

# Grouping controls and Tab control

*GeneXus™*

In this video, we will study controls that allow us to group other controls, Action Groups to add actions in the Application Bar, and the Control Tab to organize controls in the Layout.

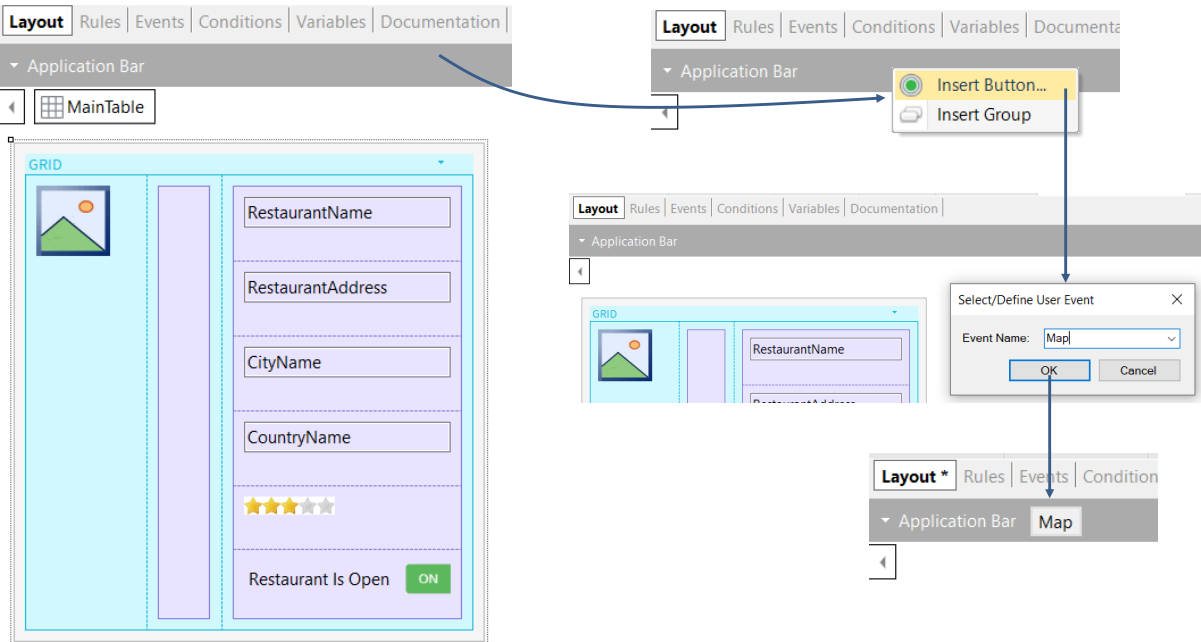
## Action Groups

The elements displayed in the UI of a native web or mobile application are usually driven by actions, such as clicking (or tapping) on an image, a button, a menu or an action bar.

We will see how we can group actions with a specially designed control.

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## Action Group created by default: Application Bar



An Action Group is a UI element used to group actions, which can be shown dynamically on the screen, in an action bar.

By default, every layout includes an action bar called “Application Bar.”

In the View\_Restaurants panel, we can see the Application Bar at the top of the layout, which is initially empty.

We may add a Map button that will call an object to prompt users to enter the maximum time they have available for lunch. After selecting the maximum timeframe, the restaurants that commit to providing the service within that timeframe will be displayed on a map.

To do so, we right-click on the Application Bar and insert a button or a new group. If we choose to insert a button and enter Map as a caption, the button will appear inside the Application Bar. Then we could define the button event to invoke the object requesting the data.

## Adding an Action Group to the Application Bar

The image illustrates the steps to add an action group to the application bar. It shows a preview of a restaurant form, followed by three screenshots of the development interface. In the first screenshot, the 'Application Bar' menu is right-clicked, and the 'Insert Group' option is selected. The second screenshot shows the 'ActionGroup1' properties panel, which includes sections for Appearance (Visible, Enabled, Image, Disabled Image) and Position (Priority, Position). The third screenshot shows the 'button2' properties panel, which includes sections for Appearance (Class, Visible, Invisible Mode, Enabled, Format, Image, Disabled Image, Image Position) and Position (Priority, Position).

