Authoring Adaptive Form

Adaptive forms allow you to create forms that are engaging, responsive and dynamic Forms provides an intuitive user interface and out-of-the-box components for creating and working with adaptive forms.

Create an Adaptive Form

Point your browser to [Forms and Documents]

Or type in the following url in your browser http://localhost:4502/aem/forms.html/content/dam/formsanddocuments"

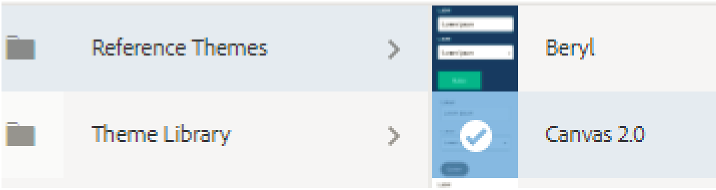
Click on "Create | Adaptive Form"

Here you are presented with templates on which you want to base your Adaptive Form. Some of these templates have pre-defined structure. For this exercise we are going to start with a Summit Session template. This template has header and footer elements defined.

Select **"SummitSession"** and click **"Next"**

Set the title to **"Peak Application Form"**

Specify theme as shown below

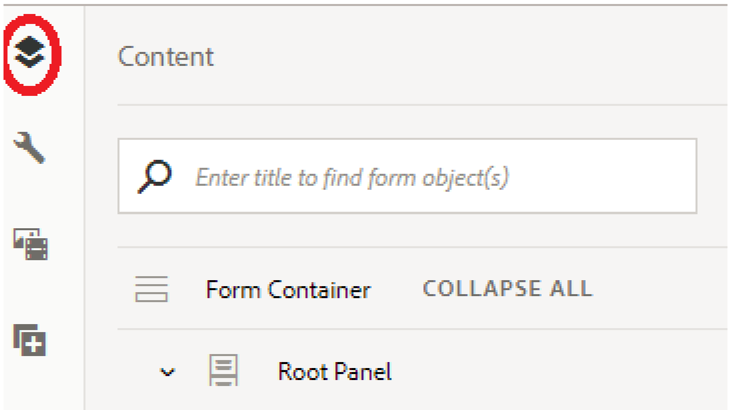


and click **Create and then Edit**

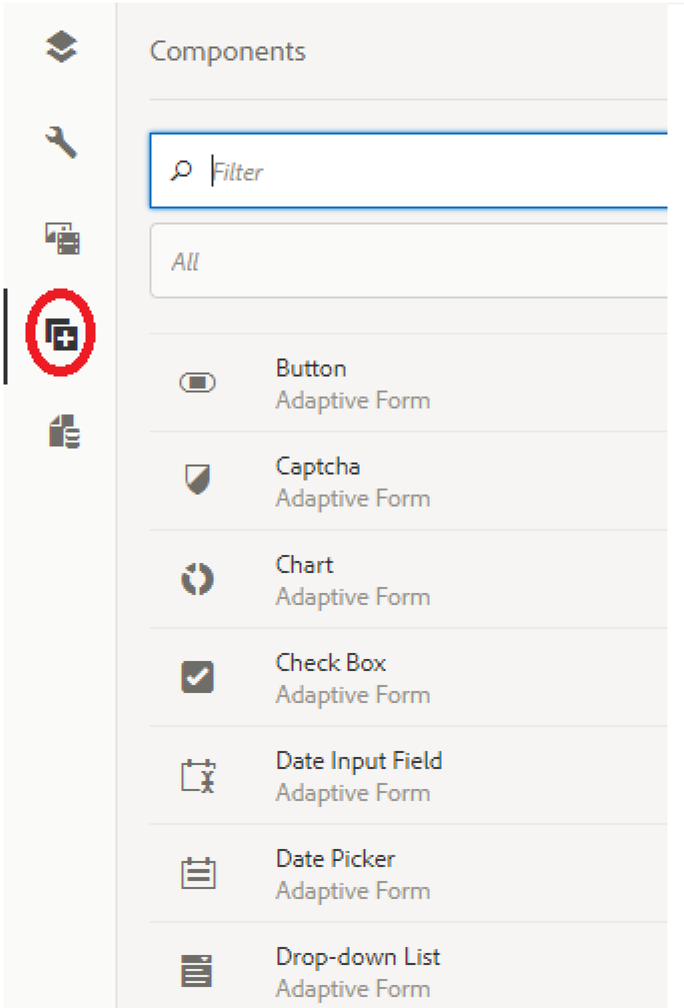
Adaptive Form is created. Every Adaptive Form at a minimum will have Form Container and Root Panel inside that Form Container.

Look at the various navigation items available on the left. The first icon on the top is the content view.

Content View – This view shows you hierarchy of objects in the Adaptive Form



Component View – This view lists all the Adaptive Form components that can be used to build your Adaptive Form components

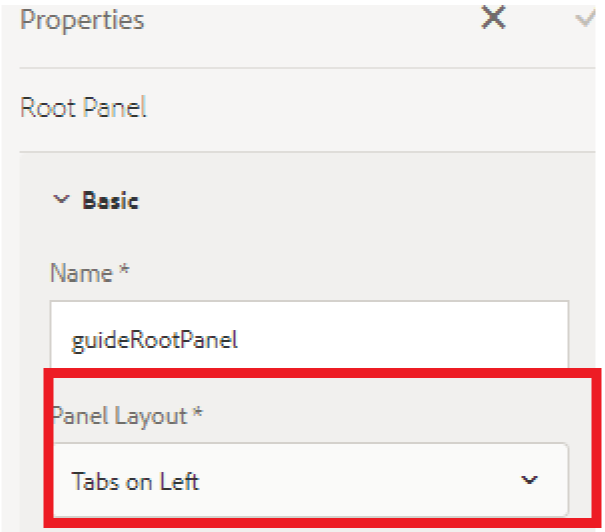


The other icons on the left will get you the Assets, Properties, and Data Source View

Configure Root Panel Layout

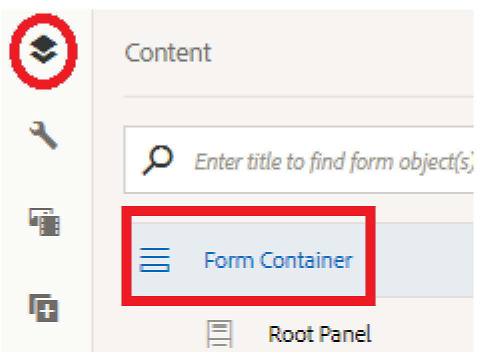
Configuring the Root Panel Layout will determine how your form will look when you add child panels to the Root Panel. To configure the Root Panel, Select the Root Panel in the content hierarchy and open its configuration properties sheet.

