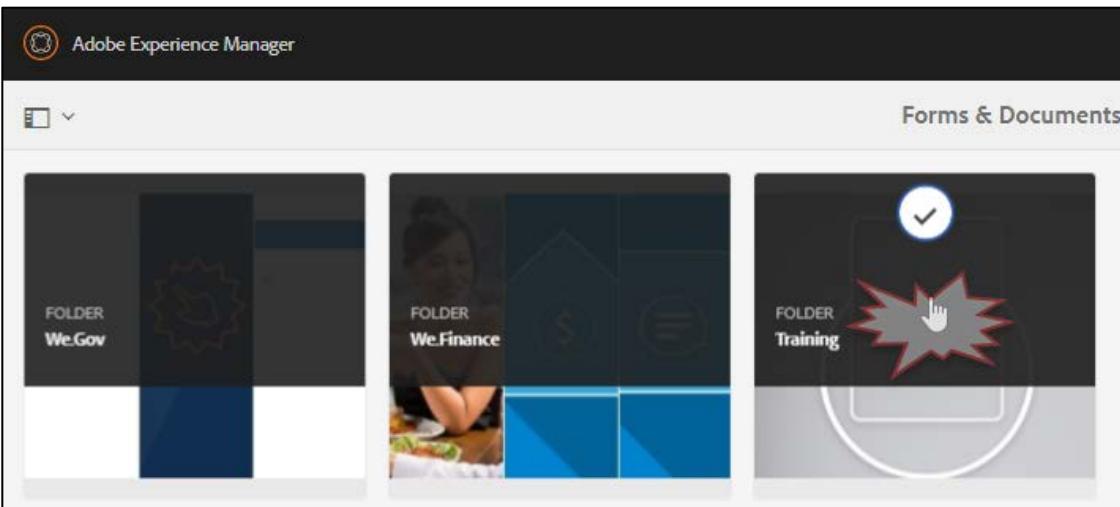
<trans-unit id="9">
  <source xml:lang="en"><![CDATA[ fd_<p>Before you begin...</p>]]></source>
  <target xml:lang="de"><![CDATA[ <p>Bevor Sie beginnen. . .</p>]]></target>
</trans-unit>
<trans-unit id="10">
  <source xml:lang="en"><![CDATA[ fd_Phone]]></source>
  <target xml:lang="de"><![CDATA[ Telefon]]></target>
</trans-unit>

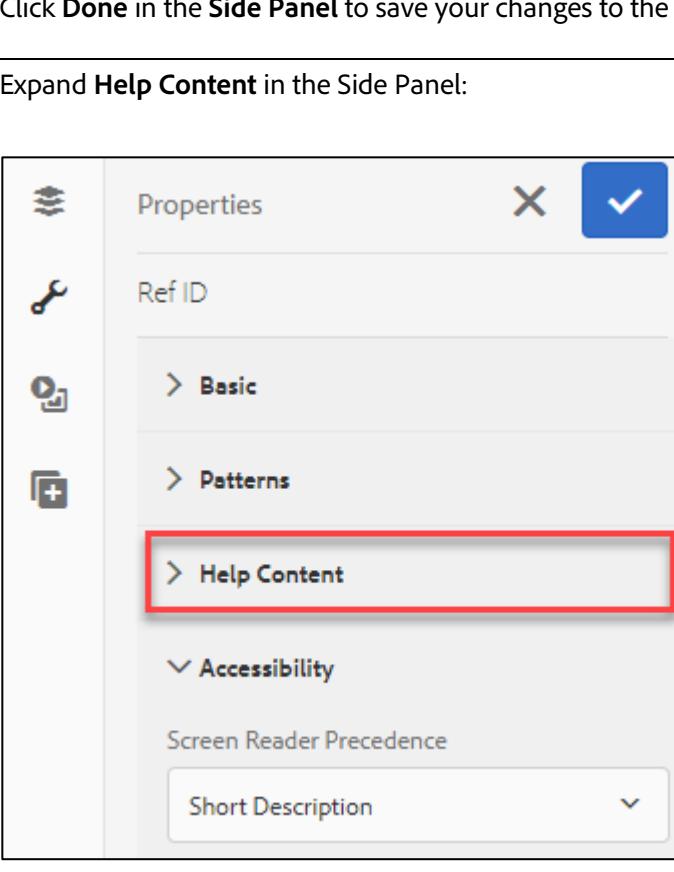
```

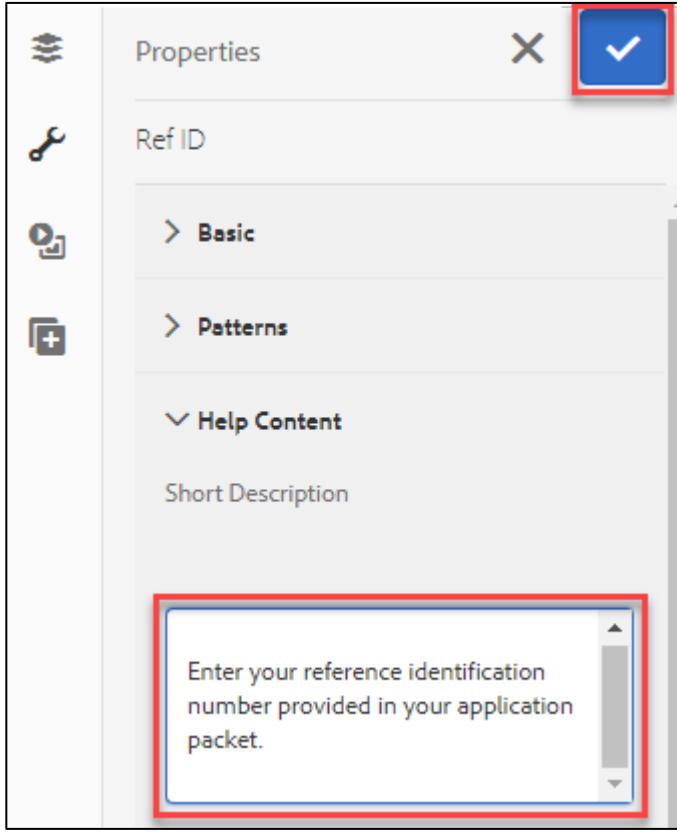


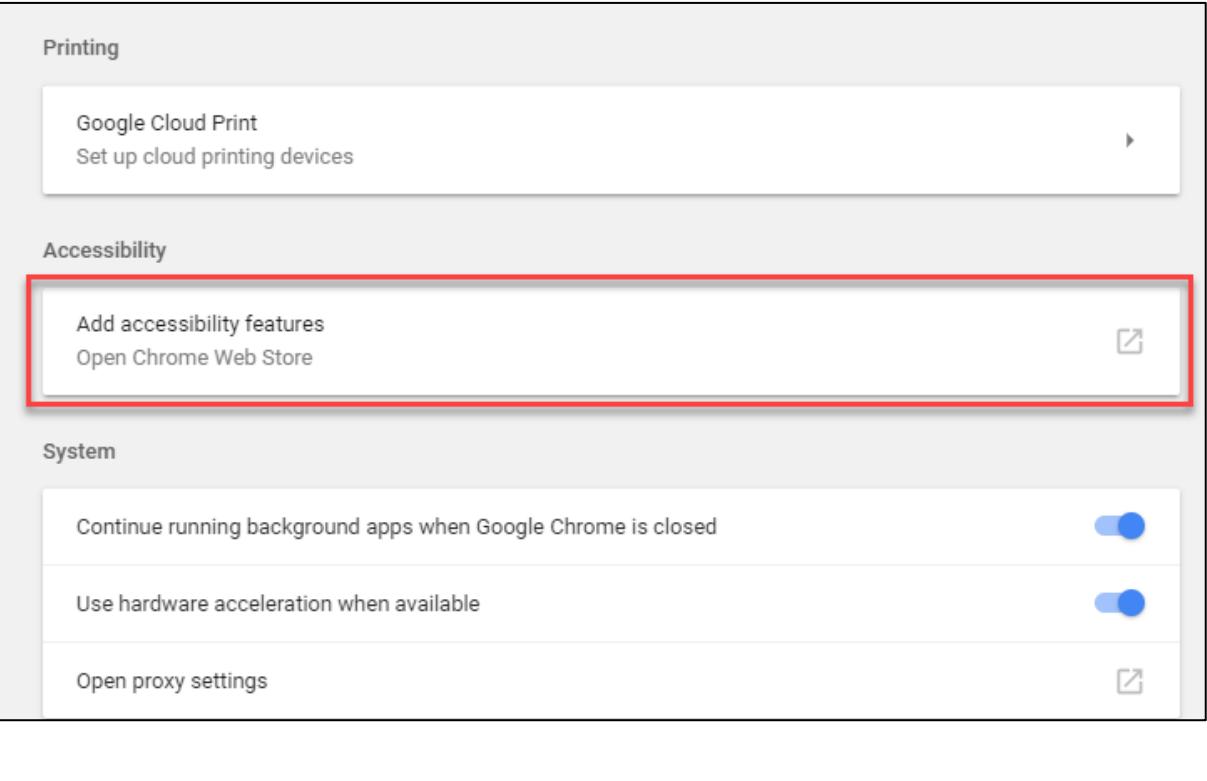
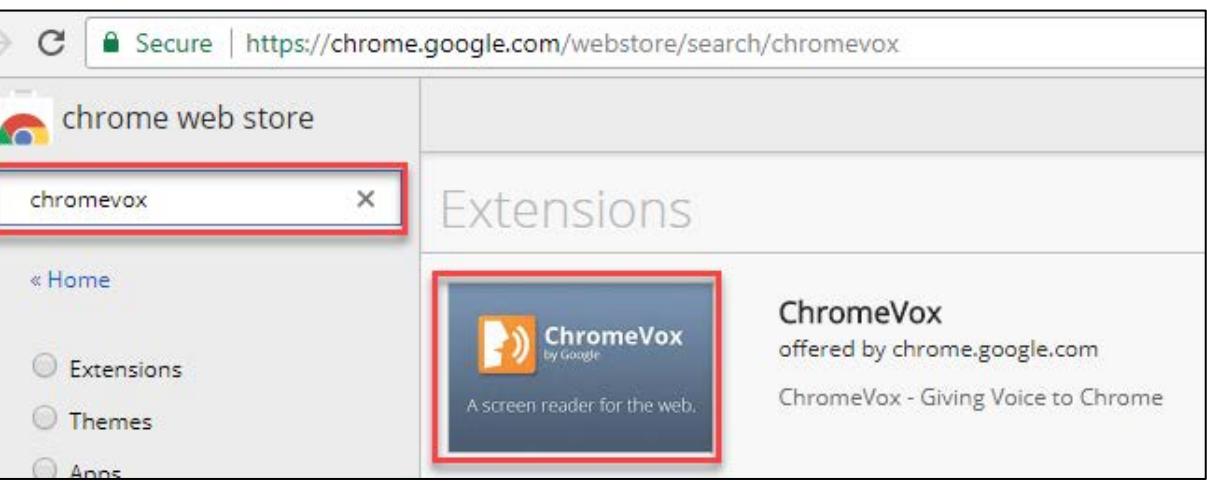
NOTE: An alternate way to edit/configure translated strings is to edit this XML file directly and then re-import it back into AEM using the AEM Translator console.

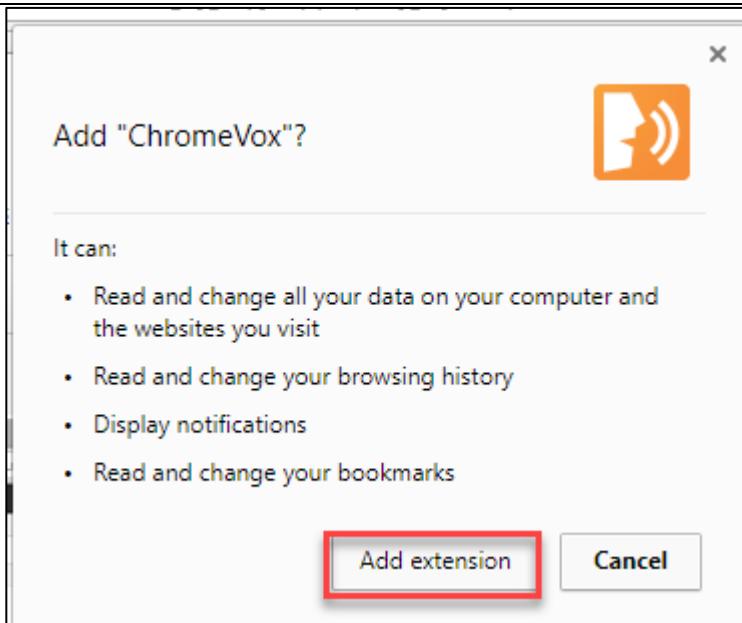
(OPTIONAL) Part 4: Set accessibility on a field and test it using Google Chrome

Step	Instructions
1.	<p>Navigate to Forms > Forms & Documents, and click to open your Training folder:</p> 
2.	<p>Open your Training Application Form in Edit Mode and click the Ref ID field. Configure it by clicking the configure (wrench) icon.</p>
3.	<p>Scroll down to the bottom of the Side Panel and expand Accessibility:</p>  <p>NOTE: The screenshot above shows all other property categories collapsed. You may do this at any time in the Side Panel to improve navigation and eliminate the need to scroll through several properties.</p>
4.	<p>Change the Screen reader precedence to Short Description:</p>

	 <p>The screenshot shows the 'Properties' dialog box for a field. On the left is a sidebar with icons for Properties, Ref ID, Basic, Patterns, Help Content, and Accessibility. The 'Help Content' icon is highlighted with a red box. The main area shows 'Ref ID' and a tree view with 'Basic', 'Patterns', 'Help Content' (which is expanded, showing a red box around its content), and 'Accessibility'. Under 'Accessibility' is 'Screen Reader Precedence' with a dropdown menu containing 'Short Description'.</p> <p>Click Done in the Side Panel to save your changes to the field properties.</p>
5.	Expand Help Content in the Side Panel:
6.	Set the value of Short Description to: Enter your reference identification number provided in your application packet.

	 <p>The screenshot shows the 'Properties' dialog box for a form component. On the left is a toolbar with icons for properties, reference ID, patterns, and help content. The main area has tabs for 'Basic' and 'Patterns', and a expanded 'Help Content' section. A note in this section says: 'Enter your reference identification number provided in your application packet.' The 'Done' button at the top right is highlighted with a red box.</p> <p>Click Done at upper right to save your changes.</p>
7.	 NOTE: The remainder of the steps in this exercise allow you to test the screen reader capability of your form using Google Chrome. The purpose of a screen reader is to audibly interpret a form or page and provide audio descriptions of fields and components. The ChromeVox screen reader browser add-on is used. There are several screen readers available and this is just a sample of one particular reader for one particular browser.
8.	In Google Chrome, navigate to Settings , or type chrome://settings into your address bar.
9.	Scroll down, enable Advanced settings and click Add accessibility features :

	 <p>The screenshot shows the Google Chrome settings menu. The 'Accessibility' section is highlighted with a red box. It contains two items: 'Add accessibility features' and 'Open Chrome Web Store'. Below this is the 'System' section, which includes options for continuing background apps and using hardware acceleration, both of which have blue toggle switches.</p>
10.	At left, search for the chromevox extension and then click it to add it to Chrome:  <p>The screenshot shows the Chrome Web Store search results for 'chromevox'. The search bar at the top has 'chromevox' typed into it and is highlighted with a red box. On the left, there's a sidebar with links for 'Home', 'Extensions', 'Themes', and 'Apps'. On the right, there's a main area titled 'Extensions' with a result for 'ChromeVox' by Google. The 'ChromeVox' card is also highlighted with a red box. The card shows the extension icon, the name 'ChromeVox', the developer 'offered by chrome.google.com', and a brief description 'A screen reader for the web.'</p>
11.	Confirm you want to install the extension:



12. Navigate back to your **Training Application Form** in your browser and open it in **Preview** mode.

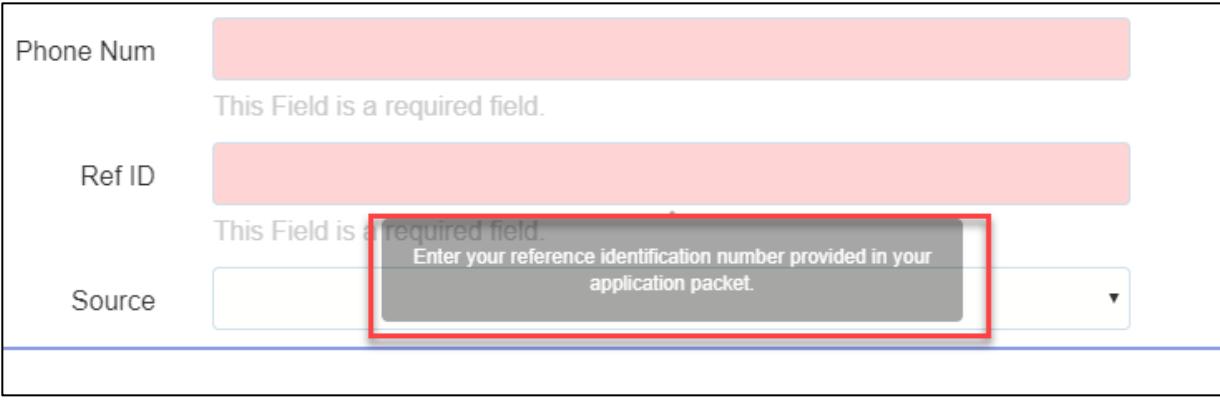
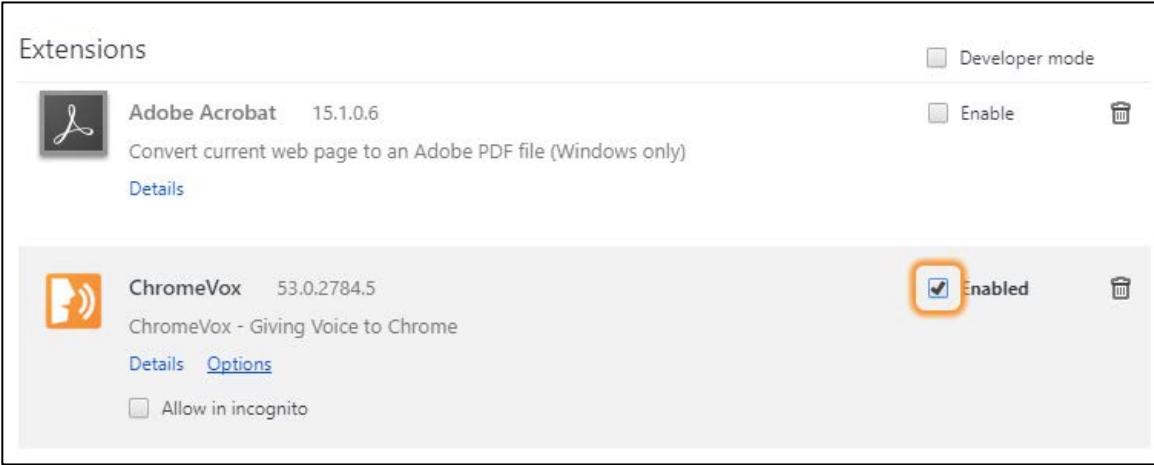


HINT: You now need to turn on audio on your computer or enable your speakers to test the screen reader. Your screen reader Extension is now active and visible in Chrome:

13. Navigate directly to each field by placing the cursor in each field on your form and listen for the audio playback. When you navigate to the **Ref ID** you should hear:

"Enter your reference identification number provided in your application packet with hint"

OR

	<p>"Enter your reference identification number provided in your application packet alert"</p> <p>You should also see the mouse-over help text provided on-screen:</p> 
14.	<p>Turn off the ChromeVox extension by navigating to chrome://extensions (or by clicking your ChomeVox icon at upper right and selecting Manage Extensions. De-select Enabled to disable the extension:</p> 
15.	<p>For more information on ChromeVox, visit http://www.chromevox.com/</p>

Module 9: Forms Portal

Overview

In this hands-on exercise, you will customize the behavior and look and feel of a forms portal. You will configure the Search and Lister Component of AEM Forms inside of an AEM Site you use as your Forms Portal. You will then alter the Portal's Title font, add a thumbnail image for each card, and mouse hover effects. Lastly, you will add and attach a file button to your form and configure it to submit within the context of your portal.

TIME: It should take approximately 60 minutes to complete this exercise.

Prerequisites

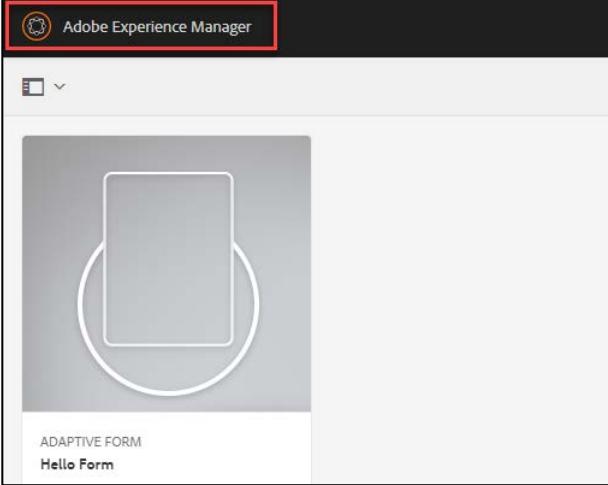
Before you begin this exercise, you must complete the following exercise:

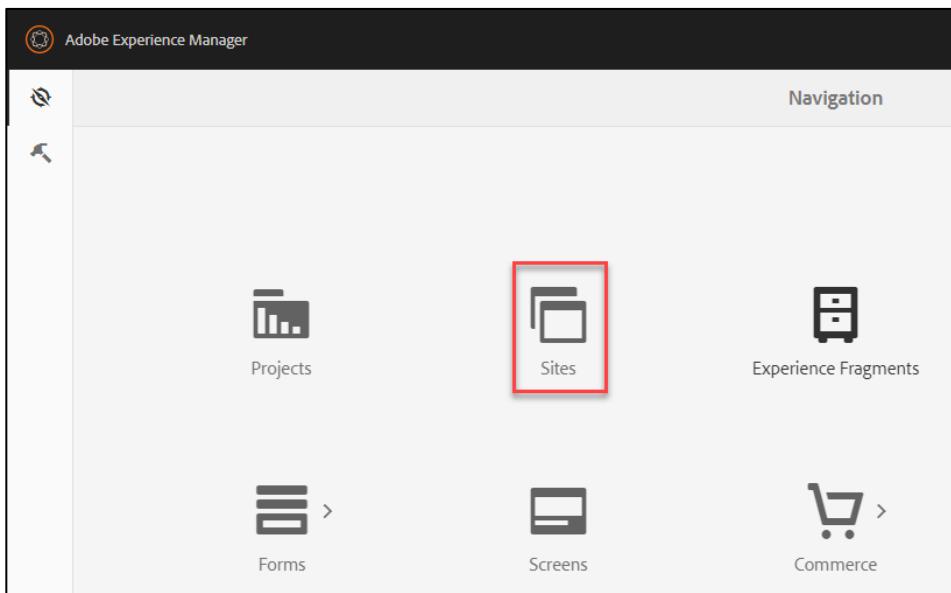
ONLY FOR NON-AEM Cloud Deliveries

If you are not using the standard AEM Cloud environment provided for this course, refer to the setup instructions provided in the Appendix (Setting up your Forms Portal Project) before starting this exercise.

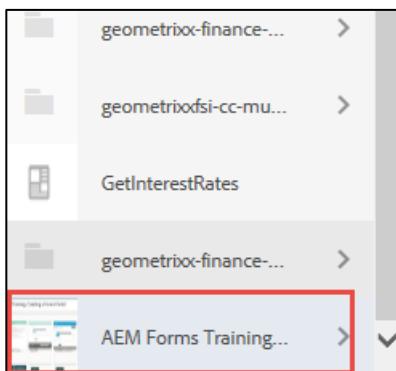
Part 1: Configure your Site

Configure your site and set up your portal components.

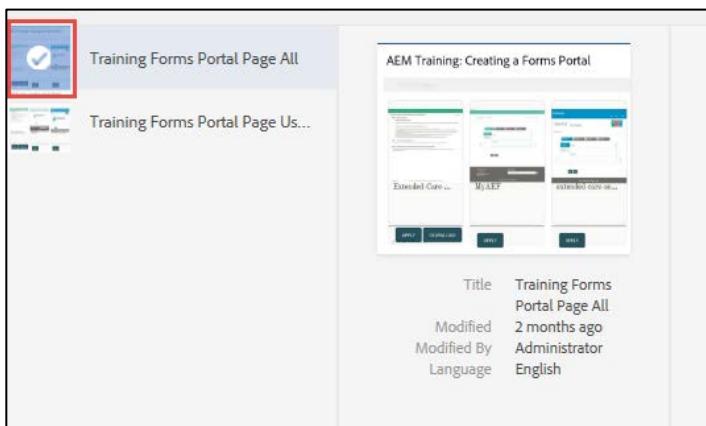
Step	Instruction
1.	<p>Click the Adobe Experience Manager logo at top left to return to the main navigation:</p> 
2.	<p>Navigate to Sites:</p>



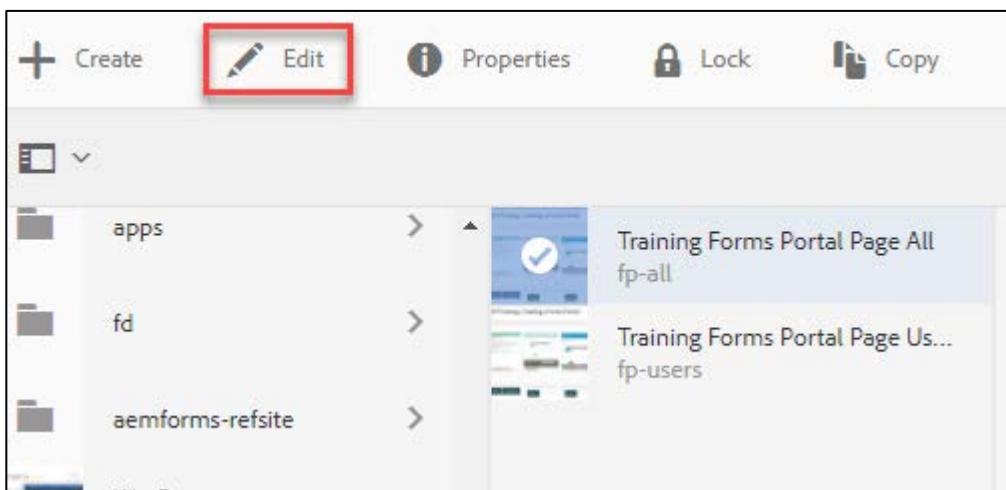
3. Scroll down (if needed) to the very bottom and click **AEM Forms Training Portal**:



4. Click on the **Training Forms Portal Page All** option, specifically by clicking on the small thumbnail image to the left of the title of the page:

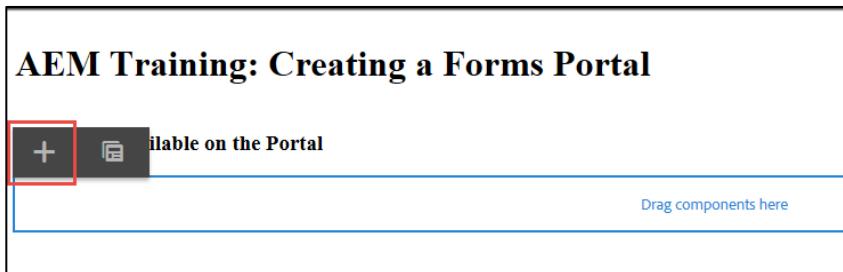


5. With this page selected, in the toolbar, click **Edit**:



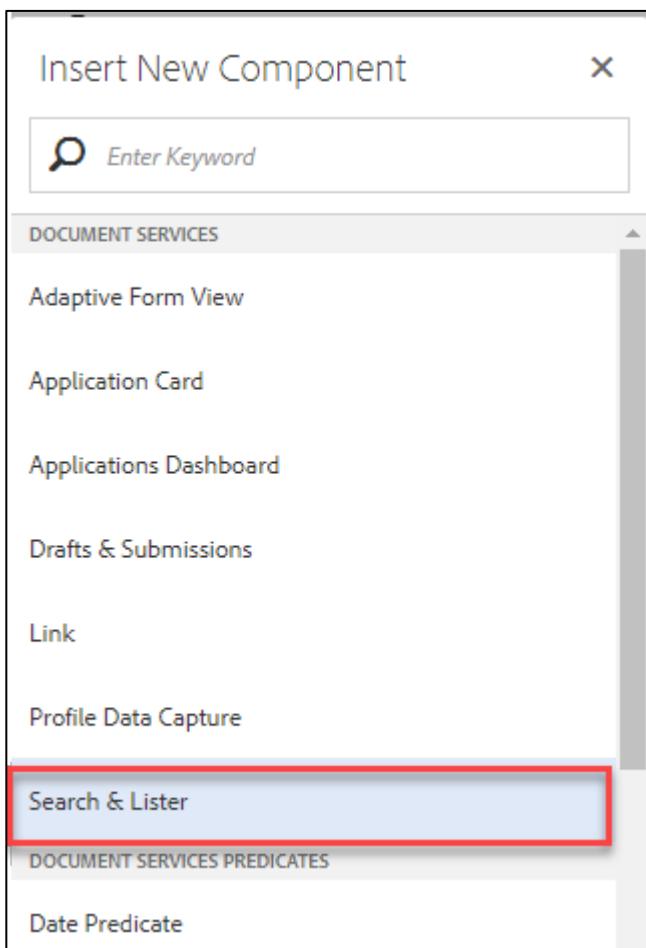
The page opens in edit mode.

6. With **Drag components here** selected, click the plus icon:



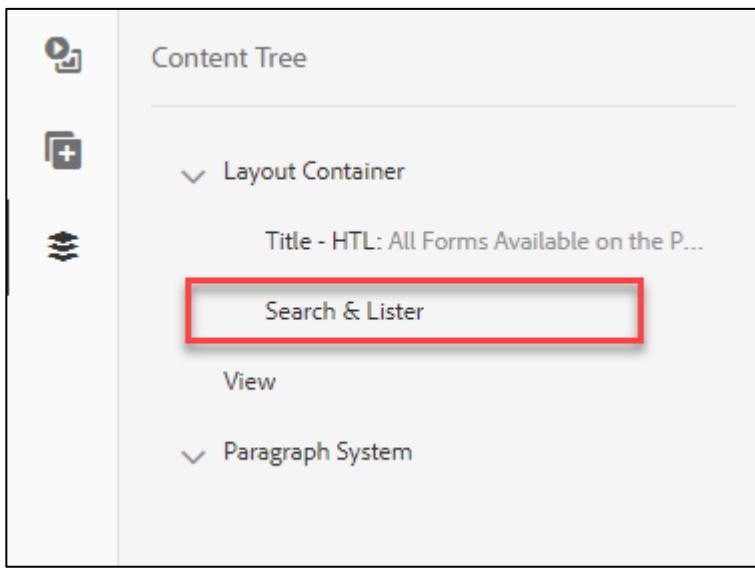
NOTE: This is known as the **Responsive Grid (or Layout Container)**. It provides a responsive paragraph system to pages where authors or designers may drag components onto a page, while keeping the page responsive.

7. Click **Search and Lister** to add this component to your page:



HINT: If you notice, your form may appear to be blank in Preview mode or even Edit mode. That is fine. Additional configurations will be made to your portal to enable testing.

8. In the Side Panel, click **Content Tree**. Notice that your new **Search & Lister** component appears here in the hierarchy for the page:

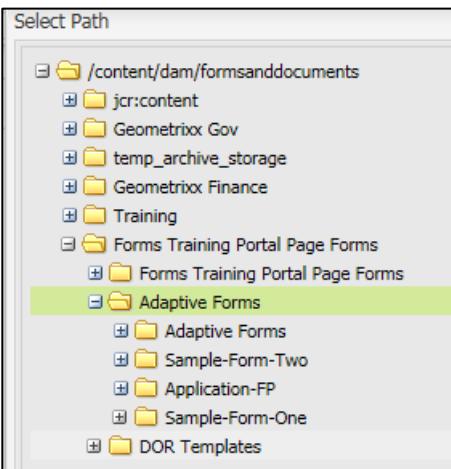


9.	With the newly-added Search & Lister component selected, click Configure :
10.	An Edit Portal dialog appears. Be patient as this may take a few seconds to load. Click Add Item :
11.	Click Search :

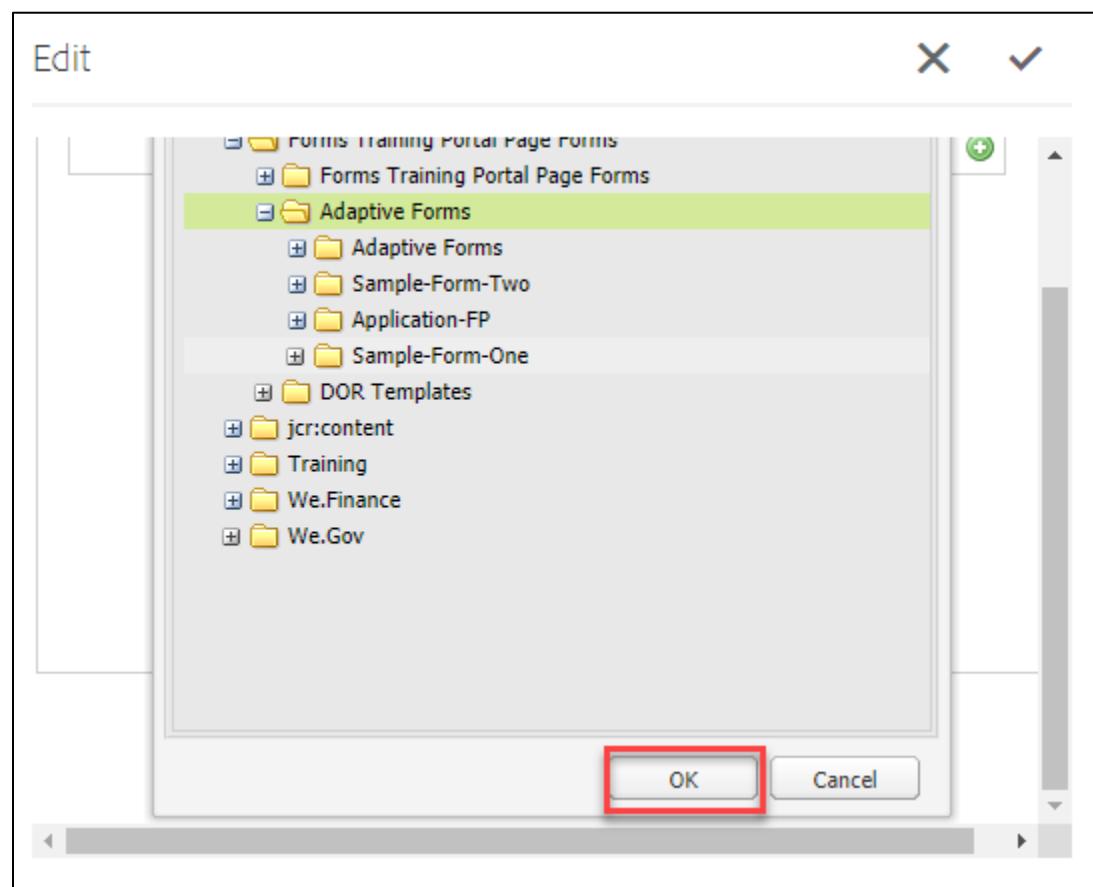


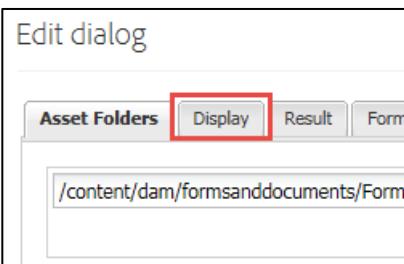
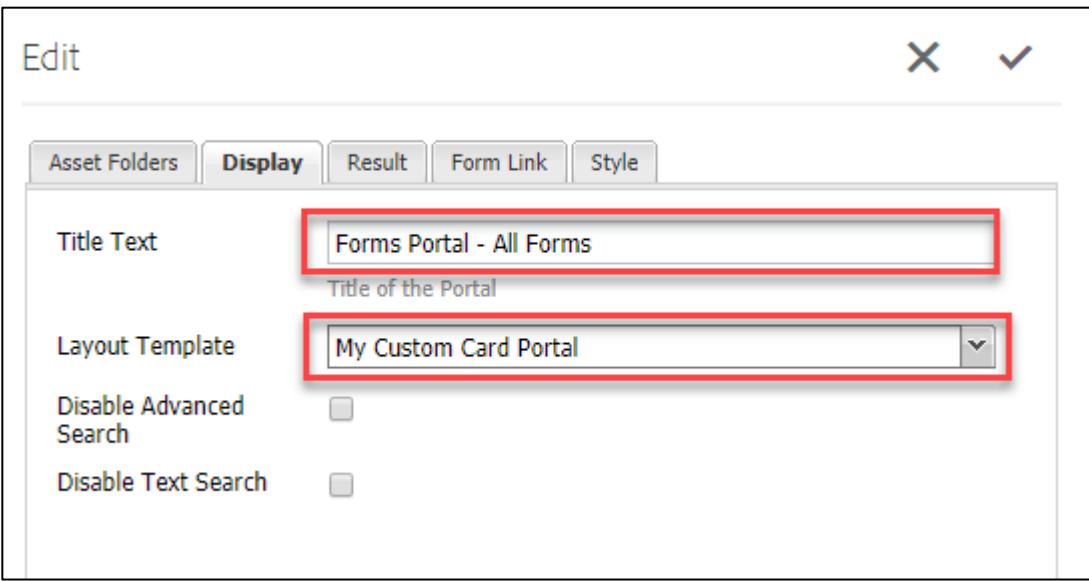
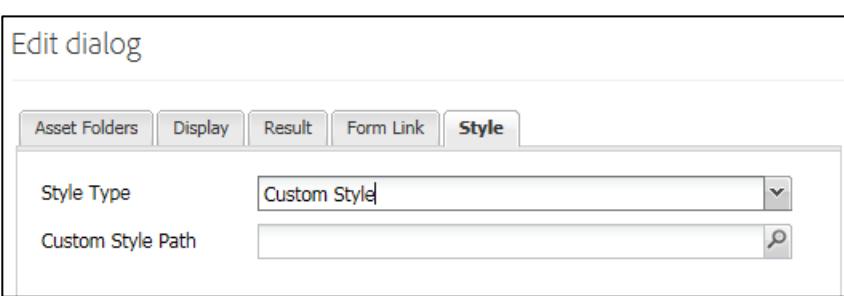
12. Navigate through the folder structure shown and choose the **Adaptive Forms** subfolder.

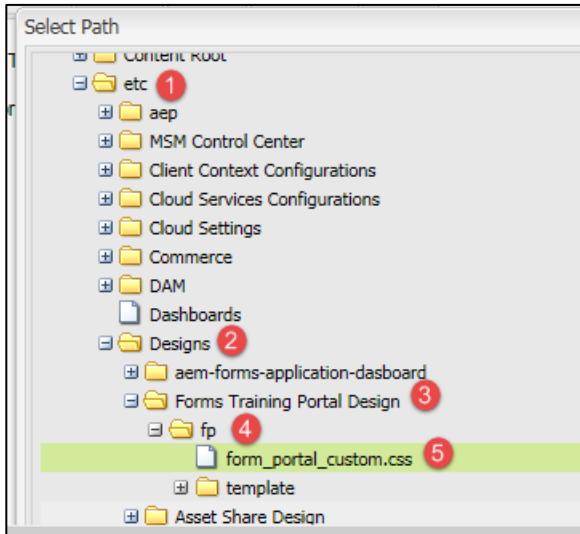
NOTE: Your folders here may look slightly different than the folders shown in this screenshot. That is ok.



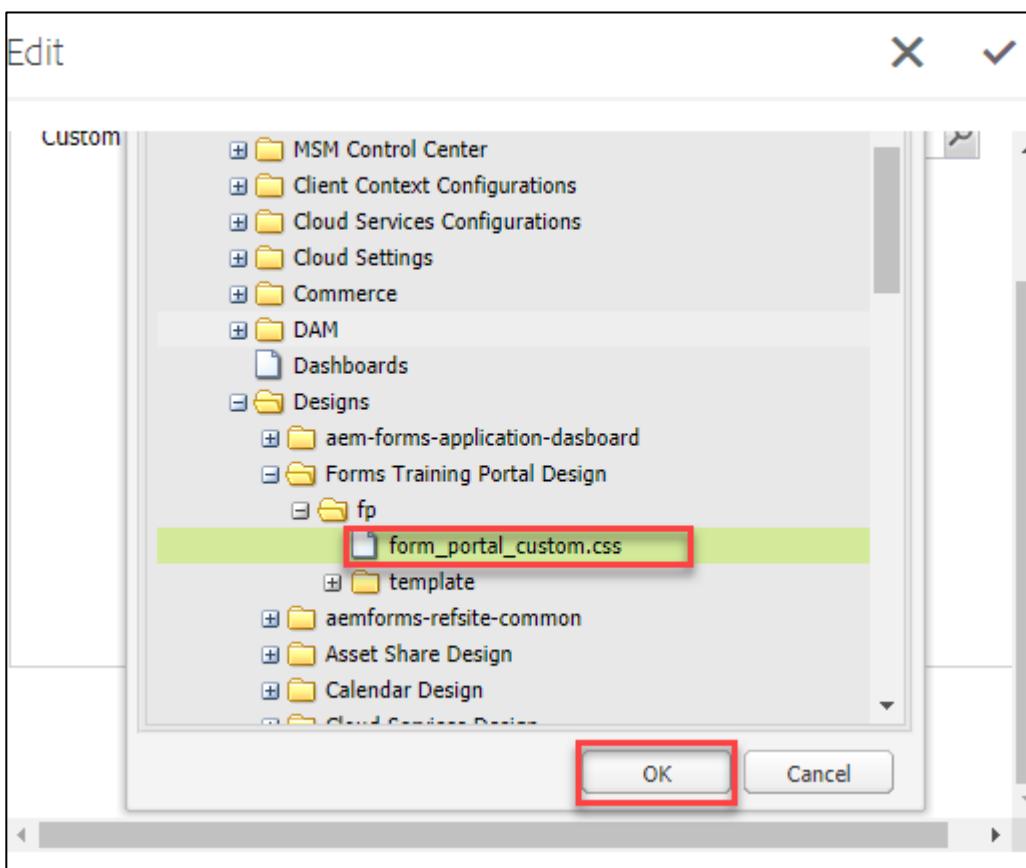
HINT: Click the gray **OK** button to select the **Adaptive Forms** folder. Do not click the **checkmark (Done)** button in the dialog. To ensure you can locate the **OK** button, you may have to scroll down within your dialog:



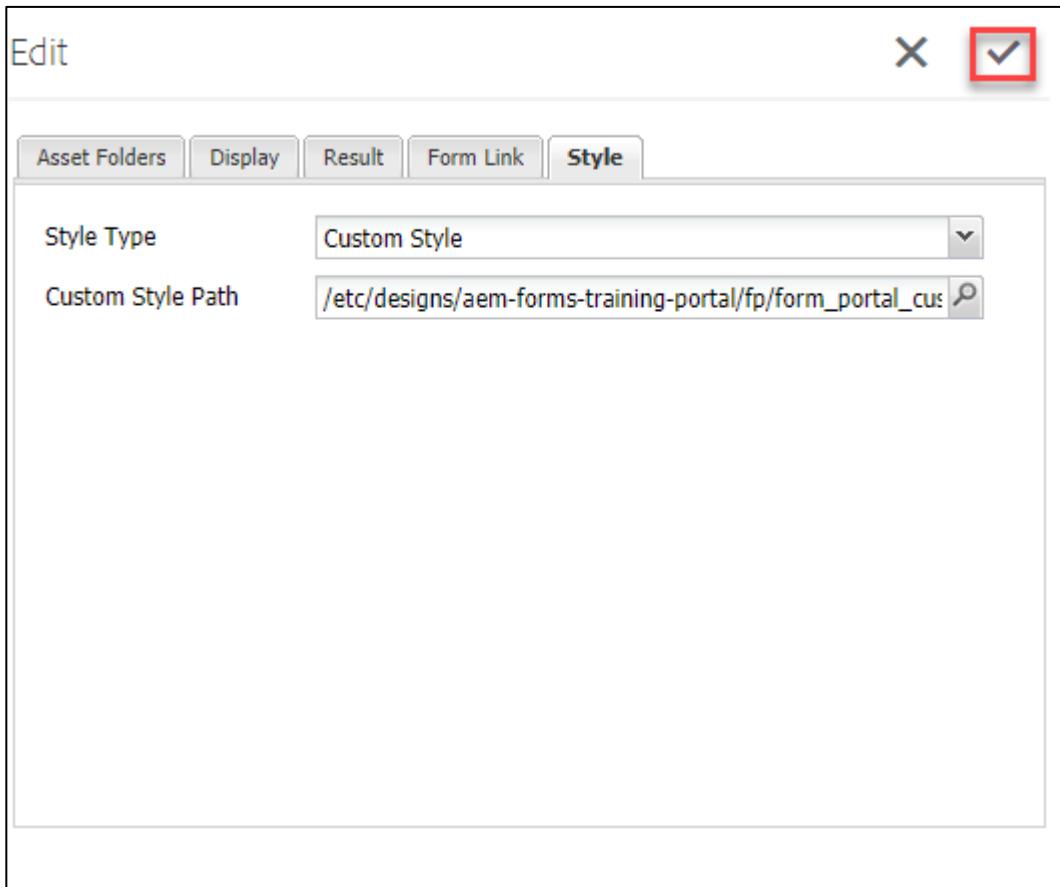
13.	<p>Still in the dialog, click the Display tab:</p> 
14.	<p>Provide a Title Text configuration and choose a Layout Template like shown here. Be sure to change the Layout Template to the one you created earlier.</p> 
15.	<p>Still in the dialog, click the Style tab and in the Style Type drop-down menu, select Custom Style as you are going to use a custom CSS (Styling):</p> 
16.	<p>Click Custom Style Path search:</p> 
17.	<p>Navigate following the numbers to the custom css:</p>



HINT: Click the **gray OK button** to select the **form_portal_custom.css** file. Do not click the **check mark (Done)** button in the dialog. To ensure you can locate the **OK** button, you may have to scroll down within your dialog:



- | | |
|-----|---|
| 18. | Click Done to save your component changes in the Dialog: |
|-----|---|



19. You should now see the following result of your configuration of the **Search and Lister** component:

AEM Training: Creating a Forms Portal

All Forms Available on the Portal Title - HTL

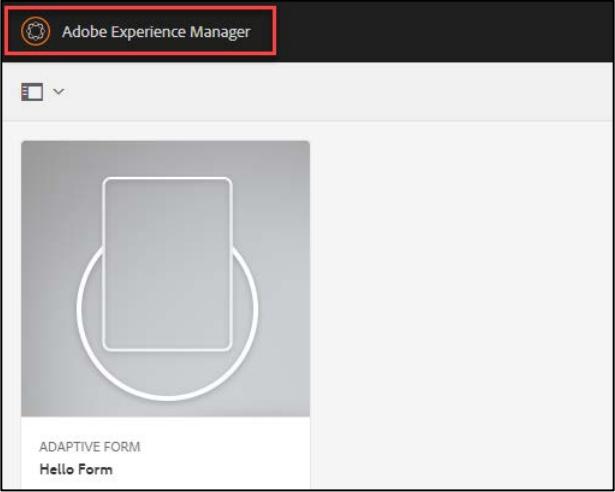
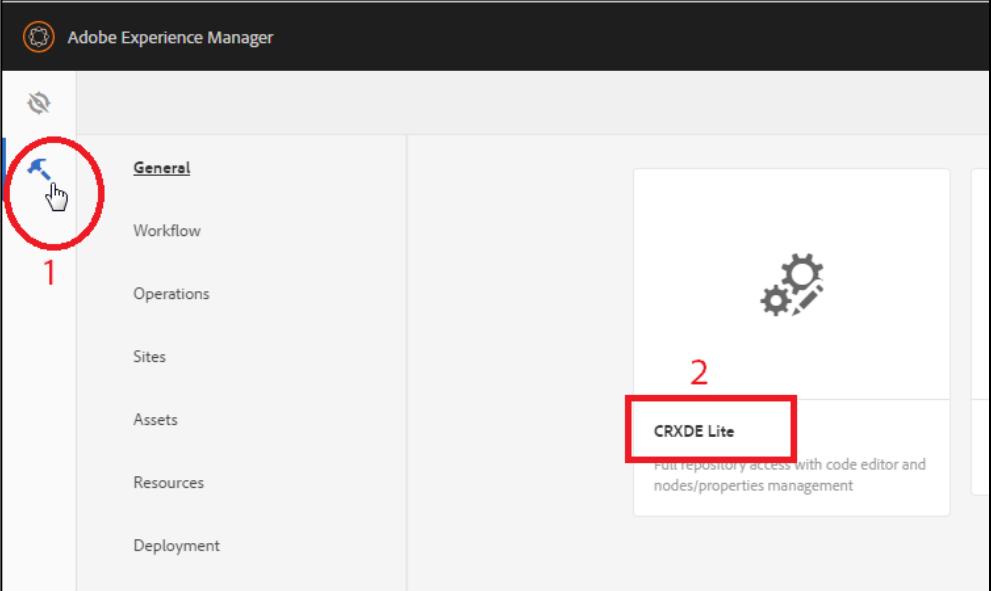
Forms Portal - All Forms

Full Text Search Filter

Application FP A Sample Form for use with Forms Application 	Sample Form Two A second sample form for the Forms Portal 	Sample Form One A Sample form to display in the portal 
---	---	--

1-3 of 3 Results

Part 2: Changing the Forms Portal Title Font Color

Step	Instructions
1.	<p>Click the Adobe Experience Manager logo at top left to return to the main navigation:</p> 
2.	<p>Click the Tools option and then click CRXDE Lite.</p> 
3.	<p>Go to <code>/etc/designs/aem-forms-training-portal/fp/form_portal_custom.css</code> and open the file.</p>

The screenshot shows the CRXDE Lite interface with the file path /etc/designs/aem-forms-training-portal/fp/form_portal_custom.css selected in the left sidebar. The right pane displays the CSS code:

