

Themes and CSS



SmartDoc Technologies Courseware: www.aemforms.training

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Themes and CSS

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Before you Begin

An adaptive form's theme determines the look and feel of the adaptive form. We create and edit themes in the *Theme Editor*. The *Theme Editor* is a visual tool that automatically creates the CSS (*Cascading Style Sheets*) for our adaptive forms.

Prerequisites: None

Approximate Instructor-Led Classroom Duration: 2 hours

Environments

You can use a SmartDoc Sandbox for these exercises.

aemforms.training

The support site (www.aemforms.training) is designed to support our students during and after a training session. Here is what you will find on the support site.

- The **Known Issues** section documents bugs and issues with various versions of AEM Forms.
- The **Sandbox** section lists AEM Forms Servers you can use for the hands-on exercises.
- The **Forum** section enables you to post, review, and answer questions about AEM Forms.

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Create a Theme

An adaptive form's theme determines the look and feel of the adaptive form. You can create and edit themes in the *Theme Editor*. You can open the *Themes* section by clicking on this icon.



AEM's *Theme Editor* enables you to visually create your form's CSS file. Just like the *Rule Editor* enables you to visually create your form's JavaScript, the *Theme Editor* enables you to visually create your form's CSS file.

Exercises

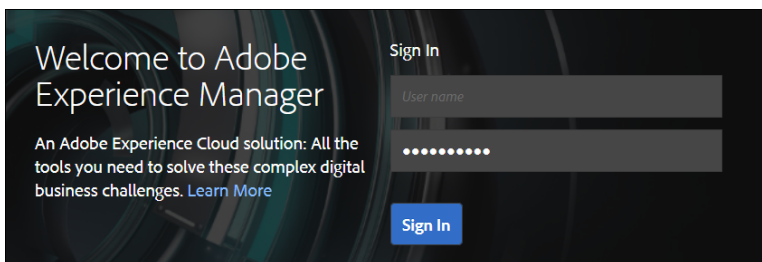
Get the Form

Note: Only do these steps if you don't already have your own form from the *Adaptive Expense Report* class.

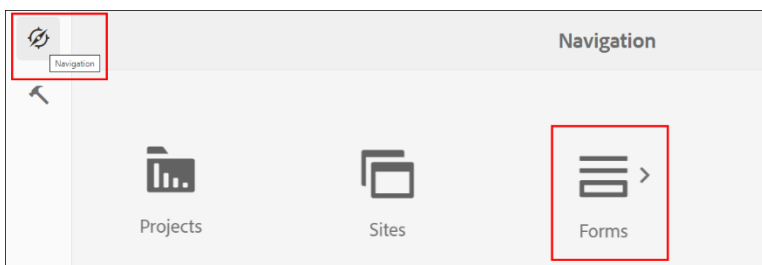
1. Open a new browser tab and enter this URL.

www.aemforms.info:4502/aem/start.html

2. Enter your *User name* and *Password*.



3. Select **Navigation – Forms** (see illustration).



4. Select **Forms & Documents** and open the **SmartDoc Master Forms** folder.

5. Select the **2023 Expense Report** form and click **Copy** in the Action bar.
6. Navigate back to your personal folder and click **Paste**.
7. Change the TITLE to **<yourname> 2023 Expense Report**. The NAME will be updated automatically.



8. Click **Paste** and **Done**. You now have the adaptive form for this exercise.

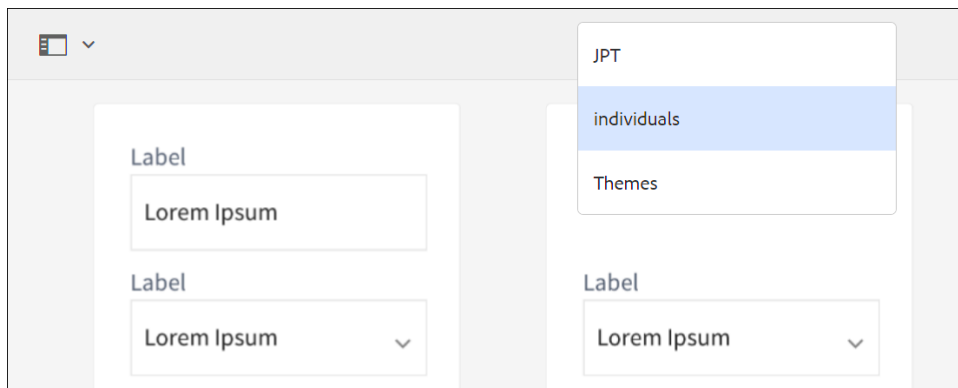
Copy the Ultramarine Theme

In this exercise, we will use the *Theme Editor* to edit the theme. Since we are all working off a shared server, we will all need our own copy of the theme. Follow these steps to create your own copy of the theme.

9. Open a new browser tab with the AEM Touch UI.

<http://www.aemforms.info:4502/aem/start.html>

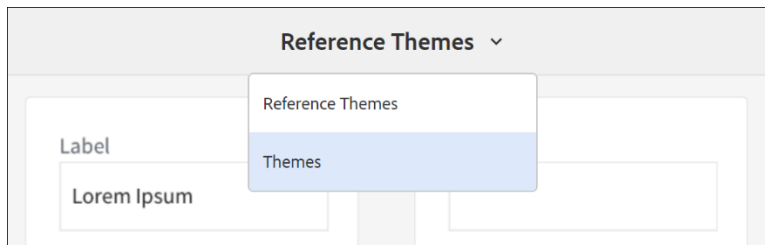
10. Select **Forms – Themes**.
11. Navigate to your working folder. This will be your personal folder in your group folder.



Note: If you are an individual subscriber, your folder should be in the Individuals folder. If you are a Group Subscriber, your folder should be in your Group folder. If you do not have a personal folder, create one in either the Individual folder or in your team's Group folder.