If instead of choosing the Insert button option when we right-clicked on the Application Bar, we had chosen Insert Group, we would see that an arrow button would be created. We select it and see its properties; for example, its name is ActionGroup1 and it is possible to change several things about its appearance, such as assigning it an image, among other things.

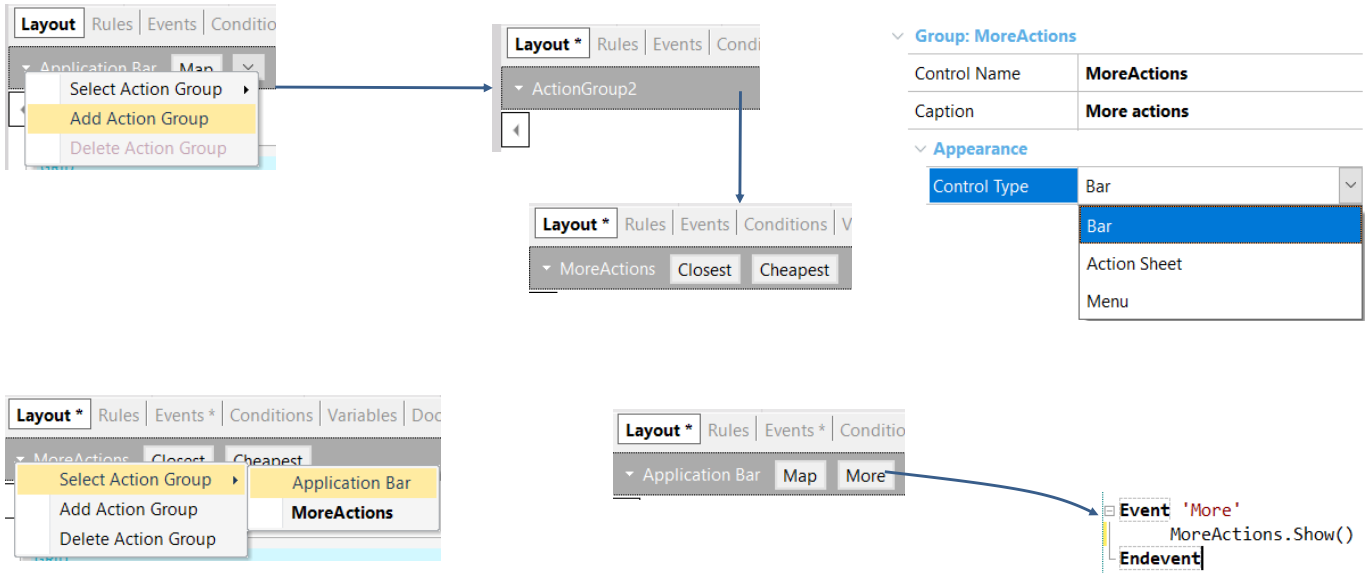
This group of actions is nested within the Application Bar group of actions.

If we click on the arrow button, an empty container appears below it and if we right-click on it, a menu opens to add a button or another group again.

If we choose to add a button and type button1, we see that it is created in the button group.

In its properties, it is possible to assign an image to it so that the text is not displayed and to change its appearance, position, etc.

## Adding a new Action Group



Another thing we might want is to add another new set of actions; for example, one that offers a button to show the closest restaurants to the user's location, and another button to show the cheapest restaurants.

If we click on the Application Bar button, we see that the option to add another Action Group is displayed.

If we select this option, ActionGroup2 is created. This group of actions is independent of the Application Bar; i.e. they are two groups of actions “parallel” to each other.