Set the Panel Layout to Tabs on Left as shown here



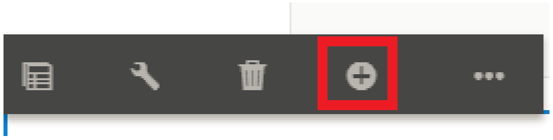
Add ToolBar to Form Container

Select the "Content Hierarchy" and the select the Form Container as shown



Select "…" icon and **Add Toolbar**

By default, the tool bar does not have any buttons. Click on the newly added tool bar to bring up the menu options. Click on the "+" icon and add the following buttons to the tool bar.



Next

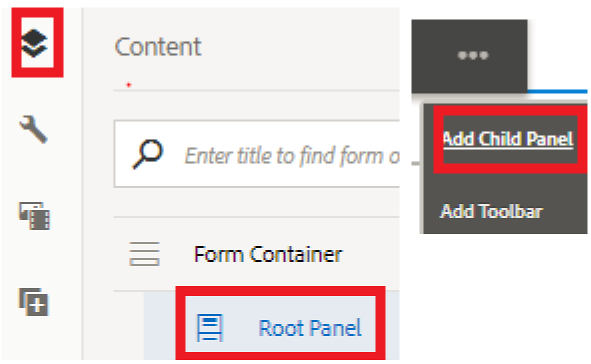
Previous

Submit

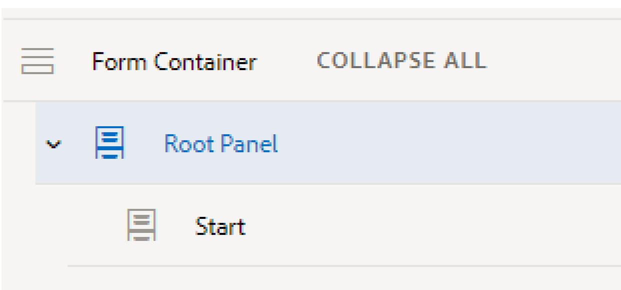
Your toolbar should now look like this

Adding Child Panels to Root Panel

We will now add child panel to the Root Panel. These child panels will act as individual sections of the form. To add child panel to the Root Panel, select Root Panel from the content hierarchy on the left-hand side. Click the "…" icon as shown. Then select "Add Child Panel". Specify the panel name and title as "Start" and click the check mark to save your settings.

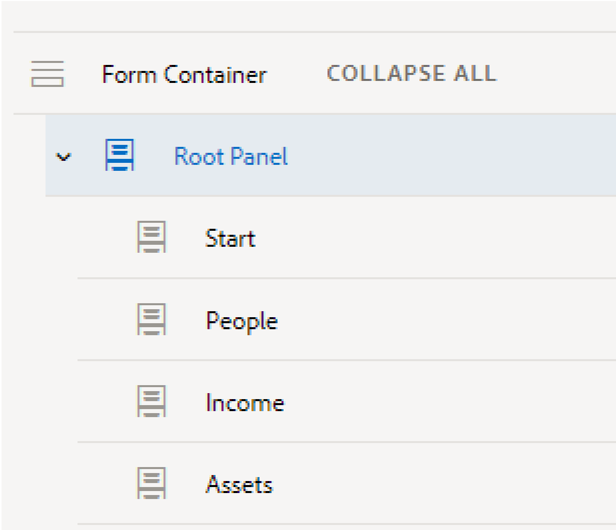


Your hierarchy should look like this



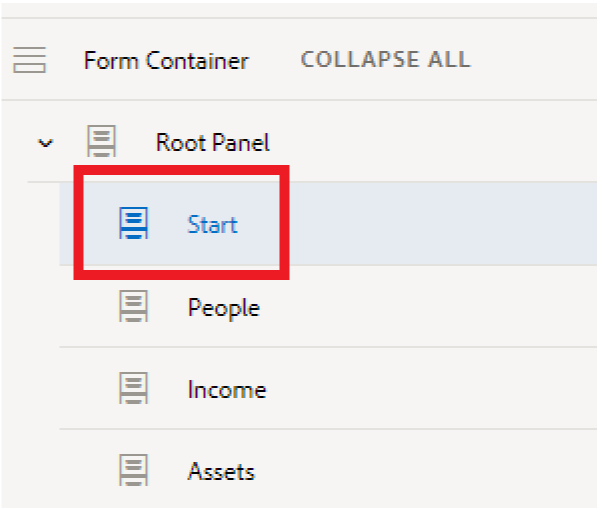
Now add 3 more child panel to the root panels. Name the child panels – People, Income, Assets. **Make sure you specify Name and Title property.**

After you have added all the child panels your content hierarchy will look like below



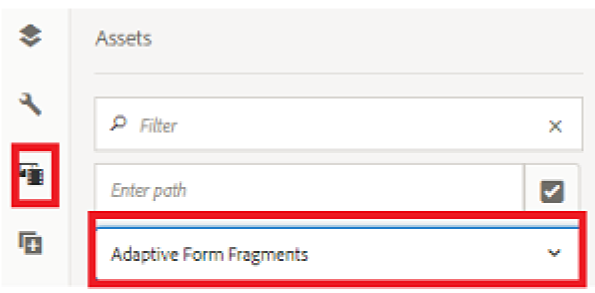
Start Section

Make sure the Start child panel is selected as shown below



Select the Assets icon to bring up the Assets section. Filter the Asset Types by Adaptive Form Fragments.

Adaptive Form fragments are re-usable components that you can create once and use them in multiple forms. One such Adaptive Form fragment has already been created for you.

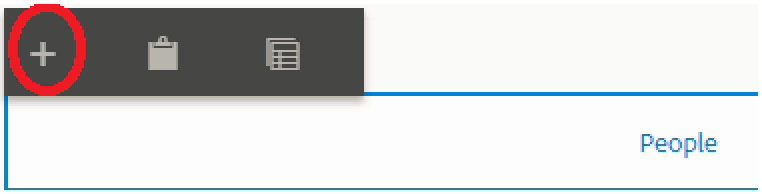


Drag and drop **Getting Started** Form Fragment on to “Start” section

People Section

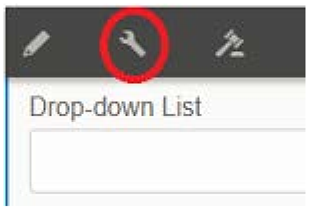
Select Content icon to bring up the content hierarchy.