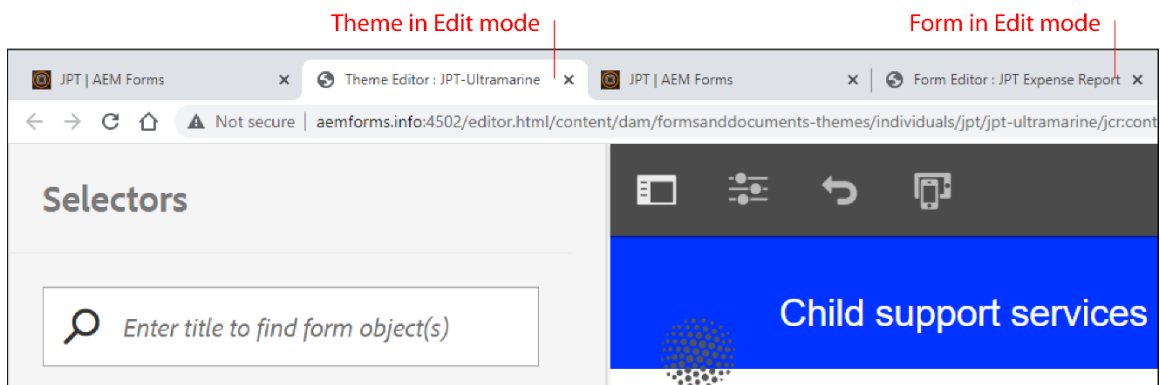
12. If you don't already have a personal folder, create one now by selecting **Create – Folder**.
13. Navigate back to the main *Themes* folder.
14. Open the *Reference Themes* folder.

15. Select the **Ultramarine** theme and click **Copy** in the Action bar.
16. Click on the *Reference Themes* center navigation (see illustration) and select **Themes**.

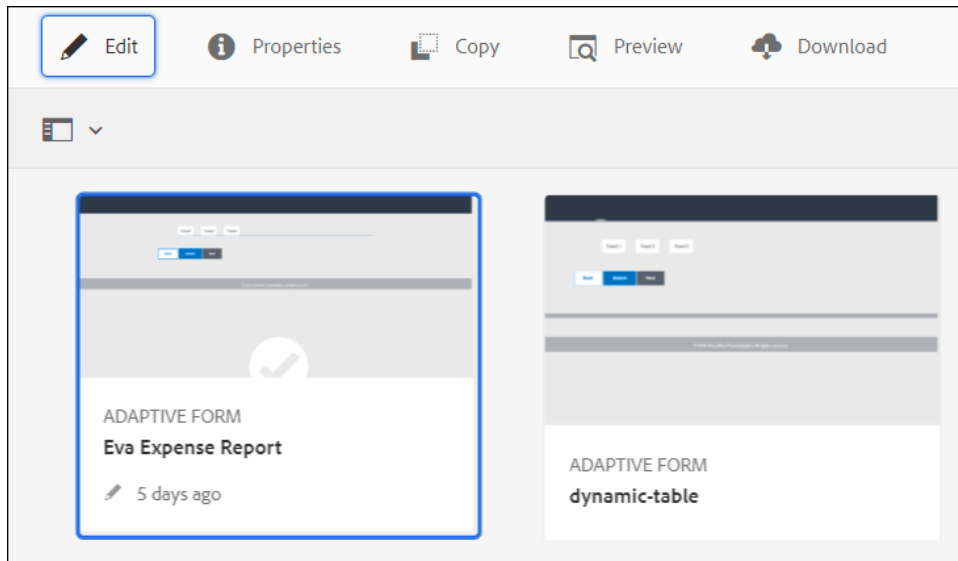


17. Navigate into your personal working folder.
18. When you get back to your personal folder, select **Paste**.
19. Change the *TITLE* to <yourname>-Ultramarine.
20. Click **Paste** and **Done**.
21. You should now have 2 browser tabs open; one with your adaptive form and one with your theme.

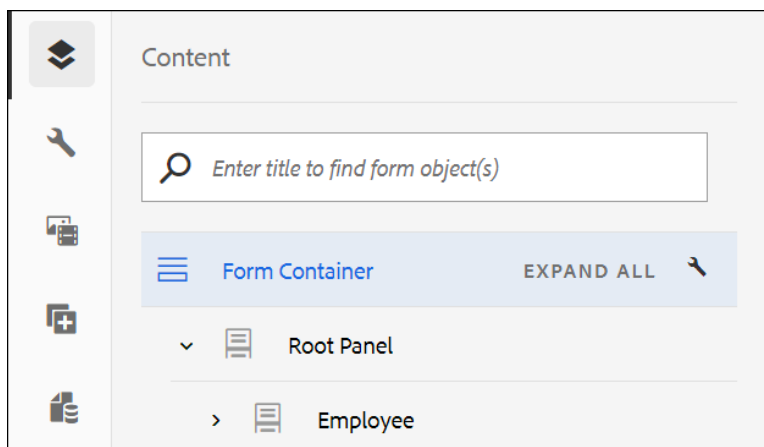
Note: Keeping multiple browser tabs open will make these exercises easier.



22. Switch back to the browser tab with your adaptive forms in the *Forms & Documents* section.
23. Select the <yourname> 2023 Expense Report form and click **Edit** (see illustration).

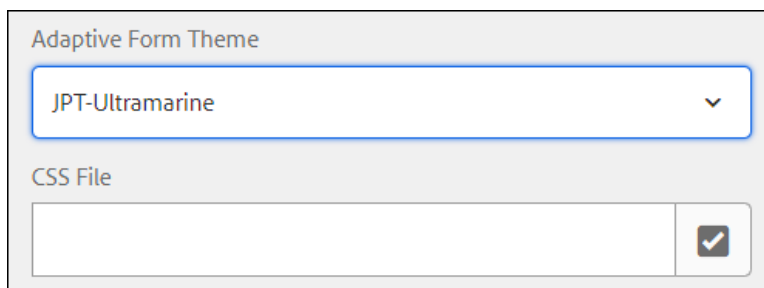


24. Click **Content** and select the **Form Container** (see illustration).



25. Click **Configure** (the wrench icon).

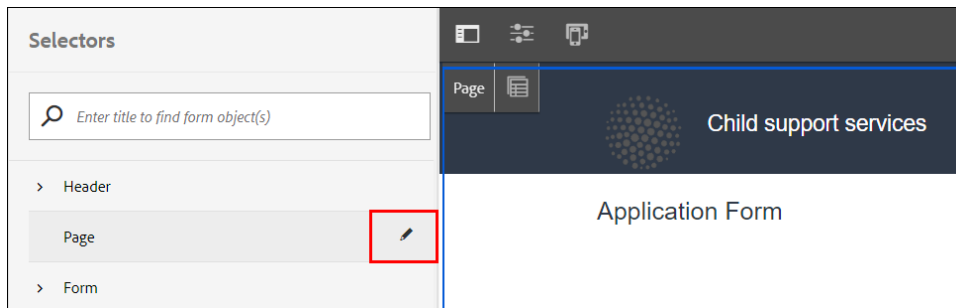
26. Click the *Adaptive Form Theme* drop-down and select <yourname>-**Ultramarine**. Note: It may be towards the bottom of the list.



