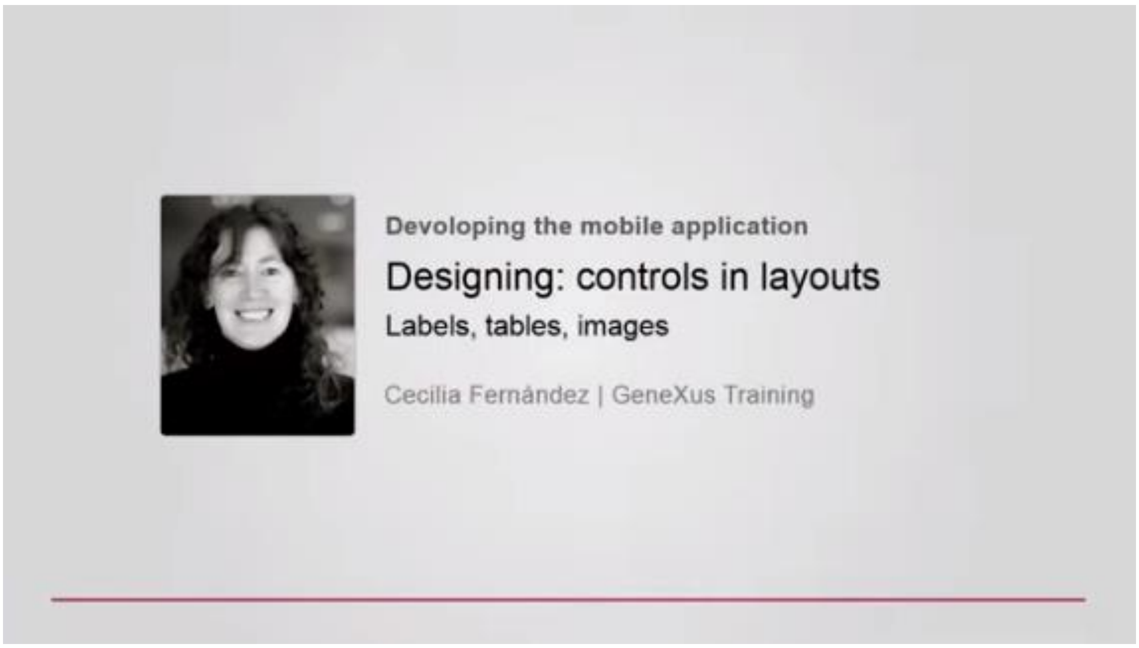
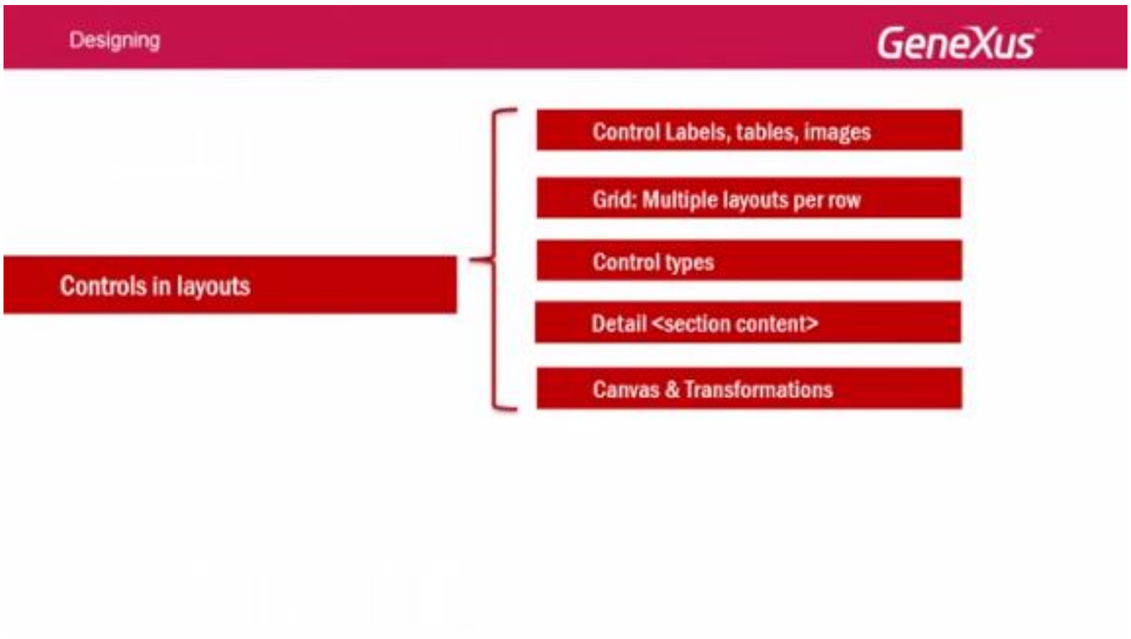
Controls: tags, tables and images. Specific design characteristics.