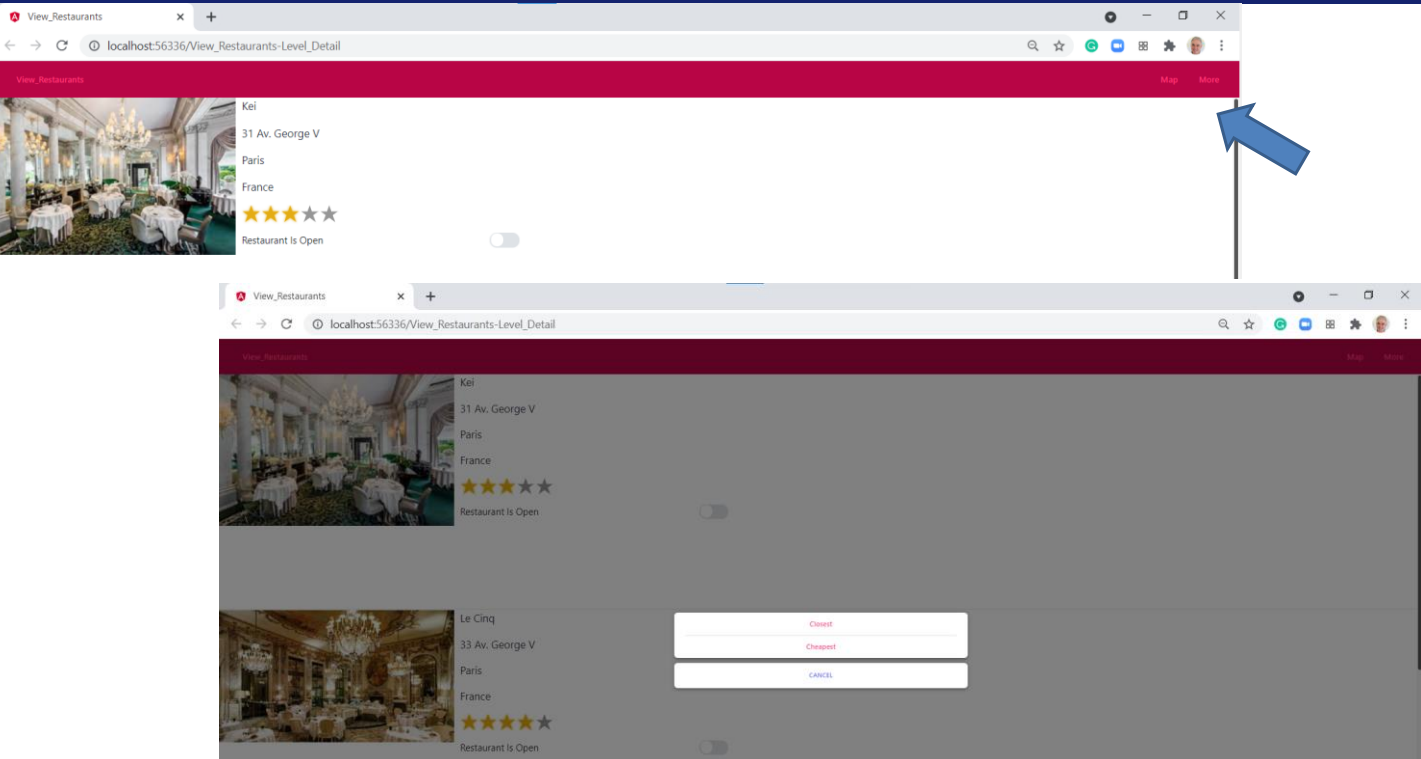
In the properties of the new ActionGroup2, we see that in its Control Type property we can choose to see it as a bar, an action sheet, or a menu.

Let's rename it to “MoreActions” and insert two buttons, one with the caption “Closest” and the other with the caption “Cheapest.” We may also associate images with these actions, so that not only texts are displayed.

To show the new action group we created parallel to the Application Bar, we must add one more button in the Application Bar to invoke the group. To return to the Application Bar, we click on the button next to ActionGroup2, choose Select Action Group and then the Application Bar.

We delete the group of buttons we had previously created and add the “More” button to the Application Bar, in whose associated event we will show the MoreActions action group with the Show() method associated with the control.

We run it to see what we did.



The Map and More buttons appear at the top right.