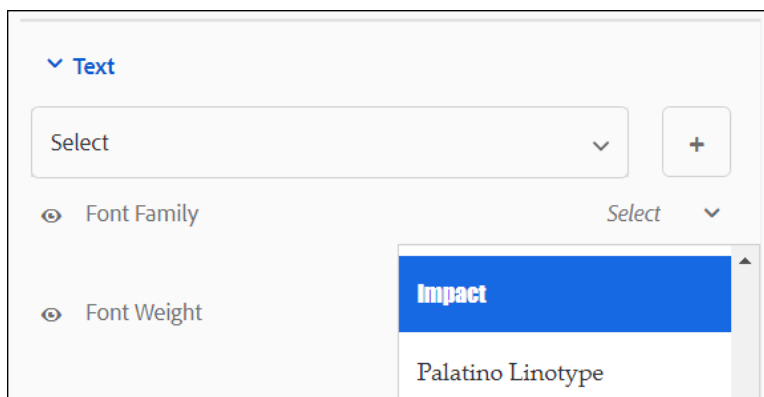
27. Click **Done** (the blue checkmark).

Review the Theme

28. Go back to the tab with your theme.
29. Select the theme and click **Edit** in the Action bar.
30. Locate the *Page* selector (see illustration) on the left in the *Selectors* side panel. If you don't see the *Selectors* panel, click *Toggle Side Panel*.
31. Click **Edit** (the pencil icon) on the *Page* selector.

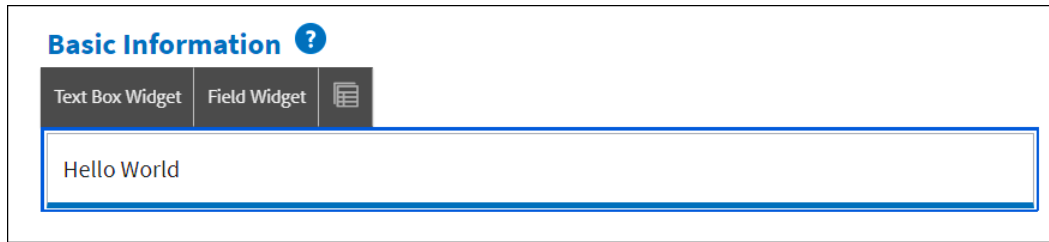


32. Open the **Text** panel.
33. Click **Remove** (the trash can icon) to remove the *Arial* font.
34. Click the *Font Family* drop down and select **Impact** (see illustration).

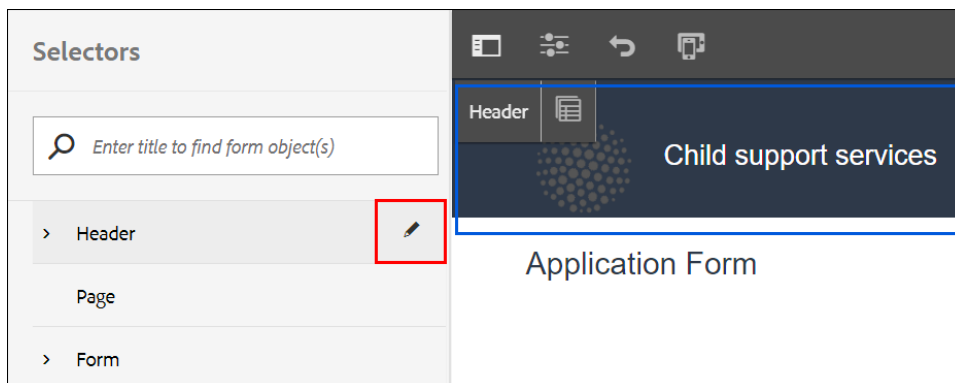


35. Notice how this setting affects many page items, but not all of them.
36. Click **Remove** (the trash can icon) to remove the *Impact* font.
37. Click the *Font Family* drop down and select **Georgia**.
38. Click **Done**.
39. Click **Preview** to see how this change affects the page items.

Note: You will need to select *Ctrl – Reload this page in Chrome* or your browser's equivalent of a hard refresh to make sure the updated CSS loads into the browser.
40. Enter some text in the *First Name* field. Notice the font family setting does not cascade down to the value font in the field widgets (see illustration).



41. Click **Edit** (the pencil icon) on the *Page* selector.
42. Open the *Text* panel.
43. Click **Remove** (the trash can icon) to remove the *Georgia* font.
44. Click the *Font Family* drop down and select **Arial**.
45. Click **Done** and your page's font will be set back to *Arial*.
46. Click the **X** icon on the top to close the *Page* selector.
47. Locate the *Header* selector (see illustration) on the left in the *Selectors* side panel.
48. Click **Edit** (the pencil icon) on the *Header* selector.



49. Expand the *Background* panel.
50. Click the color swatch and enter **0033FF**.
51. Click **Done** (the blue checkmark).
52. Click the **X** icon on the top to close the *Header* selector.