Select “People” on the right hand side and click the “+” icon to insert drop down list component onto the People Panel

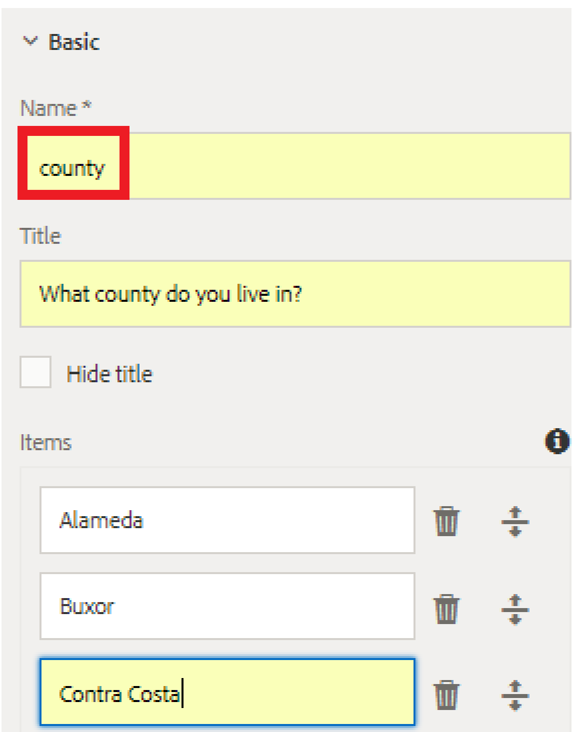


Configure Drop Down List Component

Select the newly added dropdown list component and open the configuration properties sheet by clicking on the configure icon as shown here.



Configure the dropdown list with the following values. Make sure you name the field “county” as shown here

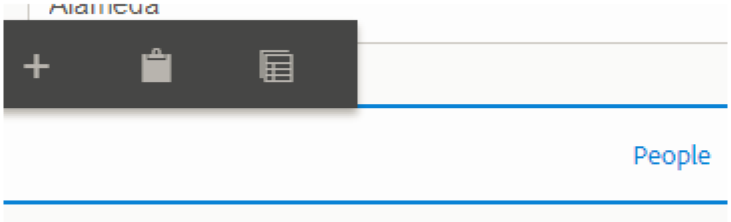


Add new Sections to “People” panel.

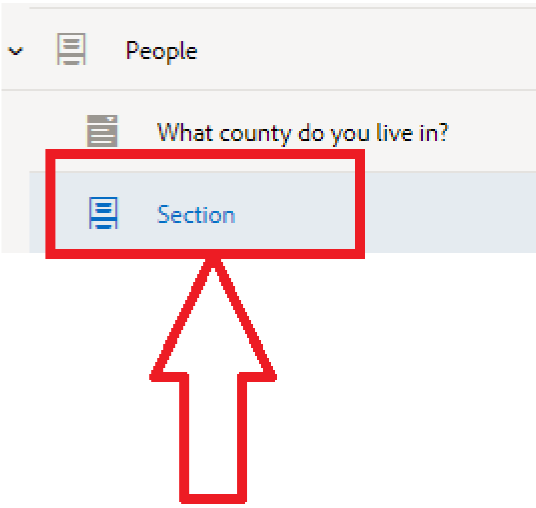
Refresh the browser

Select the “Content” icon on the left to bring up the content hierarchy.

Select the “People” panel on the Right-Hand side. Click the + icon and add **Panel** to the People section.



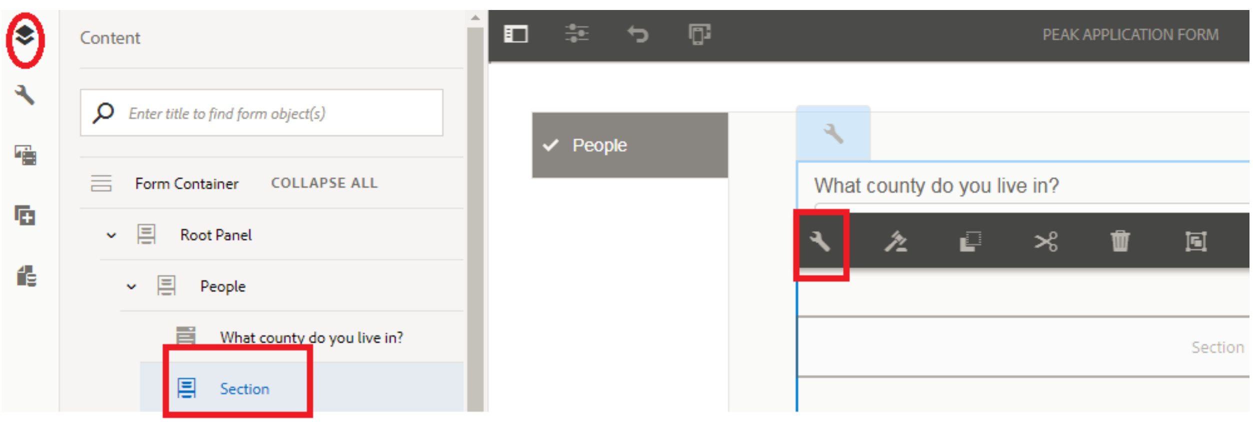
The newly added Panel is shown as section in the content hierarchy



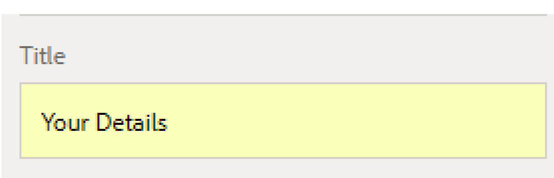
Configuring and adding components to the newly added "Section".

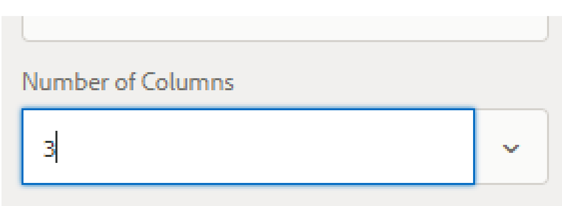
Refresh the browser

Click on the "Content" icon and then select Section and click on the "Configure" icon to open the configuration properties sheet.



Set the Title and Number of Columns as shown below. This makes the section 3 column section



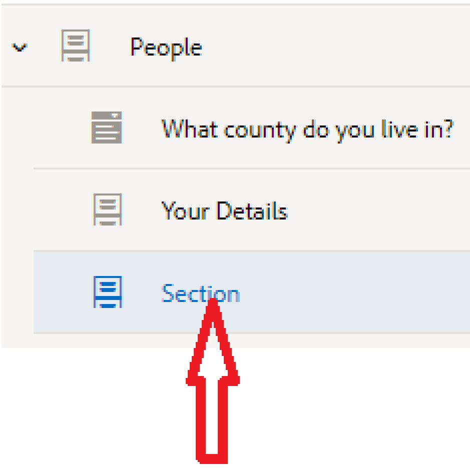


Save your changes by clicking on the blue check mark.