```

1  /*
2   * ADOBE CONFIDENTIAL
3   *
4   * Copyright 2012-2013 Adobe Systems Incorporated
5   * All Rights Reserved.
6   *
7   * NOTICE: All information contained herein is, and remains
8   * the property of Adobe Systems Incorporated and its suppliers,
9   * if any. The intellectual and technical concepts contained
10  * herein are proprietary to Adobe Systems Incorporated and its
11  * suppliers and may be covered by U.S. and Foreign Patents,
12  * Letters of Credit and are protected by trade secret or copyright
13  * law. Dissemination or distribution of this information or reproduction
14  * of this material is strictly forbidden unless prior written permission is obtained
15  * from Adobe Systems Incorporated.
16  *
17  */
18 /*Portal title*/
19 ._FP_title-forms{
20   color: #000000;
21   font: normal normal 30px/34px 'Myriad Pro', Arial, sans-serif;
22   width: 60%;
23 }
24 /*Filter and Close image*/
25

```

4. Change the color property to the ._FP_title-forms class (on about line 21 of the file):

```
color: #00BFFF;
```

```

19 /*Portal title*/
20 ._FP_title-forms{
21   color: #00BFFF; highlighted
22   font: normal normal 30px/34px 'Myriad Pro', Arial, sans-serif;
23   width: 60%;
24 }
25 /*Filter and Close image*/

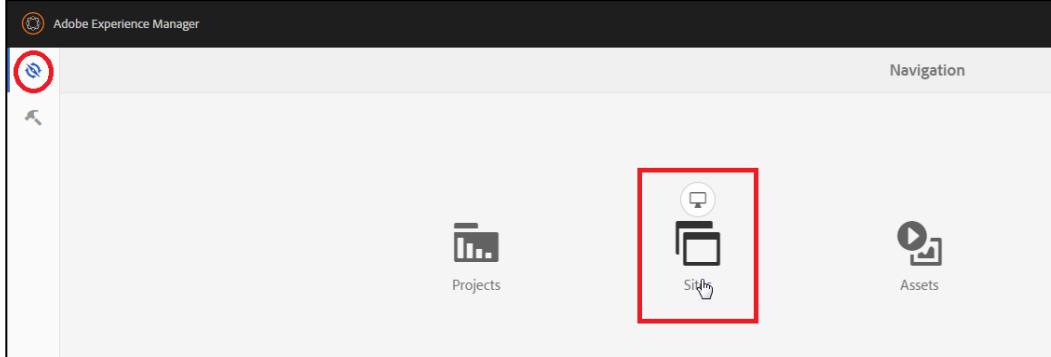
```

5. In the upper left, click **Save All** to save your changes.



HINT: Keep this *.css file open in CRXDE Lite for convenience, as you will make further edits to it in other parts of this exercise.

6. In the AEM UI, go to the **Navigation** page, and click **Sites**.



HINT: Your AEM UI should be open in another tab.

7. Click **AEM Forms Training Portal** and in the second column, select the **Training Forms Portal Page All**. Select the **Edit** option.

The screenshot shows the AEM Forms Training Portal interface. At the top, there is a toolbar with various icons: Create, Edit (highlighted with a red box), View Properties, Lock, Copy, Move, Publish, Publish Later, Unpublish, Unpublish later, and Delete. Below the toolbar is a navigation sidebar on the left containing links to Campaigns, Screens, Community Sites, and several Geometrixx sub-sites. To the right of the sidebar is a main content area titled "AEM Training: Creating a Forms Portal". This area displays a preview of a page with the title "Training Forms Portal Page All". Below the preview, there is a summary table with columns for Title, Modified, Modified By, and Language. The title is "Training Forms Portal Page All", modified 6 days ago by Administrator in English.

8. When the page opens, you will notice how, from your previous pages, new graphics appear in the Assets panel to the left of the page.
In the upper right, click **Preview** to go to Preview mode and confirm the Component title has a blue-colored font.

The screenshot shows the "AEM Training: Creating a Forms Portal" page in Preview mode. The title "Forms Portal - All Forms" is displayed in blue text. Below the title, there is a section titled "All Forms Available on the Portal".

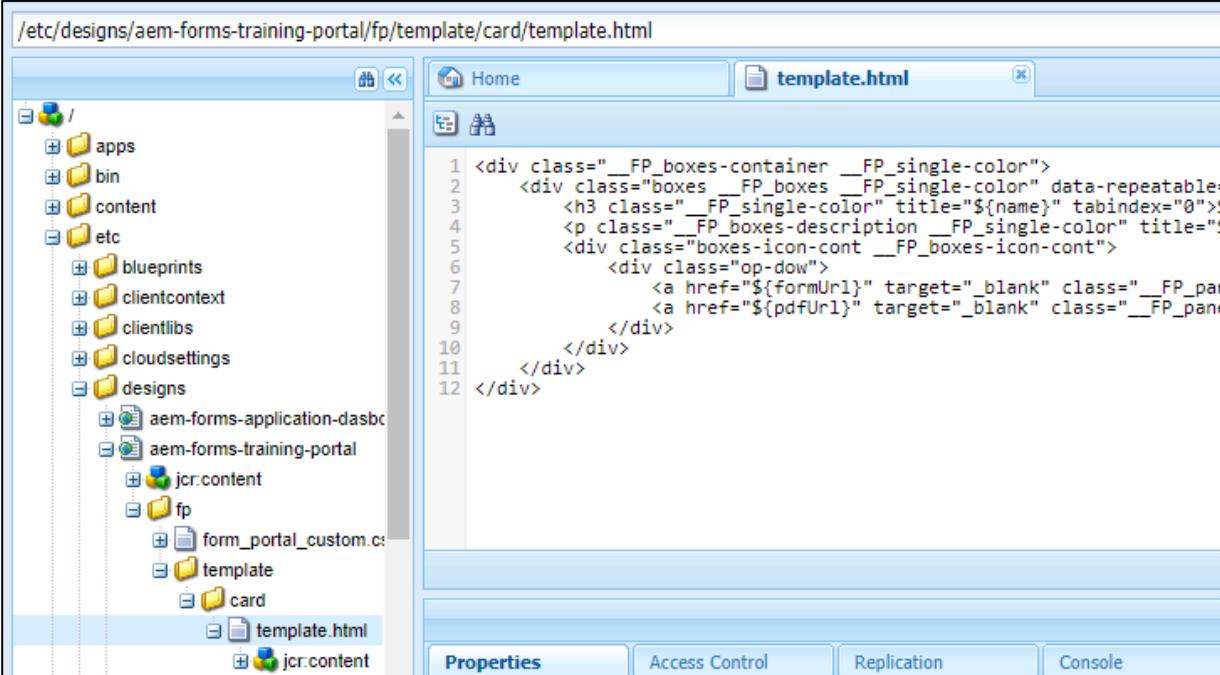
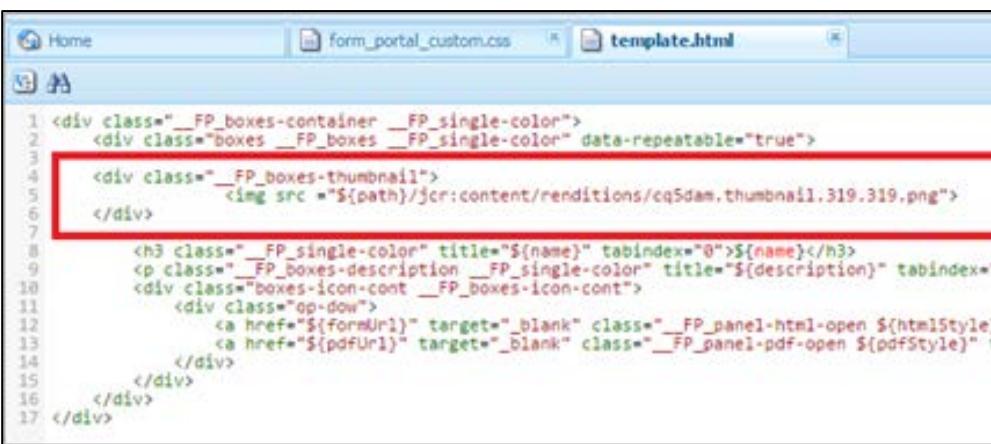
OPTIONAL: In CRXDE Lite, experiment with changing your font color to bright green (use the css #7FFF00).

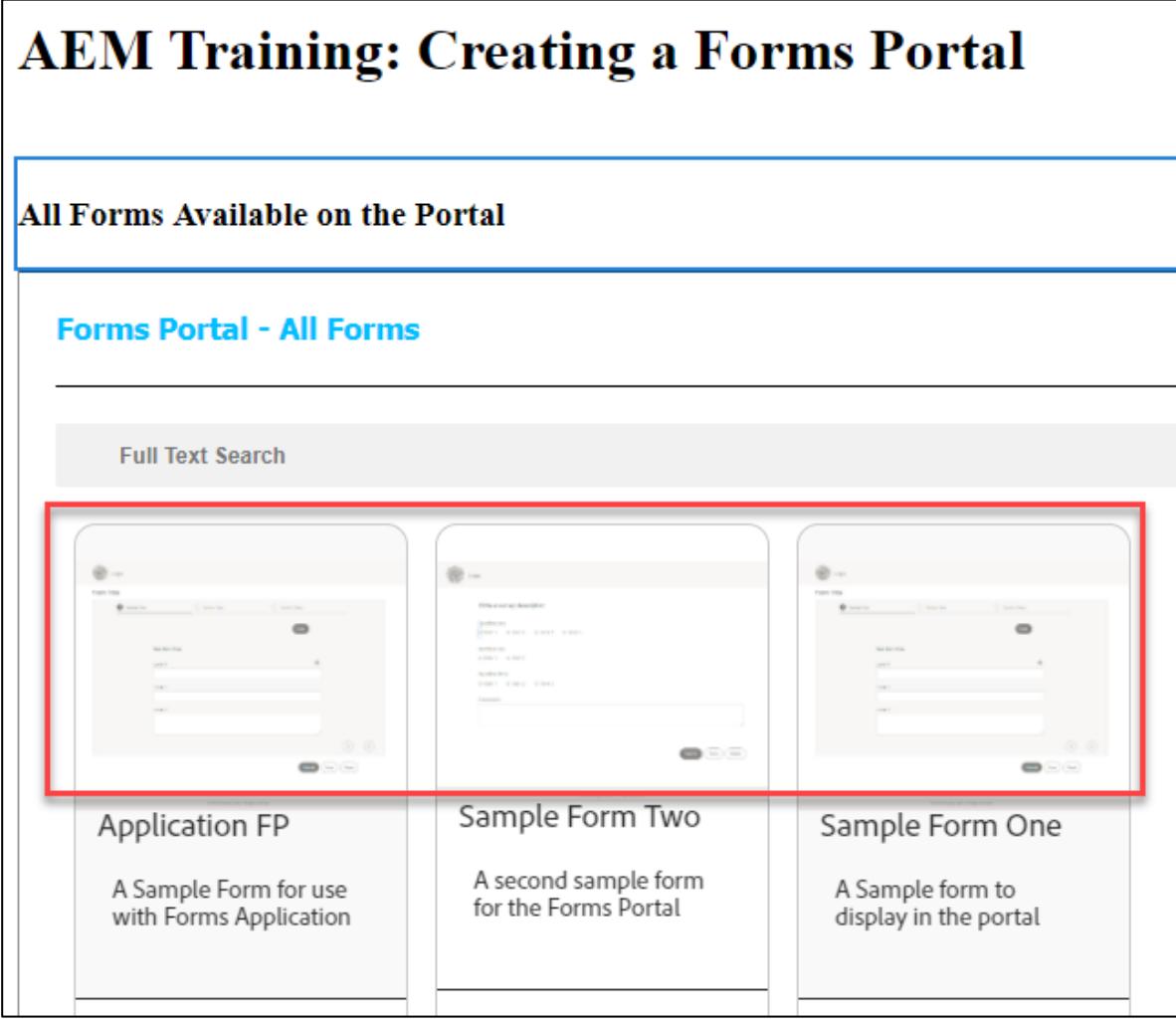
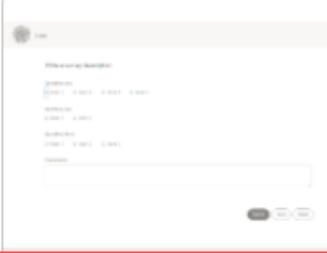
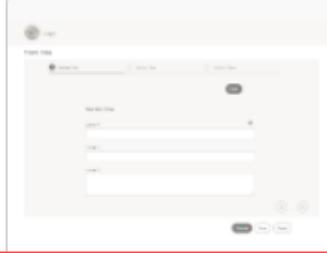
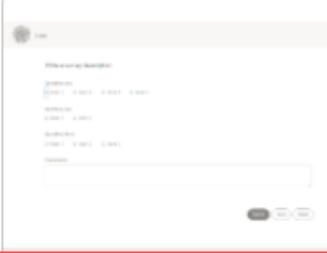
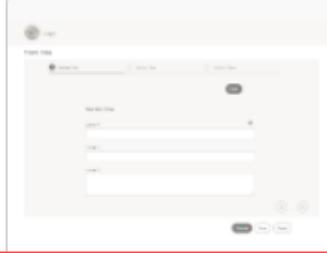
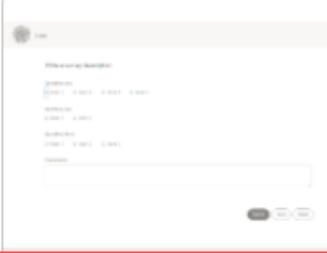
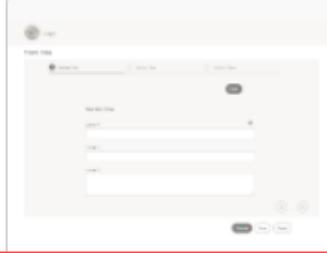
For other css color codes, visit: http://www.w3schools.com/cssref/css_colors.asp

Note: Leave this page open, as you will be frequently testing your modifications to the CSS and HTML files that make up your portal.

Part 3: Add Thumbnail image for Each Card in the Forms Portal

In this part, you will modify the contents of the template.html file by adding <div> tags that include pointers to the thumbnails that are automatically generated when a new form is created.

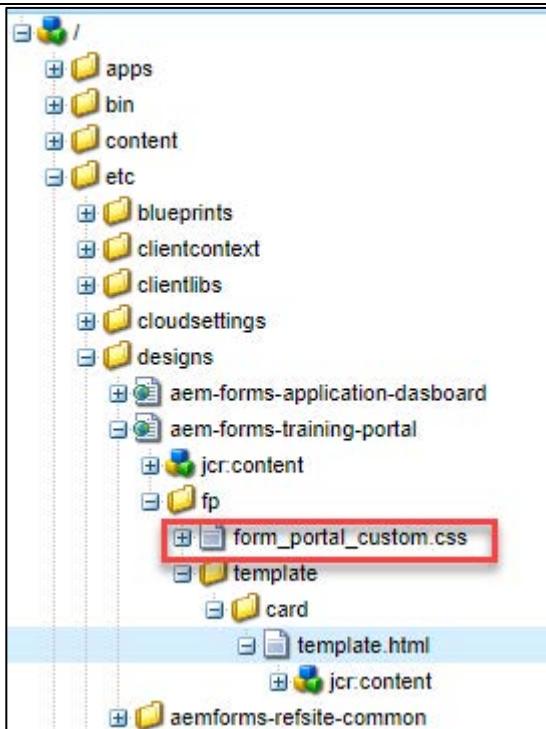
Step	Instructions
1.	<p>In CRXDE Lite, navigate to <code>/etc/designs/aem-forms-training-portal/fp/template/card/template.html</code> and double-click the file to open it.</p>  <pre> </etc/designs/aem-forms-training-portal/fp/template/card/template.html> </pre>
2.	<p>Add the tags starting on line 3 to display the image of the form within the card. You can find a copy of these tags in the thumbnail_div.txt file in the Exercise_Files. You will add the following tags as shown (three lines of code):</p> <pre> <div class="__FP_boxes-thumbnail"> </div> </pre>  <pre> 1 <div class="__FP_boxes-container __FP_single-color"> 2 <div class="boxes __FP_boxes __FP_single-color" data-repeatable="true"> 3 <div class="__FP_boxes-thumbnail"> 4 5 </div> 6 <h3 class="__FP_single-color" title="\${name}" tabindex="0">\${name}</h3> 7 <p class=__FP_boxes-description __FP_single-color" title="\${description}" tabindex="1">\${description}</p> 8 <div class="boxes-icon-cont __FP_boxes-icon-cont"> 9 <div class="op-dow"> 10 11 12 13 </div> 14 </div> 15 </div> 16 </div> 17 </div> </pre>

3.	Save your changes (Save All in CRXDE Lite).			
4.	Go back to the fp-all.html page that contains your Forms Portal and refresh the page in your browser. Ensure that the form cards now contain snapshots of your form images.			
<p>AEM Training: Creating a Forms Portal</p>  <p>All Forms Available on the Portal</p> <p>Forms Portal - All Forms</p> <p>Full Text Search</p> <table border="1"> <tbody> <tr> <td> Application FP A Sample Form for use with Forms Application</td> <td> Sample Form Two A second sample form for the Forms Portal</td> <td> Sample Form One A Sample form to display in the portal</td> </tr> </tbody> </table>		 Application FP A Sample Form for use with Forms Application	 Sample Form Two A second sample form for the Forms Portal	 Sample Form One A Sample form to display in the portal
 Application FP A Sample Form for use with Forms Application	 Sample Form Two A second sample form for the Forms Portal	 Sample Form One A Sample form to display in the portal		

Part 4: Add Mouse Hover effect to the Forms Portal

The template.html file is simply HTML that describes the contents of the Forms Portal, while the form_portal_custom.css is CSS, and can be extended with CSS Less, to describe the look and feel of the Forms Portal. When customizing the Forms Portal, you will normally modify both these files. In this exercise, you will modify both files to add a mouse hover effect on the card such that a particular color and style appears when the user mouses over a card.

Step	Instruction
1.	<p>In CRXDE Lite, add the HTML <div> tags to the same template.html file you worked with in Part 3. Now you will add code that will display the description information of the form in the card. You can find a copy of these tags in the mouseHover_html.txt file in the Exercise_Files.</p> <p>Note: You only need to add the <div class="cover"></div> open as the description tags already exist in the HTML files.</p> <p>You will add the following tags as shown (4 lines of code) (starting on line 7):</p> <pre><div class="cover"> <p class="__FP_boxes-description __FP_single-color" title="\${description}" tabindex="0">\${description}</p></div> <div class="boxes-icon-cont __FP_boxes-icon-cont"></pre> <p> HINT: Add a new line starting on line 7 to add in this code. You will NOT replace any code.</p>
2.	<p>Navigate to the form_portal_custom.css file you worked with previously in Part 2. Double-click to open it.</p>



3. Add the **.cover** class to the **form_portal_custom.css**. You can add it at the very bottom of the CSS file. You can find a copy of these tags in the **mouseHover_css.txt** file in the **Exercise_Files**.

```
.cover{
    border-radius: 12px;
    background: rgba(0, 191, 255, 0.2);
    position: absolute;
    height: 100%;
    top: 0;
    left: 0;
    width: 100%;
    opacity: 0;
    -webkit-transition: opacity 500ms;
    -moz-transition: opacity 500ms;
    -o-transition: opacity 500ms;
    transition: opacity 500ms;
}
.__FP_boxes:hover .cover{
    opacity:1;
}
```

```

70     width: 94%,  

71   }  

72   .__FP_search-open{  

73     width: 78%;  

74   }  

75 }  

76 }  

77 .cover{  

78   border-radius: 12px;  

79   background: rgba(0, 191, 255, 0.2);  

80   position: absolute;  

81   height: 100%;  

82   top: 0;  

83   left: 0;  

84   width: 100%;  

85   opacity: 0;  

86   -webkit-transition: opacity 500ms;  

87   -moz-transition: opacity 500ms;  

88   -o-transition: opacity 500ms;  

89   transition: opacity 500ms;  

90 }  

91 .__FP_boxes:hover .cover{  

92   opacity:1;  