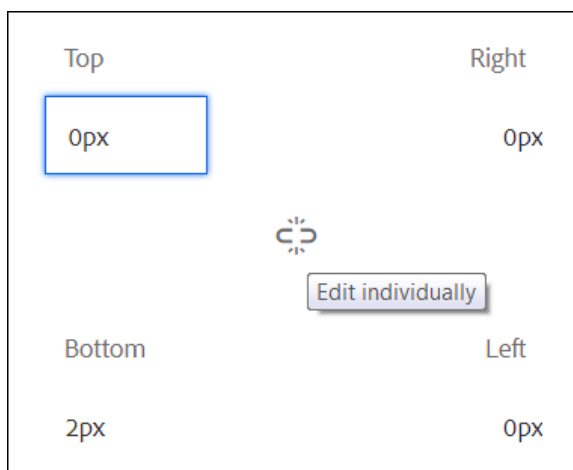
Update the Widgets

Our strategy will be to update properties at the highest possible level of the hierarchy.

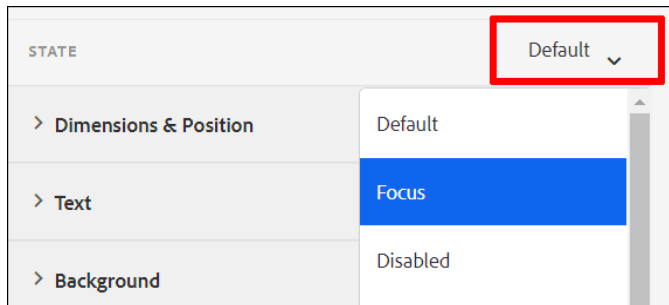
53. Expand the *Field* panel on the side panel (see illustration).
54. Select **Widget** and click **Edit** (the pencil icon).



55. Notice the Widget state is set to *Default*.
56. Open the *Text* panel.
57. Enter **1rem** as the *Font Size*.
58. Click **Done** (the blue checkmark).
59. Close the *Text* panel and open the *Border* panel.
60. Click *Border Color* swatch and enter **ff0000** (red) and hit *Enter* on the keyboard. Don't worry, we will change this in a future step.
61. Click **Done** (the blue checkmark).
62. Select the *Border Width* drop-down and click **Edit individually** (see illustration).
63. Enter **0px, 0px, 2px, 0px** for the border width. The bottom will be 2px.



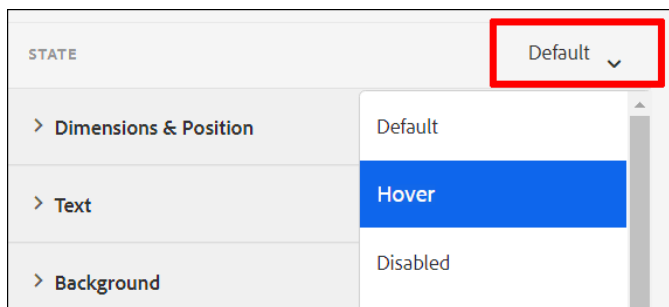
64. Click **Done** (the blue checkmark).
65. Close the *Border* panel and open the *Background* panel.
66. Click the color swatch and enter **E8E8E8**.
67. Click **Done** (the blue checkmark).
68. Click the *STATE* dropdown and select **Focus** (see illustration).



69. Click the color swatch and enter **C3F0FF**.

70. Click **Done** (the blue checkmark).

71. Click the **STATE** dropdown and select **Hover**.



72. Click the color swatch and enter **C3F0FF**.

73. Click **Done** (the blue checkmark).

74. Click the **STATE** dropdown and select **Disabled**.

75. Click the color swatch and enter **A9A9A9**.

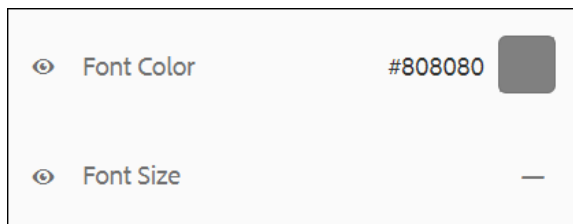
76. Click **Done** (the blue checkmark).

77. Close the *Background* panel and open the *Text* panel.

78. Click the color swatch and enter **808080**.

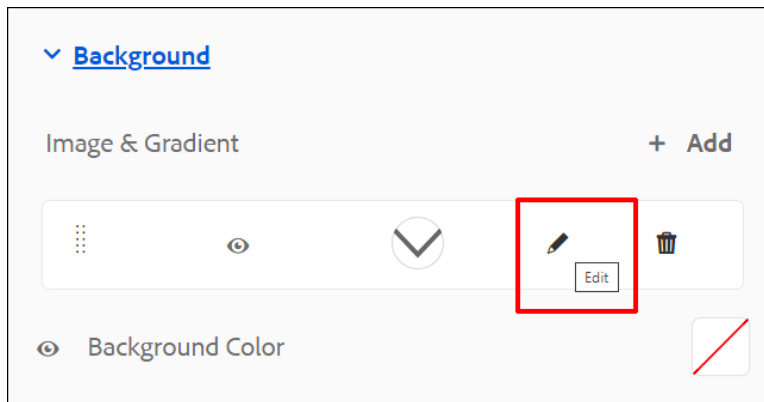
79. Click **Done** (the blue checkmark).

Note: The Font Size has no explicit value in the Disabled state. The value from the Default will be used. The Font Color property has an explicit value so this will be used in the Disabled state.



80. Click the **STATE** dropdown and select **Default**.

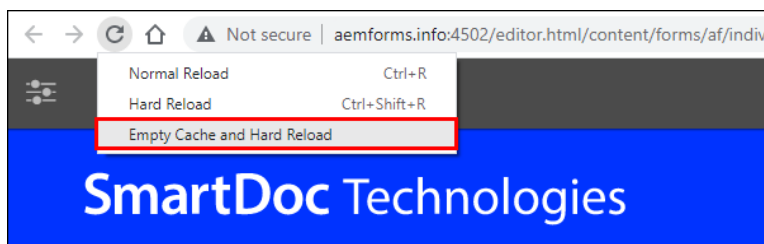
81. Click the **X** icon on the top to close the **Field – Widget**.
82. Expand the *Widget* panel on the left.
83. Select **Field – Widget – Dropdown** and click **Edit** (the pencil icon).
84. Open the *Background* panel.
85. Notice there is no explicit background color. As we will see, this does not necessarily mean that the higher level settings will cascade down to this control.
86. Click **Edit** (the pencil icon) in the *Image & Gradient* section (see illustration).



