**Declaring variables**

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| **Create Data variables to store the data fetched by calling the API.** | |
| 1 | Once you close the Data Configurator, the view canvas opens.  The next step is to create data variables to store the values fetched via the API call to use them on the UI components.  To create the Data Variable, toggle to Variables view. |
| 2 | In VARIABLES view, open **DATA VARIABLES**tab, and click on **ADD DATA VARIABLE**.    You can see the **Data Resource** you created earlier, click on it to create a data variable.    Now select the value **Single data record** Data variable type property.    Click on the Gray bar to open the logic editor.    Remove the default logic as we will be adding our own logic to fetch data using the location of the device. |

**UI Building**

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| **Create the UI to display the data fetched by the API** | |
| 1 | To create the UI, switch back to View from Variables. |
| 2 | When a new page gets create, by default it will have a title component and a text component.  Update the Content property of the title component to a heading of your choice.  Delete the default text component.  Change the background color of the page by setting the Background color property available on the style tab of the property window. |
| 3 | The next step is to display the current location of the device on the screen when the users taps a Button.  To do that, you need to add a Button and a new text component with Icon and bind the information you get from the Weather API to the Text component.  Drag and drop Button component to the view canvas.    Once you drag and drop a component, you can see the properties panel of the component on the right side. On the ABC icon change the button Label.  Drag and drop the Row Component:    Drag and drop the Card component inside the second cell of Row component and adjust width to 70% to allow the Image Component to be inserted inside the Row component:    Drag and Drop the Image component inside the first Cell of Row Component:    Adjust proportions in the Row component to make the Image and Card fit exactly I the Row Component. Do do so, select Row Component and set ratio 1:2 in the Layout tab:    Now click on the Card Component, select ABC Icon for the Title and click on Formula      Start by typing the text:  “Your current location is ” , followed by a ‘ +’ to concatenate and then click on data variable to select the desired result from the data resource:        Click on Save.  Now add a new field to display the temperature of the current location.  Select the ABC icon of the Content property of the Card Component:    In this case we will use the math formula to calculate Celsius degrees out of Fahrenheit  [(F - 32 )\*5]/9        Build the following formula to convert Fahrenheit to Celsius  [(F - 32 )\*5]/9  :  DIVIDE(MULTIPLY(SUBTRACT(data.weatherAPI1[0].main.temp, 32), 5), 9)    Where the variable is picked up from ‘Data variables’. |
| 4 | You can preview the value in Example results. Now click on Save.  Now you can see the component displaying temperature with a formula. This way you can design the app in your own way with help of the components available in the component library.    Now add a formula do determine the icon in the Image component. According to the API documentation (<https://openweathermap.org/weather-conditions> ), to display the weather related icon you need to build a URL:  For code 500 - light rain icon = "10d". The URL for the ICON is:  URL is <https://openweathermap.org/img/wn/10d@2x.png>  So we need a formula to build the URL. Select the Image Component:    Select Formulas and:    SAVE: |
| 5 | You can now preview the app.  To do that, launch tab and Open preview portal    On your phone, open SAP Build Apps preview. And select SAP Build Apps.  You will see a temporary Pin code now.  Enter that pin code on preview portal on your computer.  Now your phone is connected with your Build apps account and you can preview all your application real time here. |