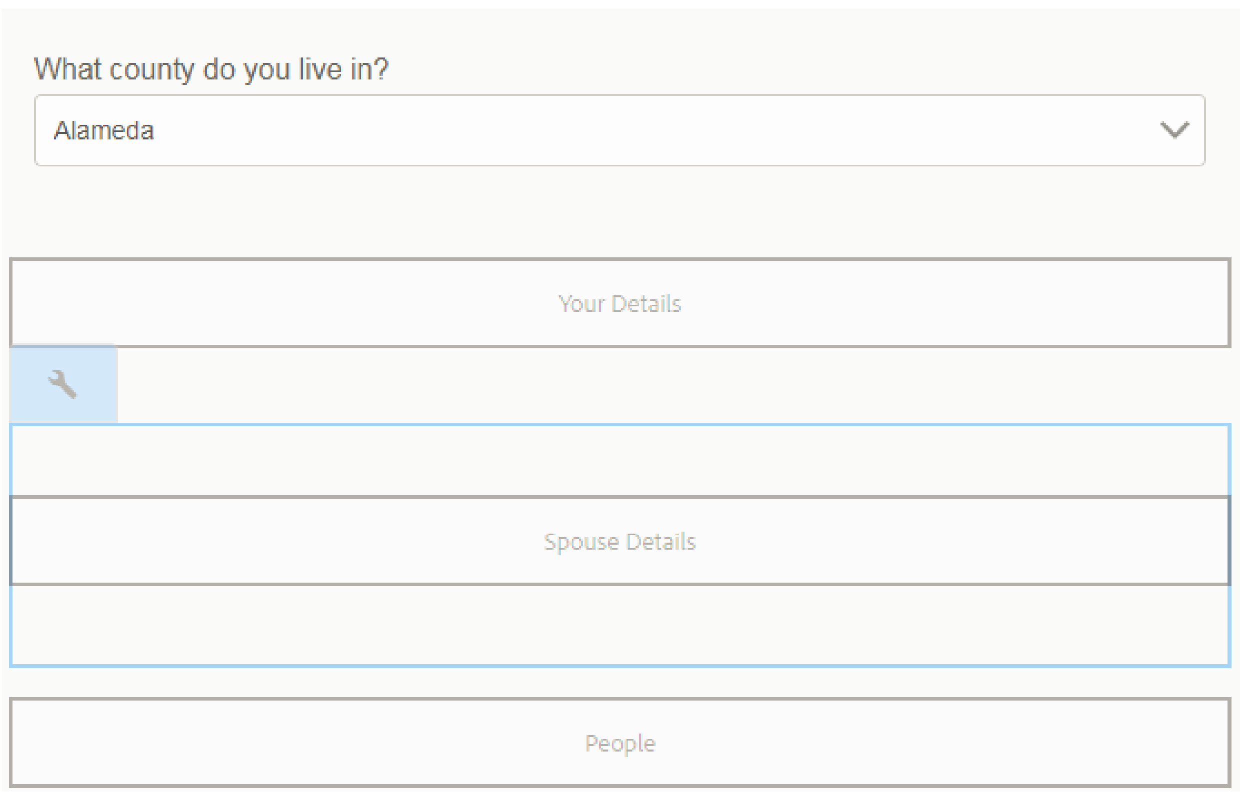
Refresh the browser

Select the Content hierarchy icon on the left side of your screen and select People Section.

Click on the “People” section on the Right-Hand Side and click the “+” icon and add another panel to the People Section. The newly added section should look like the screen shot below. Configure the newly added section and set its title to Spouse Details



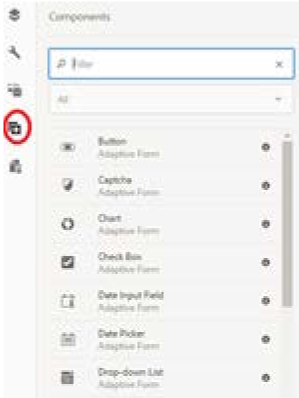
The right-hand side of your screen should look like below



Add Components to Your Details section.

Refresh the browser

Select the “Component” icon on the left to bring up the component listings as show below



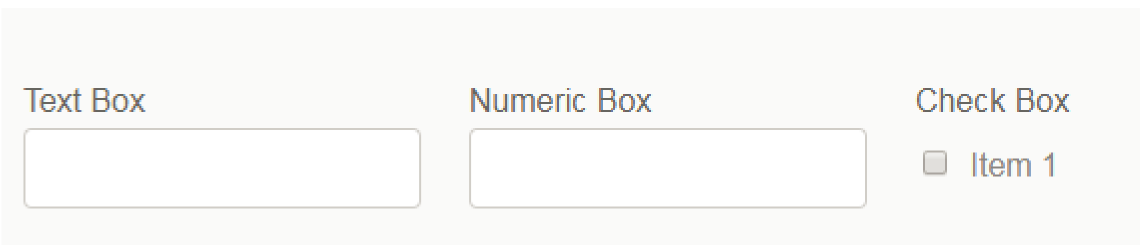
Drag and drop the following component onto the “Your Details” section

Text Box

Numeric Box

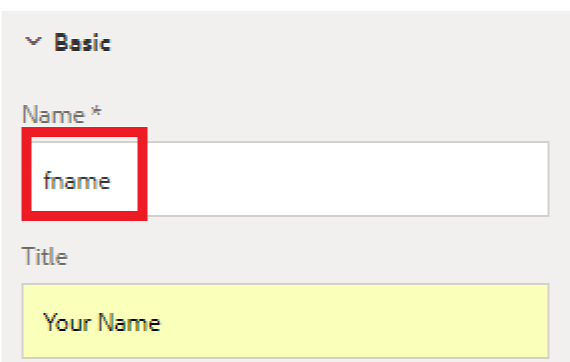
Check Box.

Configure the newly added fields by setting the title and adding items to the check box. Once done configuring your section should look like below



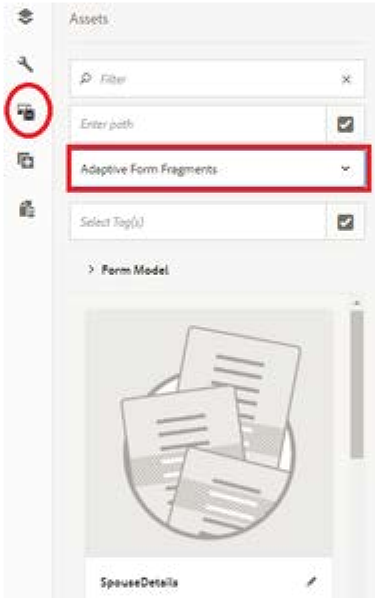
Configure the newly added fields so that they look like below

Make sure you name the First Name field “**fname**” as shown below



Once you have configured all the fields, your form should look like below

Select the "Assets" icon on the left, filter asset type by **Adaptive Form Fragments**. Drag the spouse details fragment onto Spouse Details section on the right-hand side



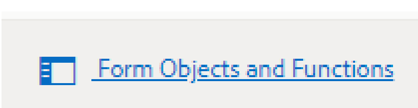
Select the Spouse Details Fragment on the Right-Hand Side to bring up the tool bar as shown

Select the "Rule Editor" icon the open the Rule Editor.