87. Notice there is an SVG file for the dropdown arrow. We can add SVG and PNG files to our themes.
88. Click **X** to close the selector.

Preview the Form

89. Go back to the tab with your adaptive form.
90. Click **Preview** if it is not already selected.
91. Right-click on the *Employee Email* field and select **Inspect**.
92. Once you do this, you will have the *Empty Cache and Hard Reload* option available in Chrome (see illustration). This is the best way to refresh your browser.



93. Select **Empty Cache and Hard Reload**.
94. Notice the *Default* and *Hover* states of the field widgets (see illustration).
95. Notice the red baseline of the field widgets.

Employee Email <input type="text"/>	Employee First Name <input type="text"/>	Employee Last Name <input type="text"/>
Reimbursement Date <input type="text" value="mm/dd/yyyy"/>		

96. Notice that the Dropdown Widget does not have the same *Default* and *Hover* states.

Update the Widgets

97. Go back to the tab with your theme.
98. Make sure the Theme Editor is in **Edit** mode and your side panel is open.
99. Click **Edit** (the pencil icon) on the Widget selector.
100. Open the **Border** panel.
101. Click the color swatch and enter **999999**.
102. Click **Done** (the blue checkmark).
103. Click **X** to close the selector.
104. Expand the *Field - Widget* selector and locate the *Dropdown* selector.
105. Click **Edit** (the pencil icon) on the *Dropdown* selector (see illustration).

Background

Image & Gradient + Add

Background Color

Border

Employment

Dropdown Widget

Field Widget

Regular Full-Time Employees

Current Employment Firm

106. Open the *Background* panel.
107. Click the color swatch and enter **E8E8E8**.
108. Click **Done** (the blue checkmark).
109. Click the *STATE* dropdown and select **Focus** (see illustration).

STATE

Default

Dimensions & Position

Text

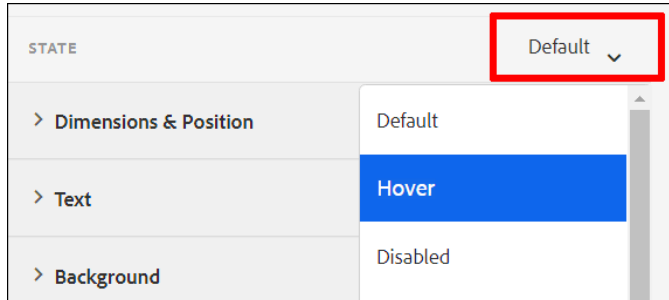
Background

Default

Focus

Disabled

110. Click the color swatch and enter **C3F0FF**.
111. Click **Done** (the blue checkmark).
112. Click the *STATE* dropdown and select **Hover**.

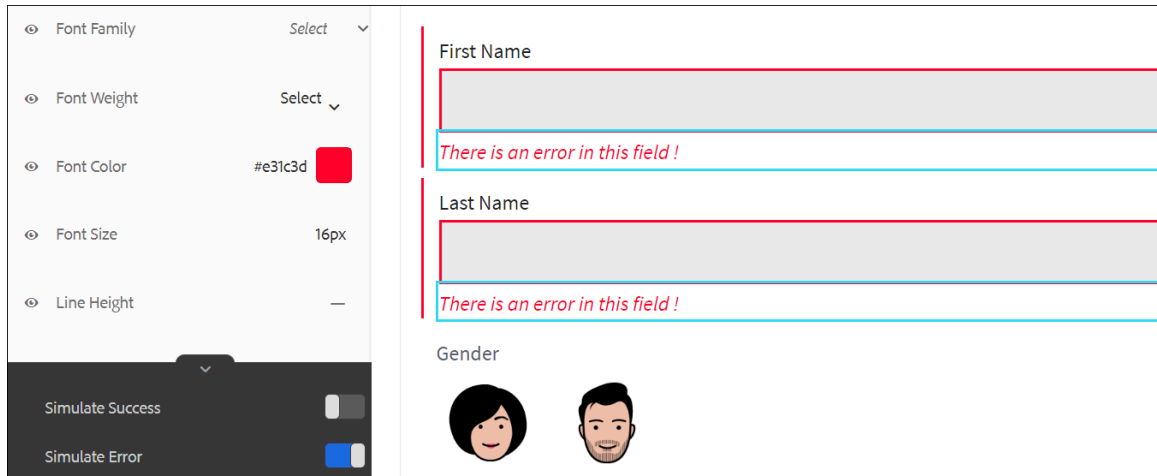


113. Click the color swatch and enter **C3F0FF**.
114. Click **Done** (the blue checkmark).
115. Click the *STATE* dropdown and select **Disabled**.
116. Click the color swatch and enter **A9A9A9**.
117. Click **Done** (the blue checkmark).
118. Close the *Background* panel and open the *Text* panel.
119. Click the color swatch and enter **808080**.
120. Click **Done** (the blue checkmark).

Note: The Font Size has no explicit value in the Disabled state. The value from the Disabled state will be used. The Font Color property has an explicit value so this will be used in the Disabled state.



121. Click the *STATE* dropdown and select **Default**.
122. Click the **X** icon on the top to close the selector.
123. Close the *Widget* panel on the *Selectors* side panel and locate the *Error Message* selector on the *Field* panel.
124. Click **Edit** (the pencil icon) on the *Error Message*.
125. On the bottom of the side panel, open the **Simulate** panel (see illustration).
126. Select the **Simulate Error** option. You will see the fields update with their Error state (see illustration).
Note: If you don't see the fields update with their Error state, refresh your browser.