93 }  

94 }  

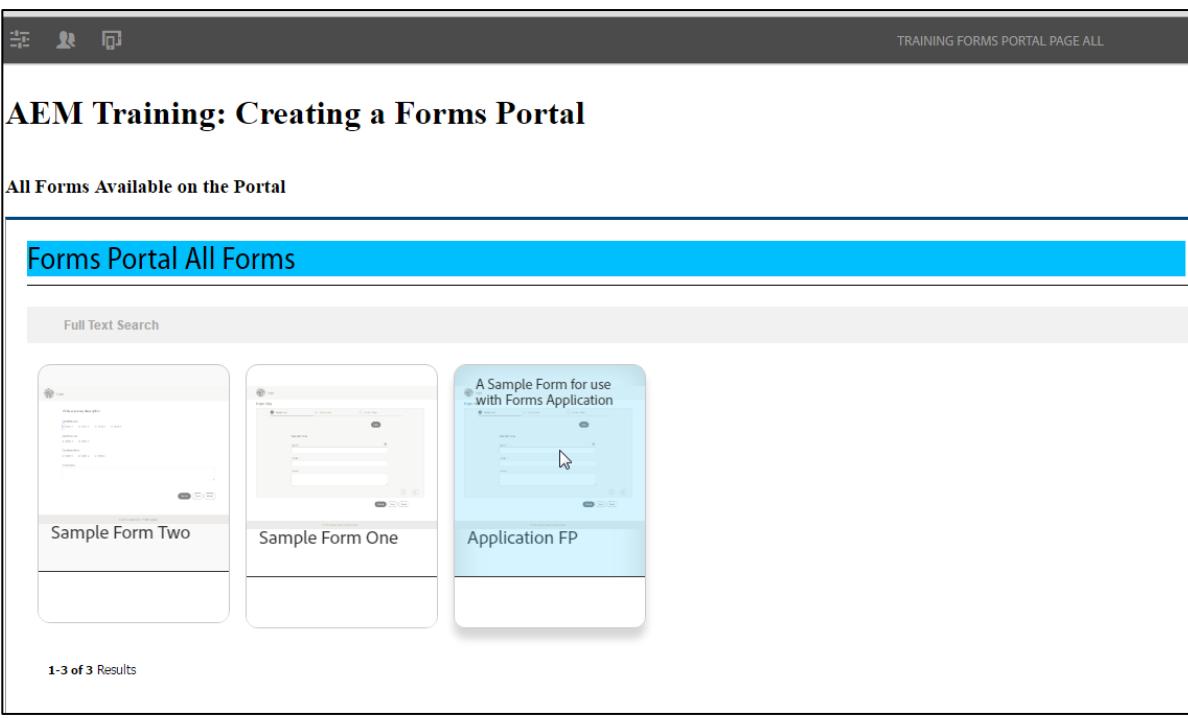
95 }  

96 }  

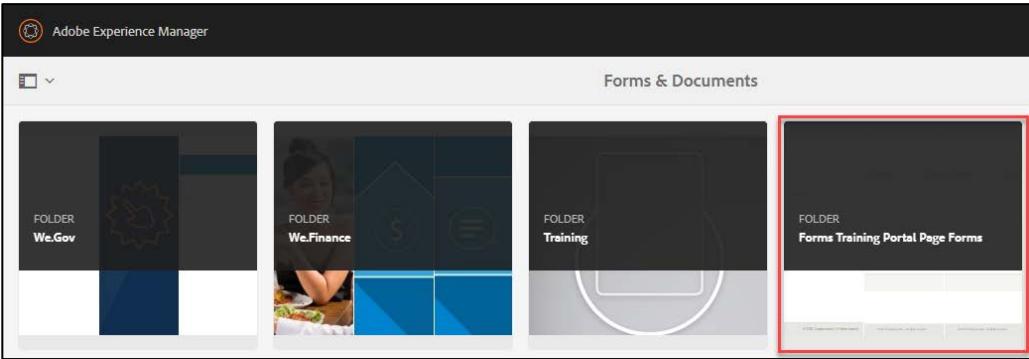
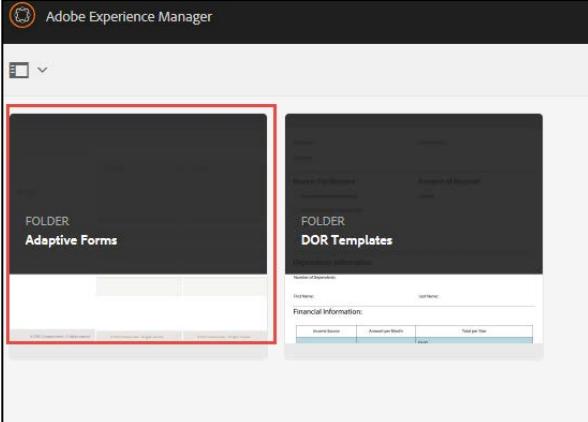
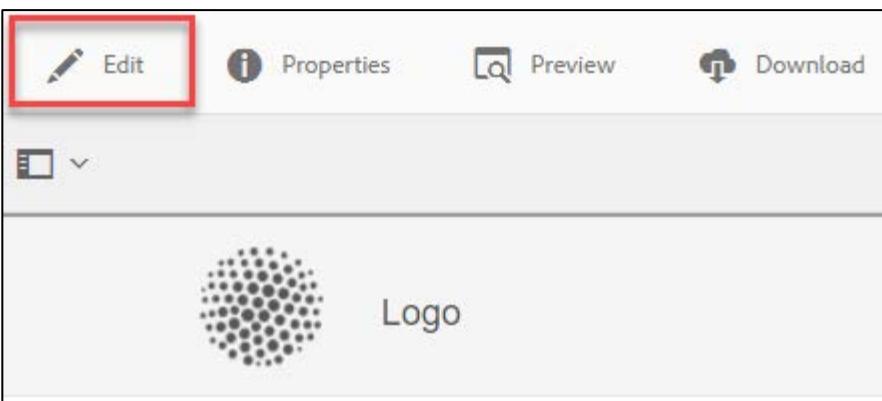
97 }

```

4. Select **Save All**.
5. Test by refreshing the Portal page and hover over any of the cards to note the background color change.
- Note:** If the changes do not occur, you can either clear the cache, or open a private browsing window and then copy the forms portal URL and preview.

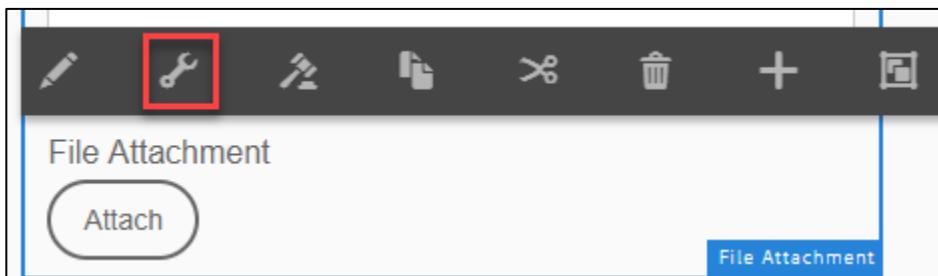


Part 5: Add an Attachment Component to Your Form

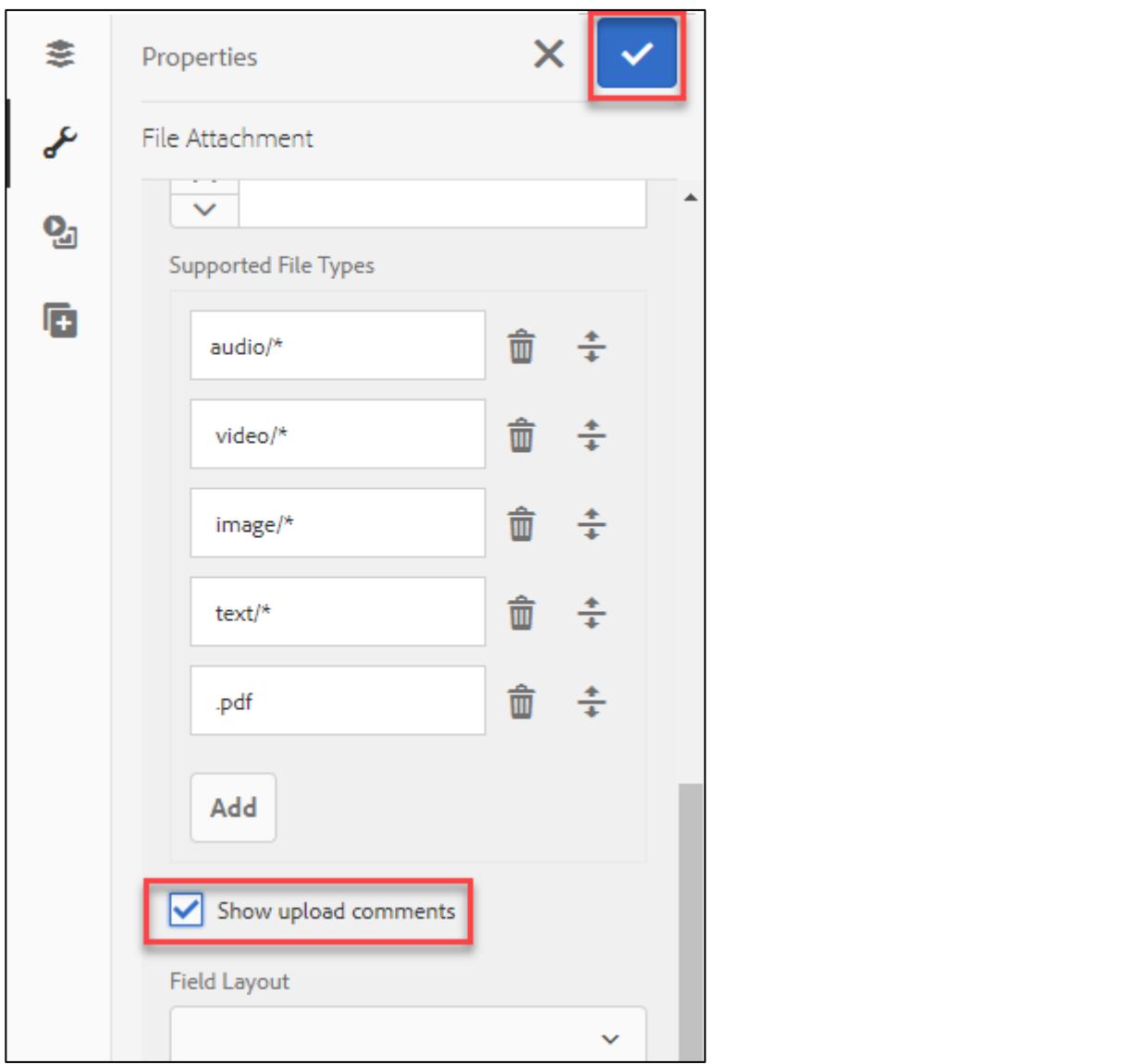
Step	Instructions
1.	<p>In your AEM author environment, click the Adobe Experience Manager link and navigate to Forms > Forms & Documents.</p> <p>Click the newly-created Forms Training Portal Page Forms folder:</p> 
2.	<p>In the folder, click the Adaptive Forms sub-folder:</p> 
3.	<p>Click Sample Form One and then open it for Editing in Edit Mode:</p> 
4.	<p>Click the Components view in the Side Panel (1). Click and drag a File Attachment Adaptive Form component to your form below General Information (2):</p>

The screenshot shows the 'Components' panel on the left and a form builder interface on the right. In the Components panel, the 'File Attachment' component is highlighted with a red box and a red number '1'. A dashed arrow points from this highlighted component to another 'File Attachment' component in the form builder's component palette, which is also highlighted with a red box and a red number '2'. The form builder interface displays 'SAMPLE FORM ONE' with sections for 'Section One', 'Section Two', and 'Section Three'. It includes fields for 'First Name', 'Last Name', and 'General Information', along with 'Next' and 'Previous' navigation buttons.

5. Next, select your component and click **Configure**:

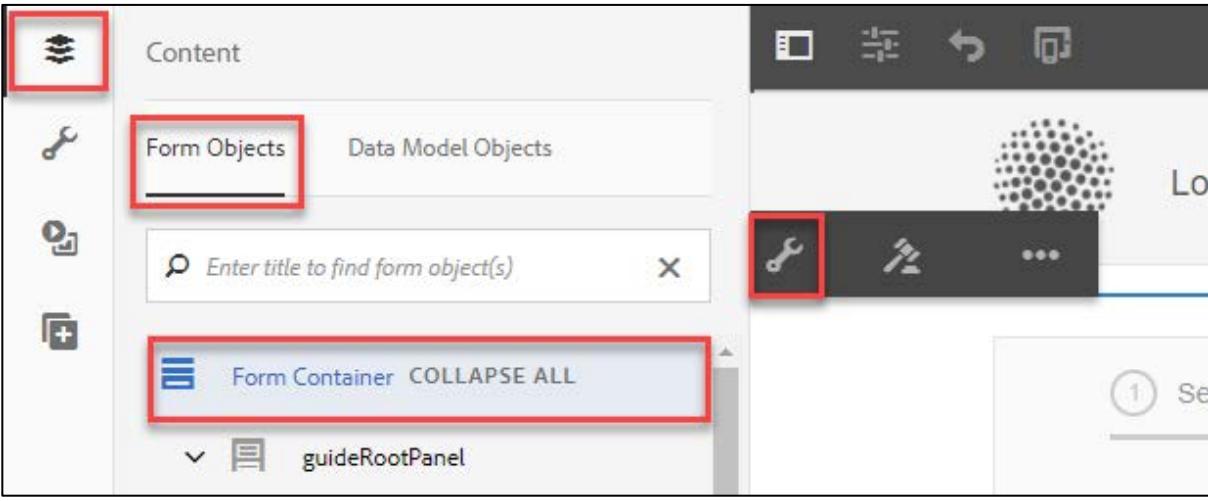
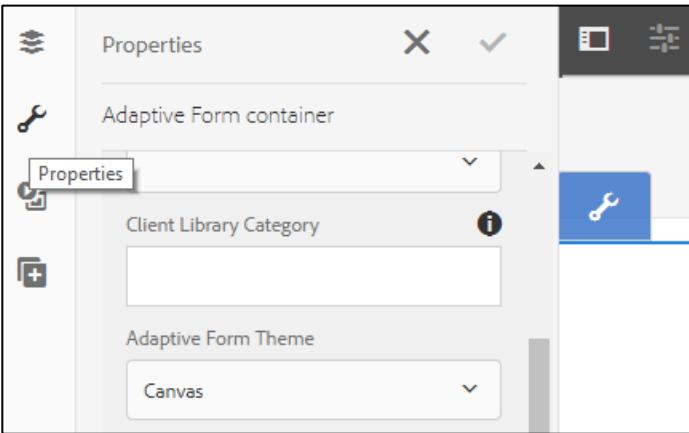


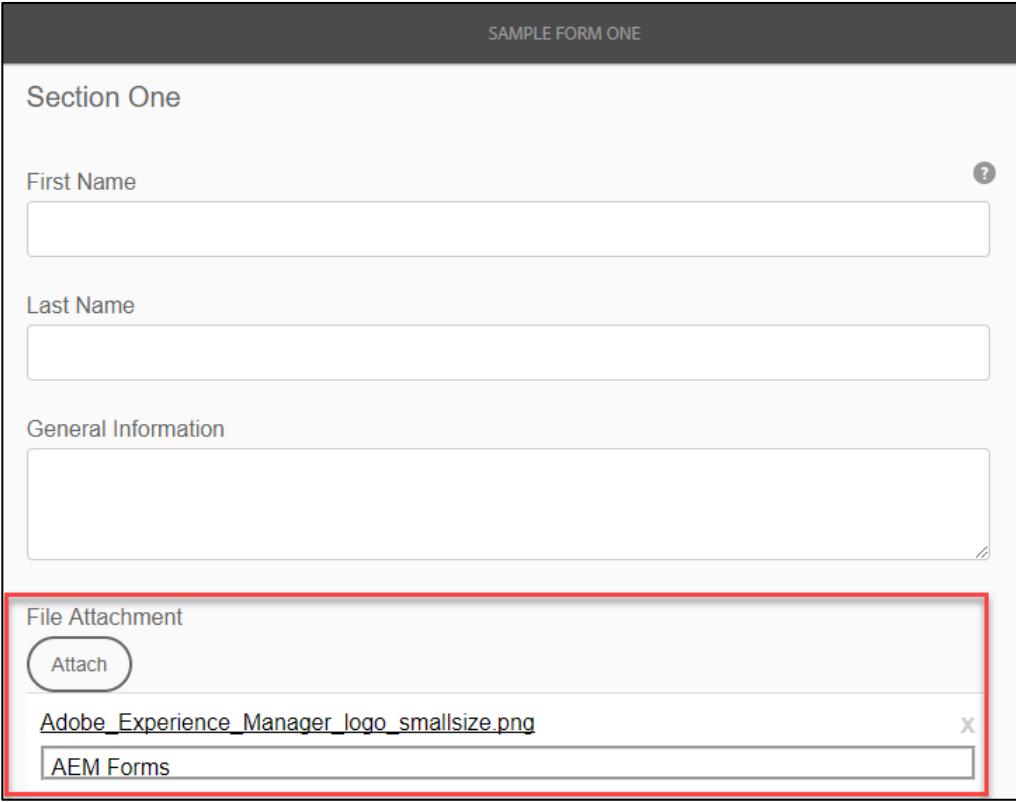
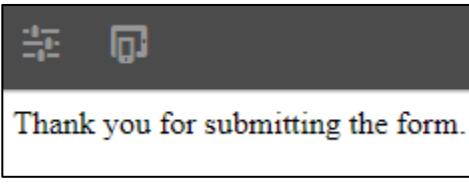
6. Scroll down in the component properties and enable upload comments by selecting this option:



Click **Done** in the Side Panel to save your changes.

- | | |
|----|--|
| 7. | Configure the Form Container . Select it in the Side Panel by navigating to the Content view and using Form Objects . |
|----|--|

	
8.	Click the Properties view to access the form container's properties:
	
9.	In the Side Panel, scroll to the bottom and expand Submission :
	
10.	Change Store content under the Submit Action drop-down menu to Forms Portal Submit Action :

	<p>Submission</p> <p><input type="checkbox"/> Use asynchronous submission</p> <p>Redirect URL/Path <input type="text"/> </p> <p><input type="checkbox"/> Store data in forms portal</p> <p><input type="checkbox"/> Revalidate on server</p> <p>Submit Action Forms Portal Submit Action </p>
	<p>Click Done in the Side Panel to save your changes.</p>
11.	<p>Preview your Form. Confirm you can add a file attachment and comments. Submit your form.</p> 
12.	<p>Note the form was submitted:</p> 

Module 10: Drafts & Submissions

Overview

In this hands-on exercise, you will learn to create a form portal by first creating a portal page, and then adding and configuring a Drafts & Submission Component in your portal page. You will then add tags to your form you created previously and learn how you can use tags for searching.

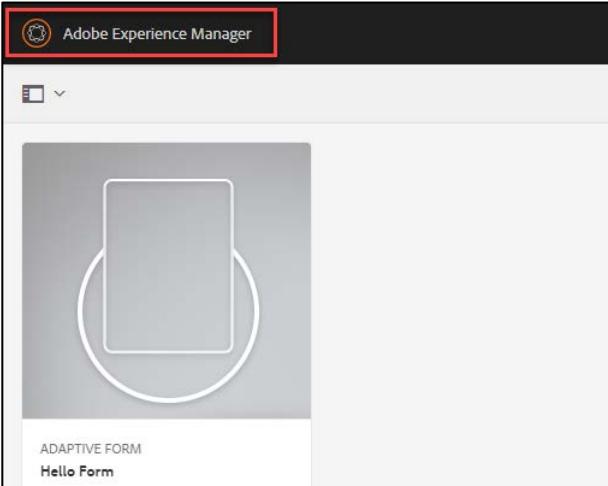
TIME: It should take approximately 40 minutes to complete this exercise.

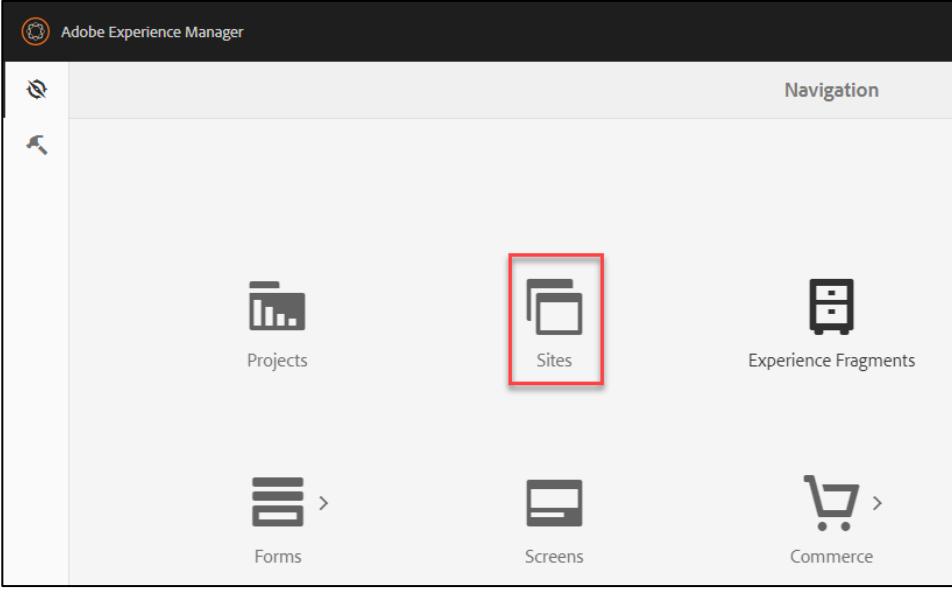
Pre-requisites

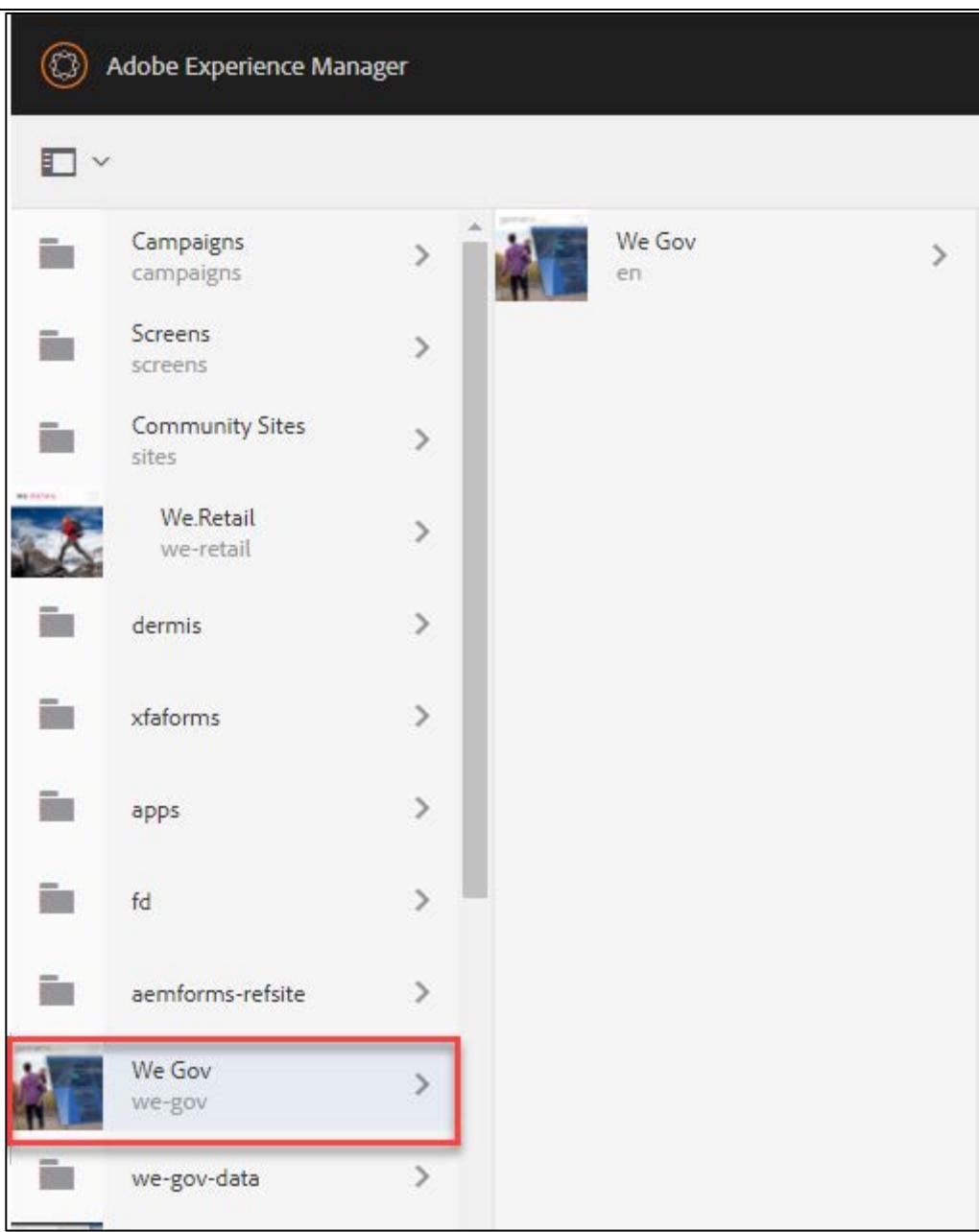
Before you begin this exercise, you must complete the following exercise:

Module 3: Panels and Fields

Part 1: Create a Form Portal using the Drafts & Submissions Component

Step	Instruction
1.	<p>Click the Adobe Experience Manager logo at top left to return to the main navigation:</p> 
2.	<p>Navigate to Sites:</p>

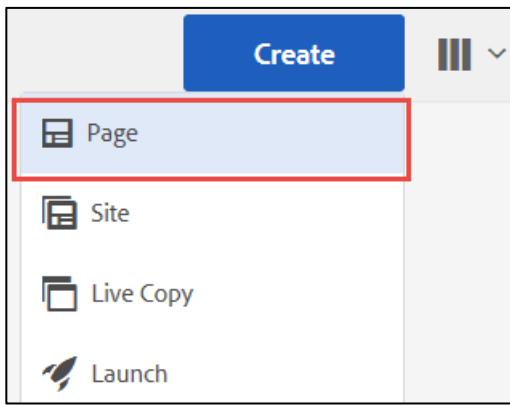
	
3.	Click We Gov:



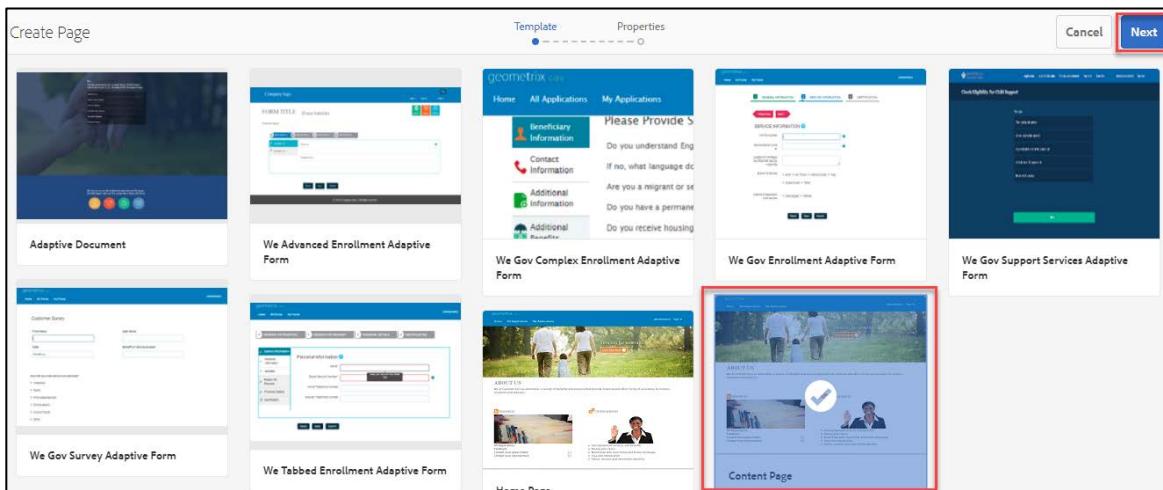
The screenshot shows the AEM navigation bar with the following items:

- Campaigns (campaigns)
- Screens (screens)
- Community Sites (sites)
- We.Retail (we-retail)
- dermis
- xfaforms
- apps
- fd
- aemforms-refsite
- We Gov (we-gov) - This item is highlighted with a red box.
- we-gov-data

4. Click **Create > Page** at upper right:



5. In the next wizard screen, select the **Content Page** template and click **Next**:



HINT: You may have to scroll down to select Content Page.



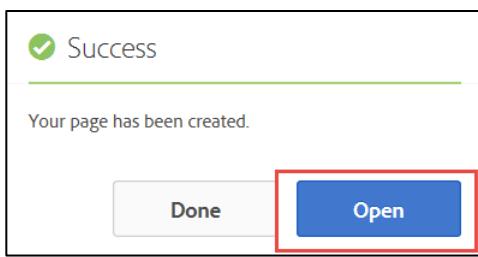
6. In the Title field, enter **myPortal** and click **Create**:

The screenshot shows the 'Title and Tags' creation dialog with the following fields:

- Name: (empty input field)
- Title *: **myPortal** (highlighted with a red box)
- Tags: (empty input field)

At the top, there are 'Template' and 'Properties' tabs, and at the bottom right are 'Back' and 'Create' buttons, with 'Create' being highlighted with a red box.

7. In the success dialog, click **Open**:



8. Open the **Side Panel** and click **Components**.

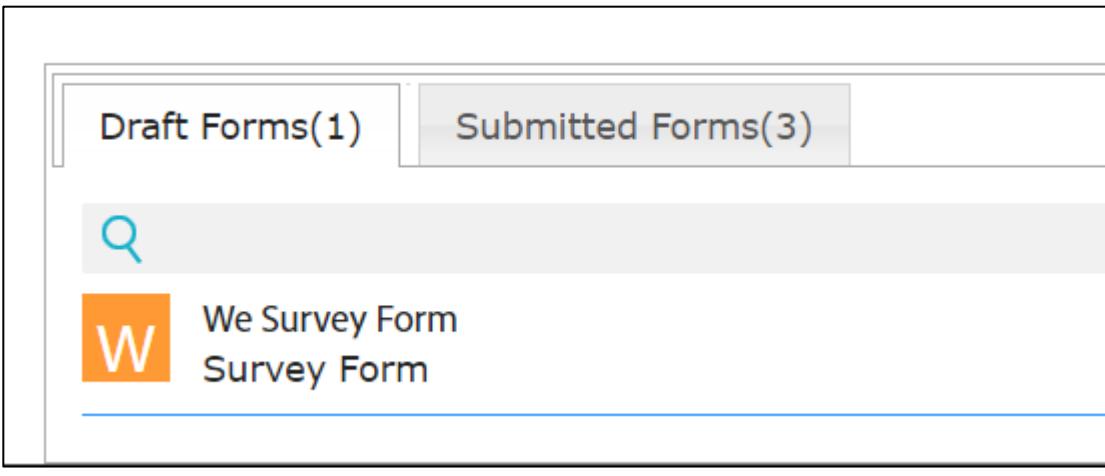
	<p>The Assets interface shows a search bar with 'Filter' and 'Enter path' fields, and dropdowns for 'Images' and 'Select Tag(s)'. A red box highlights the 'New' icon.</p>	
9.	<p>Drag and drop a Drafts & Submissions component onto your page:</p> <p>The component library on the left lists various components like Application Card, Applications Dashboard, Carousel, Chart, Content Fragment, Design Importer, Download, and Drafts & Submissions. The 'Drafts & Submissions' component is highlighted with a red box. A dashed arrow points from this component to a 'Drag components here' area on the right, which contains a copyright notice: '© 2017 We.Gov All Rights Reserved'.</p>	
10.	<p>Note even in edit mode, you may see a listing of a few Submitted Forms (the number will vary):</p> <p>The component interface shows a toolbar with icons for wrench, file, cut, delete, add, and refresh. Below the toolbar, there are two buttons: 'Draft Forms(0)' and 'Submitted Forms(3)'. A note icon with the word 'Note' is shown below the component interface.</p> <p>NOTE: Therefore, this is the component that represents "Drafts and Submissions" that you just configured in your page. Drafts are unfinished forms that were saved on the server in draft mode. Submissions represent forms that were submitted.</p>	
11.	<p>Select the component you just dragged onto your portal page and click the wrench icon to configure it:</p>	

	<p>The screenshot shows the AEM Forms library interface. At the top, there's a toolbar with icons for settings, file operations, and navigation. Below the toolbar, two tabs are visible: "Draft Forms(0)" and "Submitted Forms(3)". A large central area is labeled "Drag components here".</p>
12.	<p>In the dialog, click the Default Tab drop-down and select Draft Forms. When you are done, click the Done (check mark) button in the upper-right corner of the dialog:</p> <p>The screenshot shows the "Edit component" dialog. The "General" tab is selected. Under "Default Tab", the dropdown menu is open and shows "Draft Forms" highlighted with a red box. In the top right corner of the dialog, there is a checkmark icon indicating the "Done" button has been clicked.</p>
13.	<p>Preview your page. Click Preview in the upper right corner:</p> <p>The screenshot shows the preview toolbar. The "Preview" button is highlighted with a red box. Other buttons in the toolbar include "Edit" and a refresh icon.</p>
14.	<p>In your preview, click the Submitted Forms tab. You should be able to see all forms you submitted so far in this course:</p>

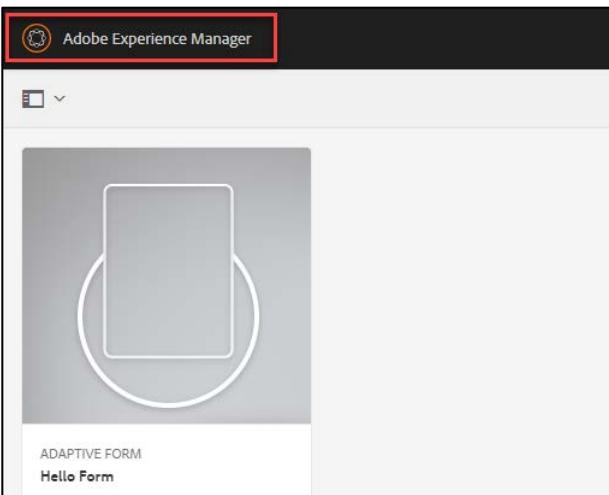
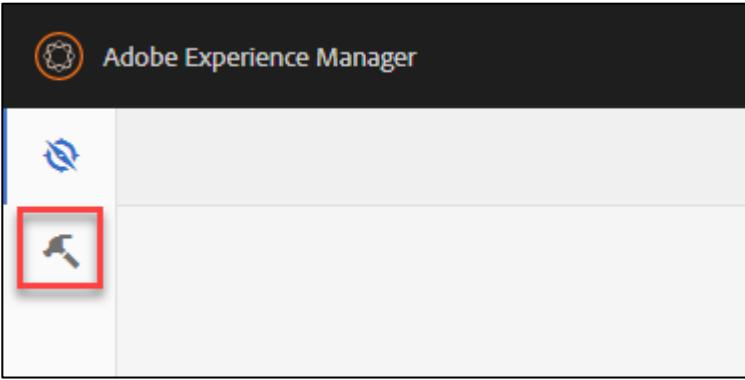
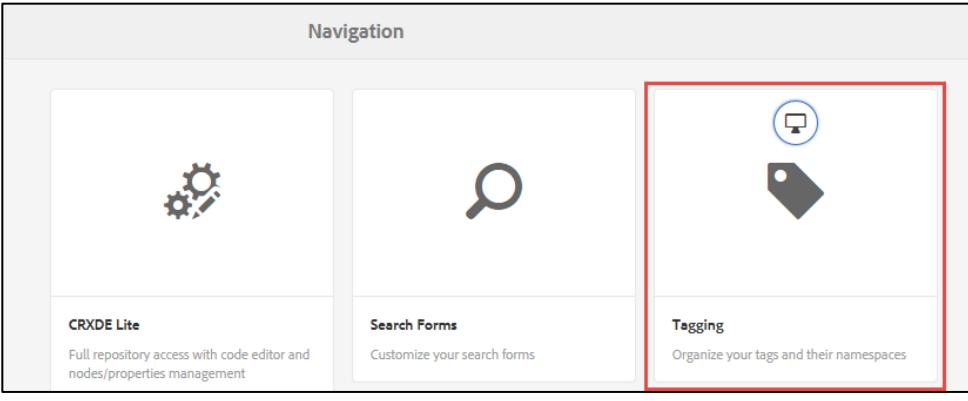
Draft Forms(0)	Submitted Forms(3)												
<p></p> <table border="1"> <thead> <tr> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td> Sample Form One</td> <td>17 Hour 32 Minutes Ago</td> <td> </td> </tr> <tr> <td> Hello Form</td> <td>10 Days Ago</td> <td> </td> </tr> <tr> <td> Hello Form</td> <td>10 Days Ago</td> <td> </td> </tr> </tbody> </table>					 Sample Form One	17 Hour 32 Minutes Ago	 	 Hello Form	10 Days Ago	 	 Hello Form	10 Days Ago	 
 Sample Form One	17 Hour 32 Minutes Ago	 											
 Hello Form	10 Days Ago	 											
 Hello Form	10 Days Ago	 											
<p>If there are no submitted forms, submit a form in the We Gov folder such as the We Survey Form (Forms >Forms & Documents > We.Gov):</p> 													

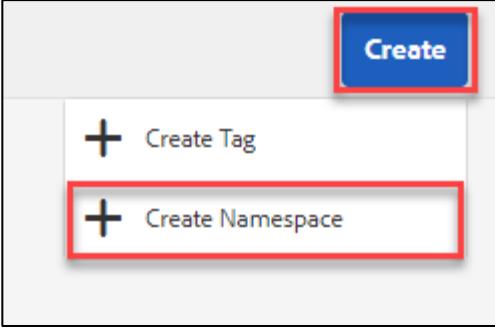
15.	<p>OPTIONAL: Submit a form in draft mode, then return to Drafts & Submissions to see it appear.</p> <p> HINT: Most sample forms have a Save button at the bottom to let you save your work in draft mode:</p> <div style="border: 1px solid black; padding: 10px;"> <p>Additional Comments</p> <hr/> <div style="text-align: center; margin-top: 10px;"> <input type="button" value="Reset"/> <input type="button" value="Save"/> <input type="button" value="Submit"/> </div> </div>
-----	--

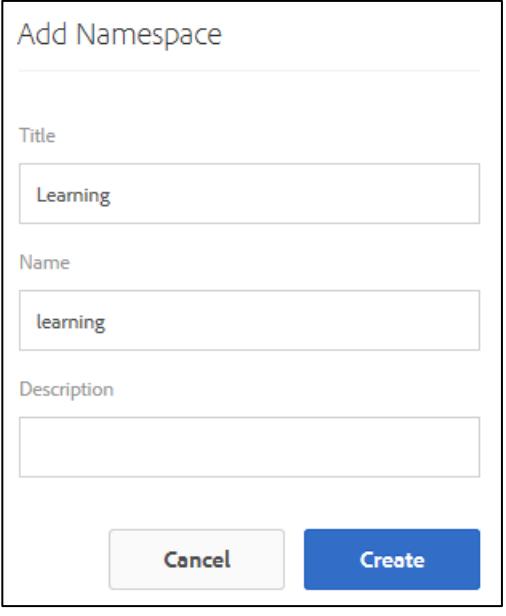
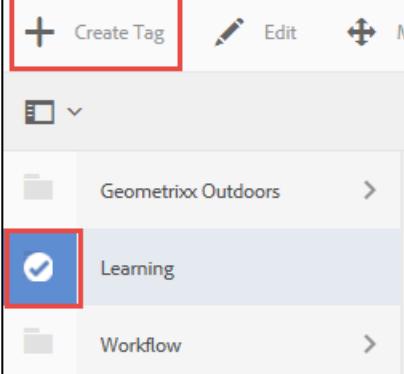
HINT: After saving data in an unfinished form, return to your page and click the Refresh button on your browser (or press F5). Your list of drafts should now be populated:

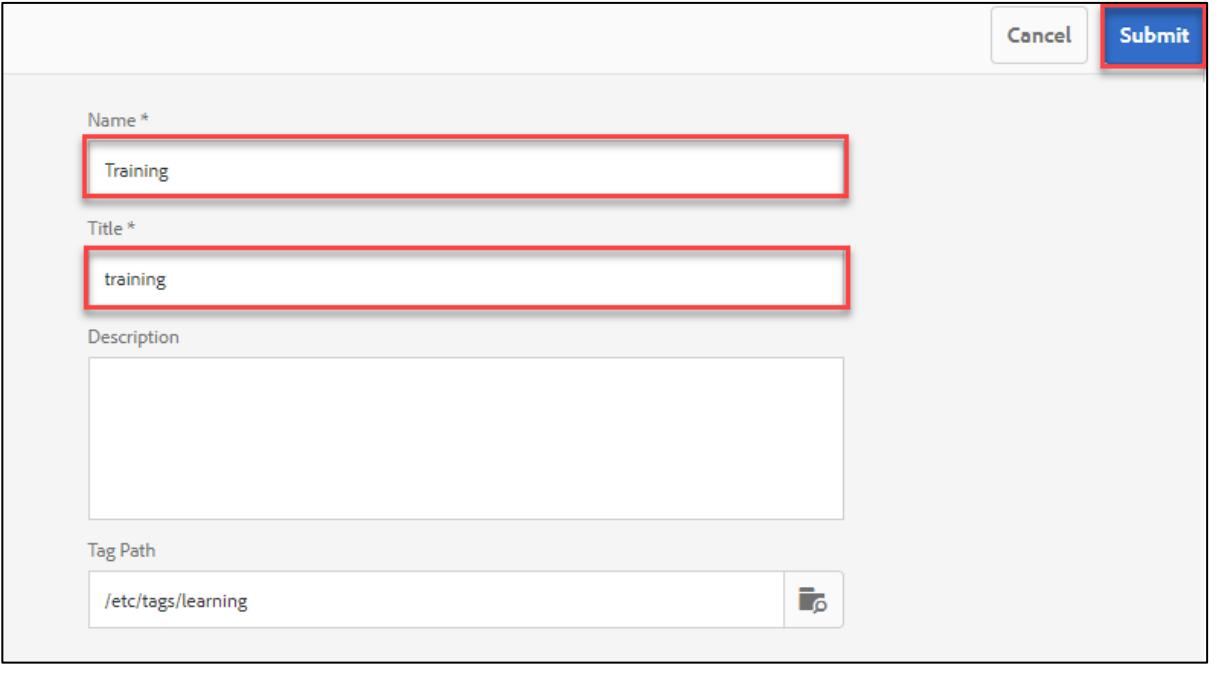
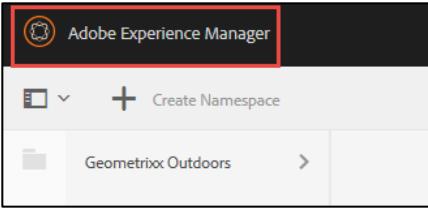
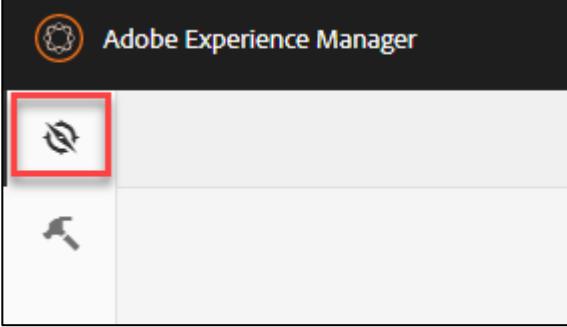


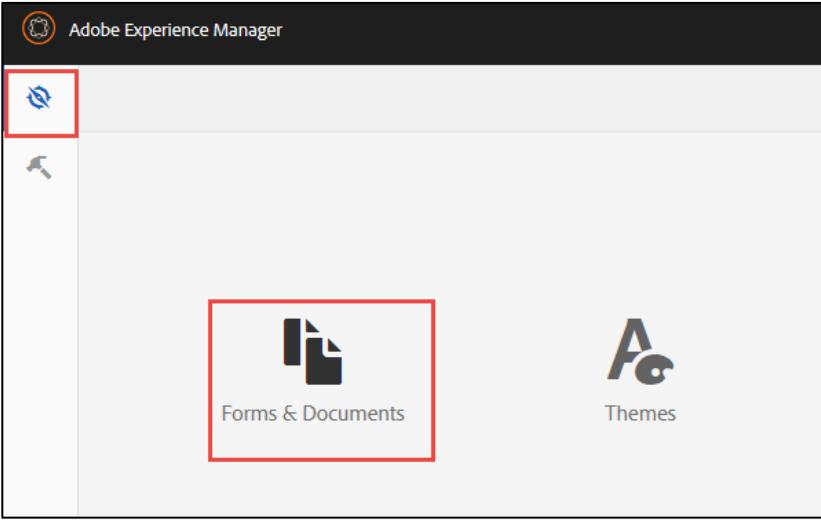
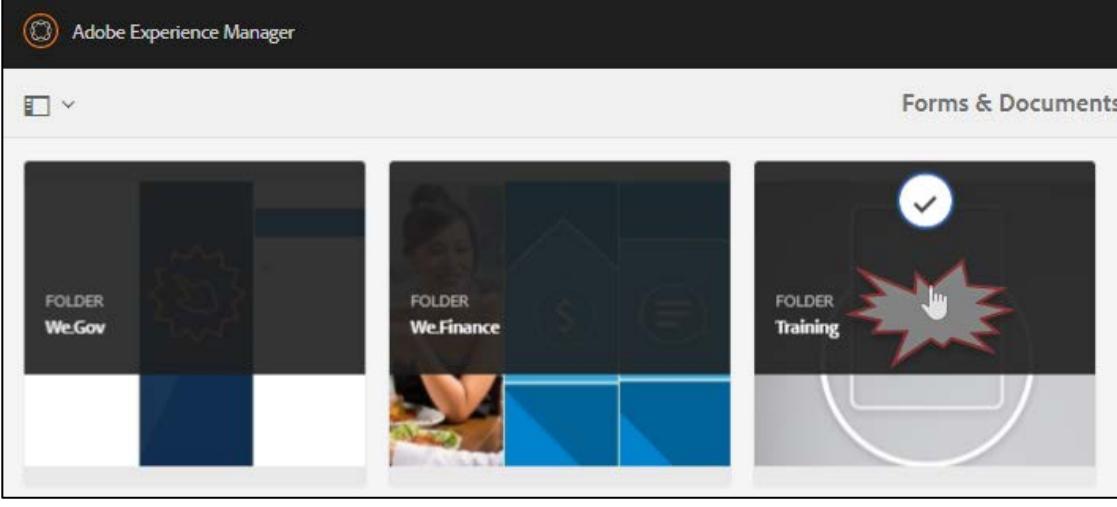
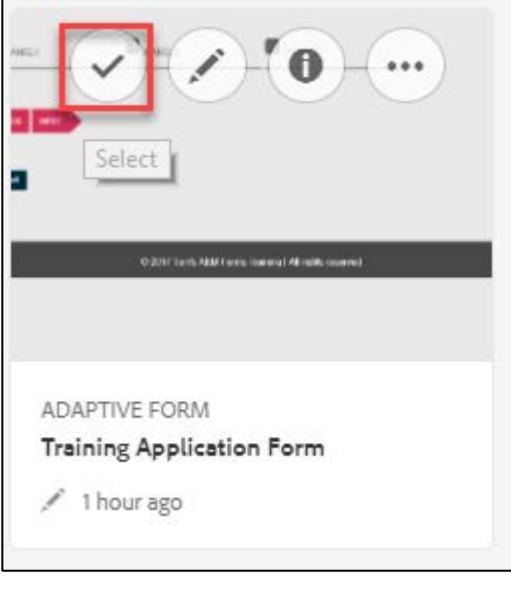
Part 2: Make your form searchable by applying tags

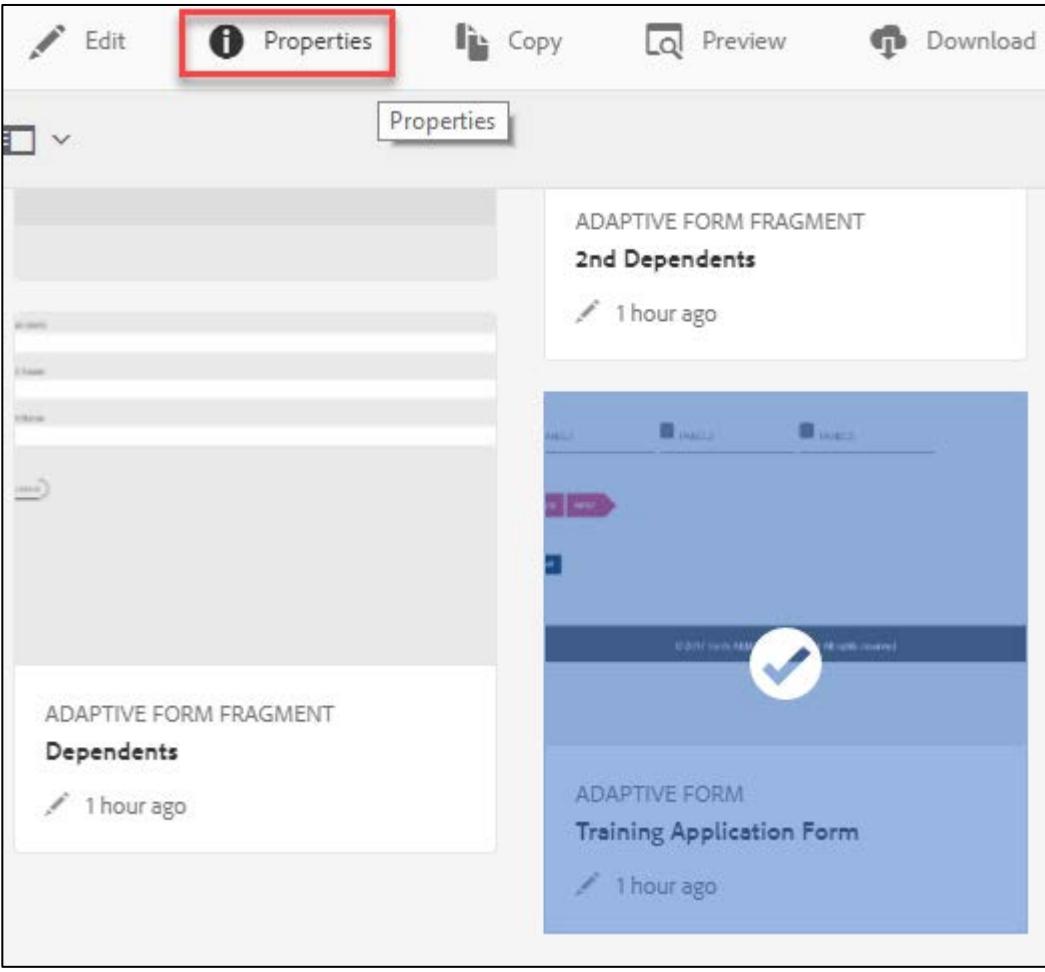
Step	Instructions
1.	Click the Adobe Experience Manager logo at top left to return to the main navigation: 
2.	Click Tools. 
3.	At the right, click Tagging: 

4.	<p> NOTE: Notice AEM itself comes with a tag structure for We.Retail, which is an example retail site that comes with AEM. Several other tag structures are already in place. This structure can be used for anything in AEM, including AEM Sites as well as Forms. The structure consists of a main namespace (think of this like a folder), then a series of parent and child tags.</p> <p> NOTE: An example tag structure you could use to tag your forms is something like this:</p> <p>Namespace: State Benefits</p> <ul style="list-style-type: none"> Tag: Disability Tag: Family Leave <ul style="list-style-type: none"> Tag: Child care Tag: Elder care Tag: Rehabilitation Tag: Unemployment Tag: Workers' Compensation <ul style="list-style-type: none"> Tag: Indemnity (Lost Wages) Tag: Medical Payments
5.	<p>At upper right, click Create Namespace:</p> 
6.	<p>Add the namespace title of Learning and click Create:</p>

	
7.	<p>Select your newly created Learning namespace and click Create Tag:</p>  <p>HINT: You must select the folder icon to the left of the namespace name.</p>
8.	<p>Enter your tag name as Training and tag Title as training and click Submit:</p>

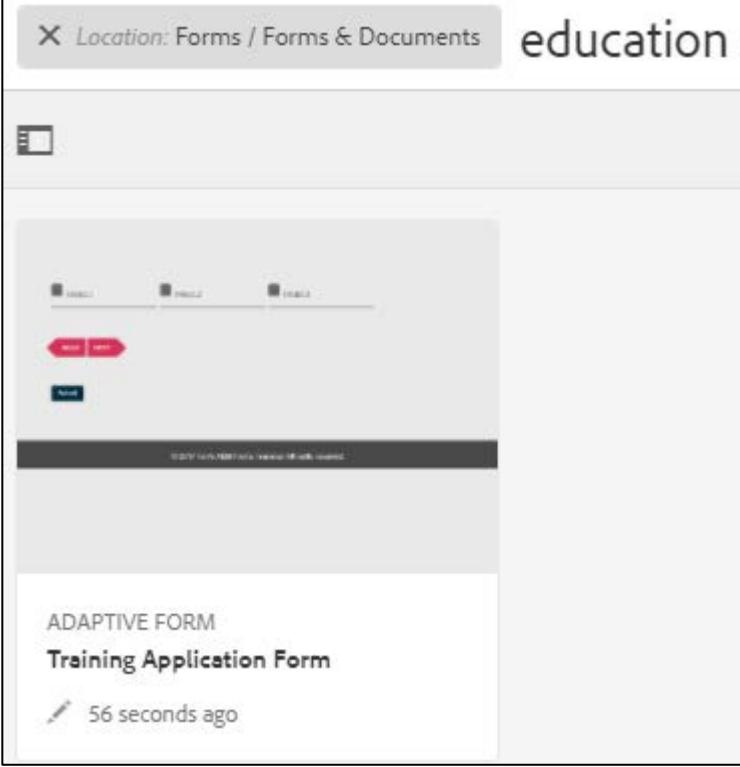
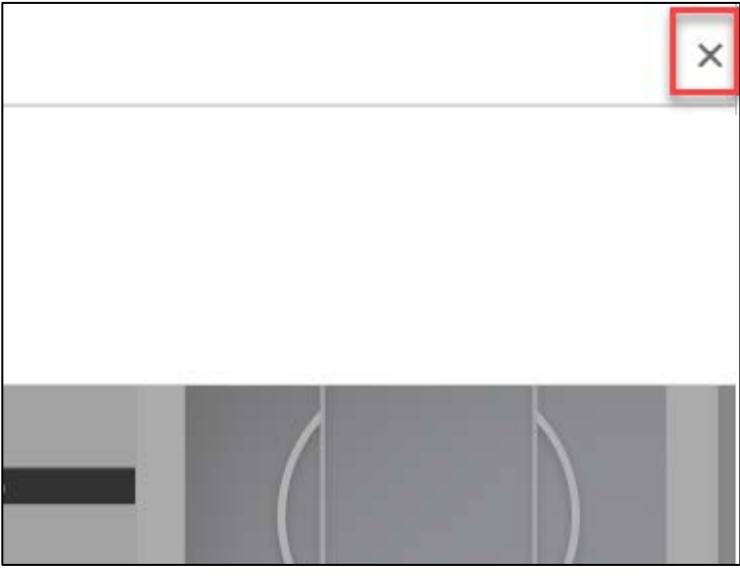
	
9.	Repeat steps 7&8 for two other tags housed under the learning parent tag: Education On-DemandLearning (use hyphen and whitespaces in the tag title)
10.	Click Submit at top right to save your tags.
11.	Click the Adobe Experience Manager and then Navigation :  
12.	Navigate to Forms > Forms & Documents :

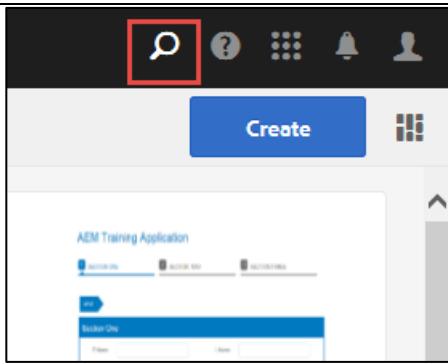
	
13.	Click to open your Training folder: 
14.	Mouse over your Training Application Form and click the Select button: 

15.	With your form selected, click the Properties button:
	 A screenshot of the Adobe Experience Manager interface. At the top, there is a toolbar with five buttons: Edit, Properties (which is highlighted with a red box), Copy, Preview, and Download. Below the toolbar, there is a navigation menu with a dropdown arrow and the word "Properties". On the left side of the screen, there is a sidebar with two sections: "ADAPTIVE FORM FRAGMENT" and "Dependents". The "Dependents" section contains a single item named "2nd Dependents" with a timestamp of "1 hour ago". On the right side of the screen, there is a main content area titled "ADAPTIVE FORM FRAGMENT" which contains a blue adaptive form component. This component has a title "Training Application Form" and a timestamp of "1 hour ago". The adaptive form itself has a checkmark icon in the center.
16.	At right, click Tags :

	<p>Basic Form Model Advanced</p> <p>Title Author Name Tags</p> <p>Training Application Form brain </p> <p>Description</p> <p>Type Created Last Modification Date</p> <p>Adaptive Form 07-27-2017 12:25 08-16-2017 13:59</p>
17.	Select all three child tags you just created (training , education , and On Demand learning). Click Done (Confirm) to close the dialog.
18.	Your form properties should now look like this.

	<p>The screenshot shows the 'Basic' tab of the AEM Form Model configuration. It includes fields for Title ('Training Application Form'), Author Name ('brain'), and Tags ('Learning : training', 'Learning : education', 'Learning : On Demand Learning'). Other visible fields include Description (empty), Type ('Adaptive Form'), Created ('07-27-2017 12:25'), and Last Modification Date ('08-16-2017 13:59').</p>
19.	Click Save & Close at upper right:
	<p>The screenshot shows a dialog box with options 'Publish', 'Cancel', and a large blue 'Save & Close' button with a dropdown arrow, all highlighted with a red box.</p>
20.	Click the Search button in AEM at the upper right (or type /):
	<p>The screenshot shows the AEM top navigation bar with a search icon (magnifying glass) highlighted with a red box. Below it is the 'Create' button and the AEM Training Application dashboard.</p>
21.	Type "education" and press Enter . Your search results should pick up your newly tagged form:

	 A screenshot of the AEM search interface. At the top left is a search bar with the text "Location: Forms / Forms & Documents" and a magnifying glass icon. To its right is a search input field containing the word "education". Below the search bar is a list of search results. The first result is a card for an "ADAPTIVE FORM" titled "Training Application Form" created "56 seconds ago". The card includes a small preview image and three red action buttons at the bottom.
22.	Close the AEM search at upper right:  A screenshot of the AEM search interface. The search bar and results are visible. The close button in the top right corner of the search bar is highlighted with a red box.
23.	Click the Search button again in AEM at the upper right (or type /):



24. Type **learning (or learn)** (but do not press ENTER). Notice all three tags are identified immediately. This allows you to search for all forms with these tags:

The screenshot shows a search results page from AEM. At the top, there's a search bar with the text 'X Location: Forms / Forms & Documents learning'. Below the search bar, three tags are listed: 'Learning\:training', 'Learning\:education', and 'Learning\:on-demandlearning'. The first tag, 'Learning\:training', is highlighted with a red box around its entire line.

Ensure your form appears when clicking any of these tags.

25. Close the AEM search at upper right:



Module 11: Form Review Process

Overview

In this hands-on exercise, you will perform a review of a form fragment and approval by simulating a review from an AEM Forms user and then perform the review lifecycle.

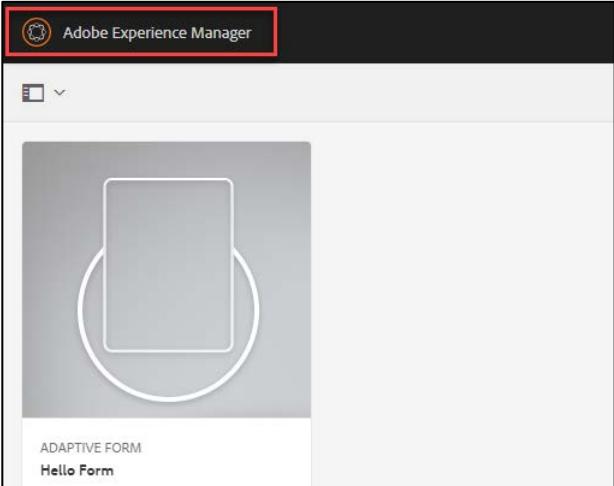
TIME: It should take approximately 45 minutes to complete this exercise.

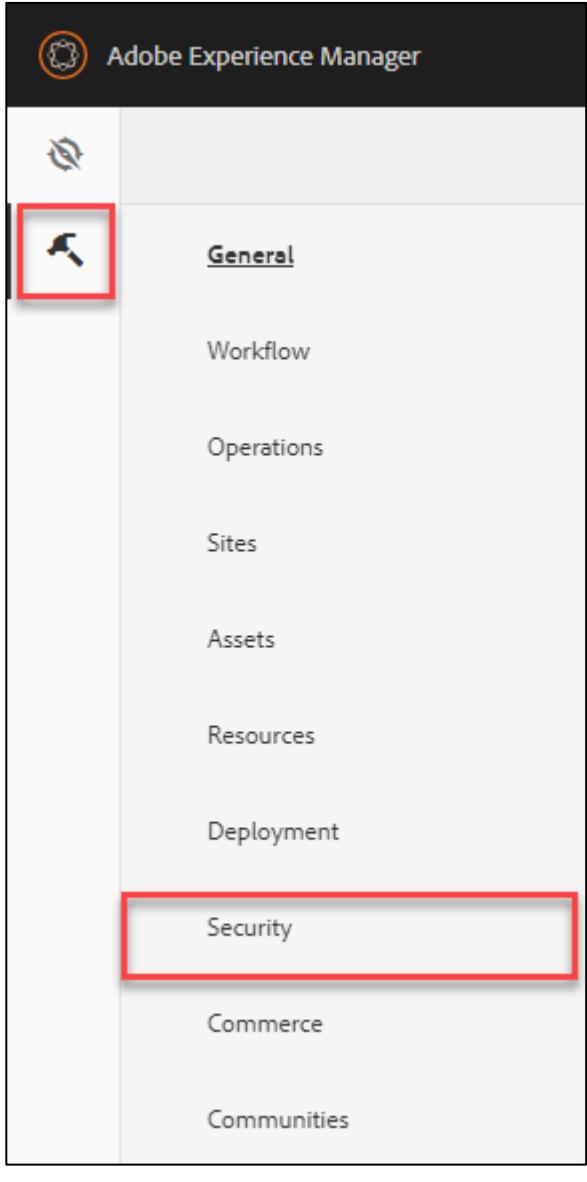
Prerequisites

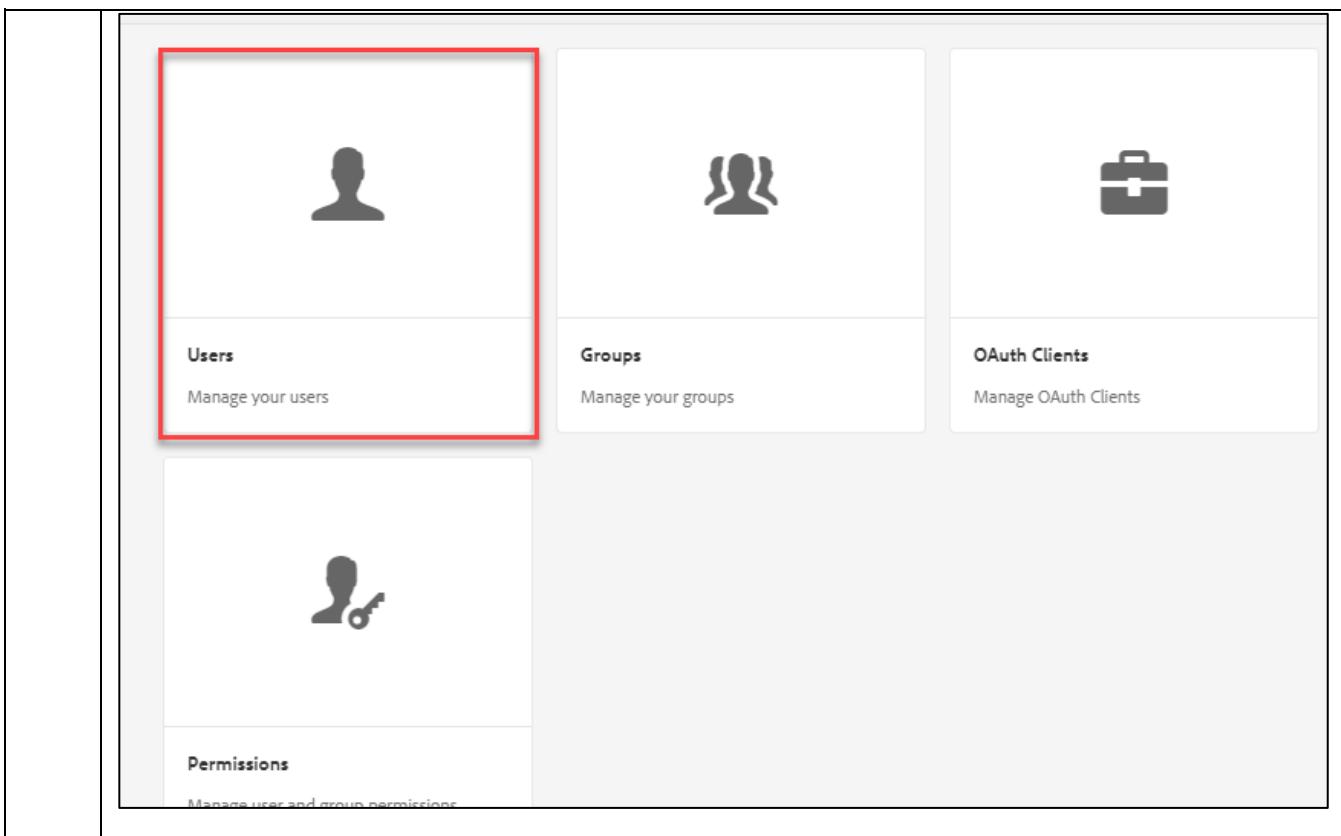
There are no prerequisites for this exercise.

Part 1: Make an AEM Forms user a reviewer

Prepare for the form review process by configuring users. You will need to alter a user's account to make them a reviewer.

Step	Instruction
1.	<p>Click the Adobe Experience Manager logo at top left to return to the main navigation:</p> 
2.	<p>Click Tools and then click Security.</p>

	 <p>The screenshot shows the Adobe Experience Manager interface. At the top is a dark header bar with the "Adobe Experience Manager" logo. Below it is a light-colored sidebar containing several menu items: "General" (with a magnifying glass icon), "Workflow", "Operations", "Sites", "Assets", "Resources", "Deployment", "Security" (which is highlighted with a red rectangle), "Commerce", and "Communities".</p>
3.	Click Users .



4. Scroll down in the list and click **John Doe** from the users list to open his user settings:

The 'Edit User Settings' page for user **jdoe** displays the following details:

User Details			
ID *	jdoe	Email	jdoe@we.info
First Name	John	Last Name	Doe
Phone Number		Job Title	
Street		Mobile	
City		Postal Code	
Country	United States	State	CA
Title		Gender	male

5. Scroll down in the User Settings page to the **Add User to Groups** section. Add John to the **forms-users** group by typing “**forms-users**” in the **Select group** field and then selecting that group.

<p>Account settings</p> <div style="display: flex; justify-content: space-between;"> <div>Status</div> <div>active</div> </div> <p>Change Password Create KeyStore Create TrustStore</p>	<p>Photo</p> <div style="display: flex; align-items: center;"> <div style="flex-grow: 1;"> <div style="text-align: right;">Upload Image</div> <p>Accepted file types: jpg, png, tif, and gif. Preferred size 240x240 px.</p> </div> </div>
<p>Add User to Groups</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <input style="width: 100%; border: none;" type="text" value="forms-us"/> </div> <div style="border: 1px solid #ccc; padding: 5px; display: flex; align-items: center;"> forms-users </div> <p>Groups that this user is a member of</p>	

6. Next, change the user's password. To change the user's password, above find the Account Settings section and click **Change Password**:

<p>Account settings</p> <div style="display: flex; justify-content: space-between;"> <div>Status</div> <div>active</div> </div> <p>Change Password Create KeyStore Create TrustStore</p>	<p>Photo</p> <div style="display: flex; align-items: center;"> <div style="flex-grow: 1;"> <div style="text-align: right;">Upload Image</div> <p>Accepted file types: jpg, png, tif, and gif. Preferred size 240x240 px.</p> </div> </div>
<p>Add User to Groups</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <input style="width: 100%; border: none;" type="text" value="Select group"/> </div> <div style="border: 1px solid #ccc; padding: 5px; display: flex; align-items: center;"> X forms-users </div>	

Change his password to **jdoe** (by entering it in the New Password and Retype Password fields), then enter **adl\$formsUs3r** in the Your Password field. Save your changes in the dialog.

The screenshot shows a 'Change Password' dialog box overlaid on a user account settings page. The dialog has three input fields: 'New password *' (red box), 'Retype Password *' (white box), and 'Your Password *' (blue box). Below the fields are 'Cancel' and 'Save' buttons, with 'Save' highlighted by a red box.

A green Success message displays at the top of the page confirming the password change.

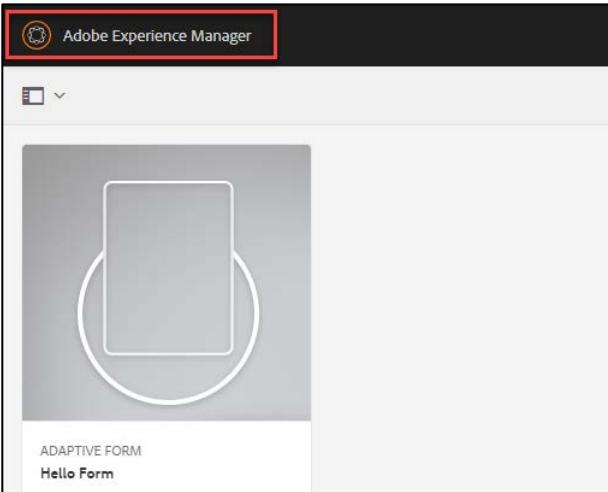
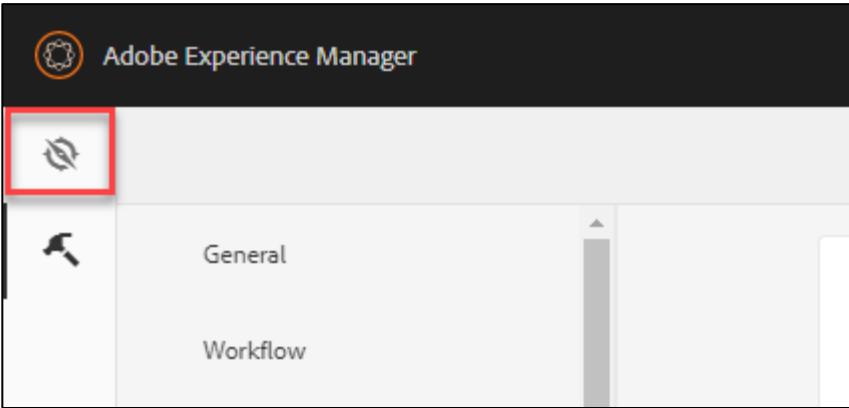
7. In the user settings page at upper right, click **Save**.

The screenshot shows a 'User Settings' page with a 'Photo' section. It includes an 'Upload Image' button, file type and size instructions ('Accepted file types: jpg, png, tif, and gif. Preferred size 240x240 px.'), and 'Cancel' and 'Save' buttons, with 'Save' highlighted by a red box.

Another green Success message displays confirming the changes you made to John Doe's groups.

Part 2: Initiate the Review Process

NOTE: Before starting this part of the exercise, you must complete Part 1.

Step	Instructions
1.	<p>Click the Adobe Experience Manager logo at top left to return to the main navigation:</p>  
2.	<p>Click Forms > Forms & Documents > We.Gov.</p>
3.	<p>Select the Personal Information GOV adaptive form fragment:</p>

The screenshot shows the AEM interface with the 'We.Gov' library selected. At the top, there are several action buttons: Download, Start Review, Add Dictionary, Publish, Delete, and a status indicator '1 selected X'. Below the header, three adaptive form fragments are listed. The first one, 'Request Form', has a blue background and a yellow starburst icon. The second one, 'Personal Information GOV', also has a blue background but features a large white checkmark icon in the center. The third one, 'Canadian Address Information GOV', has a white background and features a large red maple leaf. The 'Personal Information GOV' fragment is currently selected, as indicated by a red border around its preview card.

4. With the form fragment selected, click **Start Review** at the top:

This screenshot shows the same 'We.Gov' library interface as the previous one, but with a specific step highlighted. The 'Start Review' button, which is located in the top navigation bar next to the other actions like 'Add Dictionary' and 'Publish', is now highlighted with a red rectangular box. This indicates that the next action in the process is to click this button to begin the review process for the selected form fragment.

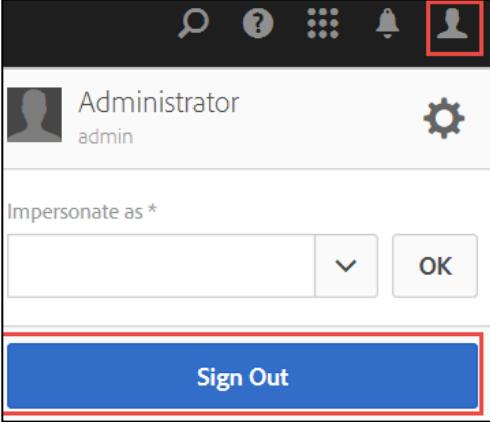
5. Complete the form to initiate the review process as follows:

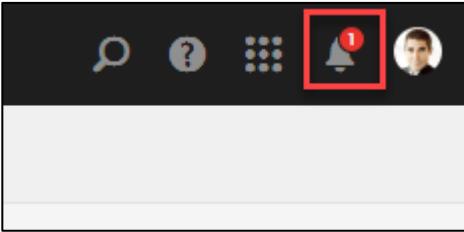
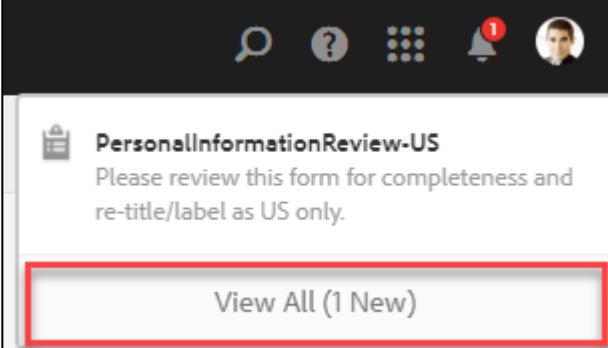
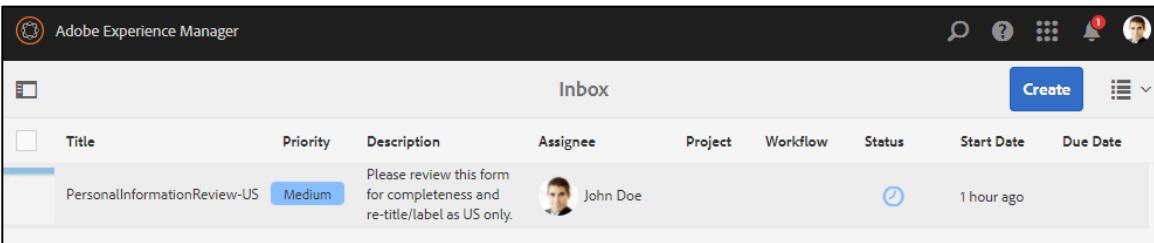
Title: **PersonalInformationReview-US**

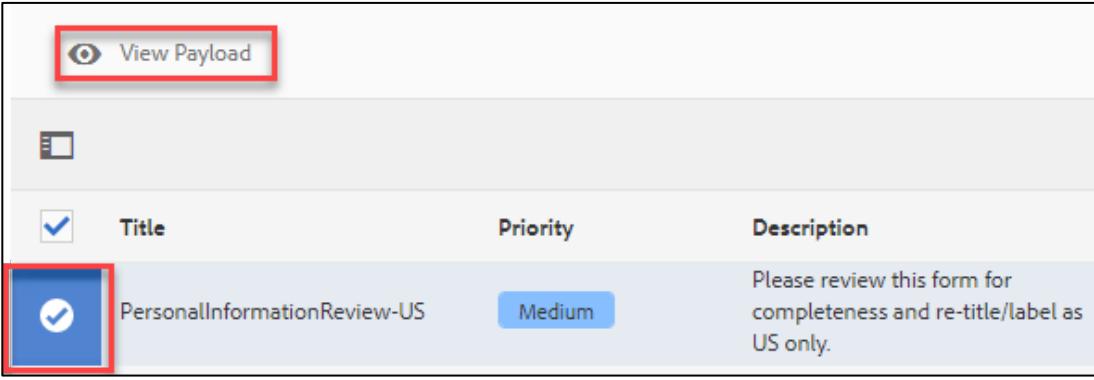
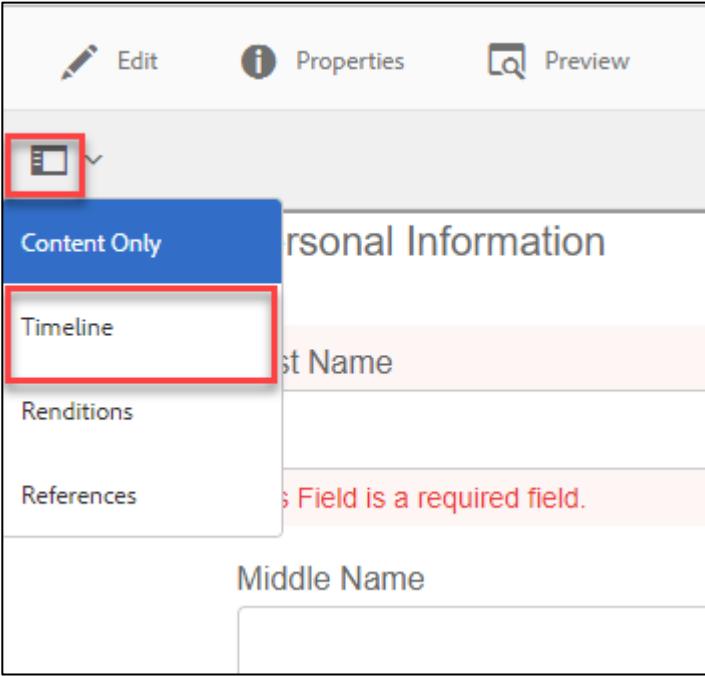
Description: **Please review this form for completeness and re-title/label as US only.**

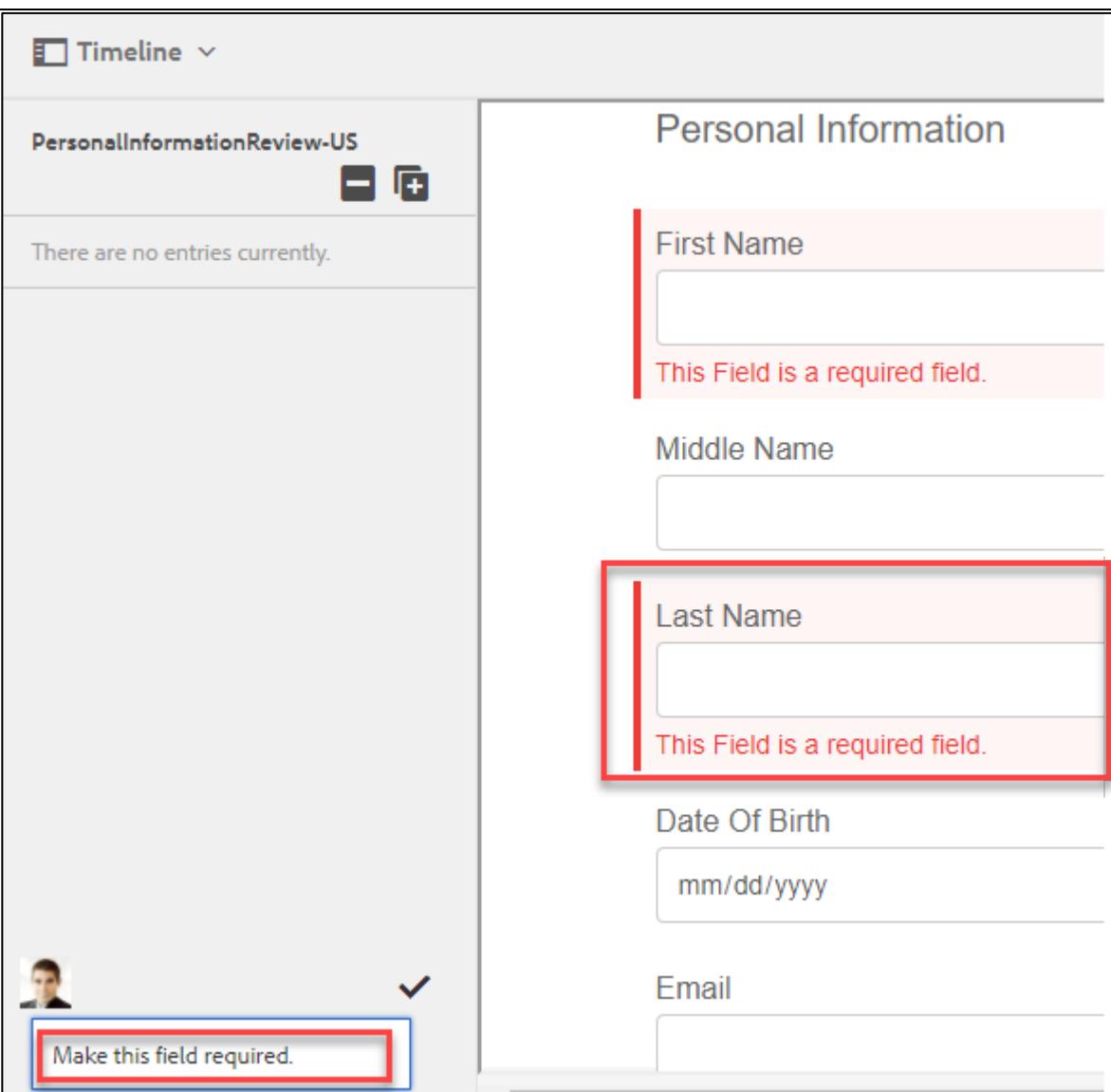
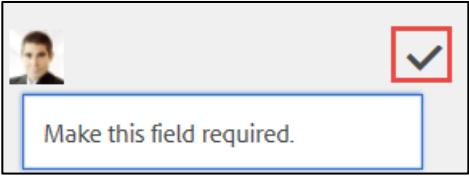
Deadline: Select a date one day from now.

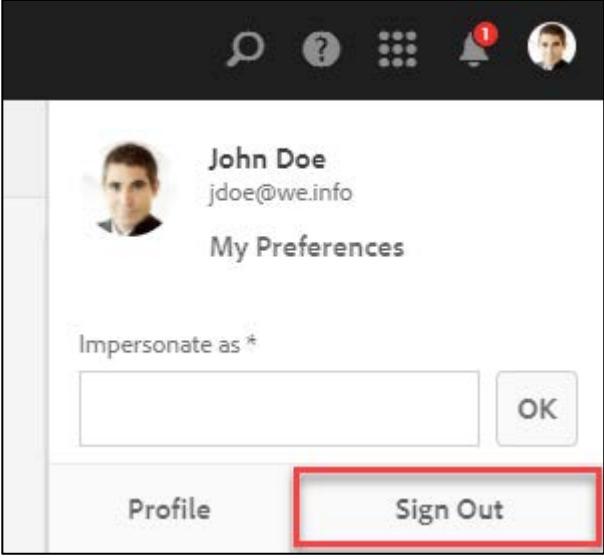
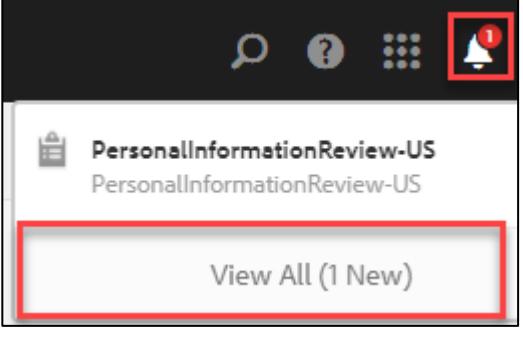
Reviewer: **John Doe** (start typing "John Doe" in the field to locate him)

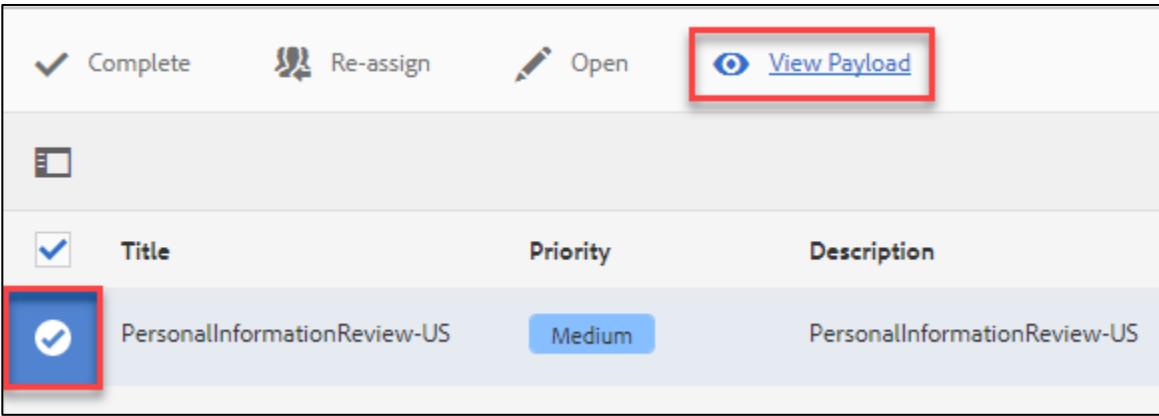
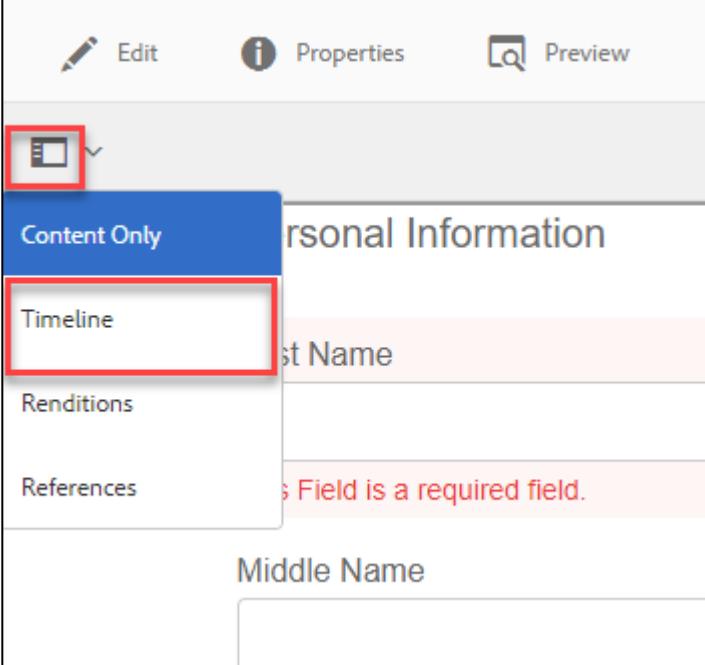
	<p>Title *</p> <input type="text" value="PersonalInformationReview-US"/> <p>Description</p> <p>Please review this form for completeness and re-title/label as US only.</p> <p>Deadline</p> <p>2017-08-18 14:45 <input type="button" value="Calendar"/></p> <p>Reviewer Name (atleast one) *</p> <p><input type="text"/></p> <p>Reviewers</p> <p> John Doe (jdoe) <input type="button" value="X"/></p>
	<p>Click the blue Start button at the upper right of the form. The review process has started.</p>
6.	<p>Sign out of AEM. Click the user icon in the upper-left and then click Sign Out:</p> 
7.	<p>Sign back in to AEM as John Doe:</p> <p>User name: jdoe</p> <p>Password: jdoe</p>
8.	<p>Close the Product Navigation dialog that may appear:</p>

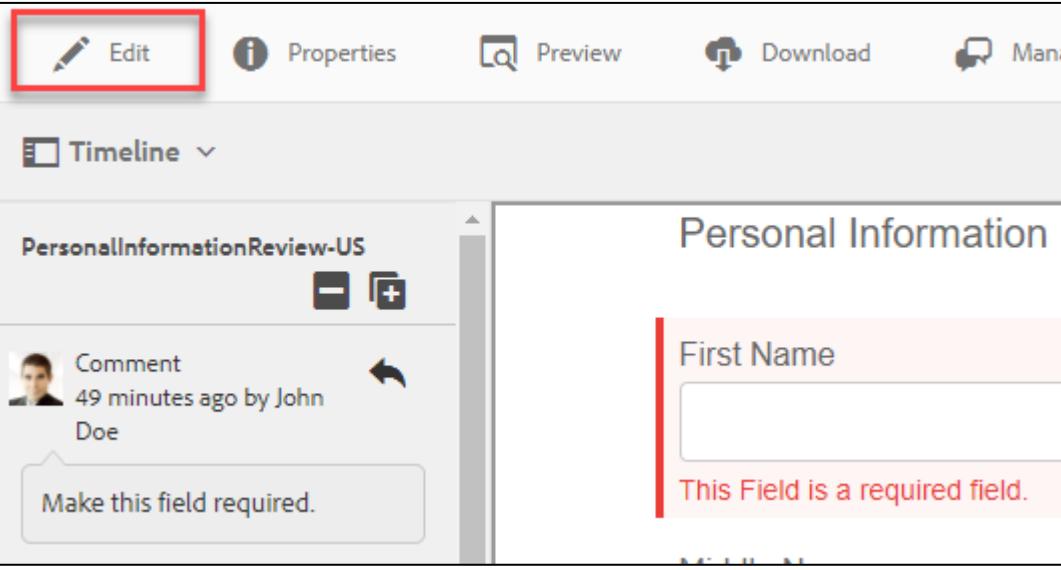