AEM Forms provides you with rich Graphical User Interface to define business rules on form fields. In this use case based on the marital status of the applicant, we will hide or show the spouse details sections.

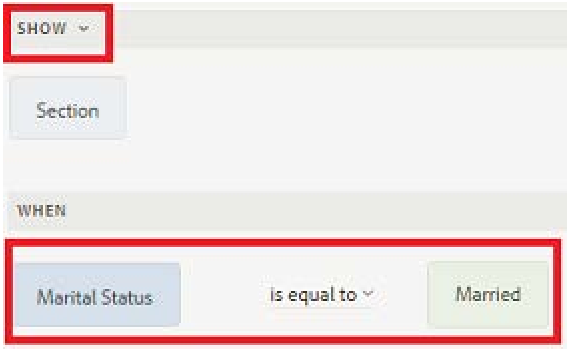
With the rule editor open, click on create to create a new rule.

Click on Form Objects and Functions to expose the Form Objects on your left-hand side



The Rule Editor interface is quite intuitive to create the rule. Your rule should look like below

Click Done to save your changes



You can also follow the video for creating the abovementioned rule. **The video c:\L723\assets\SpouseDetailsRules.mp4** is available as part of your assets folder. Please open the mp4 file using VLC player.

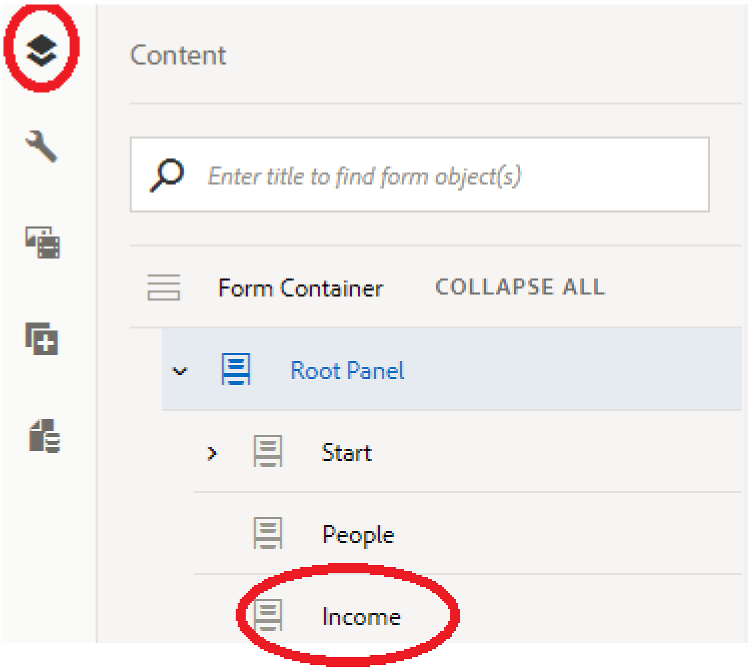
The above rule will show the spouse details section if the applicant marital status is “Married”

Income Section:

Refresh the browser

The income section will capture the applicant's income. To do this we make use of the Table component. The table component is very versatile, you can configure the table component to allow the end users to add more rows as required.

Select content hierarchy and then select the Income sections as shown

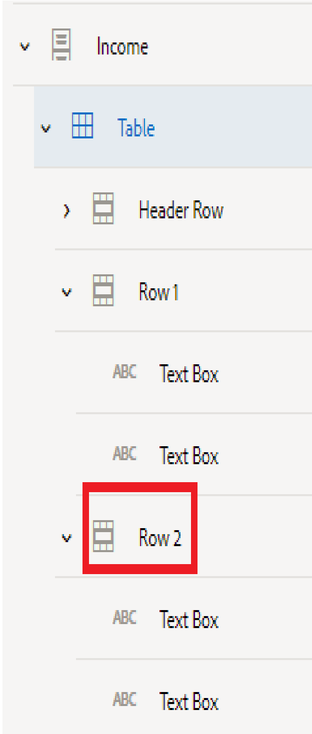


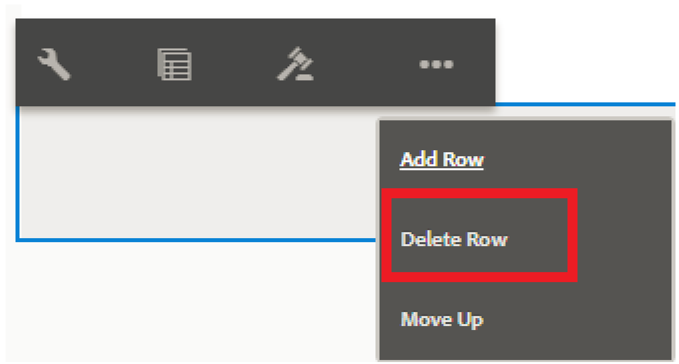
Select the Income section on the right hand side and click the "+" icon and then add "Table"component to this section

When we add a table component to Adaptive Form, we get 2 columns and 2 rows in addition to the Header Row. Each cell in the row is TextBox by default. We will change the first column field to drop down list later in this exercise

Delete Row 2

Every table component comes with 2 Rows (Row1 and Row2). For our use case we do not need Row2 for this exercise. Select Row2 in the content hierarchy and then select the "…" and Delete Row.

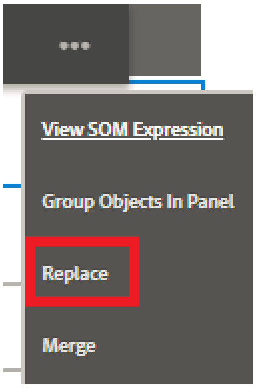

Income
Table
Header Row
Row 1
ABC
Text Box
ABC
Text Box
Row 2
ABC
Text Box
ABC
Text Box


Add Row
Delete Row
Move Up

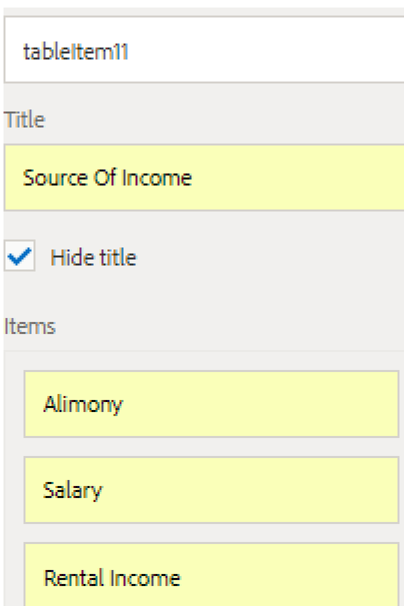
By default, all the fields in the columns are of type “TextBox”. We will change the component types of first and second column under Row1.