127. Open the **Text** panel.

128. Click the color swatch and set the color to full red (255 red, 0 green, 0 blue).

129. Hit **Enter** on the keyboard to commit this number.

130. Click **Done** (the blue checkmark).

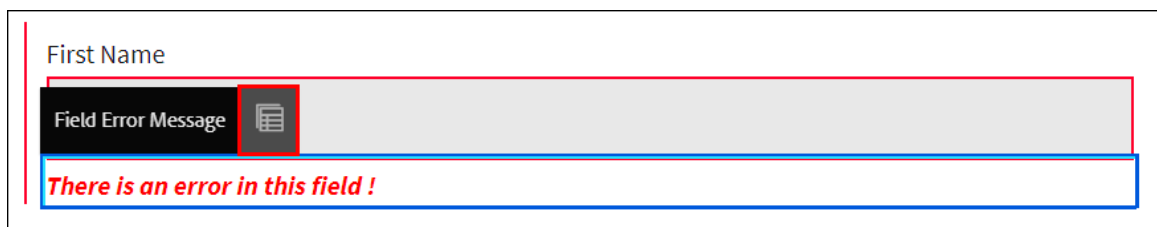
131. Click the *Font Weight* drop-down and select **Bold**.

132. Enter **1rem** for the *Font Size*.

133. Click **Done** (the blue checkmark).

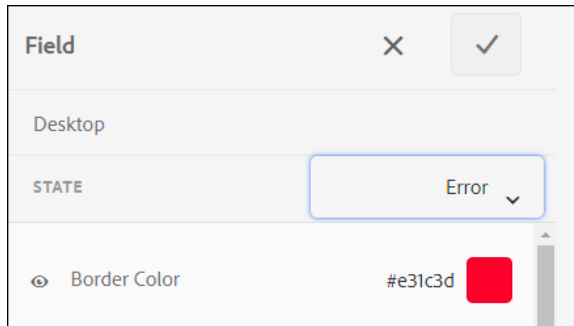
134. Click the Field Error Message (*There is an error in this field!*) on the canvas (see illustration) so you can see the *Field Error Message* tab (see illustration).

135. Click the *Parent* icon to the right of the *Field Error Message* tab (see illustration). This will take you to the parent selector which is the *Field* selector.



136. Click the *Field* tab so you can see the *Field* selector on the side panel.

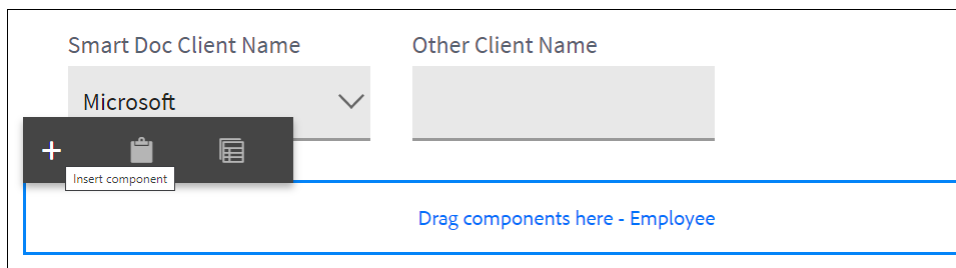
137. Make sure the STATE is set to Error (see illustration).



138. Open the *Border* panel.
139. Select the *Border Width* property and increase the Left border to **4px**.
140. Click **Done**.
141. Click the color swatch and set the color to full red (255 red, 0 green, 0 blue).
142. Click **Done**.
143. Click **X** to close the selector.
144. Select the **Field – Widget** selector and click **Edit** (the pencil icon).
145. Click the *STATE* dropdown and select **Error**.
146. Open the *Border* palette.
147. Click the color swatch and set the color to full red (255 red, 0 green, 0 blue).
148. Hit **Enter** on the keyboard to commit this number.
149. Click **Done** (the blue checkmark).
150. Click **X** to close the selector.

Test the Updated Theme

151. Go back to the tab with your adaptive form.
152. Select **Edit** if your form is not already in Edit mode.
153. Scroll to the bottom of the *Employee* panel and locate the *Drag components here – Employee* box.
154. Select the *Drag components here – Employee* box and click **Insert component** (see illustration).



155. Select **Email**.

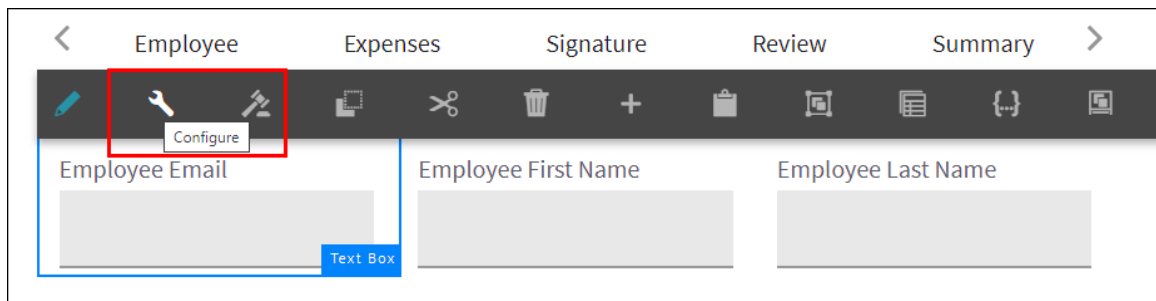
156. Select this new Email component and click **Configure** (the wrench icon).

157. Close the *Basic* panel and open the *Patterns* panel.

158. Copy the validation pattern. It should look like this.

```
^([<>()\\[\]\/\.,;:~\s@"]+(\.([<>()\\[\]\/\.,;:~\s@"]+)*))|([".+"])(\[[0-9]{1,3}\. [0-9]{1,3}\. [0-9]{1,3}\. [0-9]{1,3}\])|([a-zA-Z\-\0-9]+\.)+[a-zA-Z]{2,})$
```

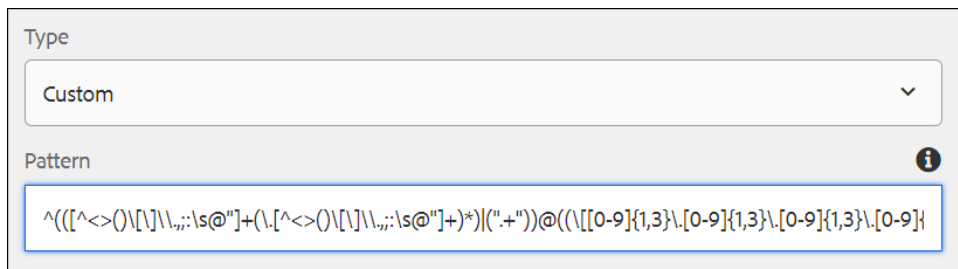
159. Select the *Employee Email* field on the top of the panel and click **Configure** (the wrench icon).