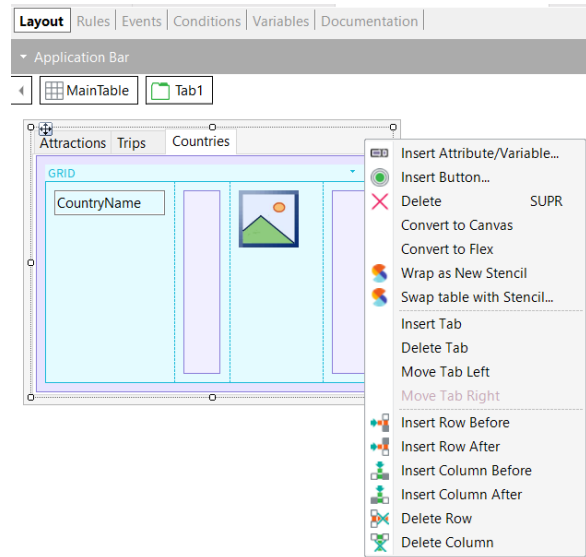
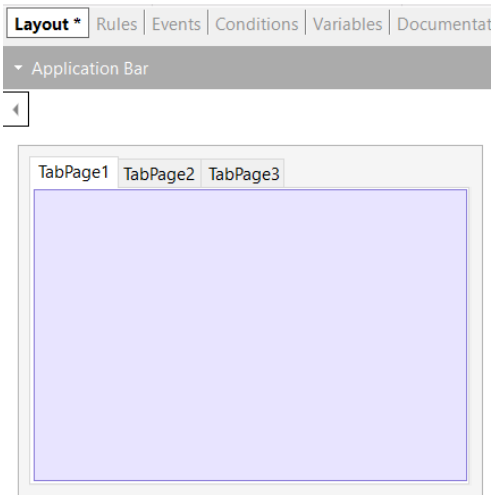
If we press the More button, a window with buttons appears where we see the Cheapest and Closest buttons that we had created in the MoreActions action group.

## Tab Control

Tab Controls allow us to organize the information in tabs, including in them the controls we want. This allows placing on the same screen controls that handle information on the same subject.

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## Adding a Tab Control to the form



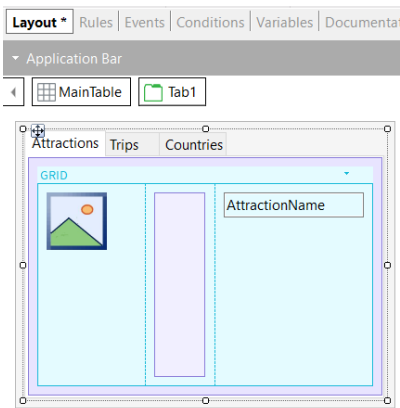
To see how tabs work, let's create a panel named View\_AttractionsInfoInTabs and set it as main.

We drag a Tab control from the toolbar. By default, 3 tab pages are created with the names TabPage1, TabPage2, and TabPage3.

To create a new tab, we right-click on the tab control and click on Insert Tab. To delete a tab, we select it and then right-click on it and choose Delete Tab. Note that we can also move a tab.