Select the “Content Hierarchy” icon on the left-hand side. Select TextBox under Row1

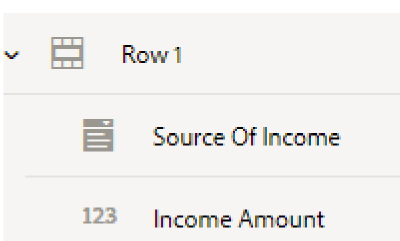
Click the “…” icon and then Select “Replace” as shown below.



In the Replace Component Dialog, select drop-down list as the component. Once you have replaced Text Box with drop-down list, configure the drop-down list to add items to the drop-down list. To open the configuration properties sheet of the Dropdown List, select the newly added drop-down list component and click the wrench icon to open the configuration properties sheet. Configure the Items and the Title as shown in the above screen shot. Click Blue Check mark to save your changes

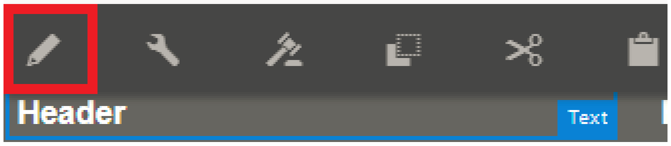


Similarly replace the second Textbox under Row1 with Numeric Box. Make sure to set the title of the numeric box to Income Amount. Make sure you save your changes. The two fields under Row1 will now look like the screen shot below



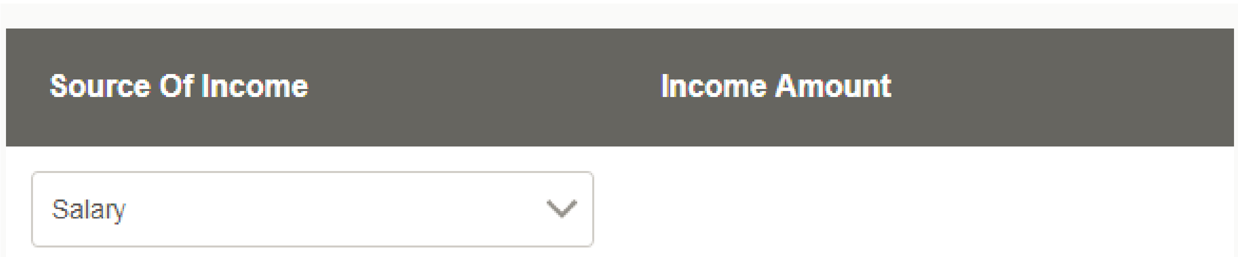
Change the Column Headings

Select the Column Header and click the pencil icon and change the column heading to **Source of Income**.



Change the Second Column Header to **Income Amount**

Your table should now look like below



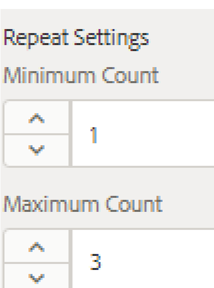
To summarize, we have added Table component to our Income Section. We changed the column headings and replaced the field type of the first column. By default, the table is static, meaning you will not be able to add additional rows.

Make the Table Dynamic

To make the table dynamic, we will set the Repeat Settings for Row1 as shown below

Click on “Content Hierarchy Icon” to bring up the content hierarchy of the Adaptive Form

Select Row1 as shown below and open the configuration properties and set the Repeat Settings as follows. You can set maximum count to -1 for unlimited rows



Preview the form. You should be able to add 3 new rows to the table

Assets Section

To the assets section we will use what is called “Accordion” layout. Like table, but for the end user it feels like Accordion experience. To configure the Assets section please follow the video – **C:\L723\assets\ConfigureAssetsSection.mp4**. Please open the mp4 video using VLC player.

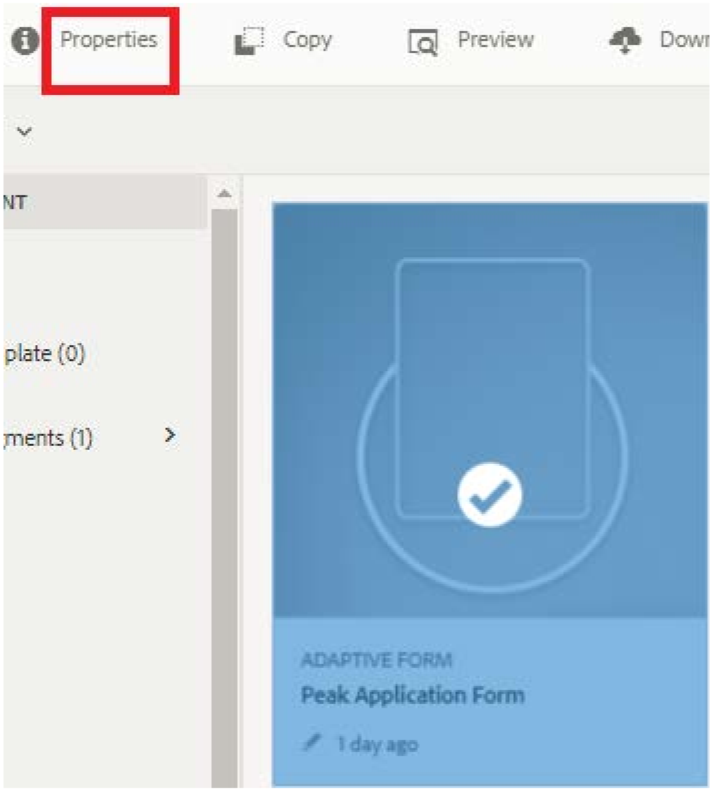
Configuring Document of Record

AEM Forms gives you the ability to automatically create Document of Record from the captured data. Document of Record is basically a PDF document of the data that was captured. To auto generate DOR from AF, please follow the following steps:

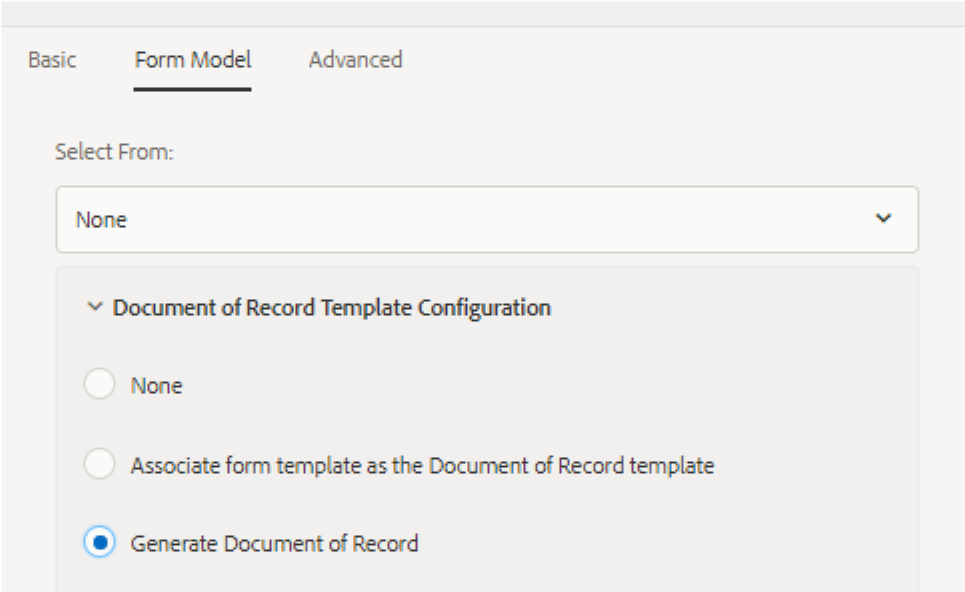
Point your browser to

http://localhost:4502/aem/forms.html/content/dam/formsanddocuments

Gently Select the Peak Application Form as shown and Click the properties icon and then select the “Form Modal” tab



Once you are in the Form Modal Tab select the “Generate Document of Record” option as shown. This will generate the Document of Record for you automatically. Then select the “Save and Close” button on the right-hand side



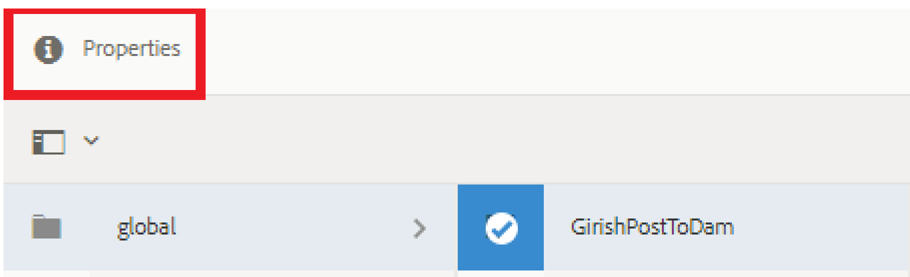
Set Authentication on Cloud Services Configuration

To save the generated DoR in the DAM, we make use of Form Data Model(FDM). The FDM is based on data source that needs to have the proper authentication settings.

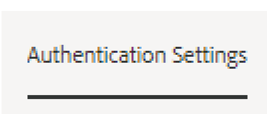
Edit [cloud services configuration](http://localhost:4502/libs/fd/fdm/gui/components/admin/fdmcloudservice/fdm.html/conf/global).

url is http://localhost:4502/libs/fd/fdm/gui/components/admin/fdmcloudservice/fdm.html/conf/global)

Select the “GirishPostToDam” and click on the Properties icon



Click on Authentication Settings



Make sure the username and password is set to admin.

Click on **“Save and Close”**

Now that we have created this form, we need to submit the form to a workflow. There are number of options available out of the box to handle form submissions. For the purpose of this exercise we will invoke AEM Workflow when the form is submitted. This workflow will store the Document Of Record in the AEM Assets.

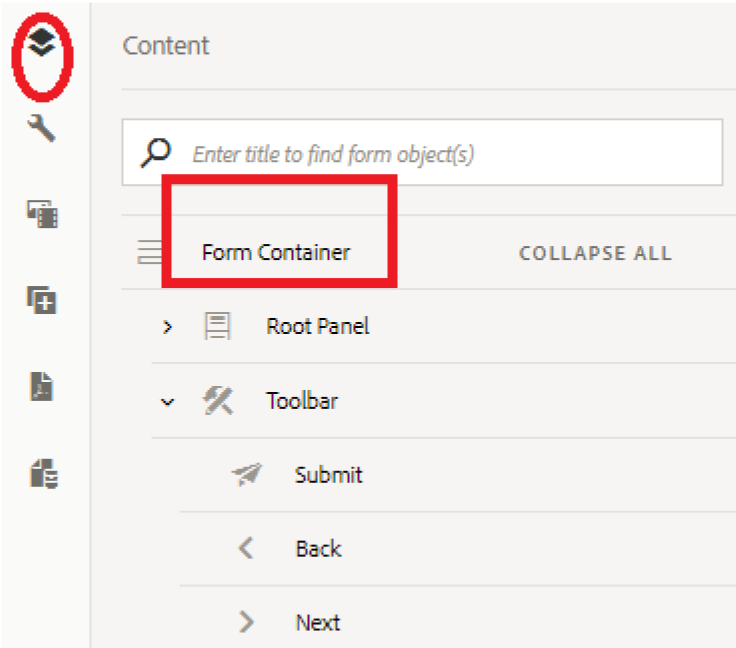
To associate AEM Workflow with this form follow the steps below

Point your browser to

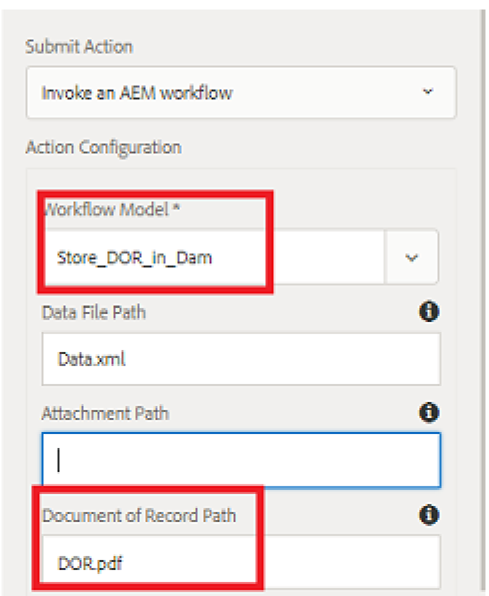
http://localhost:4502/aem/forms.html/content/dam/formsanddocuments

Open the Adaptive Form you have created in edit mode

Click on the "Content" icon to bring up the content hierarchy as shown and select the "Form Container"



Click the "Configure" icon wrench to open the configuration sheet for the Form Container. From this properties sheet you can configure variety of options. For the purpose of this exercise, we will configure the submission options of the Adaptive Form as shown below.



The Workflow Model is the name of the AEM Workflow that will be triggered when the form is submitted. This workflow model is already deployed on your system.

The Data File path is the name of the file that will hold the captured data in xml format. This file is stored relative to payload. Make sure you have named this file as seen here for the workflow to work

The Document of Record path is the name of the PDF file that will hold the Document of Record. This file is also relative to the workflow payload. Make sure you have named this file as seen here for the workflow to work.