160. Close the *Basic* panel and open the *Patterns* panel.

161. Click the *Validation Pattern – Type* dropdown and select **Custom**.

162. Paste the validation pattern into the *Pattern* field (see illustration).



163. Enter **Please enter a valid email address in this format: name@domain.com** for the *Error Message*.

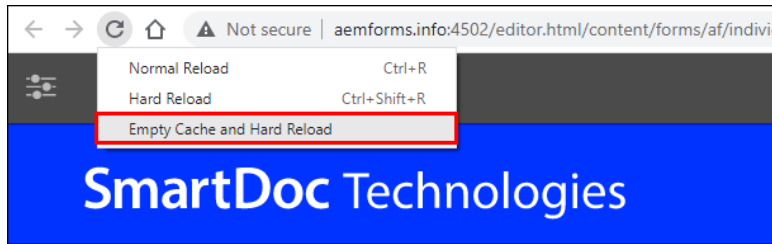
164. Click **Done**.

165. Select the Email field at the bottom of the panel and click **Delete**.

166. Click **Delete** in the message box.

167. Click **Preview**.

168. Select **Empty Cache and Hard Reload**.



Note: If you do not have the Empty Cache and Hard Reload option available, right-click on the Employee Email field and select **Inspect**.

169. Notice the *Default*, *Hover*, and *Focus* states of the field widgets are consistent.

170. Enter random text in the *Employee Email* field and hit Tab on the keyboard.

171. Notice the Error message field and text (*see illustration*).

172. Now enter a proper email address and hit Tab on the keyboard.

173. You will see the field changes to the Success state (*see illustration*).

174. Click Edit to return to Edit mode.

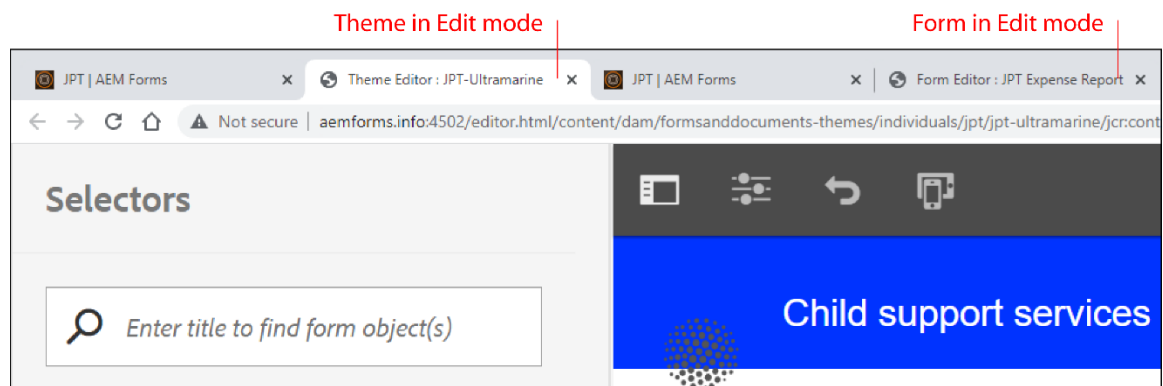
Themes and Client Libraries

In some cases, we need to define our CSS in a client library.

Exercises

Update the Panel Navigation

1. Select the browser tab with your theme.



2. Open the *Panel* selector in the Selector side panel on the left.
3. Open the *Tabs on Top* panel and the *Tab Navigation Group – Level 1* panel (see illustration).
4. Click **Edit** (the pencil icon) on the *Tab Navigation Group – Level 1* selector (see illustration).



5. Open the Border palette.
6. Click the color swatch and enter **0033ff**.
7. Click **Done**.
8. Click **X** to close the selector.
9. Click **Edit** (the pencil icon) on the *Title* selector (see illustration).

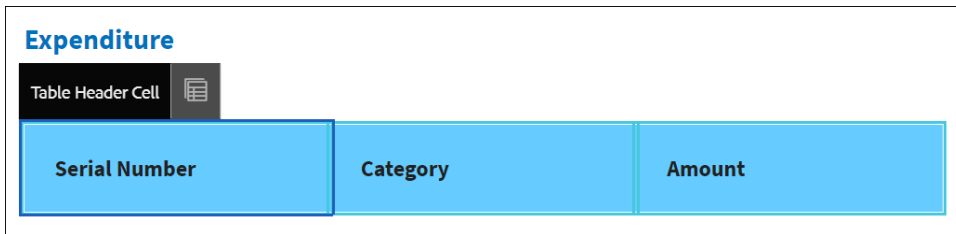


10. Click the *STATE* dropdown and select **Active**.
11. Open the *Text* panel.
12. Click the color swatch and enter **0033ff**.
13. Click **Done**.
14. Click the *STATE* dropdown and select **Hover**.
15. Click the color swatch and enter **0033ff**.
16. Click **Done**.
17. Click the *STATE* dropdown and select **Visited**.
18. Click the color swatch and enter **33ccff**.
19. Click **Done**.
20. Close the *Text* panel and open the *Border* panel.
21. Click the *Border Color* swatch
22. Enter **0033ff**.
23. Click **Done**.
24. Click **X** to close the selector.
25. Close the *Panel* selector in the Side Panel.