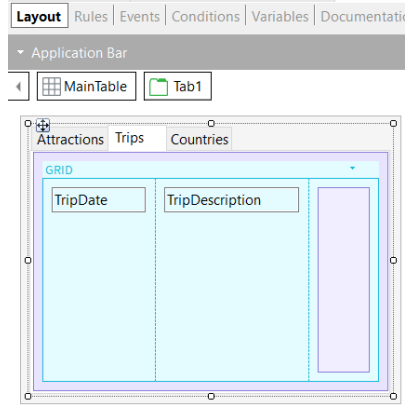


## Creating a panel with three tabs



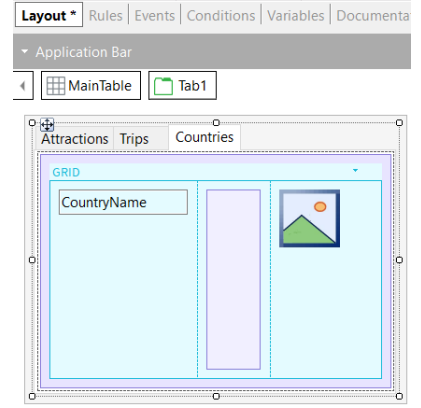
### Appearance

Columns Style	100dip;10dip;100%
Rows Style	100dip



### Appearance

Columns Style	10%;20%;70%
Rows Style	pd



### Appearance

Columns Style	10%;10dip;50dip;90%
Rows Style	50dip

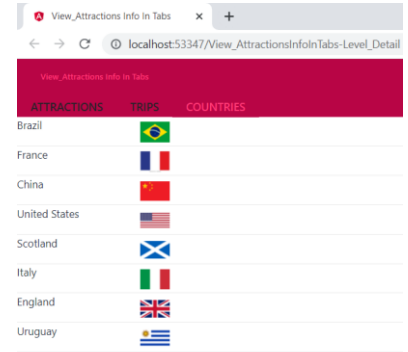
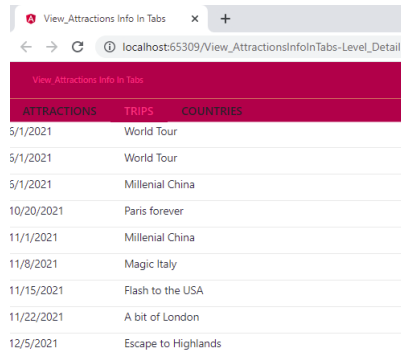
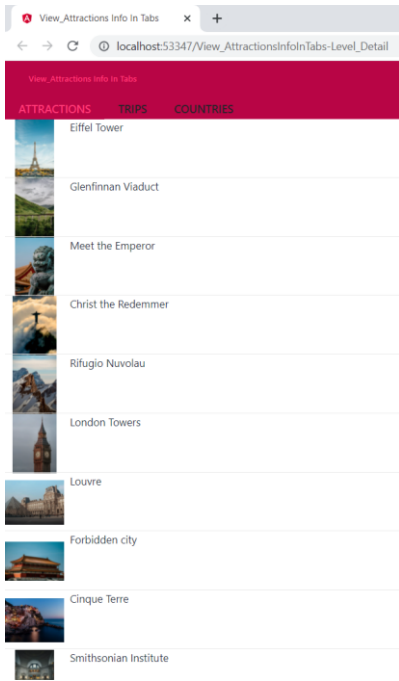
To change the tabs' names, we change the Item Control Name property of the first one to "Attractions," the second one to "Trips," and the third one to "Countries."

Now we click on the Attractions tab and drag a grid with the attributes AttractionPhoto and AttractionName. And we add a table in the middle as a separator. We adjust the grid table columns to give 100 dipo to the image, 10 dipo to the separator and 100% to the remaining column. In the rows we assign a value of 100 dipo.

Then in the Trips tab we include a grid with the attributes TripDate and TripDescription, and to the right of these a table to help us to better align the data. We go to the properties of the grid table to give 10% to the first column, 20% to the second column and 70% to the third column. In the row, we leave the platform default value.

And in the Countries tab, we add a grid with the attributes CountryName and CountryFlag. We add between them a table as separator and another separator to the right of everything, setting 10% to the name column, 10 dipo to the separator, 50 dipo to the flag attribute and 90% to the remaining column.

We run it.



We can see that the tabs are displayed at the top of the screen and that if we select the Attractions tab, the attraction data is displayed. If we click on the Trips tab, the trips that were entered are displayed, and if we go to the countries tab, we see all the countries with their corresponding flags.

In this way, in a single panel we can see different data, in separate tabs. The content we add to each tab and the way we distribute the controls will depend on the design and the way we need to display the information.

## Summary

## Action Groups

- Adding actions
- Adding nested Action Groups
- Adding parallel Action Groups
- Calling an Action Group by code

## Tab Control

- Inserting a Tab Control into a form
- Create, delete, or move tabs
- Rename tabs
- Adding content to a tab

Let's review what we have seen.

We have seen what Action Groups are, and we have identified the Application Bar as the action group created by default.

We added actions as buttons to the Application Bar, and added a group of actions inside the Application Bar, leaving an action group nested inside another one. Then we saw how to create an Action Group independent of the Application Bar and parallel to it. Finally, we saw how to create a button and invoke an action group by code in the event of the button.

Then we saw how to add a Tab Control to a panel form and how to add new tabs, delete them, or move them around.

We also saw how to rename them and finally how to add content to each one of them, to see the information separated in tabs; in this example, information about attractions, trips, and countries with their flags.

In other videos, we will continue discussing how to improve the user experience of our application.

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