Preview the Adaptive Form and submit.

If everything goes well, you should see DOR in the assets folder

http://localhost:4502/assets.html/content/dam

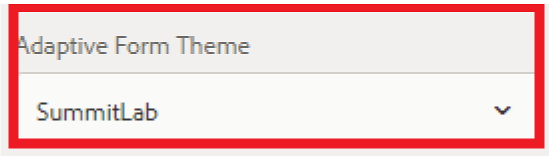
If you do not see DoR, make sure you have named the two fields correctly. The correct field names are “county” and “Fname”. You can check the fieldnames by viewing the forms content hierarchy

Changing the theme

AEM forms allow you to change the look and feel of form by applying theme. Theme is a collection of styles which control the styling of the form. As part of this exercise, we have provided a theme that you can apply to your form.

Open the content hierarchy of the form by clicking on the “Content” icon on the left. Select “FormContainer” and click on the configure icon to open the properties sheet.

Select the Adaptive Form Theme as shown below



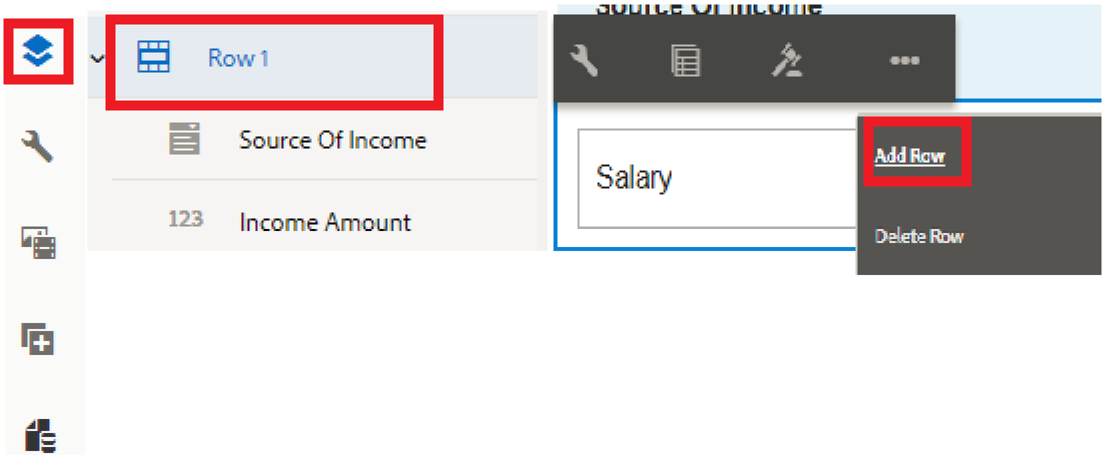
Save your changes and preview the form

Congratulations! You have done well so far. If you have some time you can continue on to the bonus section

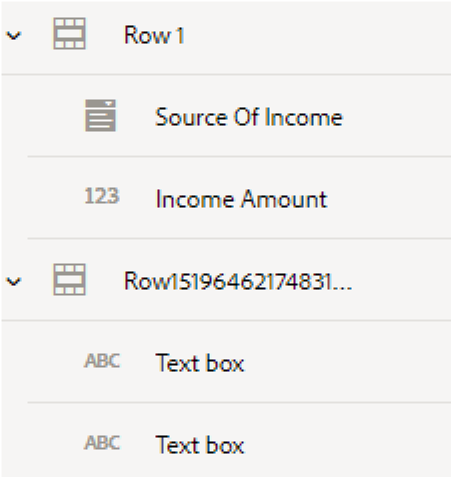
Bonus Section:

Calculating grand total from all sources of income. We created a table to capture the income from various sources. To this table we will add another row that will calculate the total income. To do this follow the steps below:

Select the “Content” icon and the select “Row1” and then select Add Row as shown below

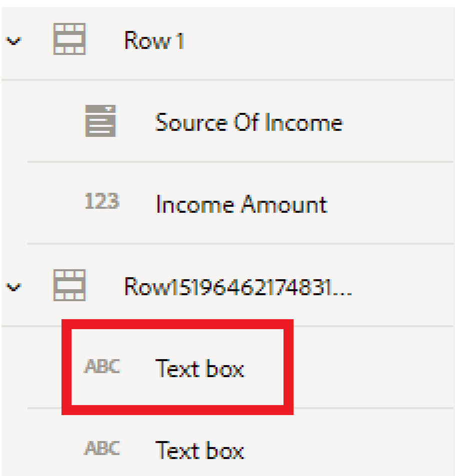


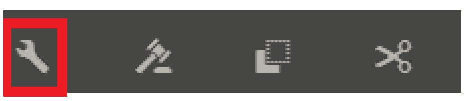
A new row will be added. Your content hierarchy will now look like below



Configure First Text box

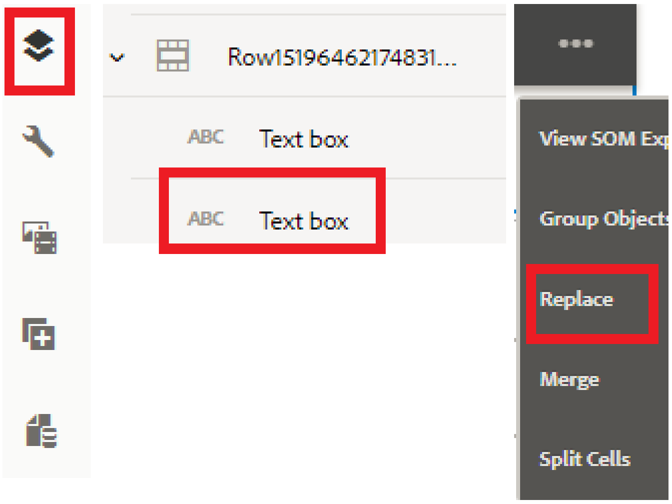
Select the first Text box under the newly added row. Click the configuration icon to open the configuration properties sheet. Set the Default Value to **Grand Total**. Make sure you save your changes



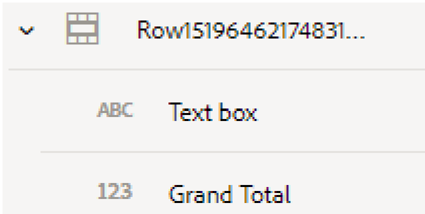


Configure the Second Text box

Select the “Content” icon on the left-hand side. Then select the Second Text Box as shown below. Select the Replace option and replace the text box with Numeric Box.



Configure the Numeric Box to set the Title to “Grand Total”. Save your changes. The two fields in Row2 should now look like the screen shot below



Add a Rule to set the value of Grand Total field. Please follow the video “**C:\L723\assets\ConfigureIncomeTotal.mp4**”. Please open the mp4 file using VLC player.