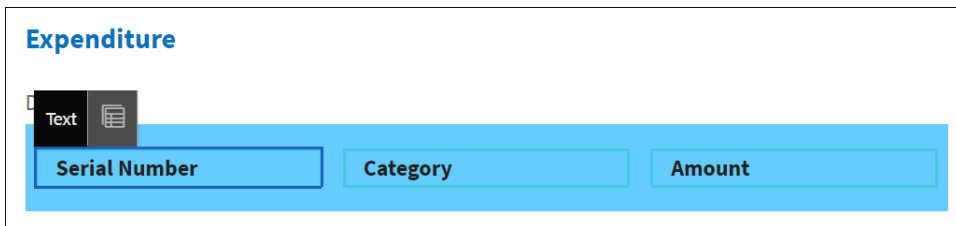
Update the Table Styles

26. Open the *Table* selector in the Selector side panel on the left.
27. Click **Edit** (the pencil icon) on the *Header Row* selector.
28. Expand the *Dimensions & Position* panel.
29. Enter **1rem** for the *Height*.
30. Click **Done**.
31. Close the *Dimensions & Position* panel and open the *Background* panel.
32. Click the color swatch and enter **66ccff**. Notice that the color does not change in the canvas.

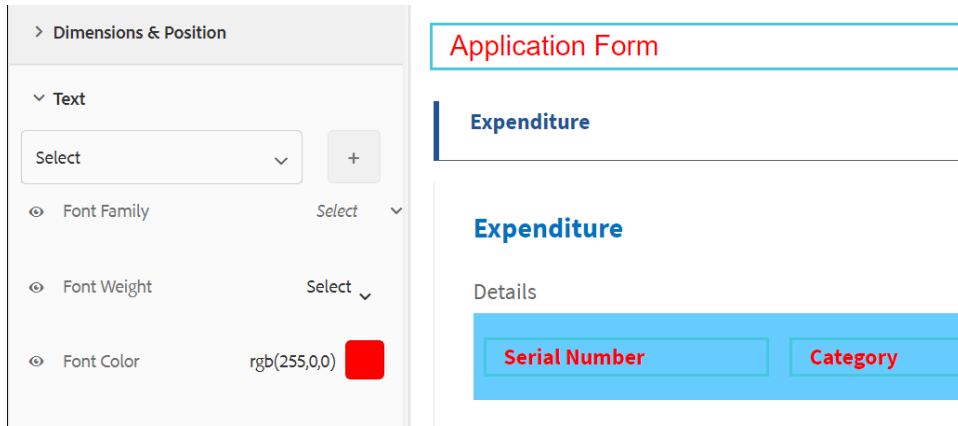
33. Click **Done**.
34. Click **X** to close the selector.
35. Click the black *Table Header Cell* tab to open the selector (*see illustration*).
36. Open the *Background* panel.
37. Click the color swatch and clear the color. Notice that the color changes in the canvas (*see illustration*). Once we remove the child selector's value, the child selector will inherit from its parent.



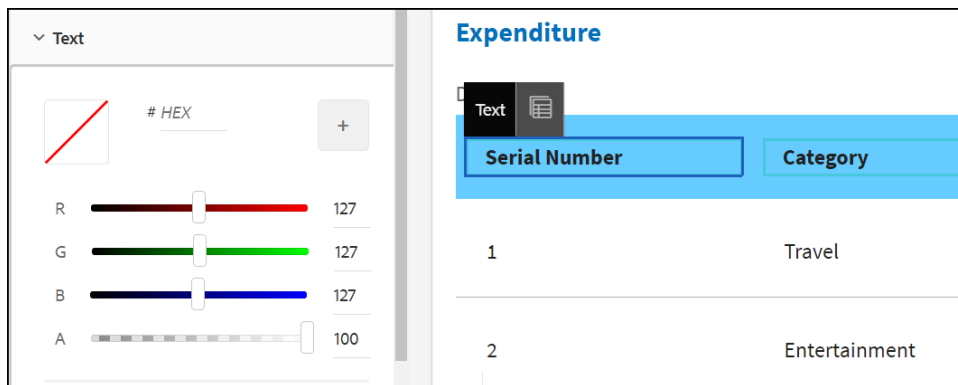
38. Click **Done**.
39. Click **X** to close the selector.
40. Click the *Text* item in the header row on the canvas (*see illustration*).
41. Click the black *Text* tab that you see on the canvas (*see illustration*). Notice the *Text* selector appears on the side panel. This is a second way to open a selector.



42. Open the *Text* panel.
43. Click the *Font Color* swatch and enter **FF0000**.
44. Click **Done**.
45. Notice that the text in the header row is now red but so are other text items in the canvas (*see illustration*). We will need to solve the challenge of table header text with a more precise selector.



46. Click the color swatch and clear the color.
47. Your Text font color should now be black (*see illustration*).



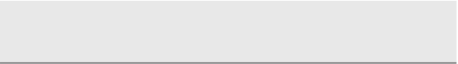


48. Click **Done**.


Use a Client Library

Follow these steps to reference a client library in your form.

49. Select the browser tab with your adaptive form.
50. Click *Content*, select the *Form Container*, and click **Configure** (the wrench icon).
51. Enter **smartdocTraining** for the *Client Library Category*.
52. Click **Done**.
53. Click **Preview**.
54. Select the **Expenses** tab. Notice that the header text is now white (*see illustration*).

Employee		Expenses	Signature	Review	Summary
Date	Category	Description	Cost		
mm/dd/yyyy					
Num Total					
					

55. Right-click on the white *Category* header text and select **Inspect**.
56. Notice that the white color is coming from the client library and not the theme (*see illustration*). This is a more precise selector.

```
Inherited from th#guideContainer-rootPane...
.guideTableNode table .guideTableRowNode.guideTableHeader  clientlibs.css:1
th {
  color:  #ffffff;
}
```

57. Also notice the colors and styles in the panel navigation. We have

About this Courseware

SmartDoc Technologies supplied the official *Adobe-Certified* AEM Forms Training courseware to Adobe and Adobe's clients from 2016 – 2021. During that time, our SmartDoc Courseware was battle-tested by thousands of students worldwide. Our SmartDoc Technologies courseware has been peer-reviewed and certified by the Adobe *Engineering*, *Product*, and *Curriculum* teams and by thousands of students like you.

In addition to having the highest *quality* AEM Forms courseware, the SmartDoc library also has the highest *quantity* of AEM Forms courseware. You will find the perfect course for your specific AEM Forms needs in the SmartDoc library. You can always find a current listing of our Adobe AEM Forms training courses on our website.

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