	<p>Product Navigation</p> <p>Click on the Experience Manager logo to access the product navigation.</p> <p><input checked="" type="checkbox"/> Never show this again</p> <p>• • • •</p> <p>Close Got it!</p>
9.	<p>Click the Inbox at upper right.</p> 
10.	<p>Select the task assigned to John Doe to begin review of the form fragment:</p>  <p>The full inbox appears with the assigned review for John Doe.</p>  <p>NOTE: Notice that the task status is Active.</p>
11.	Select the review task and click View Payload .

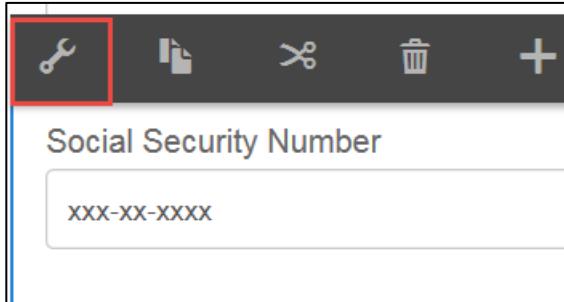
	 <p>NOTE: This opens the form under review.</p>
12.	<p>In the left panel, click Content Only and open the form Timeline:</p> 
13.	<p>Assume at this point you are John Doe and have been given the task to review this form fragment. To offer comments on a particular field, select that field, then select the comment box at left, then enter comments in the comment box at left.</p> <p>Comment on the Last Name field that it needs to be required.</p>

	<p>Timeline ▾</p> <p>PersonalInformationReview-US</p> <p>There are no entries currently.</p>  <p>The screenshot shows a 'Personal Information' form fragment. On the left, a timeline panel displays a comment from a user named 'John Doe' (represented by a placeholder profile picture) stating 'Make this field required.' This comment is highlighted with a red border. On the right, the form fields include 'First Name', 'Middle Name', 'Last Name' (which has a red border around its input field), and 'Date Of Birth'. Below these are 'Email' and 'Phone Number' fields. A red box highlights the 'Last Name' field's error message: 'This Field is a required field.'</p>
<p>Enter these additional comments:</p> <ul style="list-style-type: none"> • Date of Birth/Social Security Number/Email: Make this field required. • Change form title to: Personal Information GOV – US • Change Contact Number to Phone Number <p>After you comment on a field, click the checkmark to save your comment:</p>  <p>The screenshot shows a comment from 'John Doe' with a checked checkbox next to it, indicating the comment has been saved.</p>	
14.	When you are finished commenting, close the form fragment at upper right.

	
15.	Sign out of AEM. 
16.	Sign back in to AEM as the user you used for most of this course: designforms Password: adl\$formsUs3r
17.	Click the notification in your inbox and then go to the Form fragment under review: 

18.	<p>Select the review task and click View Payload.</p>  <p>NOTE: This opens the form under review.</p>
19.	<p>In the left panel, click Content Only and open the form Timeline:</p> 
20.	<p>Notice you can view the comments just entered from John Doe. Note that the field John commented on is outlined in red when you click on each comment.</p>
21.	<p>Open the form fragment for editing:</p>

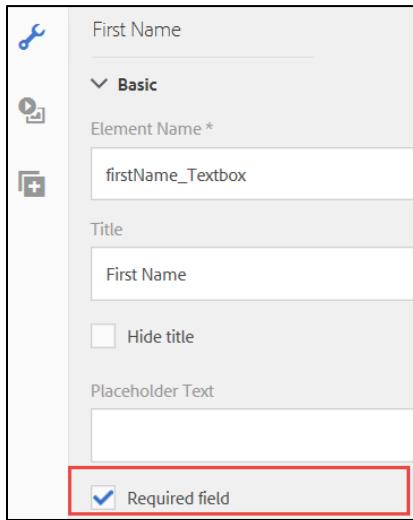
	 <p>Personal Information</p> <p>First Name</p> <p>This Field is a required field.</p>
22.	<p>NOTE: You could also reply to each of the comments entered by "John Doe" in case you want to mark them as completed or done, or ask further questions.</p> <p> Make changes as needed based on John Doe's review. Remember, you must change or check for the following:</p> <ul style="list-style-type: none"> • Required fields: <ul style="list-style-type: none"> ○ Date of Birth ○ Social Security Number ○ Email ○ Last name • Change Contact Number to Phone Number • Form Title: <ul style="list-style-type: none"> ○ Change the form title to: PERSONAL INFORMATION GOV – US <p> HINT: To change the form title, modify the form's properties.</p> <p> NOTE: You must click the configure button for <i>each field</i> to ensure any needed properties are set in the Content area. Save your changes after configuring each field.</p>



Social Security Number
XXX-XX-XXXX



HINT: To make a field required, in the field properties, select **Required field** as shown here:



First Name

Basic

Element Name *

firstName_Textbox

Title

First Name

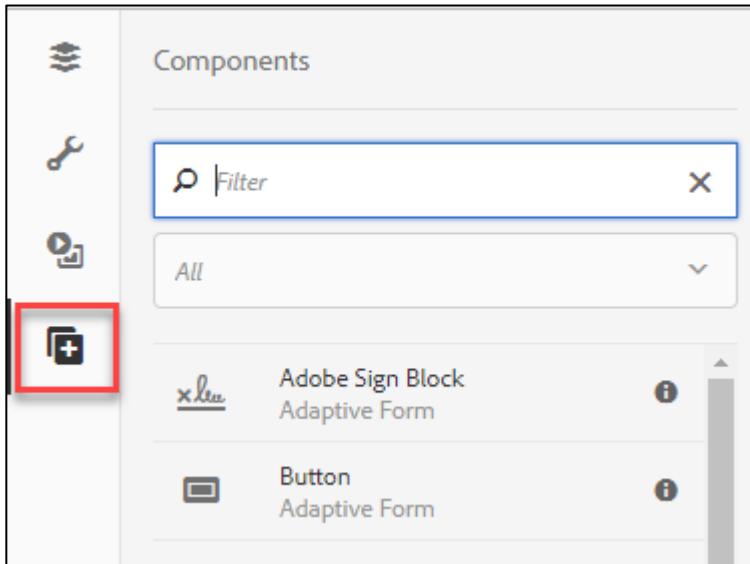
Hide title

Placeholder Text

Required field

23. Make an image next to the Social Security Number field with a Social Security card image from the exercise files provided (social_security_card_public.png).

To do this, navigate to the **Components** in the Side Panel:



Components

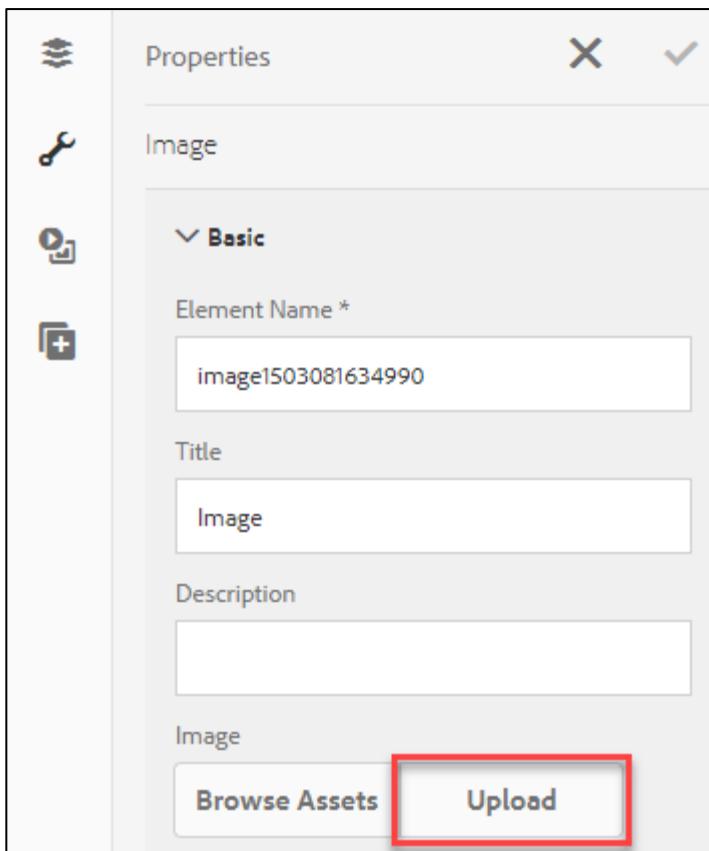
Filter

All

Adobe Sign Block
Adaptive Form

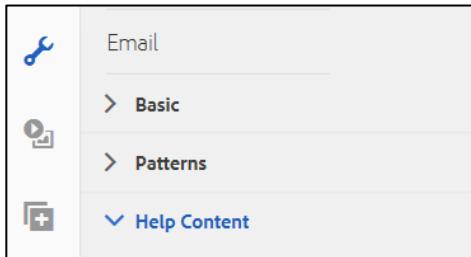
Button
Adaptive Form

Search for and select an **image** adaptive form component. Drag it onto your form above the **Social Security Number** field. In the image properties, specify that you wish to upload an image to use. Upload the image from the **Exercise_Files** (located in the "Module 11 – Review Process" folder):



Be sure to click the **Done (checkmark)** button in the **Side Panel** when you are done. This saves your changes.

24. Provide Help text for the Social Security Number field. Click **Help Content**:



25. For the **Short Description** properties, enter the following text:
Enter your 9-digit Social Security Number.

Select **Always show short description**.

For the **Long Description** properties, enter the following text:

The Social Security number (SSN) is a nine-digit number issued to U.S. citizens, permanent residents, and temporarily (working) residents under section 205(c)(2) of the Social Security Act.

Click **Done** to save your changes:

Properties X ✓

Social Security Number

> Basic

> Patterns

> Help Content

Short Description

Enter your 9-digit Social Security Number.

Always show short description

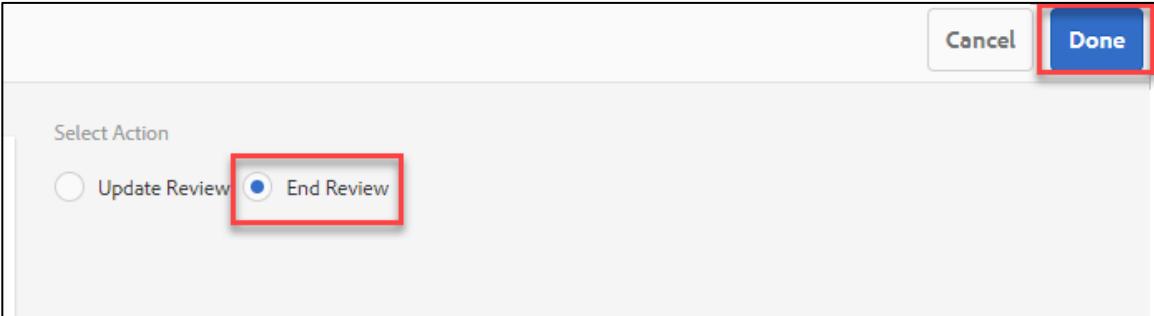
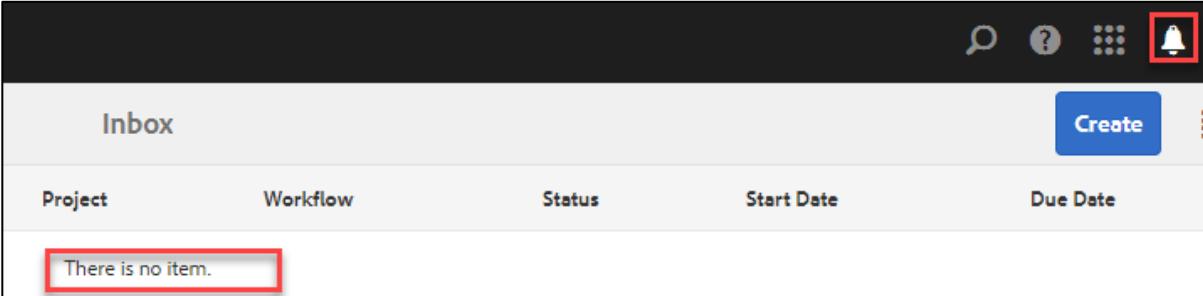
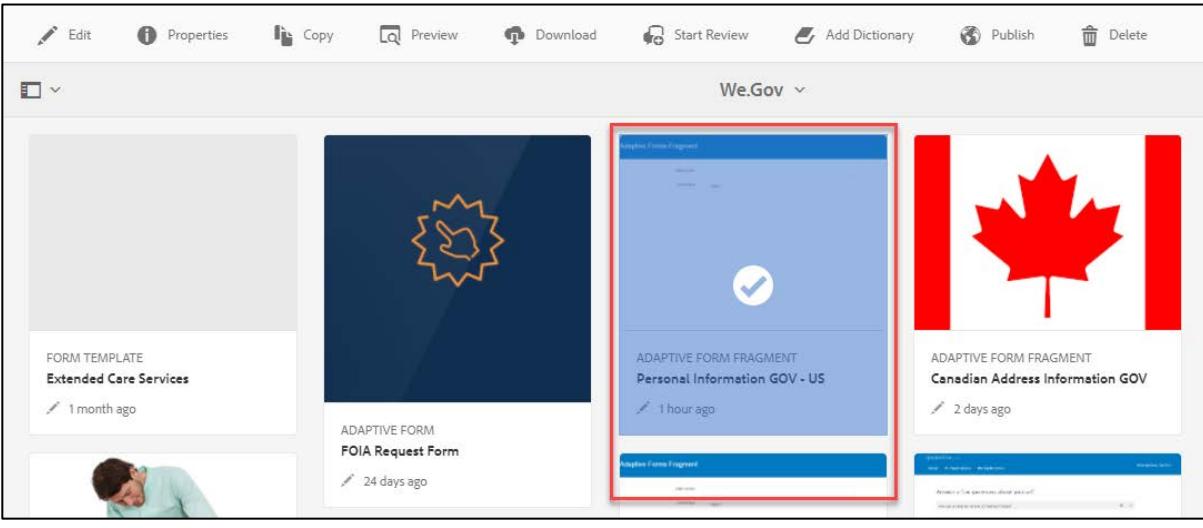
Long Description

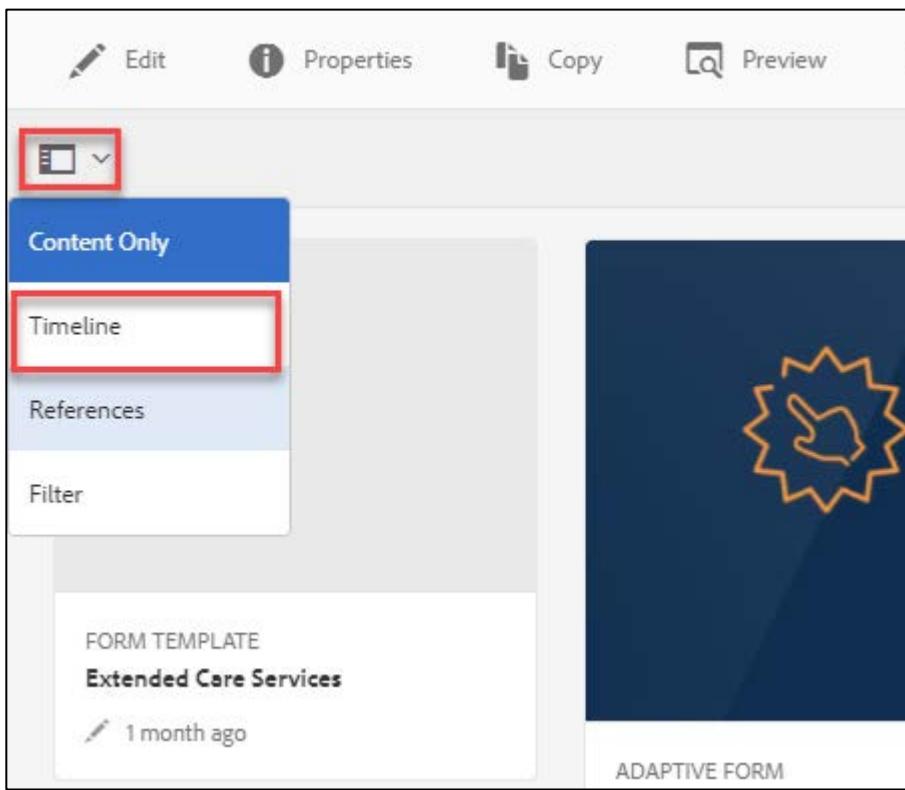
The Social Security number (SSN) is a nine-digit number issued to U.S. citizens, permanent residents, and temporarily (working) residents under section 205(c)(2) of the Social Security Act.

26. Preview your form to ensure the changes are made correctly, especially the short and long help descriptions.

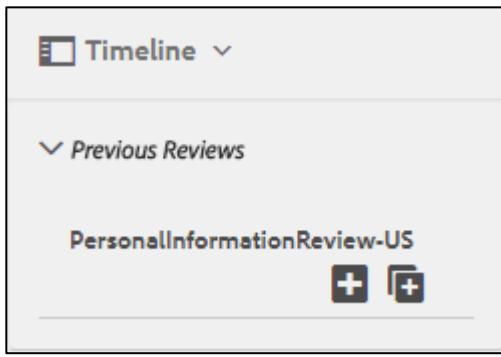
Short Description (Social Security Number):

	 <div style="background-color: #f0f0f0; padding: 10px;"> <p>Social Security Number</p> <input type="text" value="XXX-XX-XXXX"/> <p>Enter your 9-digit Social Security Number.</p> <p>This Field is a required field.</p> </div> <p>Long Description (Social Security Number):</p> <div style="border: 1px solid #ccc; padding: 10px;"> <p>Social Security Number</p> <input type="text" value="XXX-XX-XXXX"/> <p>The Social Security number (SSN) is a nine-digit number issued to U.S. citizens, permanent residents, and temporarily (working) residents under section 205(c)(2) of the Social Security Act.</p> </div>																
27.	<p>Navigate back In AEM Forms (Forms > Forms & Documents > We.Gov), open the Personal Information GOV form fragment properties. Click Manage Review:</p> <div style="border: 1px solid #ccc; padding: 10px; width: fit-content; margin-left: auto; margin-right: auto;"> <p style="text-align: center;"> Edit Preview Download Manage Review Add Dictionary Publish Delete </p> <p style="text-align: center;">personalInformation</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Adaptive Form Fragment</th> <th style="width: 10%; text-align: center;">Basic</th> <th style="width: 10%; text-align: center;">Form Model</th> <th style="width: 10%; text-align: center;">Advanced</th> </tr> </thead> <tbody> <tr> <td style="height: 100px;"></td> <td style="text-align: center;">Title</td> <td colspan="2" style="text-align: center;">Author Name</td> </tr> <tr> <td></td> <td><input type="text" value="Personal Information GOV - US"/></td> <td colspan="2"><input type="text" value="admin"/></td> </tr> <tr> <td></td> <td colspan="3">Description</td> </tr> </tbody> </table> </div> <p>Select the End Review option. Click Done.</p>	Adaptive Form Fragment	Basic	Form Model	Advanced		Title	Author Name			<input type="text" value="Personal Information GOV - US"/>	<input type="text" value="admin"/>			Description		
Adaptive Form Fragment	Basic	Form Model	Advanced														
	Title	Author Name															
	<input type="text" value="Personal Information GOV - US"/>	<input type="text" value="admin"/>															
	Description																

	 <p>Note: At this point, note you could Update the review by sending it to another user for another review. John Doe is the reviewer, and notice other reviewers could be added.</p> <p>In this case, we are ending the review as a simple example.</p>
28.	Click Done . Navigate to the AEM inbox browser tab, or open a new browser tab and go to the AEM home navigation. Refresh the page.
29.	Notice your inbox notifications are now cleared:
	
30.	In AEM, navigate to Forms > Forms & Documents > We.Gov . Select your Personal Information GOV – US form.
	
31.	Click Content Only and select Timeline .



32. Note that a **Previous Review** exists. This is the record of the review that took place for this form and the review is visible from this option.



Module 12: Submitting an Adaptive Form

Overview

In this hands-on exercise, you will submit Adaptive Form data to a Forms Portal and configure your form for testing and signing simulation by displaying the Document of Record in a special component in AEM Forms.

TIME: It should take approximately 25 minutes to complete this exercise.

Pre-requisites

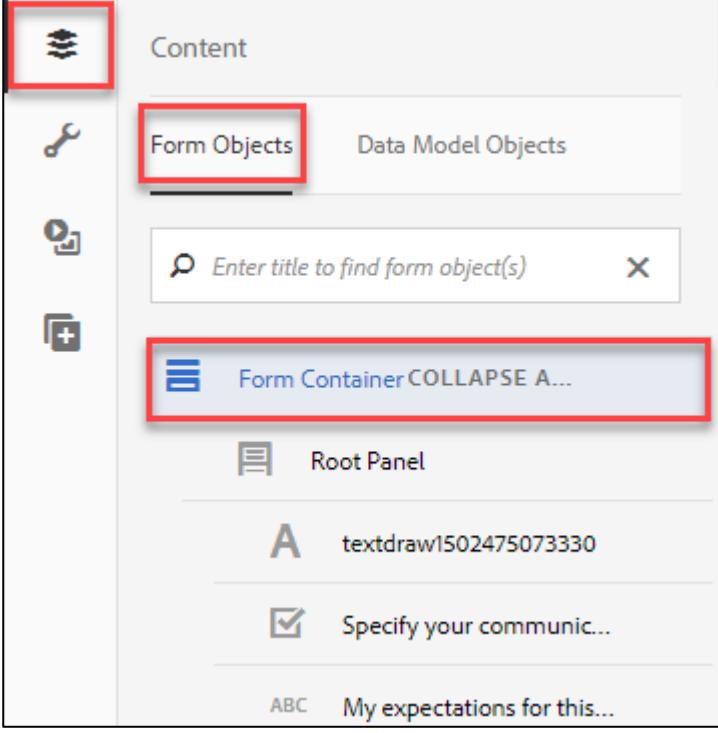
The following exercise(s) must be completed before you begin this exercise.

Module 10: Drafts and Submissions (Part 1)

Part 1: Submit Adaptive Form Data to a Forms Portal

One of the common use cases is to ensure form submissions are available to users in a page on a Forms Portal using the Drafts & Submissions component in AEM. This method may also be used for form testing without much IT or developer intervention.

Step	Instructions
1.	<p>In your Training folder, open your Hello Form for editing in Edit Mode:</p> 
2.	Select the Form Container in the Side Panel:

	 <p>The screenshot shows the 'Content' panel of the AEM Forms interface. On the left, there's a vertical toolbar with icons for 'Form Objects' (highlighted with a red box), 'Data Model Objects', 'Search' (with a magnifying glass icon), and 'Add' (with a plus sign). The main area is titled 'Content' and has tabs for 'Form Objects' (also highlighted with a red box) and 'Data Model Objects'. Below the tabs is a search bar with the placeholder 'Enter title to find form object(s)'. The main list contains several items: 'Form Container' (with a red box around it), 'Root Panel', 'textdraw1502475073330', 'Specify your communic...', and 'My expectations for this...'. Each item has a small icon to its left.</p>
3.	With your Form Container selected, click to Configure it:

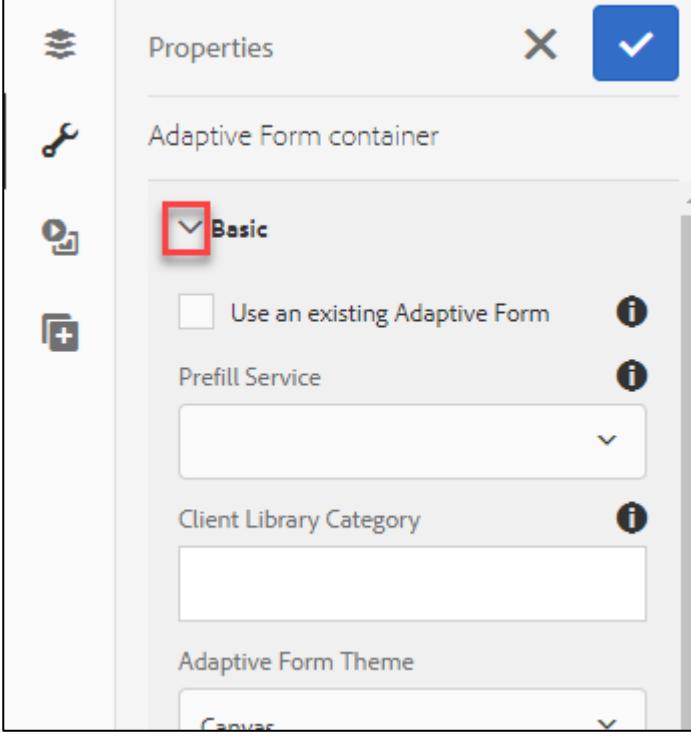
	<p>Form Objects Data Model Objects</p> <p><input type="text"/> Enter title to find form object(s) X</p> <p>■ Form Container COLLAPSE A...</p> <ul style="list-style-type: none"> ■ Root Panel A textdraw1502475073330 ■ <input checked="" type="checkbox"/> Specify your communic... ABC My expectations for this course 盾 Verify you are not a robot ■ newPanel ■ Section ➤ Submit <p style="text-align: right;">... ■</p>	<p>My expectations for this course:</p> <p>Enter your response here (25)</p> <p>Verify you are not a robot:</p> <p>■ 2nd Dependents</p> <p>Number of Dependents panelRepeatGrp</p> <p>Submit</p>
4.	Collapse the Basic properties of the form container.	

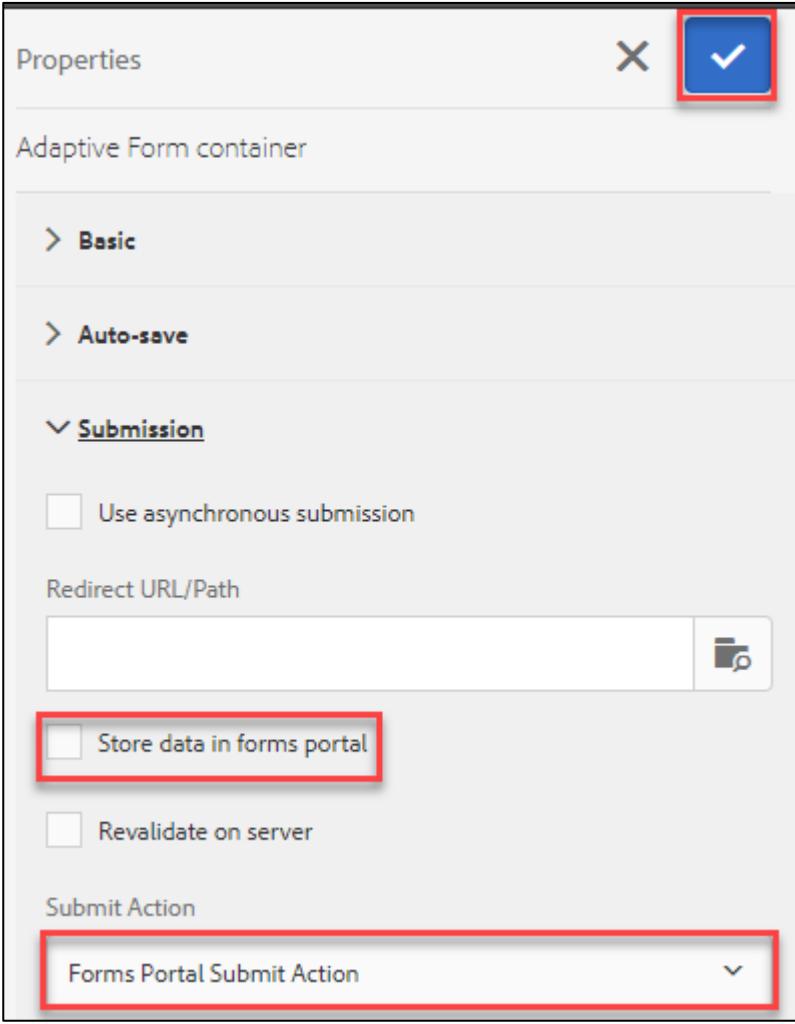
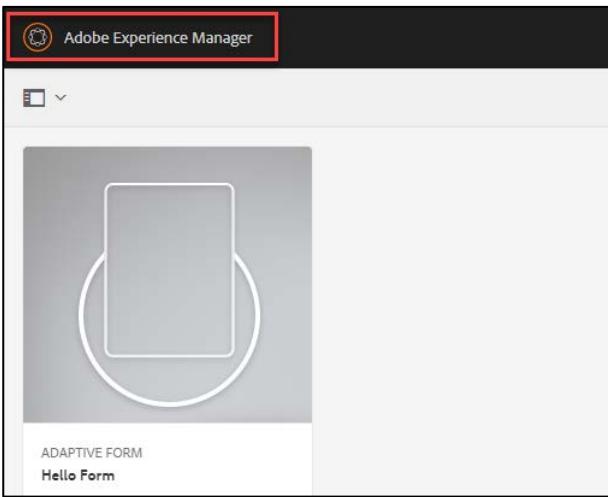


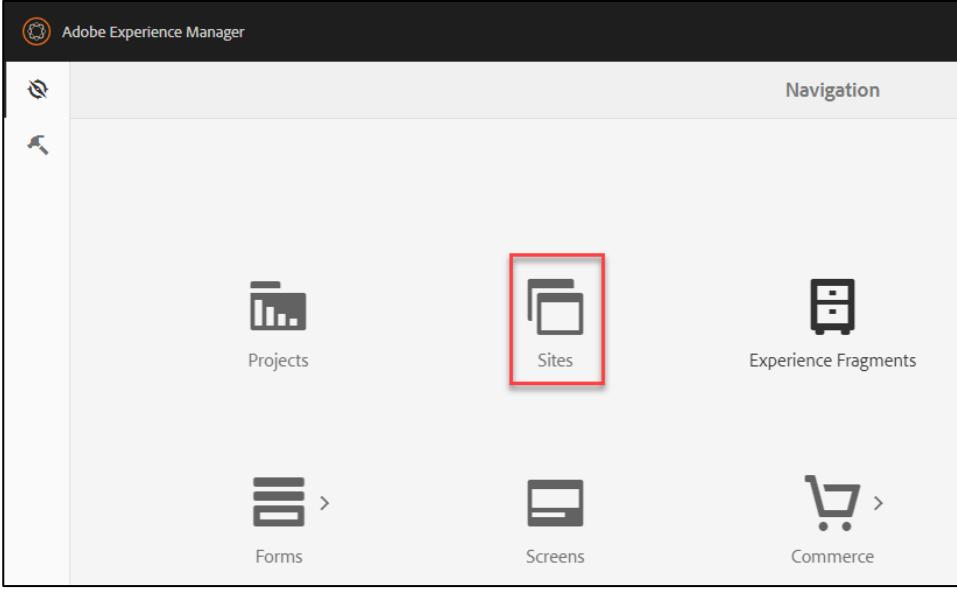
HINT: IMPORTANT – Ensure you have the **Form Container** selected properly. This may be challenging on a low-resolution monitor (1280 x 720 resolution or lower). If you are using this sized resolution, it is strongly encouraged for usability that you set your browser to fullscreen mode (F11 on Windows). The **Form Container** is at the very top of the form object hierarchy, and is **not** the same thing as the **Root Panel**. It may be titled **Adaptive Form Container [Root]** in the form editor.

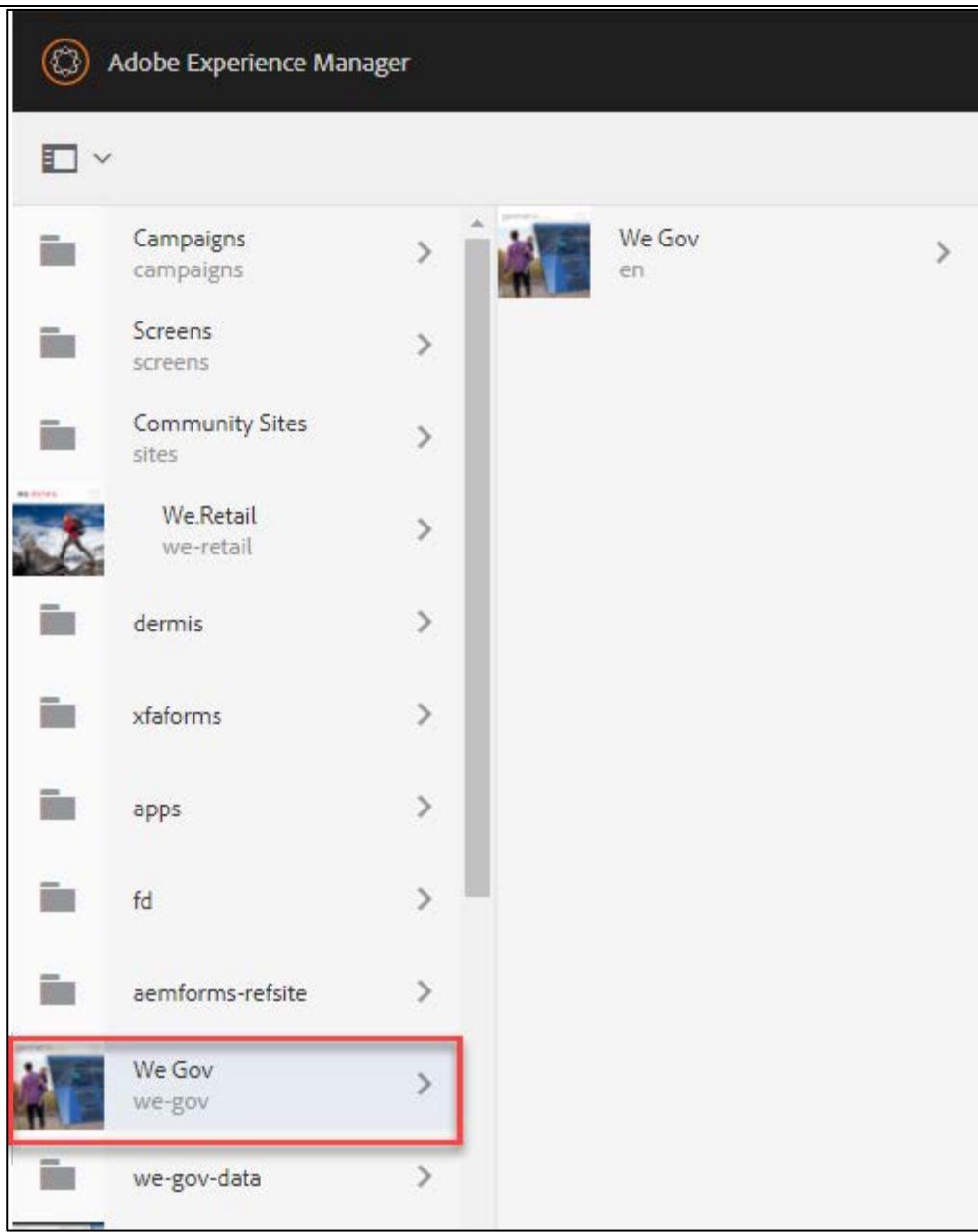


NOTE: You many need to rearrange your **Hello Form** components to ensure the **Submit** button is at bottom of the form. The **2nd Dependents** panel may or may not appear in your form, depending on if you completed Part 4c of Module 7 (Form Fragments configuration). This is an optional exercise and will not impact this exercise.

	
5.	Expand the Submission properties. Ensure the Submit Action is Forms Portal Submit Action and Store data in forms portal is not selected. Save your changes in the Side Panel by clicking Done .

	
6.	Preview your form. Enter data for all form fields/components. Submit your form.
7.	Click the Adobe Experience Manager logo at top left to return to the main navigation: 
8.	Navigate to Sites :

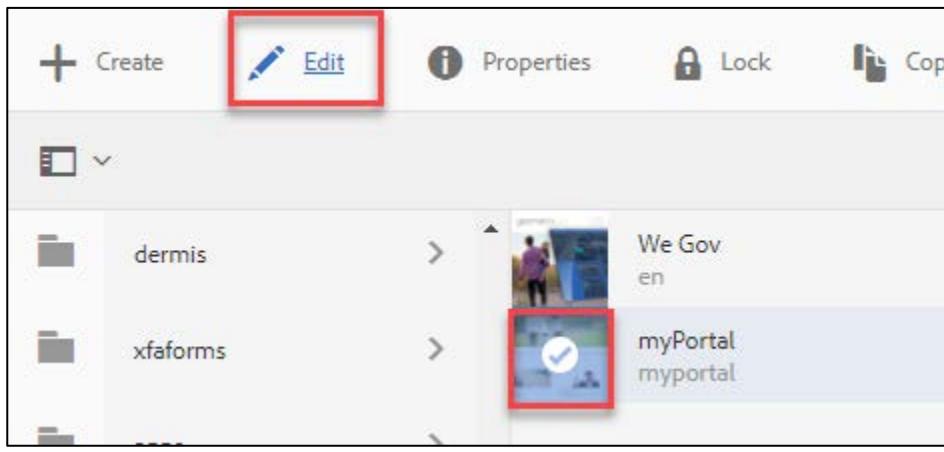
	
9.	Click We Gov:



The screenshot shows the AEM navigation bar with the following items:

- Campaigns (campaigns)
- Screens (screens)
- Community Sites (sites)
- We.Retail (we-retail)
- dermis
- xfaforms
- apps
- fd
- aemforms-refsite
- We Gov (we-gov) - This item is highlighted with a red box.
- we-gov-data

10. Select **myPortal** and click **Edit**:

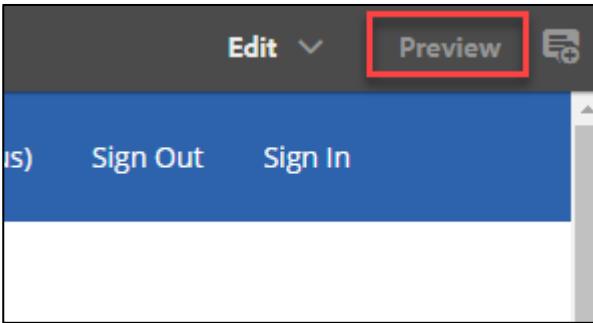
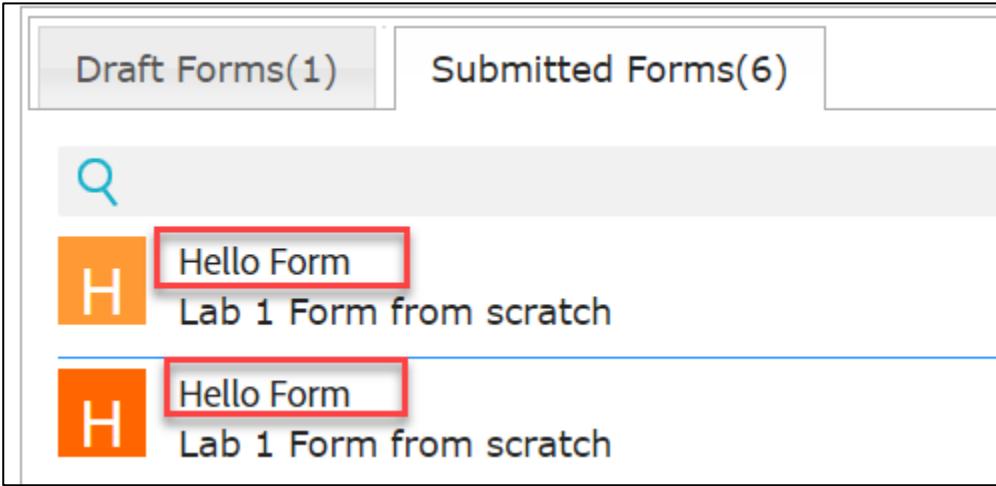


The screenshot shows the AEM navigation bar with the following items:

- Create
- Edit - This item is highlighted with a red box.
- Properties
- Lock
- Copy

The navigation tree below shows:

- dermis
- xfaforms
- myPortal (myportal) - This item is highlighted with a red box.

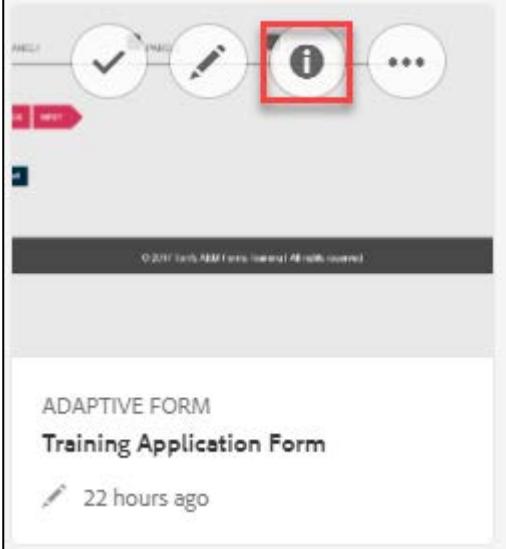
11.	<p>Preview your portal using Preview mode.</p> 
12.	<p>Your Drafts & Submissions component should now include at least one Submitted Forms. Each time you test the Hello Form to ensure you can submit, you can view the submitted form here:</p> 

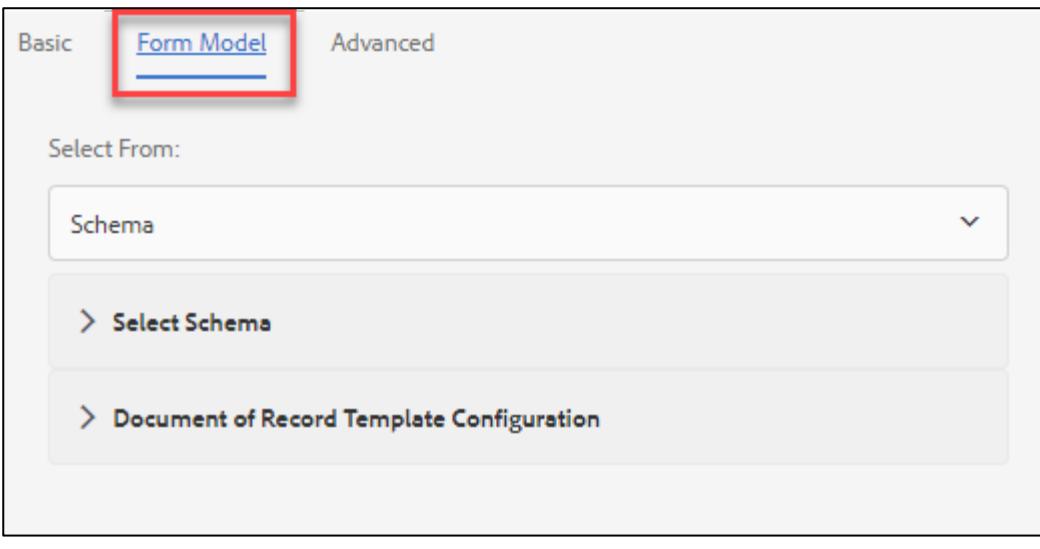
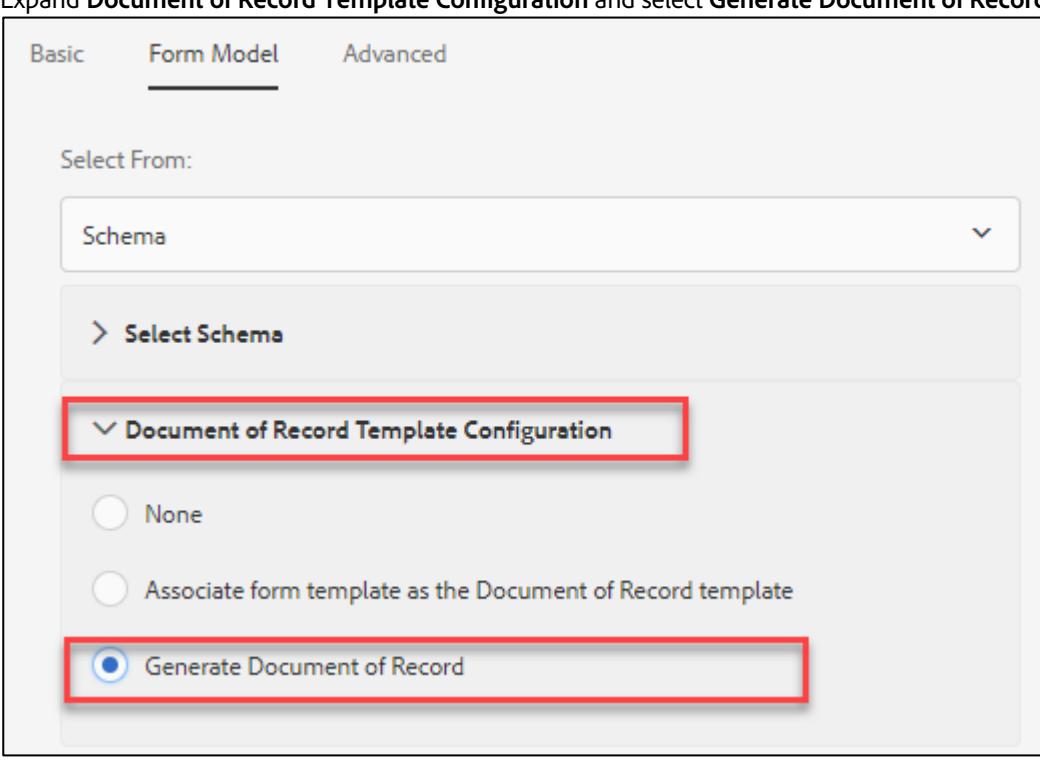
(OPTIONAL) Part 2: Displaying a DoR for Testing Using a Signature Step Component

For testing purposes, you may mimic showing a DoR (Document of Record) inside a form in Preview Mode using a Signature Step component. This allows you to ensure your form components are working as expected and/or test use cases where the DoR must be shown to the user. It also lets you visually check to see how data is recorded and/or displayed.

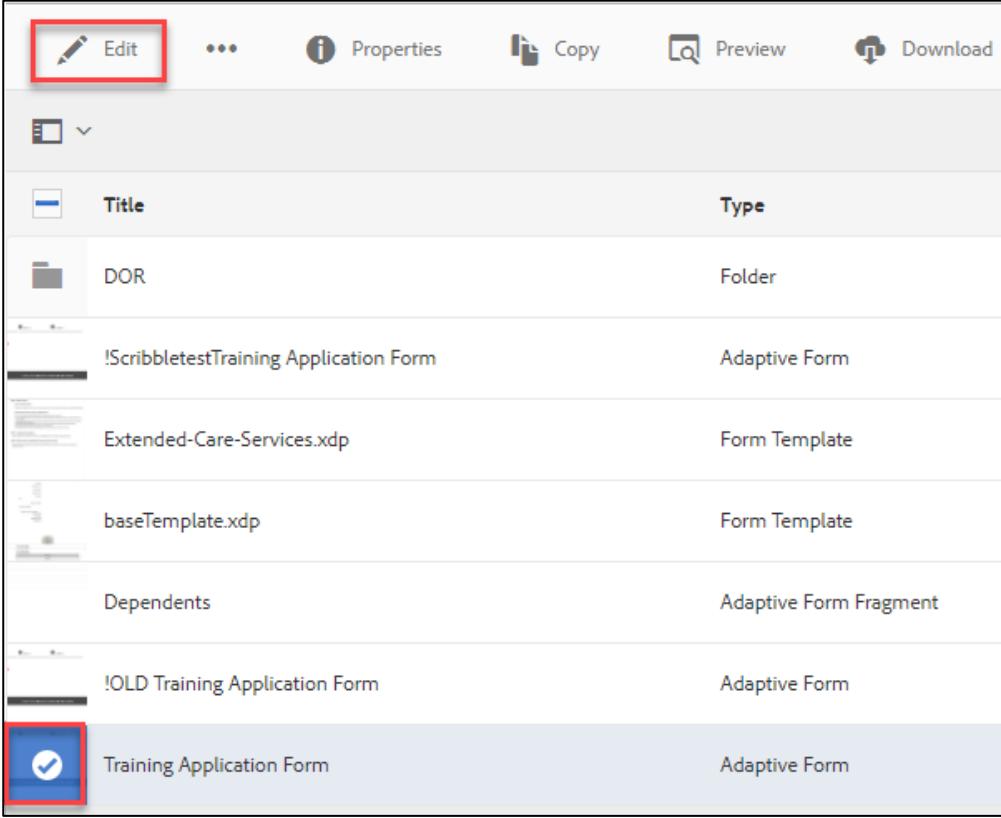


NOTE: This configuration is only used for testing purposes and should not be used in production. The steps used here will mimic the way a form could be displayed to a user if they needed to display the DoR to a user before submission, or if they use Adobe Sign with their AEM Forms implementation. The temporary change to the DoR properties of your form for this testing method may not be employed or needed in your implementation.

Step	Instructions
13.	In your Training folder, open the Properties of your Training Application Form . 
14.	Click the Form Model tab to configure the Form Model:

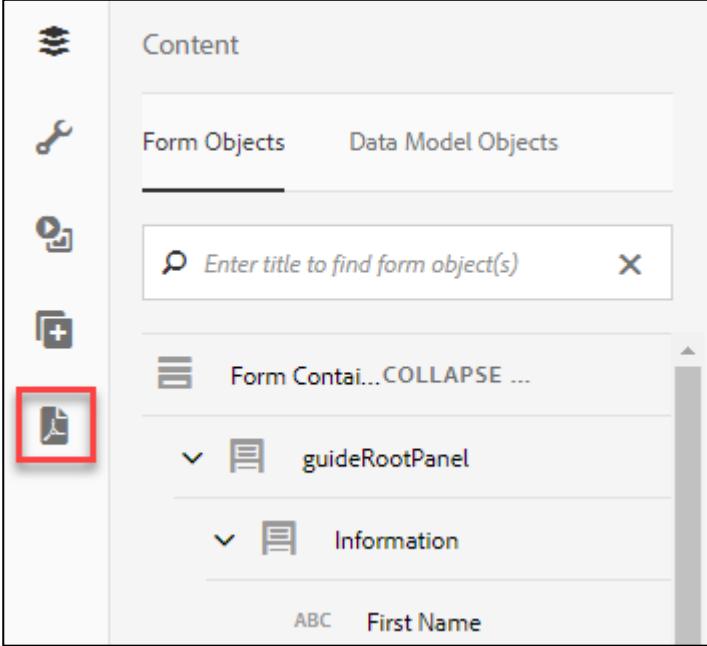
	 <p>The screenshot shows the 'Form Model' tab selected in the top navigation bar. Below it is a dropdown menu labeled 'Select From:' with 'Schema' selected. Underneath are two expandable sections: 'Select Schema' and 'Document of Record Template Configuration'. The 'Document of Record Template Configuration' section is expanded, showing three radio button options: 'None', 'Associate form template as the Document of Record template', and 'Generate Document of Record', with the last one being selected.</p>
15.	Expand Document of Record Template Configuration and select Generate Document of Record :  <p>The screenshot shows the 'Document of Record Template Configuration' section expanded. It contains three radio button options: 'None', 'Associate form template as the Document of Record template', and 'Generate Document of Record'. The 'Generate Document of Record' option is selected and highlighted with a red box.</p>
16.	At upper right, click Save & Close :  <p>The screenshot shows the top right corner of the interface with several buttons: 'Publish', '...', 'Cancel', and 'Save & Close'. The 'Save & Close' button is highlighted with a red box.</p>

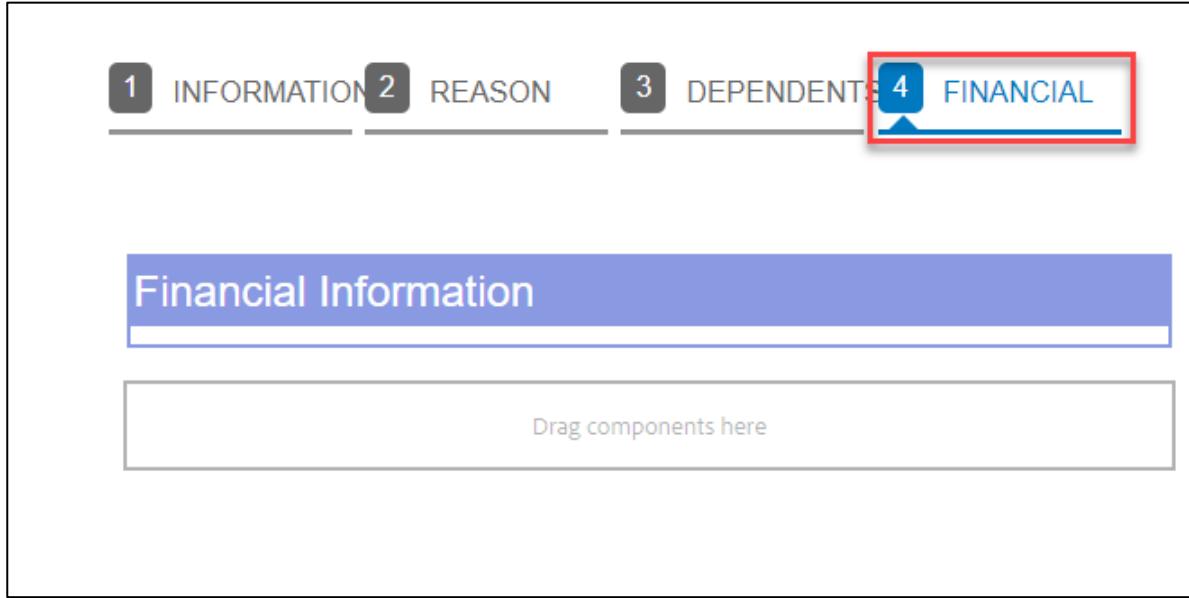
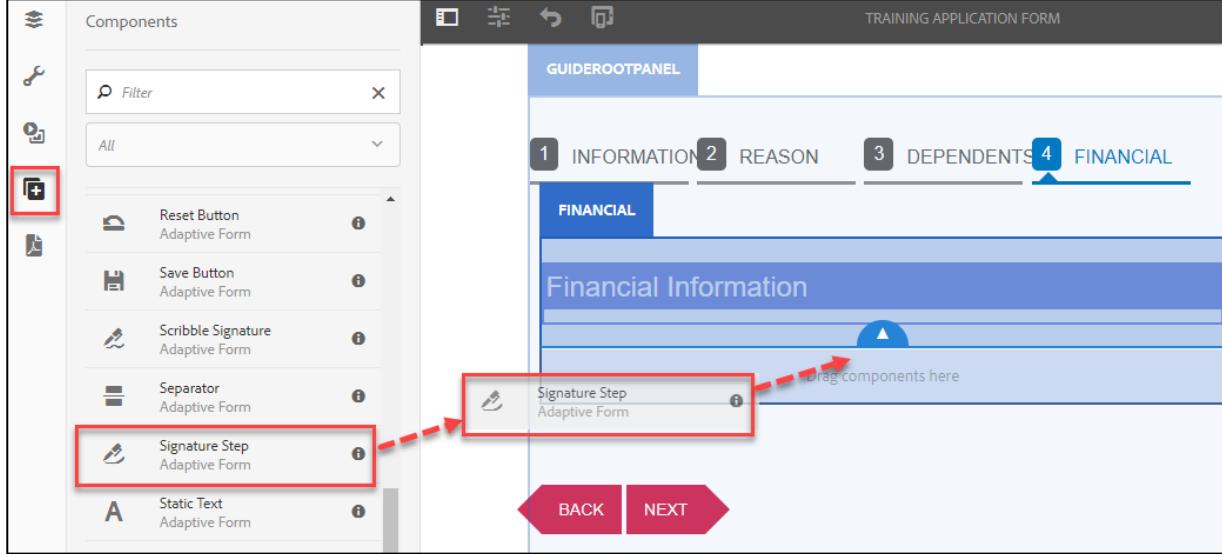
17. Select your **Training Application Form** again and Edit it:

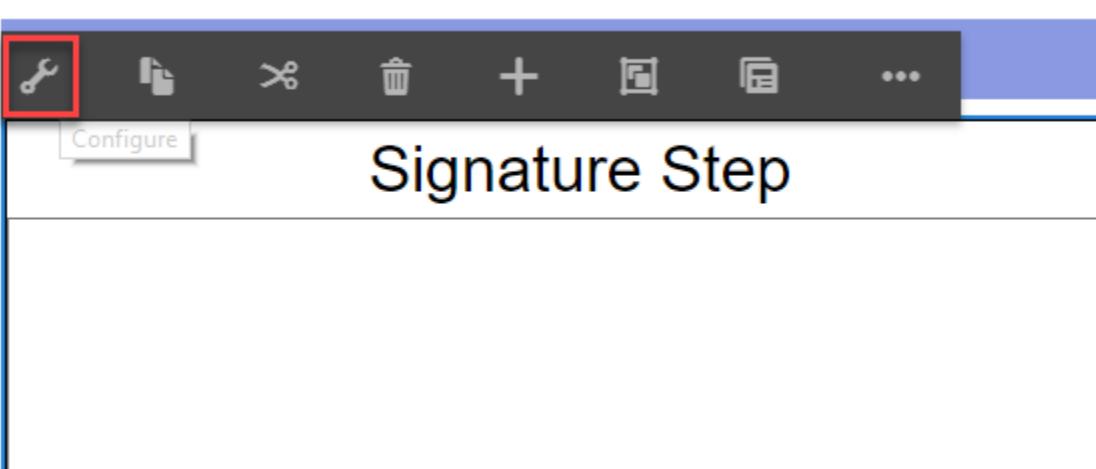


Title	Type
DOR	Folder
!ScribbletestTraining Application Form	Adaptive Form
Extended-Care-Services.xdp	Form Template
baseTemplate.xdp	Form Template
Dependents	Adaptive Form Fragment
!OLD Training Application Form	Adaptive Form
Training Application Form	Adaptive Form

 **NOTE:** A new **Document of Record** option is now available for your testing purposes in the **Side Panel**. You may use this to format the Document of Record's layout, headers/footers, and style for forms that have an automatically-generated DoR (which you specified in Step #15):



18.	<p>Navigate to and select the FINANCIAL panel.</p>  <p>NOTE: This panel is currently empty but you will use it for testing your form in this exercise.</p> 
19.	<p>In the Side Panel, click Components. Drag and drop a Signature Step component onto your form:</p> 
20.	<p>With your new Signature Step component selected, configure it in the Side Panel:</p>



21. Set the **Signing Service** to **Scribble** and save your changes:

Properties

Signature Step

Basic

Element Name *

signatureStep

Title

Signature Step

Template Message

Loading document...

Signing Service

Scribble

NOTE: Notice by default that **Adobe Sign** is set as the Signing Service. You may use Adobe Sign to integrate with Adobe Experience Manager Forms, but this integration requires more technical intervention and set up to be available. For more information about using Adobe Sign with AEM Forms, visit:
<https://helpx.adobe.com/experience-manager/kt/forms/using/adobe-sign-integration-feature-video.html>

22. Preview your Form.

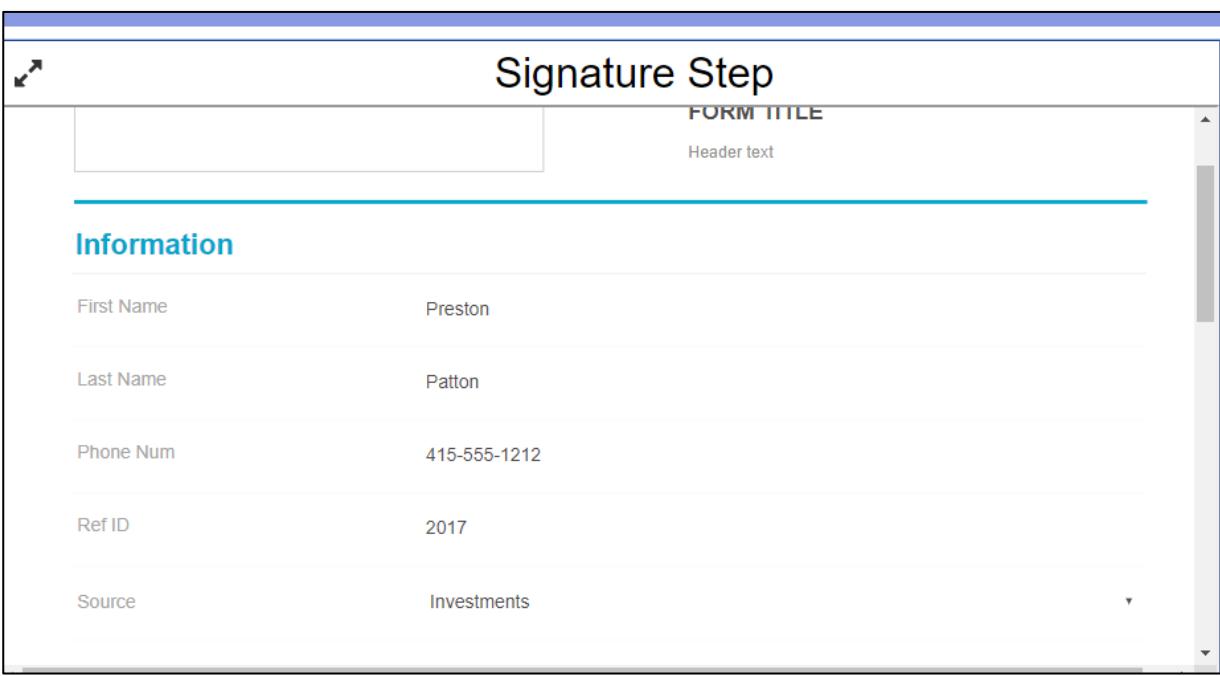
Complete several of the Form fields in the **INFORMATION** and **REASON** panels. Click the **FINANCIAL tab** to see your DoR generated containing the data you entered into the form as shown below. Be patient as it may take several seconds for the DoR to load.

When the DoR loads, click "X" to close the pop up that may appear stating the form has no signing field.

NOTE: If you enter an **Email**, this will not be saved in the DoR as it is not a field that existed in your Schema you used to build this form. Other data may not be saved in the DoR because the data is not bound or part of the DoR, or, because this exercise involves unbound data.



The screenshot shows the 'Signature Step' form. At the top, there's a purple header bar with a file icon and a save icon. Below it, the title 'Signature Step' is displayed. A purple banner with the text 'Please fill the following form.' is visible. The main area contains a 'FORM TITLE' section with a placeholder 'Header text'. On the left, there's an 'Information' panel with fields for First Name, Last Name, Phone Num, Ref ID, and Source. A large purple box covers the center of the screen with the message 'No signing field in the form. Please continue!'. In the bottom right corner of this purple box is a small red square containing a white 'X' button.



The screenshot shows the 'Signature Step' form after the user has filled in the 'Information' panel. The data entered is:

Field	Value
First Name	Preston
Last Name	Patton
Phone Num	415-555-1212
Ref ID	2017
Source	Investments

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Appendix: Answers to Questions

QUESTION 1.1: Are there any validation rules on the Date Of Birth field? What additional validation rules would you place on this field and why?

ANSWER: The validation rules ensure that only numeric values get entered, and a complete date is entered. However, if you put a date in the future, it accepts it. This is perhaps a validation rule you may need to configure. You may also consider a validation rule that trims zeroes, for example, is it ok if someone enters 1/1/70, does it give a warning or interpret that as 01/01/1970?

QUESTION 1.2: What happens if you type an invalid value in the Date Of Birth field?

ANSWER: The validation rule rejects the entry and your entry is cleared. For example, if you type text into the field, or characters. Or, if you type 0000000, your entry is cleared.

QUESTION 1.3: For Email, type your name only. Tab to the next field. What happens?

ANSWER: The name is appended with: @example.com

QUESTION 1.4: For the **Your credit score**, what kinds of changes may be needed for your implementation?

ANSWER: You may use an exact integer (numeric) value for this field, in which case a validation rule to require only numeric data between 0-800 is only accepted.

QUESTION 1.5: Fill out the form partially. Click the "Come back later" link at bottom. What happens?

ANSWER: A quick "Saved successfully" message appears at the bottom and a dialog popup is shown giving the user an option to email a draft of the form for reference. As this is a sample only, and the environment has not been configured to send email, if you were to test this, there would be no email sent as that functionality has not been set up in your training environment.

QUESTION 3.1: What requirements have been set by the Schema for the **Source** field?

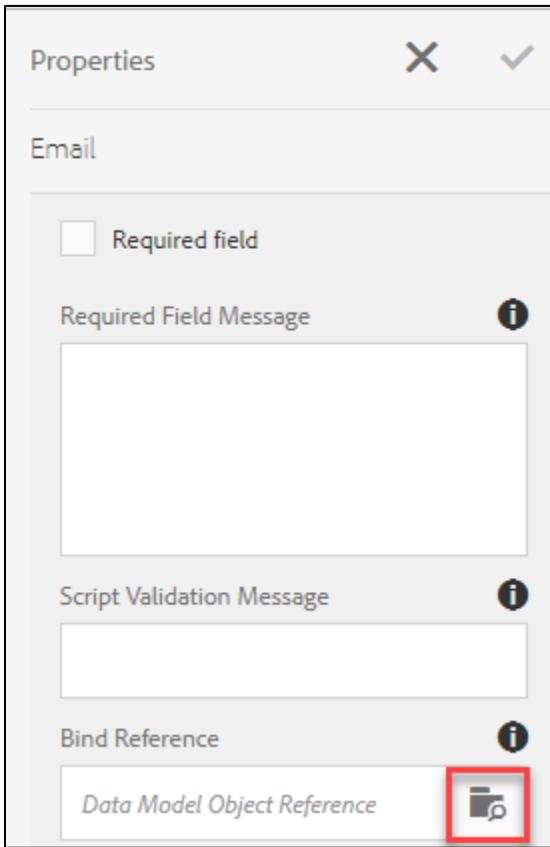
ANSWER: The field is required, and there are two drop-down choices "Sale of Assets" and "Investments" already provided.

QUESTION 3.2: Preview your form. What instructions appear for the **L Name** field? What happens if you type a single character into this field and click **Next**?

ANSWER: The instructions below the **L Name** field indicate the field is required. If you type a single character and click **Next**, a warning instruction appears "The number of characters must be greater than or equal to 2".

QUESTION 4.1: Why do you think this reference is empty?

ANSWER: The reference is empty because this component was not dragged onto your form from the Data Model Objects. If the underlying schema had an Email field, you could associate the component with that field in the Data Model by clicking here:



QUESTION 4.2: Why isn't there another item for the case if someone does not check the box? Why do we need only one item for this field?

ANSWER: This is what is known as a "Boolean" value. We are only interested if the box is "checked" (selected). For our purposes, the trigger is if the value is "1" and the label is "Yes".

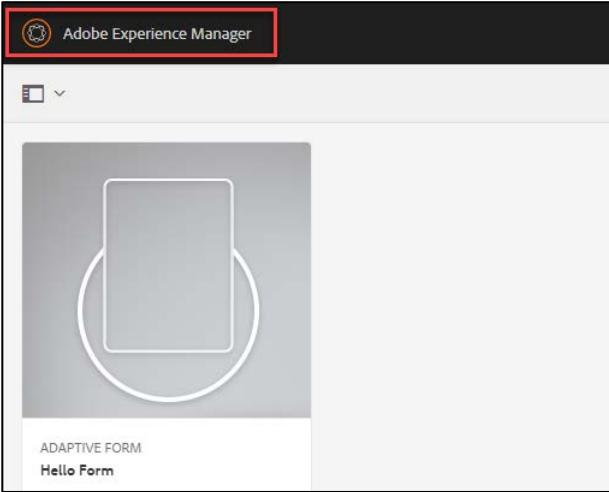
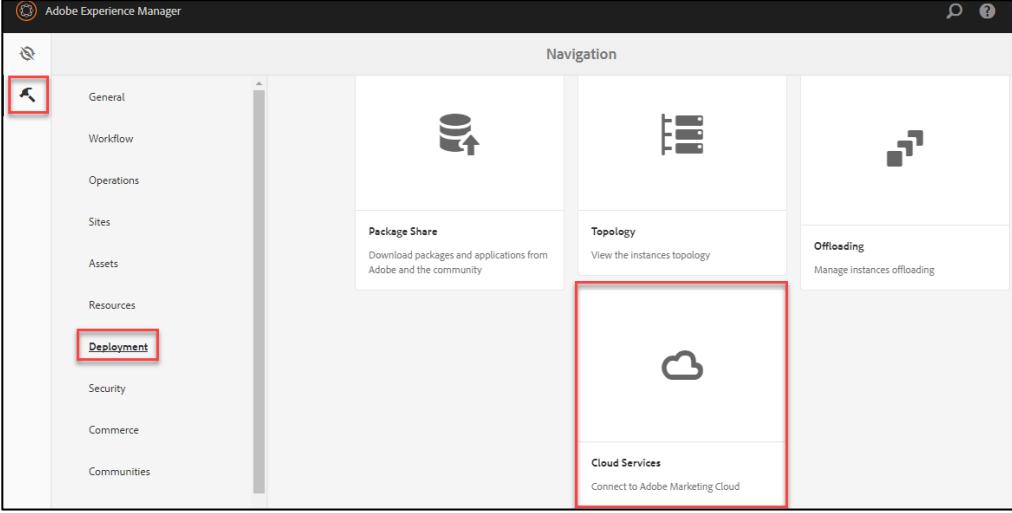
Appendix: Adding Web Fonts with Adobe Typekit

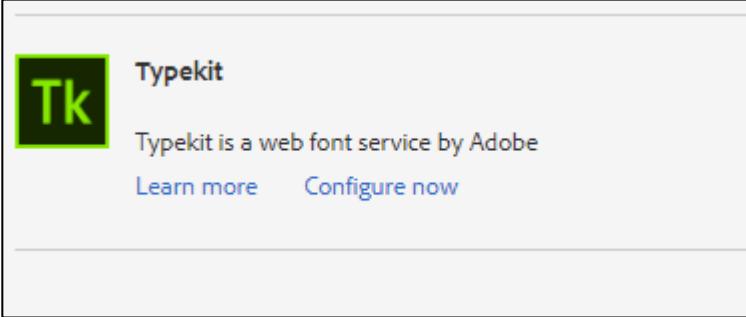
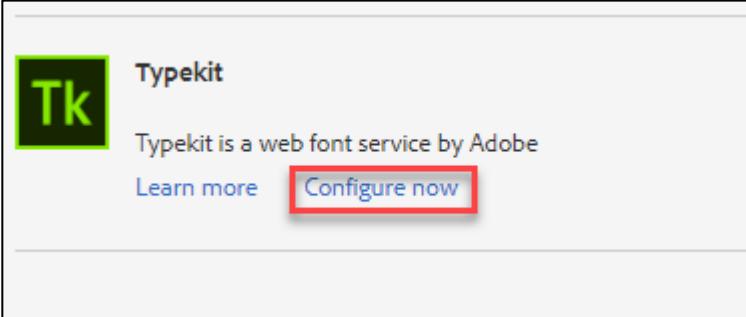


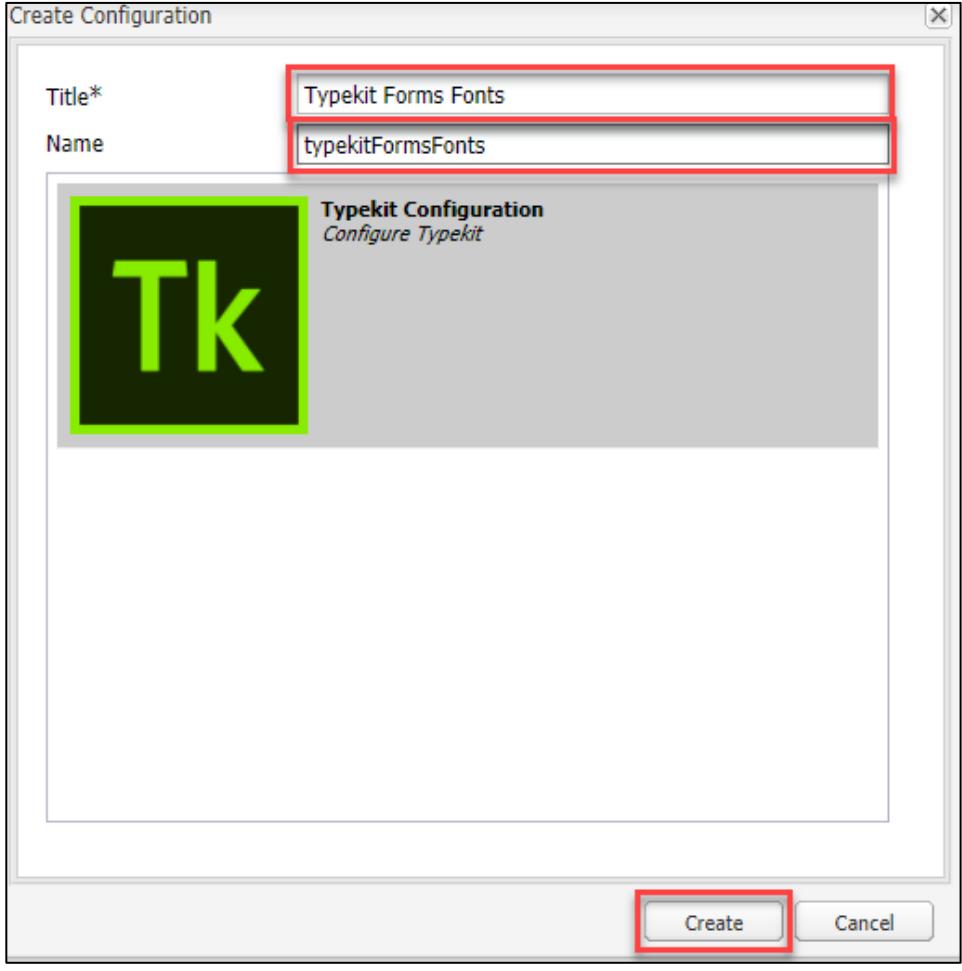
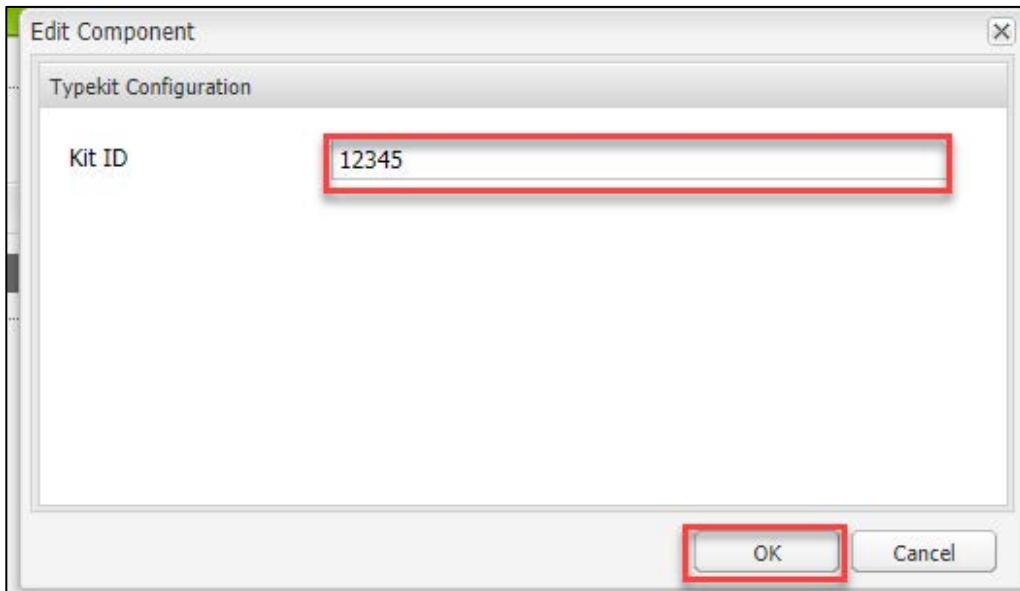
NOTE: This appendix is provided if you have an **Adobe Typekit** subscription or trial license to work with Typekit via an Adobe Creative Cloud subscription. So, the steps and instructions provided assume you have already established an account using your **Adobe ID** with Typekit. It is not a tutorial on Typekit itself but instead how to integrate Web Fonts from Typekit with Adobe Experience Manager Forms.

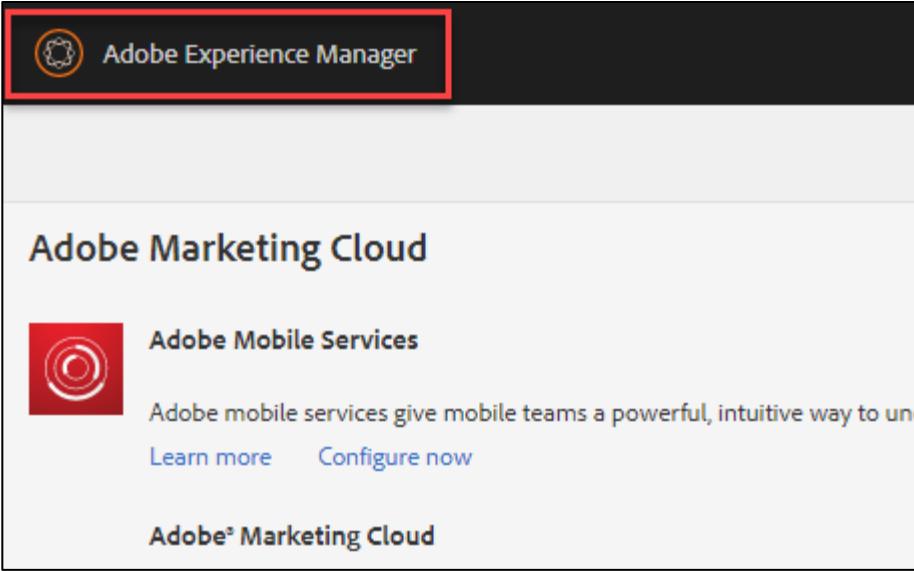
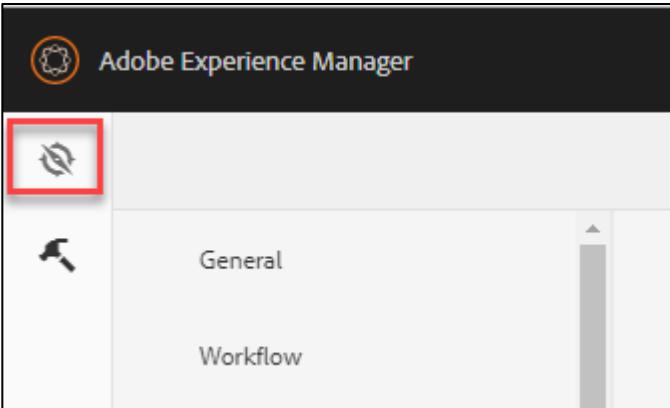
To get started using Adobe Typekit, visit <http://www.typekit.com>

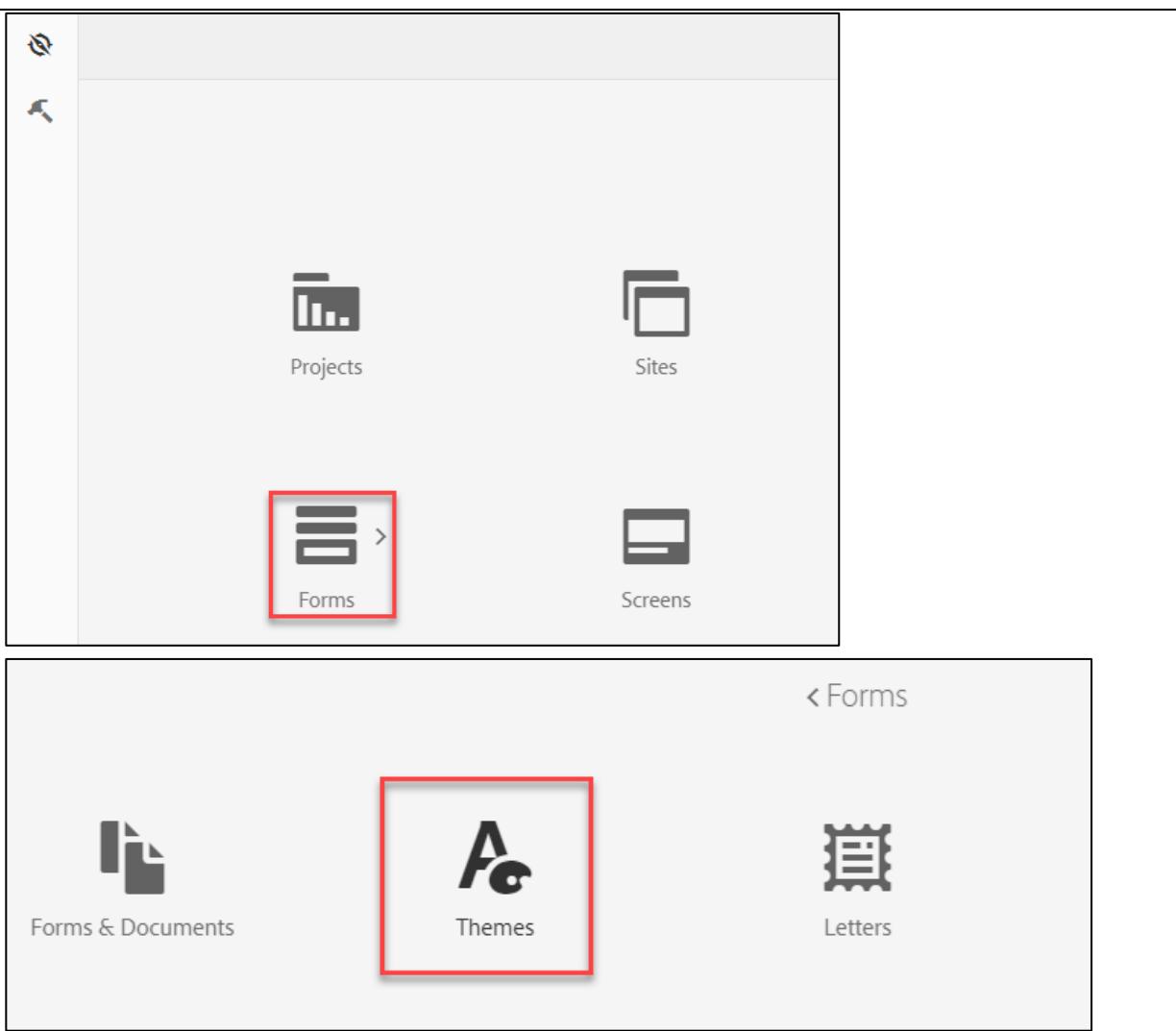
This example will provide a way to use the **Fira Sans** font from Typekit: <https://typekit.com/fonts/fira-sans>

Step	Instruction
1.	As an admin user, click the Adobe Experience Manager logo at top left to return to the main navigation: 
2.	Navigate to Tools > Deployment > Cloud Services > Typekit : 

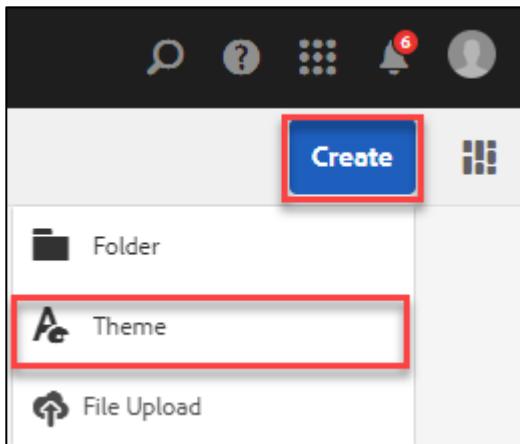
	
3.	Click Configure now : 
4.	 NOTE: It is assumed you already created a Kit ID in Adobe Typekit prior to configuring this service. The Kit ID identifies the fonts you want to use from Typekit. Enter a configuration name and title, such as Typekit Forms Fonts , and click Create :

	
5.	Provide your Kit ID and click OK: 
6.	Click the back button on your browser, or, navigate in a new browser tab to the AEM start page. The AEM start page can be accessed as follows: http://aemforms###-&&.adobevlab.com

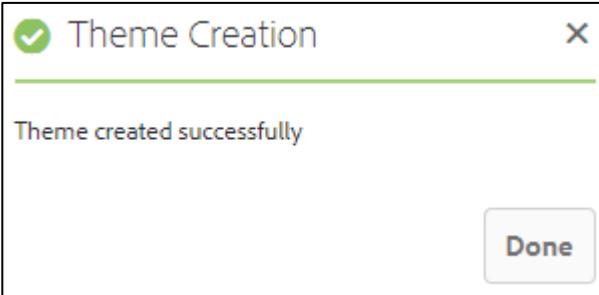
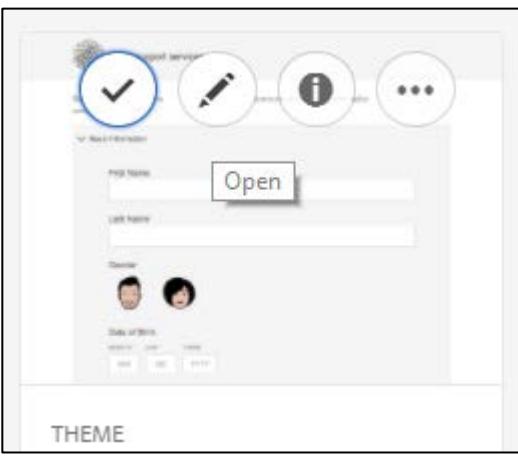
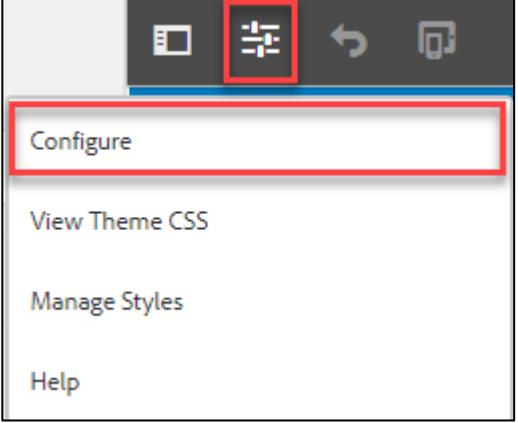
	<p>(Where ### is a 2 or 3-digit number you have been assigned)</p> <p>(Where && represents the region. This can be "us", "emea", or "apac")</p> <p>If you are using a local development author instance, the URL will be: <code>http://localhost:4502</code></p>
7.	<p>Click the Adobe Experience Manager logo at top left to return to the main navigation:</p>  <p>The screenshot shows the Adobe Marketing Cloud homepage. At the top left, there is a dark header bar with the "Adobe Experience Manager" logo and text. Below the header, the page content includes the "Adobe Marketing Cloud" heading, the "Adobe Mobile Services" section with its logo and description, and a "Learn more" and "Configure now" button. At the bottom, there is a "Adobe® Marketing Cloud" footer section.</p>
8.	<p>Click Navigation, then Forms > Themes:</p>  <p>The screenshot shows the Adobe Experience Manager navigation menu. The "Forms" icon, which is a stylized "F" inside a square, is highlighted with a red box. Other menu items visible include "General" and "Workflow".</p>

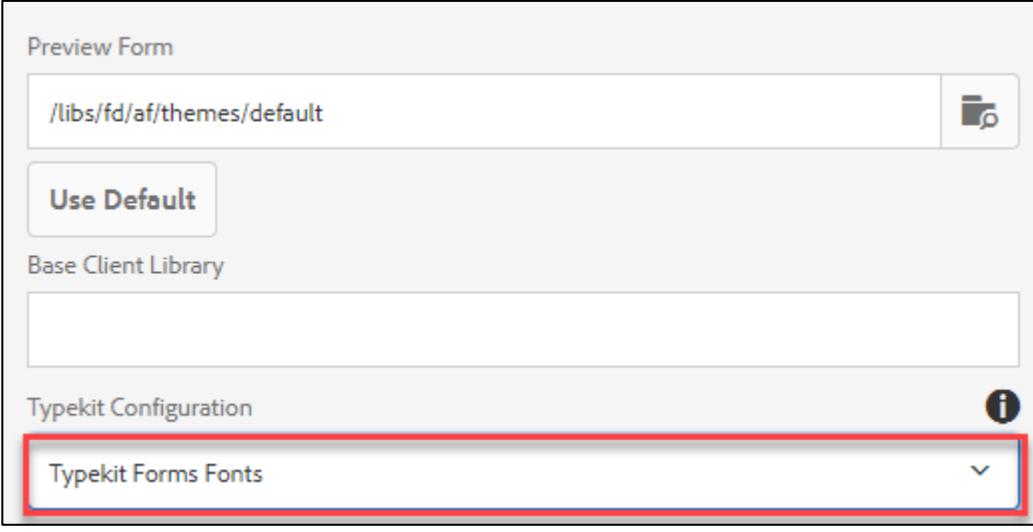


9. Navigate to the theme you wish to edit, or create a new theme. Refer to the exercises in Module 5 for specifics on how to edit an imported theme or edit an existing theme. If you want to create a new theme, click **Create > Theme** at upper-right and give your theme a unique name:



10. When prompted, click **Done**:

	 A screenshot of a "Theme Creation" dialog box. It shows a green checkmark icon and the text "Theme created successfully". A "Done" button is at the bottom right.
11.	Click your theme and click Open to open it in the theme editor:  A screenshot of a theme management interface. It shows a list of themes with various icons (checkmark, pencil, info, three dots) and a "THEME" label. An "Open" button is highlighted with a red box.
12.	In the theme editor, choose Theme Options > Configure .  A screenshot of the theme editor's navigation bar. It features icons for back, forward, and search, followed by a "Configure" button which is highlighted with a red box. Below the bar are links for "View Theme CSS", "Manage Styles", and "Help".
13.	In the Typekit Configuration drop-down menu, select the name of the Typekit Configuration you created previously, and click Save .

	 <p>The screenshot shows the AEM Side Panel with the following sections:</p> <ul style="list-style-type: none">Preview Form: Shows the URL <code>/libs/fd/af/themes/default</code> and a file icon.Use Default: A button.Base Client Library: An empty input field.Typekit Configuration: A dropdown menu labeled "Typekit Forms Fonts" with a red border around it. An information icon (i) is next to the dropdown.
14.	In the editor, edit one of your components such as First Name as shown. Click Text Box Widget .
15.	In the Side Panel, configure the Text properties and save your changes. Confirm you can see the Fira Sans custom Typekit font as one of the options.

Text Box Widget

Desktop

STATE Default

> Dimensions & Position

Text

Select +

Font Family Select

Times N

Font Weight

Font Color

Browser Default

Inherit From Parent

Fira Sans

Fira Sans 2

Note icon

NOTE: The font will only appear in Edit mode. It will not appear in Preview mode.

The screenshot shows the configuration interface for a 'Text Box Widget'. At the top, there's a header with 'Text Box Widget' and a checkmark button. Below it, a 'STATE' dropdown is set to 'Default'. Under 'Dimensions & Position', the 'Text' section is expanded, indicated by a red box around its title. In the 'Font Family' section, a dropdown menu is open, showing 'Select' (highlighted with a red box), 'Browser Default', 'Inherit From Parent', 'Fira Sans' (which is also highlighted with a red box), and 'Fira Sans 2'. Other sections like 'Font Weight' and 'Font Color' are visible but not selected. At the bottom left is a 'Note' icon, and a note at the bottom right says: 'NOTE: The font will only appear in Edit mode. It will not appear in Preview mode.'.

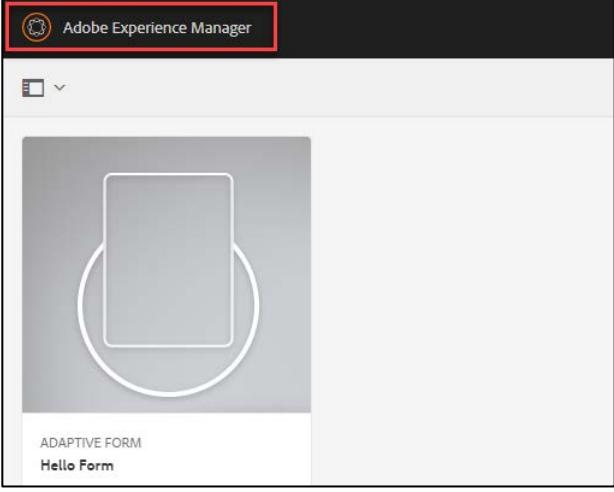
The screenshot shows the configuration interface for a 'Text Box Widget' in Adobe Experience Manager. On the left, a sidebar displays 'Text Box Widget' settings for 'Desktop' and 'STATE'. Under 'Dimensions & Position', the 'Text' section is expanded, showing options for 'Font Family' (set to 'Fira Sans'), 'Font Weight', 'Font Color' (set to red), 'Font Size', 'Line Height', and 'Text Align'. A note at the bottom states: 'In this example, the Times New Roman font was present previously for the style. This font is now deleted in the above screenshot and Firs Sans is selected.' On the right, the preview of the application form shows a blue header with the logo and 'Child support services'. Below it, a sidebar lists categories: General, Expenditure, Documents, Communication, and Confirmation. The 'Basic Information' section is highlighted in purple, containing a table with columns for 'Text Box Widget', 'Field Widget', and a text input field set to 'First Name' and 'Fira Sans font'.

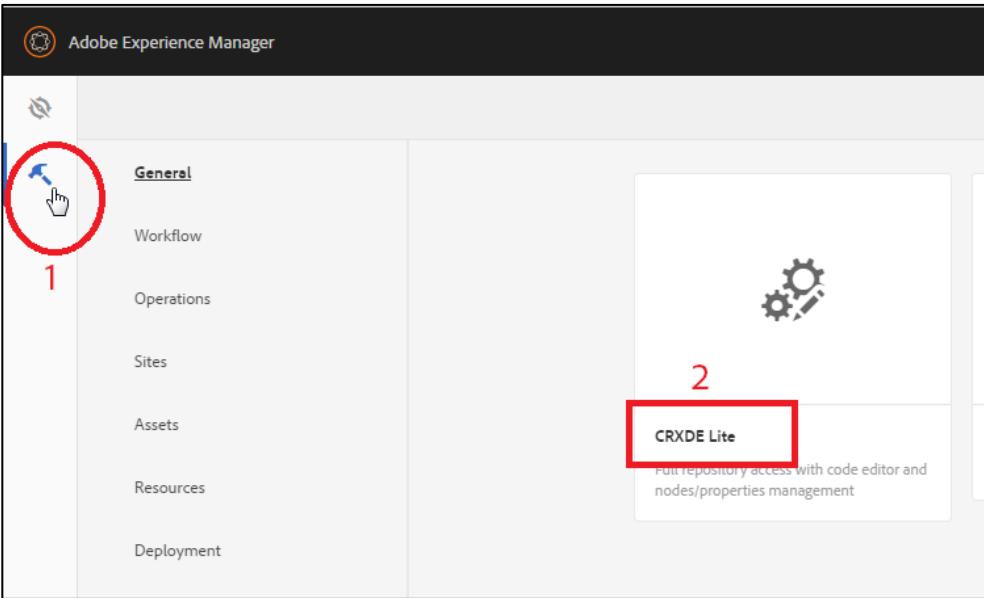
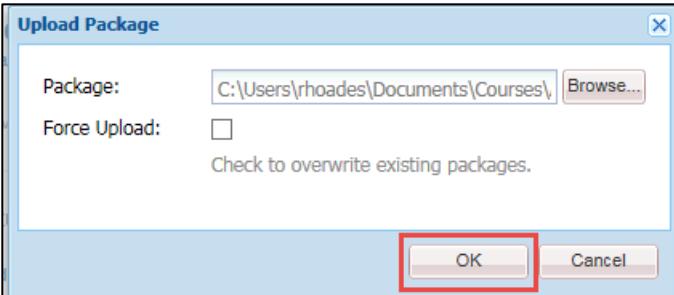
Appendix: Setting up your Forms Portal Project



NOTE: This appendix is provided only for deliveries of this course that do **NOT** use the AEM Cloud training environment and therefore do NOT have the portal package installed on the environment. Because this is a non-standard way to deliver this course, this information is in an appendix. If you are using the standard environment on AEM Cloud for this course, you do **NOT** need to complete these setup steps.

This appendix provides the step by step instructions to install a package to set up your project using a Developer tool (CRXDE Lite) that allows AEM users to package up things like forms, pages, images, and other components and objects. This particular package includes two sample forms and a portal page.

Step	Instructions
1.	<p>As an admin user, click the Adobe Experience Manager logo at top left to return to the main navigation:</p> 
2.	<p>Click the Tools option and then click the CRXDE Lite link.</p>

	
3.	Click Package:
	
4.	Click Upload Package:
	
5.	In the Upload Package dialog, search for and select the fp_start_package.zip file from the exercise files provided with this course. Click Open , which will populate the Package field then click OK to upload the package:
	
6.	After the upload, install your package. Your uploaded package will appear at the top of the list. Click Install to install.

fp_start_package.zip
Build: 1 | Last built May 20 | admin

Edit | Build | **Install** | Download | Share | More

Package: fp_start_package

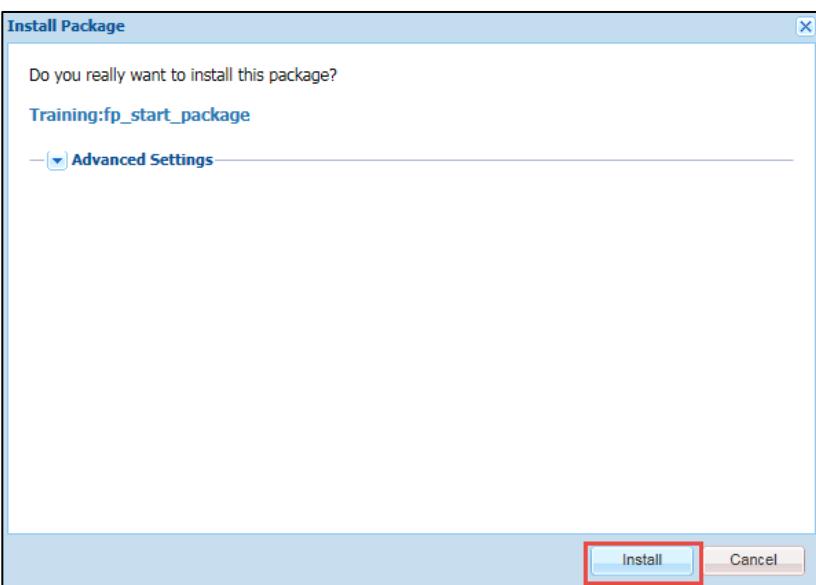
Download: fp_start_package.zip (582.9 KB)

Group: Training

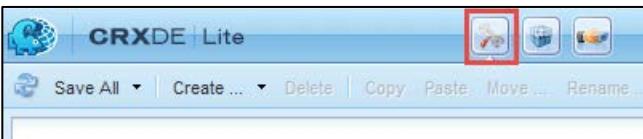
Filters:

- /apps/aem-forms-training-portal
- /conf/aem-forms-training-portal
- /etc/designs/aem-forms-training-portal
- /content/aem-forms-training-portal
- /content/dam/formsanddocuments/Forms-Training-Portal-Page-Forms
- /content/forms/af/Forms-Training-Portal-Page-Forms

When you install the package, there's no need to change any advanced settings. Click **Install**.



7. Click **Develop**:



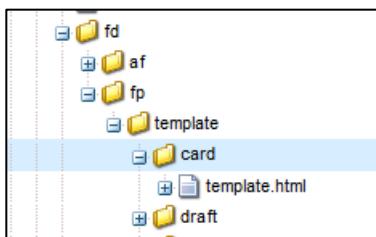
This opens CRXDE Lite.

8. Navigate to this folder location (`/etc/designs/fd`):



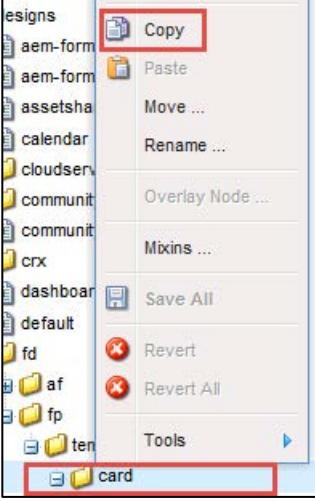
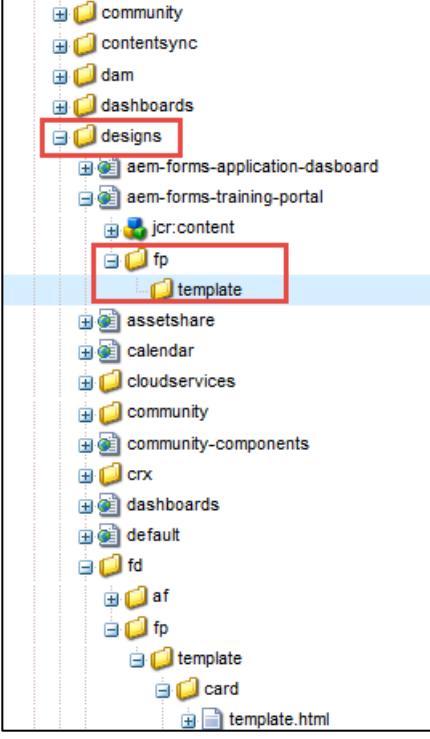
NOTE: You may navigate using the folder hierarchy (clicking to open each sub-folder), or, enter the path directly in the address bar.

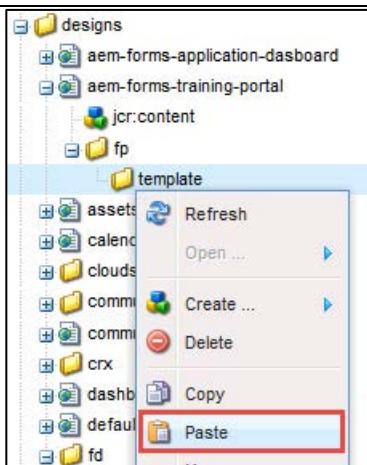
9. Expand **fd**, and navigate to: **/fp/template/card**:



Note: This is the card template form portal that comes with AEM Forms.

10. With the card folder selected, right-click and select **Copy**:

	
11.	<p>Navigate up to: /designs/aem-forms-training-portal/fp/template:</p> 
12.	<p>Right-click and select Paste:</p>



Click **Save All**.

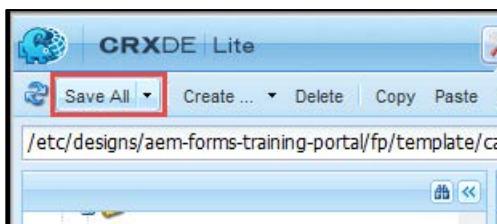
13. In the lower center of CRXDE Lite, you will notice the properties of the object (card) you just copied. Double-click on the **title** property:

Properties			
	Name	Type	Value
1	fpContentType	String	/libs/fd(fp/formTemplate
2	jcr:created	Date	2016-05-23T08:16:17.984-07:00
3	jcr:createdBy	String	admin
4	jcr:primaryType	Name	sling:Folder
5	title	String	Card

14. Change the Value to **My Custom Card Portal** (double-click to change the value):

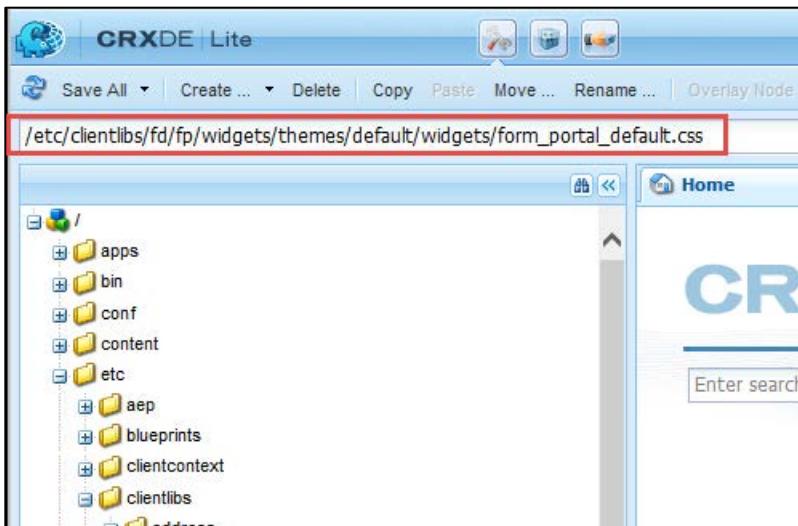
Properties			
	Name	Type	Value
1	fpContentType	String	/libs/fd(fp/formTemplate
2	jcr:created	Date	2016-05-23T08:16:17.984-07
3	jcr:createdBy	String	admin
4	jcr:primaryType	Name	sling:Folder
5	title	String	My Custom Card Portal

15. In the upper left, click **Save All**.



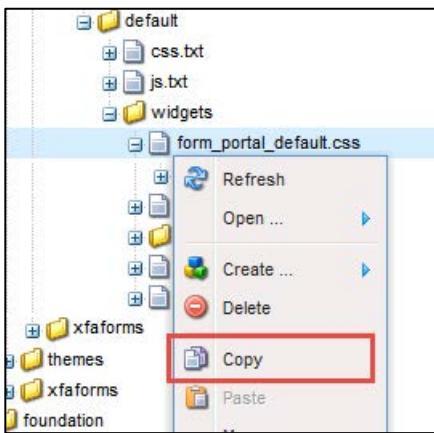
NOTE: It is a best practice to always click **Save All** each time you make a change in CRXDE Lite.

16. Navigate to the *.css file you will use. Pay attention to the path provided here and navigate in the folder structure of CRXDE Lite here:

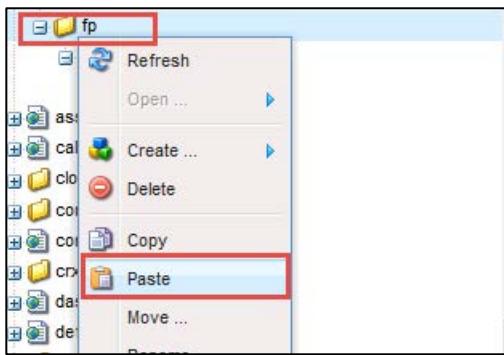
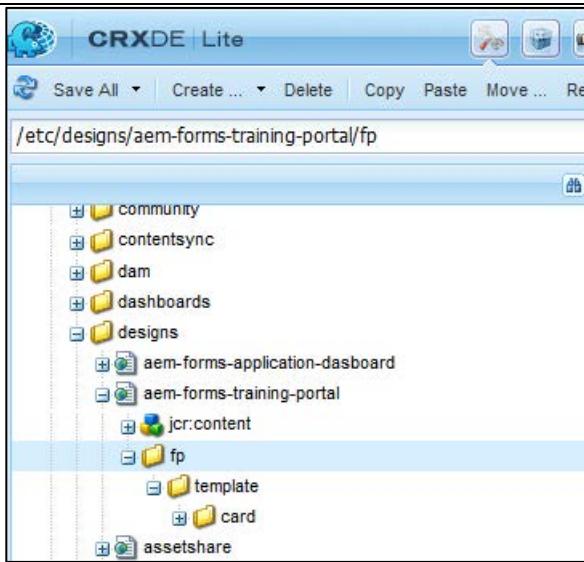


/etc/clientlibs/fd/fp/widgets/themes/default/widgets/form_portal_default.css

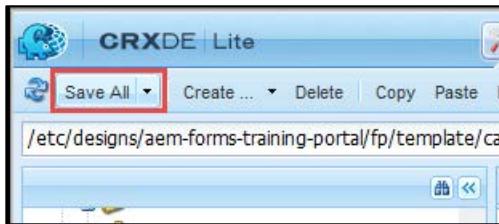
17. Once you have this file (form_portal_default.css) selected, right-click and copy it:



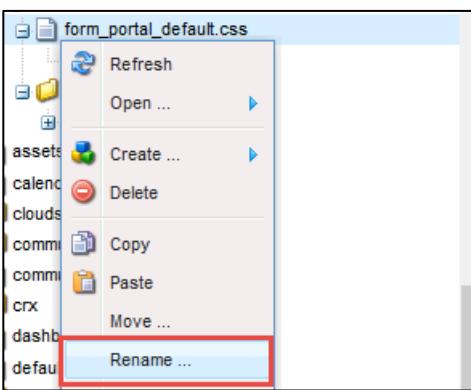
18. Scroll down and locate your **designs** folder structure from earlier. Navigate to the **fp** subfolder and paste in your file. NOTE: The address / path should be the same as in this screenshot:



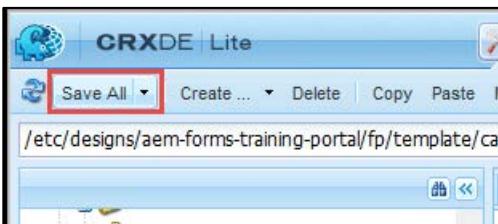
19. In the upper-left, click Save All.



20. Right-click the file from Step 19 you saved (form_portal_default.css in the /etc/designs/fp folder) and select Rename, then rename your *.css file to:
form_portal_custom.css.



21. In the upper-left, click **Save All**.



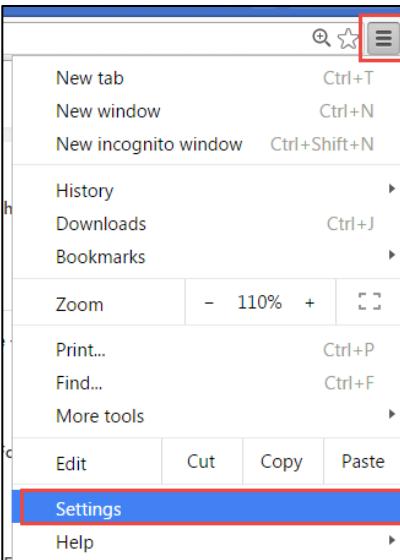
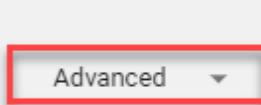
NOTE: Your custom portal is now set up appropriately. You may now proceed with the Exercise for Module 9 – Forms Portal.

Appendix: Setting Browser Locales

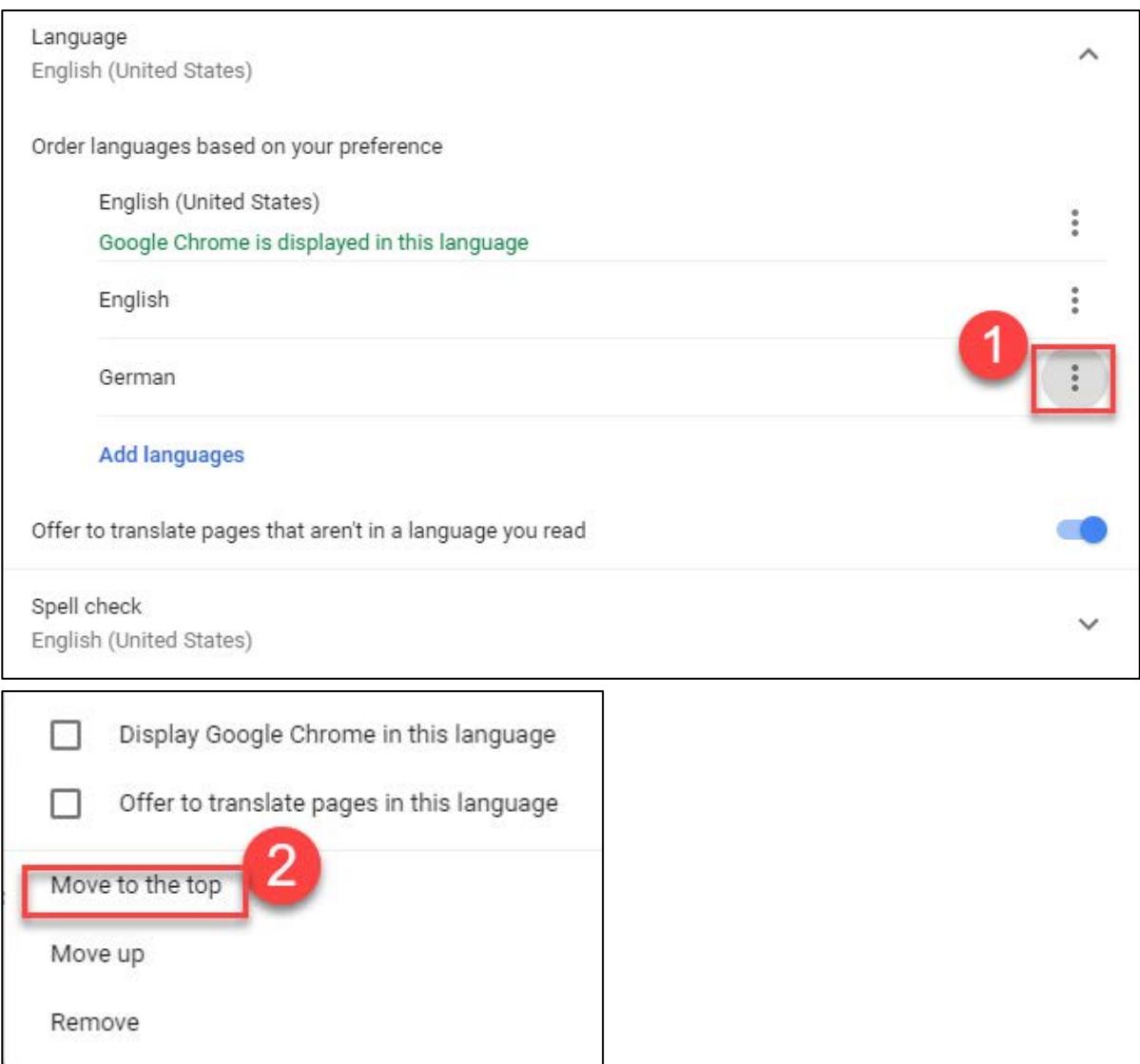
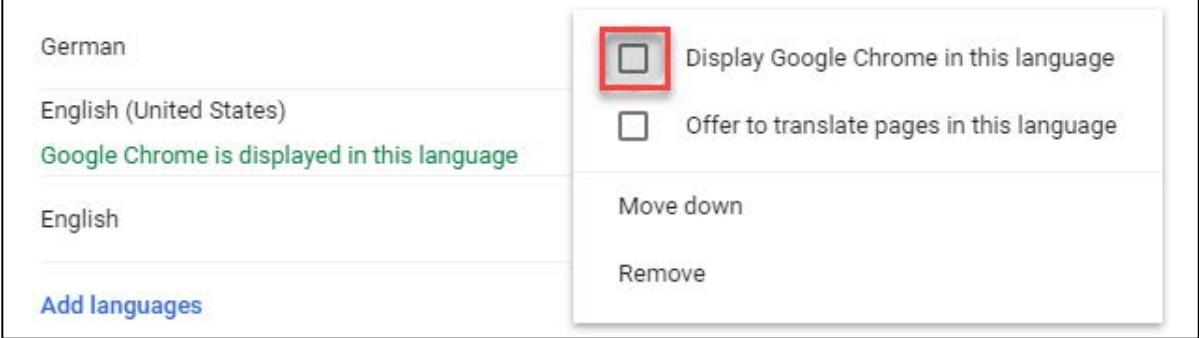
Appendix: Set your browser to display in another language

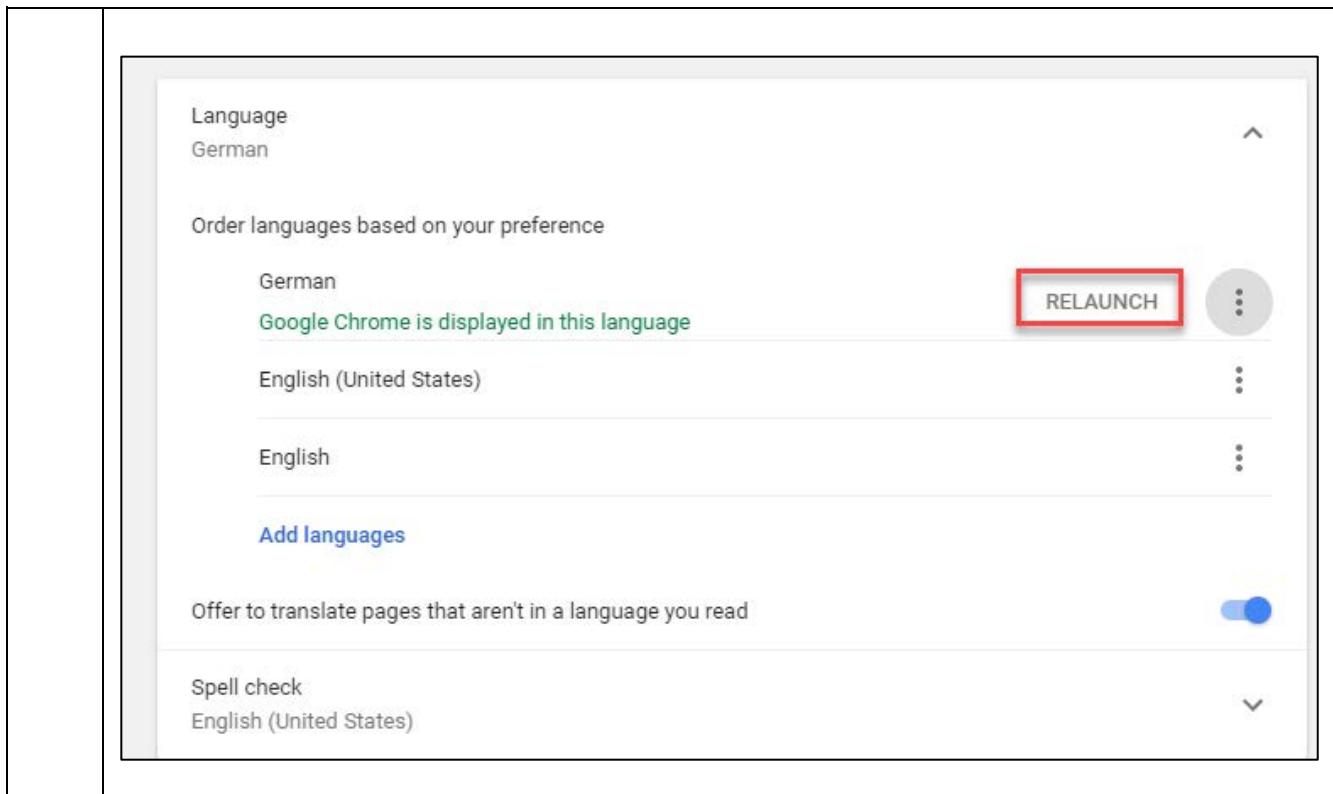
The following instructions are provided as an optional way to test Form translations by **manually setting the browser language to German (DE)**. While German is the example used here, these instructions could apply to any other language supported by your browser. Instructions are provided here for Google Chrome and Microsoft Internet Explorer 11.

CHROME INSTRUCTIONS

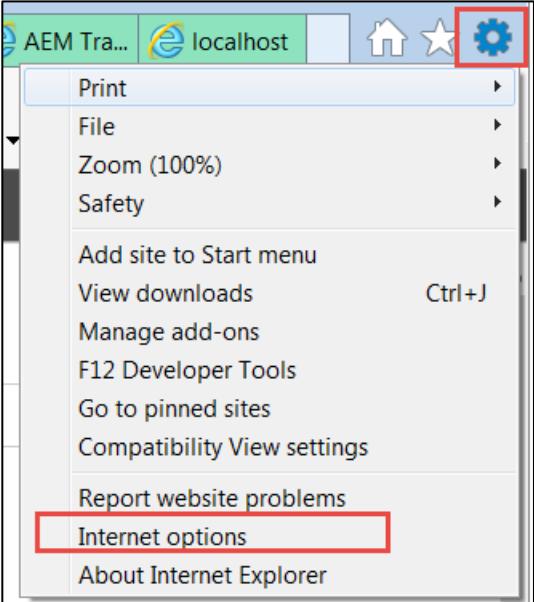
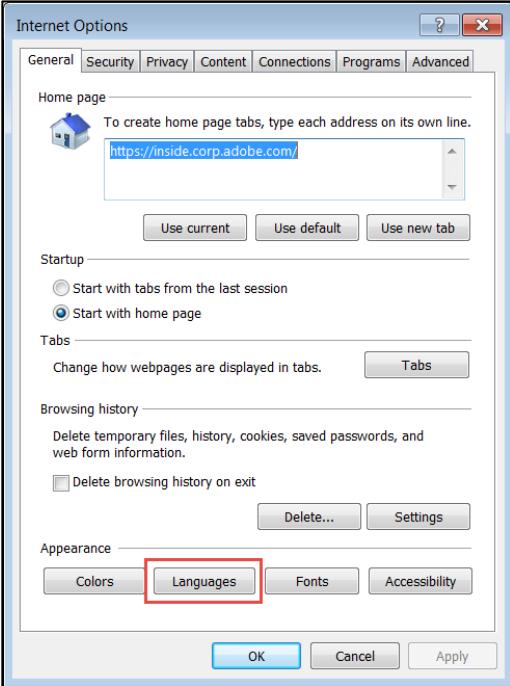
Step	Instructions
1.	In the upper right corner, click Customize and Control Google Chrome > Settings :  A screenshot of the Google Chrome menu bar. The 'More' button (three vertical dots) is highlighted with a red box. A dropdown menu is open, showing options like 'New tab', 'New window', 'New incognito window', 'History', 'Downloads', 'Bookmarks', 'Zoom' (set to 110%), 'Print...', 'Find...', 'More tools', 'Edit', 'Cut', 'Copy', 'Paste', and 'Settings'. The 'Settings' option is also highlighted with a red box.
2.	At the bottom of the settings page, click Advanced :  A screenshot of the Google Chrome settings page. A red box highlights the 'Advanced' button at the bottom of the page.
3.	Scroll down and expand Language and then Add languages :

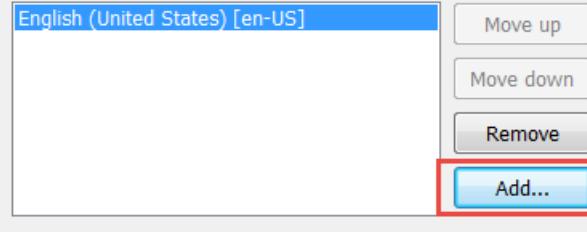
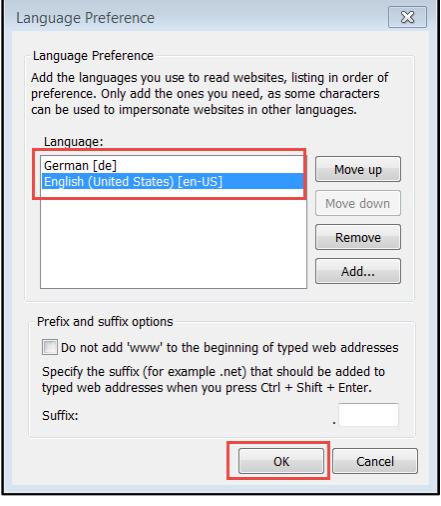
	<p>Languages</p> <p>Language English (United States)</p> <p>Order languages based on your preference</p> <p>English (United States) Google Chrome is displayed in this language</p> <p>English</p> <p>Add languages</p> <p>Offer to translate pages that aren't in a language you read</p> <p>Spell check English (United States)</p>
4.	<p>Add German – Deutsch and click Add:</p> <div style="border: 1px solid #ccc; padding: 10px;"><p>Add languages X</p><ul style="list-style-type: none"><input type="checkbox"/> French (Canada) - français (Canada)<input type="checkbox"/> French (France) - français (France)<input type="checkbox"/> French (Switzerland) - français (Suisse)<input type="checkbox"/> Galician - galego<input type="checkbox"/> Georgian - ქართული<input checked="" type="checkbox"/> German - Deutsch<input type="checkbox"/> German (Austria) - Deutsch (Österreich)<input type="checkbox"/> German (Germany) - Deutsch (Deutschland)<p style="text-align: right;">CANCEL ADD</p></div>

5.	<p>Select (1) and move German to the top of the list (2):</p>  <p>Language English (United States)</p> <p>Order languages based on your preference</p> <ul style="list-style-type: none"> English (United States) Google Chrome is displayed in this language English German <p>Add languages</p> <p>Offer to translate pages that aren't in a language you read <input checked="" type="checkbox"/></p> <p>Spell check English (United States)</p> <p>Display Google Chrome in this language <input type="checkbox"/></p> <p>Offer to translate pages in this language <input type="checkbox"/></p> <p>Move to the top 2</p> <p>Move up</p> <p>Remove</p>
6.	<p>Click Display Google Chrome in this Language:</p>  <p>German</p> <p>English (United States)</p> <p>Google Chrome is displayed in this language</p> <p>English</p> <p>Add languages</p> <p><input checked="" type="checkbox"/> Display Google Chrome in this language</p> <p><input type="checkbox"/> Offer to translate pages in this language</p> <p>Move down</p> <p>Remove</p>
7.	<p>Click Relaunch to restart Chrome completely. After Relaunch, you can test your translations:</p>



IE (INTERNET EXPLORER 11) INSTRUCTIONS

Step	Instructions
1.	In the upper-right, click Tools > Internet options :
	
2.	In the dialog, at the bottom, click Languages :
	
3.	Click Add :

	<p>Language Preference</p> <p>Add the languages you use to read websites, listing in order of preference. Only add the ones you need, as some characters can be used to impersonate websites in other languages.</p> <p>Language:</p>  <p>Move up Move down Remove Add...</p>
4.	<p>Scroll down and select German [de]:</p>  <ul style="list-style-type: none"> Frisian (Netherlands) [fy-NL] Frisian [fy] Galician (Galician) [gl-ES] Galician [gl] Georgian (Georgia) [ka-GE] Georgian [ka] German (Austria) [de-AT] German (Germany) [de-DE] German (Liechtenstein) [de-LI] German (Luxembourg) [de-LU] German (Switzerland) [de-CH] German [de] Greek (Greece) [el-GR] Greek [el]
5.	<p>Click OK. In the dialog, move German [de] to the top. Click OK:</p>  <p>Language Preference</p> <p>Language Preference</p> <p>Add the languages you use to read websites, listing in order of preference. Only add the ones you need, as some characters can be used to impersonate websites in other languages.</p> <p>Language:</p> <p>German [de] English (United States) [en-US]</p> <p>Move up Move down Remove Add...</p> <p>Prefix and suffix options</p> <p><input type="checkbox"/> Do not add 'www' to the beginning of typed web addresses</p> <p>Specify the suffix (for example .net) that should be added to typed web addresses when you press Ctrl + Shift + Enter.</p> <p>Suffix: <input type="text"/></p> <p>OK Cancel</p>
	<p>Click OK to close Internet Options.</p>
6.	<p>Refresh your IE browser tab to test the Form translations.</p>

Appendix: AEM Installation

Adobe Experience Manager Instances

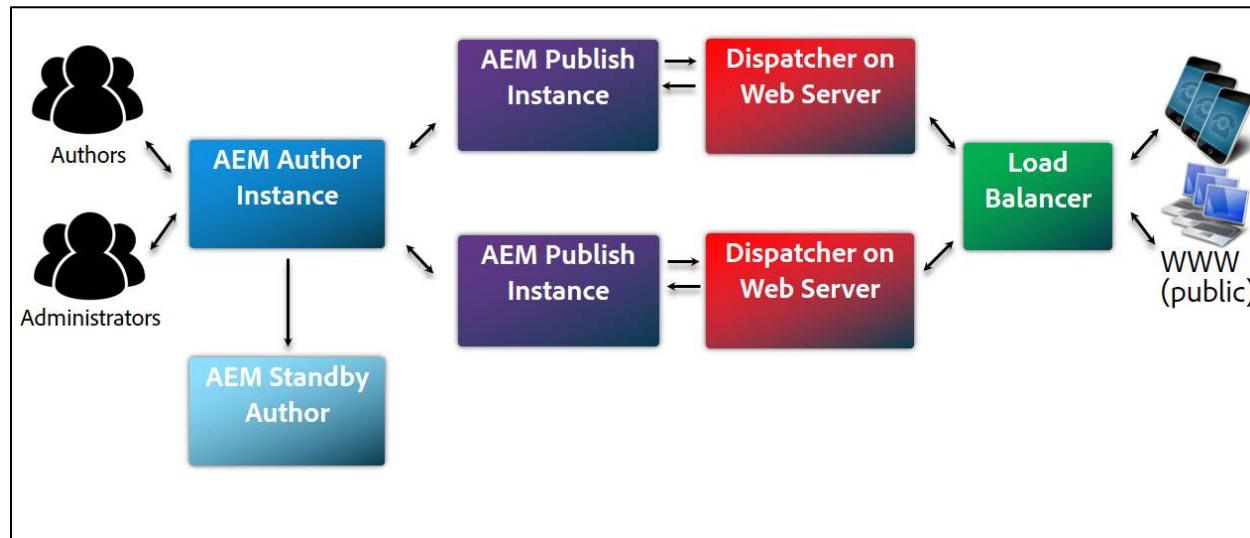
Adobe Experience Manager runs on most operating systems that support the Java platform. All client interactions with Adobe Experience Manager are done through a web browser.

In Adobe Experience Manager terminology, an “instance” is a copy of Adobe Experience Manager running on a server. Adobe Experience Manager installations usually involve at least two instances running on separate computers and a dispatcher:

- Author: An Adobe Experience Manager instance used to create, upload, and edit content, and administer the website. After content is ready to go live, it is replicated to the Publish Instance.
- Publish: An Adobe Experience Manager instance that serves the published content to the public.
- Dispatcher: A static web server (Apache httpd, Microsoft IIS, and so on) augmented with the Adobe Experience Manager Dispatcher module. It caches webpages produced by the Publish instance to improve performance.



NOTE: The author and publish instances are the same software stack but two different run modes.



Installation Prerequisites

To install Adobe Experience Manager, you need:

- Adobe Experience Manager installation and startup JAR file
- A valid Adobe Experience Manager license key properties file
- JDK version 1.8
- Approximately 4 GB of free space per instance
- Approximately 4 GB of RAM (at the **very minimum!**)

The Adobe Experience Manager installation and startup JAR file is also known as the “quickstart” file. You use the file to install Adobe Experience Manager. Once installed, the file is referred to as the Adobe Experience Manager startup file. During installation, you will notice the JAR file creates a root folder called `crx-quickstart`.

You also need to set environment variables as a part of your JDK 1.8 setup.



NOTE: You can download the latest JDK version from the following link:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

For a full set of installation requirements, including minimum installation prerequisites and specifications, visit:
<https://docs.adobe.com/docs/en/aem/6-3/deploy/technical-requirements.html>

Installing Adobe Experience Manager on Your System

In general, when you want to install Adobe Experience Manager on your system, you would follow this procedure:

Create two specific folder structures for your Adobe Experience Manager instances.

Author instance

For Windows: C:/adobe/AEM/author

For Mac OS or *x: /opt/adobe/AEM/author OR /Applications/AEM/author

Publish instance

For Windows: C:/adobe/AEM/publish

For Mac OS or *x: /opt/adobe/AEM/publish OR /Applications/AEM/publish

Add the **AEM Quickstart JAR** file along with the license.properties file to each folder you created earlier.

Rename the jar file to include the run mode as well as the port number. That is, rename the file to the format:
aem-<run mode>-<port number>.jar.

For example,

Author instance: aem-author-4502

Publish instance: aem-publish-4503

You can therefore control the way Adobe Experience Manager is installed by defining properties via file name.

The first time you double-click the jar file, Adobe Experience Manager will install on your system, creating a root folder called **crx-quickstart**, which serves as your repository.

A sample folder structure for an Author instance is shown below.

Name	Date modified	Type	Size
crx-quickstart	3/6/2017 1:40 PM	File folder	
aem-author-4502.jar	3/6/2017 11:41 AM	Executable Jar File	525,452 KB
license.properties	1/12/2017 3:13 PM	PROPERTIES File	1 KB



NOTE: The Adobe Experience Manager quickstart file is renamed for installation purposes. When running for the first time, the quickstart file will notice that it must install Adobe Experience Manager. By renaming the file, you use a convention of passing the instance name (Webpathcontext) and port number through the file name so no user interaction is needed during the installation process. If no port number is provided in the file name, Adobe Experience Manager will select the first available port from the following list in this specific order: 1) 4502, 2) 8080, 3) 8081, 4) 8082, 5) 8083, 6) 8084, or a random port.



NOTE: If you have multiple author and multiple publish instances, a best practice to consider is using an even/odd numbering paradigm for port numbers. So, your author instances would be 4502, 4504, 4506, and so on. Your publish instances would be 4503, 4505, 4507, and so on.

Starting an Adobe Experience Manager Instance

There are many ways of starting an Adobe Experience Manager instance, two of which are—graphical and by command line. The latter is more powerful because you have the possibility of providing additional performance-tuning parameters to the Java Virtual Machine (JVM).

Using the *.jar file to Start an Adobe Experience Manager Instance

In a Windows or Mac OS environment, you can double-click the aem-author-4502.jar file to start an Author instance (or the aem-publish-4503.jar file for a Publish instance).

Installation will take approximately 5-7 minutes, depending on your system's capabilities.

- A dialog window will pop up similar to the following (this is known as the GUI):



After Adobe Experience Manager starts, your default browser will open automatically, pointing to Adobe Experience Manager's start URL (where the port number is the one you defined on installation).

Using the Command Line to Start an Adobe Experience Manager Author Instance

Prior to the installation, you may want to know which parameters are available to configure the quickstart. Enter the following command to display a complete list of optional parameters:

```
java -jar aem-author-4502.jar -h
```

The Adobe Experience Manager quickstart installer will show all available command-line options without starting the server. In addition, you need to tune the JVM used for running Adobe Experience Manager. Tuning the JVM is an important and delicate task and requires a more realistic environment in terms of resources (hardware, operating system, and so on) and workload (content, requests, and so on). For now, it will be enough to know that you can start your instance (Author or Publish) using the following parameters:

-Xms --> assigns the initial heap size

Default value	64 MB for a JVM running on 32-bit machines, or 83 MB for 64-bit machines
Recommended	Specific to physical memory available and expected traffic
Syntax	-Xms512m (sets the initial heap size to 512 MB)

`-Xmx` --> assigns the maximum size the heap can grow

Default value	64 MB for a JVM running on 32-bit machines, or 83 MB for 64-bit machines
Recommended	Specific to physical memory available and expected traffic, but should be equal or greater than the initial size. To run Adobe Experience Manager, it is recommended to allocate at least 1024 MB of heap size.
Syntax	<code>-Xmx1024m</code> (sets the maximum size for the heap. In the example, we are letting it grow to 1024 MB; however, in production, this should be higher because Adobe Experience Manager consumes a lot of resources).

You can now install and start Adobe Experience Manager from the command line together with increasing the Java heap size, which will improve performance.

Using the Command Line to Start Adobe Experience Manager Publish Instance

If you wanted to start AEM using a command prompt, navigate to the directory containing your quickstart jar file (such as `/adobe/AEM/publish`), and enter the following command to install the publish instance:

```
java -jar aem-publish-4503.jar
```

Exercise

Task - Start an AEM Author Instance

1. Create a folder structure on your file system where you will store, install, and start your Adobe Experience Manager author instance.
For example:

Windows: C:/adobe/AEM/author

MacOS X: /Applications/adobe/AEM/author or *x: /opt/adobe/AEM/author

2. Copy the aem-quickstart-6.3.0.jar and license.properties files from the Exercise_Files zip to your newly created directory.

3. Rename the aem-quickstart-6.3.0.jar file to aem-author-4502.jar:

aem = Application

author = Web Content Management (WCM) mode it will run in (in this case, Author)

4502 = Port it will run in

Name	Date modified	Type	Size
aem-author-4502.jar	3/6/2017 11:41 AM	Executable Jar File	525,452 KB
license.properties	1/12/2017 3:13 PM	PROPERTIES File	1 KB

4. In a Windows or MacOS X environment, double-click the aem-author-4502.jar file. Installation will take approximately 5–7 minutes depending on your system's capabilities.
5. After Adobe Experience Manager Author instance has started successfully, the start-up screen (the GUI) will change to something similar to the following:



6. In addition, after Adobe Experience Manager starts, your default browser will automatically open to Adobe Experience Manager's start URL (where the port number is the one you defined on installation); for example: <http://localhost:4502>. A Sign In screen will display:



7. To sign in, use the default credentials:

User: admin

Pass: admin

NOTE: A crx-quickstart directory is also created on your machine:

Name	Date modified	Type	Size
crx-quickstart	3/6/2017 1:40 PM	File folder	
aem-author-4502.jar	3/6/2017 11:41 AM	Executable Jar File	525,452 KB
license.properties	1/12/2017 3:13 PM	PROPERTIES File	1 KB

Task - Start an AEM Publish Instance

NOTE: This course does NOT require a Publish instance. This exercise is only for educational purposes, so you may learn the difference between author and publish, and how a Publish instance is started and managed.

- Create a folder structure on your file system where you will store, install, and start your Adobe Experience Manager publish instance. For example:
 - Windows: C:/adobe/AEM/publish
 - MacOS X: /Applications/adobe/AEM/author or *x: /opt/adobe/AEM/publish
- Copy the aem-quickstart-6.3.0.jar and license.properties files from the Exercise_Files zip to your newly created directory.
- Rename the aem-quickstart-6.3.0.jar file to aem-publish-4503.jar:

aem = Application

publish = Web Content Management (WCM) mode it will run in (in this case, Author)

4503 = Port it will run in

Name	Date modified	Type	Size
aem-publish-4503.jar	3/6/2017 11:41 AM	Executable Jar File	525,452 KB
license.properties	1/12/2017 3:13 PM	PROPERTIES File	1 KB

4. In a Windows or MacOS X environment, double-click the `aem-publish-4503.jar` file. Installation will take approximately 5–7 minutes depending on your system's capabilities.
5. After Adobe Experience Manager Publish instance has started successfully, the start-up screen will change to something similar to the following:



6. In addition, the Adobe Experience Manager We.Retail page opens in a new tab in your default browser (where the port number is the one you defined on installation); for example, <http://localhost:4503>.
7. The following screen (We.Retail) appears once the Publish instance is up and running:



NOTE: There is no need to sign in. The publish instance loads the We.Retail reference site immediately.

NOTE: We.Retail is a reference implementation that illustrates the recommended way of setting up an online presence with Adobe Experience Manager. While We.Retail illustrates a retail vertical, the way the site is set up can be applied to any vertical. Only the product catalog and cart features are retail-specific.

You have now successfully installed and started Adobe Experience Manager Author and Publish instances on localhost.

To stop an Adobe Experience Manager instance, click the “on / off” toggle button in the GUI window:



To start Adobe Experience Manager in the future, double-click the renamed `aem-quickstart-6.3.0.jar` file; for example, `aem-author-4502.jar`.

Task - Start AEM using the command line [optional]

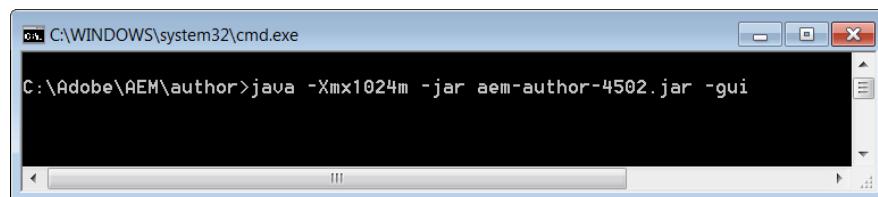
You already have an author instance and a publish instance running. Perform this task only when necessary or as an add-on exercise to try out beyond this class.

This is a powerful method because you can provide additional performance-tuning parameters to the Java Virtual Machine (JVM). On Windows, MacOS X, or *x, you can install or start Adobe Experience Manager from the command line, while increasing the Java heap size, which improves performance.

A typical command line to start AEM by setting the Java heap size will have the following:

```
java -Xmx1024m -jar aem-author-4502.jar -v
```

This example command below starts AEM author runmode with a specific memory allocation to the JVM and the GUI window “on”:



1. Stop your author instance by clicking the **On** button in the GUI window (see screenshot at the top of this page).
2. In your command prompt, navigate to the `Adobe\AEM\author` directory (or the directory where your author *.jar file is), and use the following command to start Adobe Experience Manager the very first time without installing the We.Retail reference site:

```
java -jar aem-author-4502.jar -r author, nosamplecontent -gui
```

NOTE: You would run with

“nosamplecontent” if you are performing a production installation, in which case the sample content is not needed. Also, note the “nosamplecontent” option is only available upon first starting the instance.

TIP: To open a directory in Windows Explorer in the command-line, select the directory, hold down the Shift key, and right-click. Then, you will see an option to open that directory in a command-line window.

AEM Forms OSGi Installation

NOTE: This section only provides instructions and tips for AEM Forms 6.3 OSGi installations. Since this course uses this platform, alternate installations of AEM Forms for JEE are not provided in this document.

Adobe Experience Manager (AEM) Forms is an add-on package to the AEM server. Install the add-on as you would any other package with two installation requirements:

1. No spaces in the path leading to the Adobe Experience Manager JAR file
 - C:\myserver\aem-author-4502.jar would be valid
 - C:\my server\ aem-author-4502.jar would not be valid
2. 2 GB of memory (minimum) to successfully run AEM Forms
 - Include the parameter `-Xmx2048M` when starting the AEM server
 - You must use the 64-bit version of the JDK 1.8

Follow the detailed guidelines here:

<https://helpx.adobe.com/aem-forms/6-3/installing-configuring-aem-forms-osgi.html>

Downloading and Installing the AEM Forms Add-on Package and the AEM Forms Demo Assets

You can download all add-ons and packages from the link below. You must follow the specific instructions in the link to determine the Add-on package required for your implementation (such as Windows versus Linux, or, what version of AEM fix pack you are using, for instance):

<https://helpx.adobe.com/aem-forms/kb/aem-forms-releases.html>

In addition, you must only use the version of the Forms add-on compatible with your version of AEM. For example, you cannot install the Forms add-on for CFP1 (Cumulative Fix Pack 1) on AEM version 6.3.0 (GA). If, for some reason, you cannot access the packages from the link above, use the AEM Package share with your Adobe ID to search for and obtain the Forms packages. Access the package share using this URL:

<http://localhost:4502/crx/packageshare/index.html>

NOTE: You will need your Adobe ID credentials to access these and other links provided in this guide. When prompted, sign in using your Adobe ID.

For example, this link allows you to directly download the AEM Forms package for AEM CFP1 running on Linux:

<https://www.adobeaecloud.com/content/marketplace/marketplaceProxy.html?packagePath=/content/companies/public/adobe/packages/cq630/cumulativefixpack/fd/AEM-FORMS-6.3-CFP1-LX>

Note: When downloading your package, you may have to click the “Assets” tab (below) to download the *.zip file directly.

The screenshot shows the Adobe Experience Manager Marketplace interface. At the top, there's a navigation bar with a back arrow and the text "Back to Package Share". Below this is a search bar with the placeholder "Search packages, assets, and more...". The main content area displays a package card for "AEM-FORMS-6.3-CFP1-LX". The card includes a thumbnail image of a green cube labeled "Forms add-on", the package name "AEM-FORMS-6.3-CFP1-LX", the provider "Adobe Systems Incorporated", and the distribution status "Publicly available". It also lists the product "Forms" with a corresponding icon. Below the card is a navigation bar with tabs: "DESCRIPTION", "DETAILS", "SCREENSHOTS", and "ASSETS". The "ASSETS" tab is highlighted with a red border. At the bottom of the card, there's a button with the text "Download to disk: AEM-FORMS-6.3-CFP1-LX-4.1.6" which is also highlighted with a red border.

FSI and GOV packages

In addition to obtaining the AEM Forms Add-on package, also download the FSI (Financial Services) and GOV (Government) reference packages for AEM Forms. These packages provide many sample forms and configurations used in this course as well as resources that can be used or customized in your implementation that are tailored to the Financial Services industry as well as many Government and public service-related forms and processes.

FSI Reference Site download link:

<https://www.adobeaecloud.com/content/marketplace/marketplaceProxy.html?packagePath=/content/companies/public/adobe/packages/cq630/fd/AEM-FORMS-6.3-FSI-REF-SITE>

GOV Reference Site download link:

<https://www.adobeaecloud.com/content/marketplace/marketplaceProxy.html?packagePath=/content/companies/public/adobe/packages/cq630/fd/AEM-FORMS-6.3-GOV-REF-SITE>

NOTE:

The environment for this course has the AEM Forms Add-on, and the FSI and GOV reference site packages installed. It also has AEM CFP1 6.3.0.1 (Cumulative Fix Pack 1) installed. Because CFP1

was installed, the corresponding AEM Forms Add-On was installed (version 4.1.6) for Linux, due to the fact that the training environment is running on Linux. (adobevlab.com).

PACKAGE FILENAMES USED FOR THIS COURSE:

- AEM-CFP-6.3.0.1-1.0.zip (CFP1)
- AEM-FORMS-6.3-CFP1-LX-4.1.6.zip (Forms Add-On)
- AEM-FORMS-6.3-FSI-REF-SITE-3.0.6.zip (FSI Reference Site)
- AEM-FORMS-6.3-GOV-REF-SITE-4.0.8.zip (GOV Reference Site)

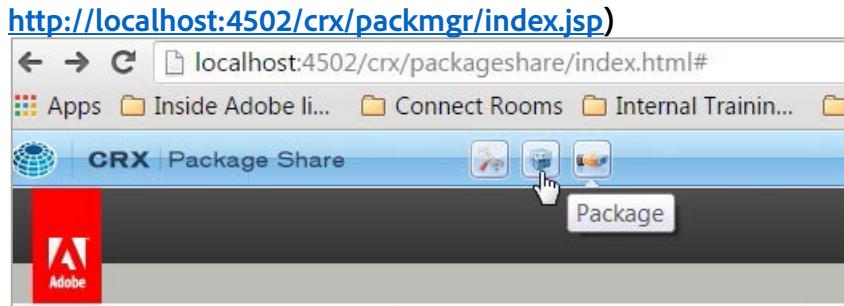
NOTE: The reference sites can be further configured and enabled for demos and other customizations. However, this process of configuration is out of scope for this course. To learn more about how to enable the reference sites for demos, visit: <https://helpx.adobe.com/aem-forms/6-3/setup-reference-sites.html>

Installation Process

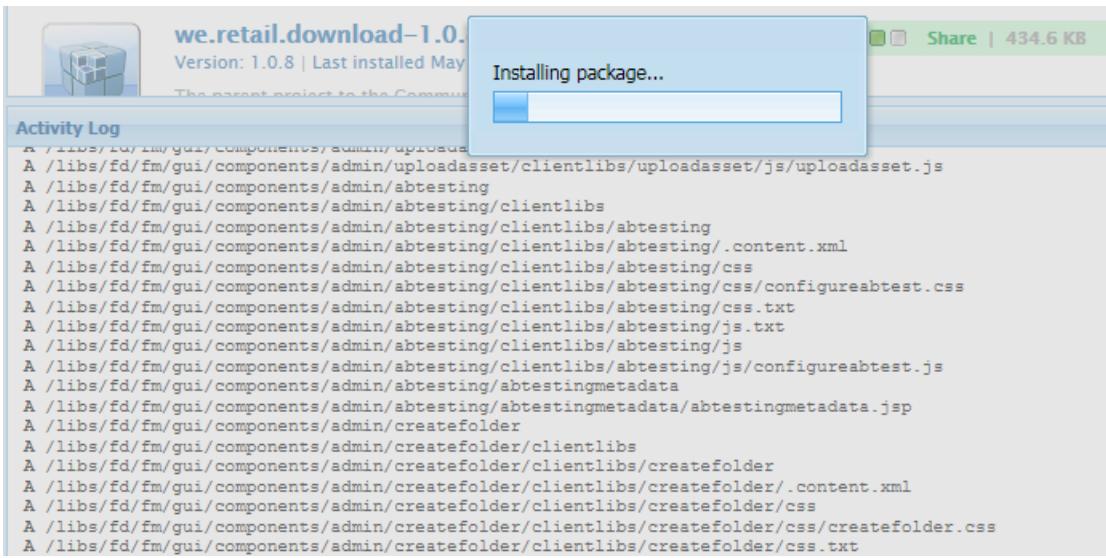
These steps will guide you through the installation of the AEM Forms Add-on Package and the two AEM Forms reference sites (FSI & GOV). Before beginning this exercise, make sure all three packages from the previous exercise have finished downloading.

Please refer to this documentation resource if you need clarification on any of these steps:
<https://helpx.adobe.com/aem-forms/6-3/installing-configuring-aem-forms-osgi.html>

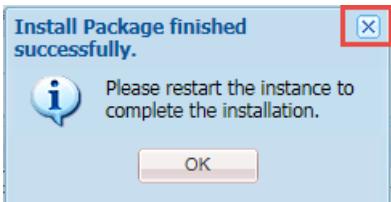
1. Ensure AEM is started and you are signed in as an admin user or user with sufficient permissions to install packages.
2. In CRXDE Lite, click **Package** (or go directly to the Package Manager):



3. Select **Upload Package** and browse to where you saved the packages downloaded previously.
4. Once uploaded, select the package and click **Install**.
5. Wait until the installation completes (it could take several minutes):



6. You will be prompted to restart the server. Close the prompt. **Do not** restart the AEM Server at this time.



Note: While the installation has completed, it is likely that not all services have fully started. In fact, depending on your machine, it could take several minutes for all services to start. If you restart your machine before all services have had a chance to start, you will need to start the installation process over again.

7. Wait a few minutes before proceeding. Be patient as this may take several minutes.

8. Open a new browser tab or window and navigate to the Adobe Experience Manager Web Console (<http://localhost:4502/system/console/configMgr>).
9. Select OSGi > Bundles.

Bundles	Status
portService	active

10. Check the status of the bundles. Most bundles should be "Active". Some will be "Fragment" or "Resolved". Ensure no bundles are in the Installed State. If any bundles are **Installed** but not **Active**, wait, and check the status of the bundles after a few more minutes (you may need to refresh your browser).

All the OSGi bundles must have started prior to restarting the AEM server.

- Check the web console to ensure all bundles are active prior to restarting the server. Do not restart the server if some bundles are "installed," but not "active."
11. After all the bundles are **Active**, restart the AEM server.
 12. Once the AEM server has started, you can install the **two demo packages (FSI and GOV)**.
 13. In CRXDE Lite Package Manager, select **Upload** and browse to the We.Gov (GOV) bundle zip file download location.
 14. Select **OK**.
 15. Install the package. Be patient as it may take several minutes to install each Reference Site.
 16. Repeat to install the FSI (We.Finance) reference site assets.

At this point, you should now have the following installed in AEM:

- AEM Forms Add-On
- FSI Reference package
- GOV Reference package

Several folders and forms should be available in AEM Forms by navigating to Forms > Forms & Documents as a result of installing these packages in your environment.

NOTE: If you performed these installations on a local development environment (localhost:4502) of AEM, you may complete all the exercises for this course using the standard "admin/admin" user sign in. All of the exercises can be completed using this user. Users with lower-level permissions in AEM may not be able to complete all of the exercises in this course in AEM Forms.

TROUBLESHOOTING:

If you get this error:

The screenshot shows a window titled "Activity Log" with a blue header bar. The main area contains a stack trace of Java code, which is a standard exception trace from the Jetty web server. At the bottom of the log, there is a red error message:

```
at javax.servlet.http.HttpServlet.service(HttpServlet.java:725)
at org.eclipse.jetty.servlet.ServletHolder.handle(ServletHolder.java:812)
at org.eclipse.jetty.servlet.ServletHandler.doHandle(ServletHandler.java:587)
at org.eclipse.jetty.server.session.SessionHandler.doHandle(SessionHandler.java:221)
at org.eclipse.jetty.server.handler.ContextHandler.doHandle(ContextHandler.java:1127)
at org.eclipse.jetty.servlet.ServletHandler.doScope(ServletHandler.java:515)
at org.eclipse.jetty.server.session.SessionHandler.doScope(SessionHandler.java:185)
at org.eclipse.jetty.server.handler.ContextHandler.doScope(ContextHandler.java:1061)
at org.eclipse.jetty.server.handler.ScopedHandler.handle(ScopedHandler.java:141)
at org.eclipse.jetty.server.handler.ContextHandlerCollection.handle(ContextHandlerCollection.java:215)
at org.eclipse.jetty.server.handler.HandlerWrapper.handle(HandlerWrapper.java:97)
at org.eclipse.jetty.server.Server.handle(Server.java:499)
at org.eclipse.jetty.server.HttpChannel.handle(HttpChannel.java:311)
at org.eclipse.jetty.server.HttpConnection.onFillable(HttpConnection.java:257)
at org.eclipse.jetty.io.AbstractConnection$2.run(AbstractConnection.java:544)
at org.eclipse.jetty.util.thread.QueuedThreadPool.runJob(QueuedThreadPool.java:635)
at org.eclipse.jetty.util.thread.QueuedThreadPool$3.run(QueuedThreadPool.java:555)
at java.lang.Thread.run(Thread.java:745)
```

Error: Refusing to install package day/cq60/fd:adobe-aemfd-linux-pkg;4.1.6. required dependencies missing: [adobe/cq630/cumulativefixpack:aem-6.3.0-cfp:1.0]

This error shows up if you try to install the latest CFP (add-on Forms package) on an AEM 6.3 GA version.

Resolution: Install the AEM CFP1 before installing the add-on package.