Devoloping the mobile application

Designing: controls in layouts

Labels, tables, images

Cecilia Fernández | GeneXus Training


Designing

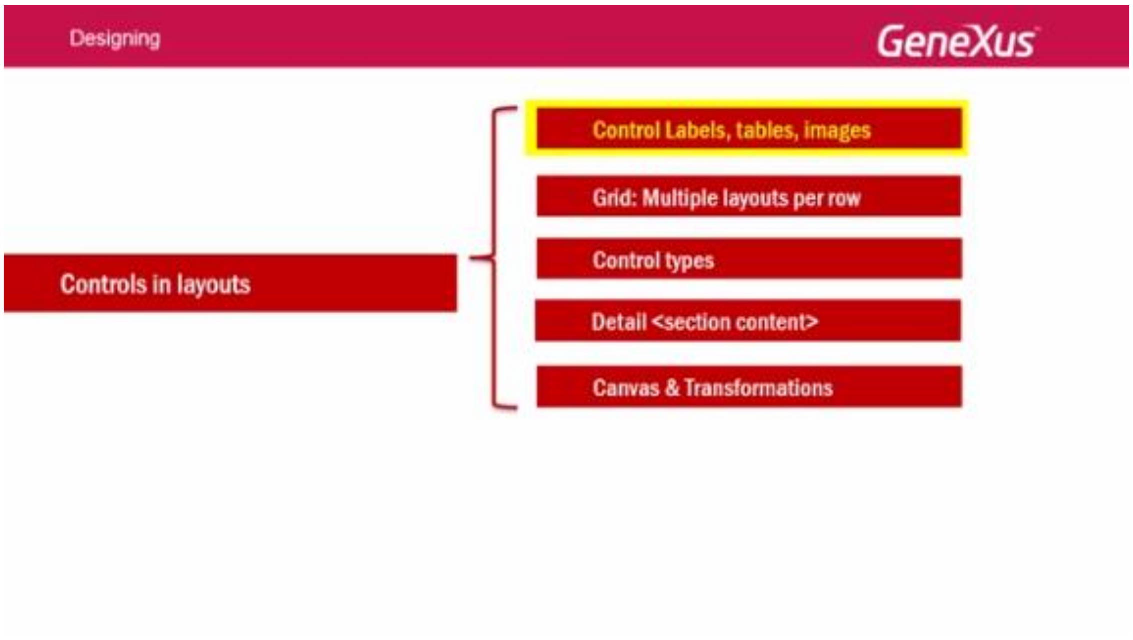
GeneXus

Controls in layouts

- Control Labels, tables, images
- Grid: Multiple layouts per row
- Control types
- Detail <section content>
- Canvas & Transformations

The following videos describe the specific features of controls in Layouts when compared to their known use.

In particular, this is related to 5 aspects:

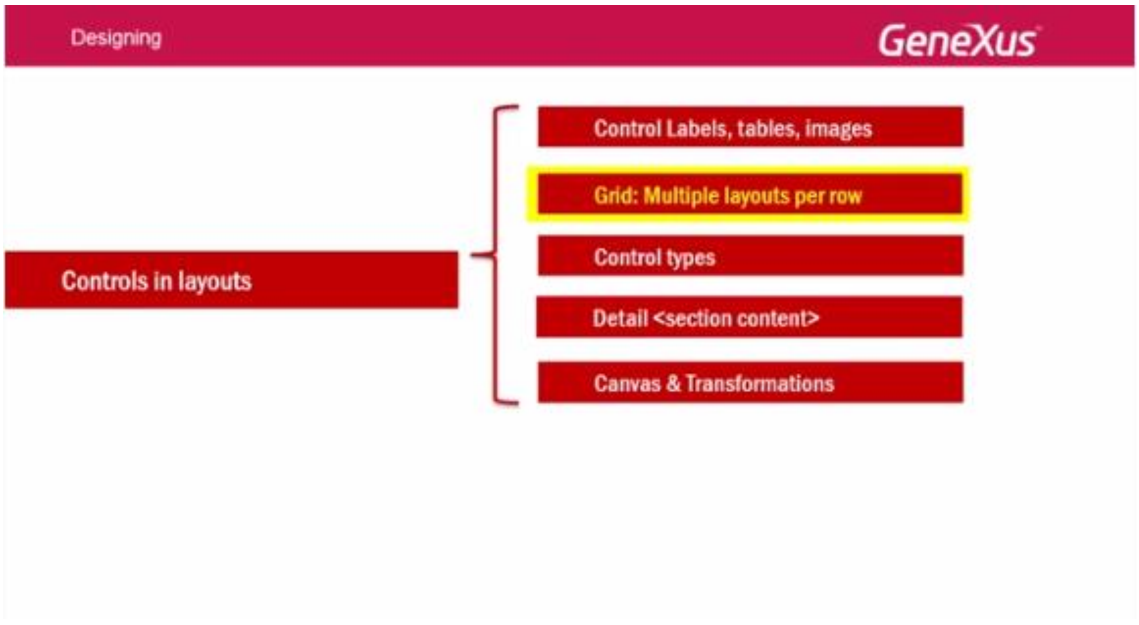

Designing

GeneXus

Controls in layouts

- Control Labels, tables, images
- Grid: Multiple layouts per row
- Control types
- Detail <section content>
- Canvas & Transformations

The special features of variable/attribute controls in relation to tags, the use of tables and the special features of the image control.

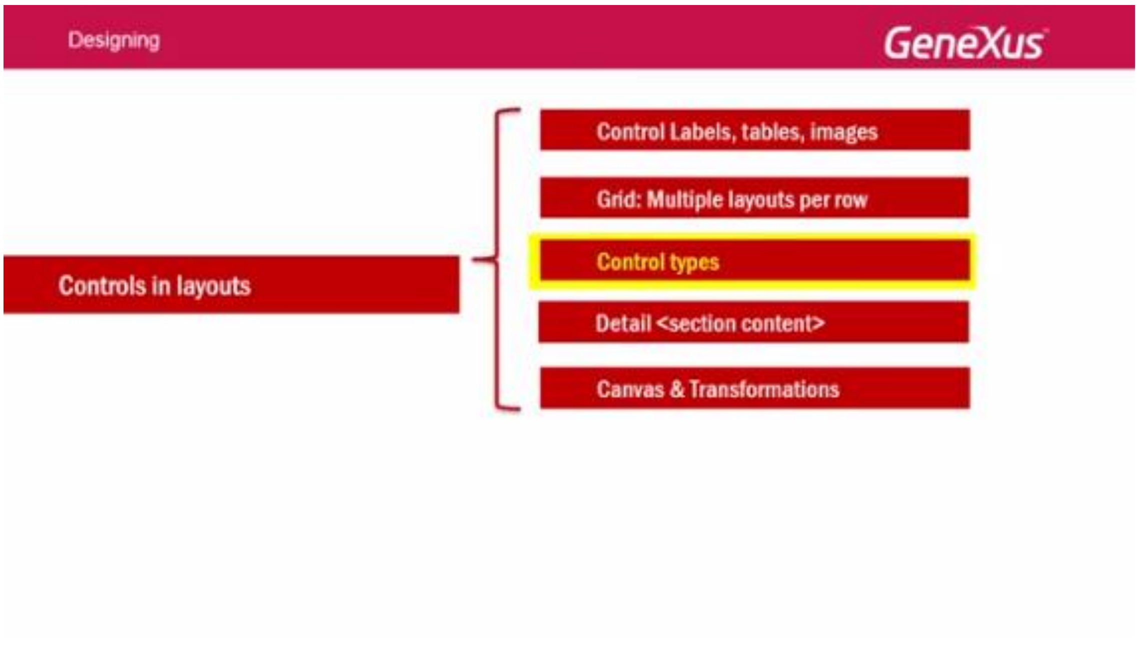

Designing

GeneXus

Controls in layouts

- Control Labels, tables, images
- Grid: Multiple layouts per row
- Control types
- Detail <section content>
- Canvas & Transformations

The special features of grids in relation to the design and behavior of each line.

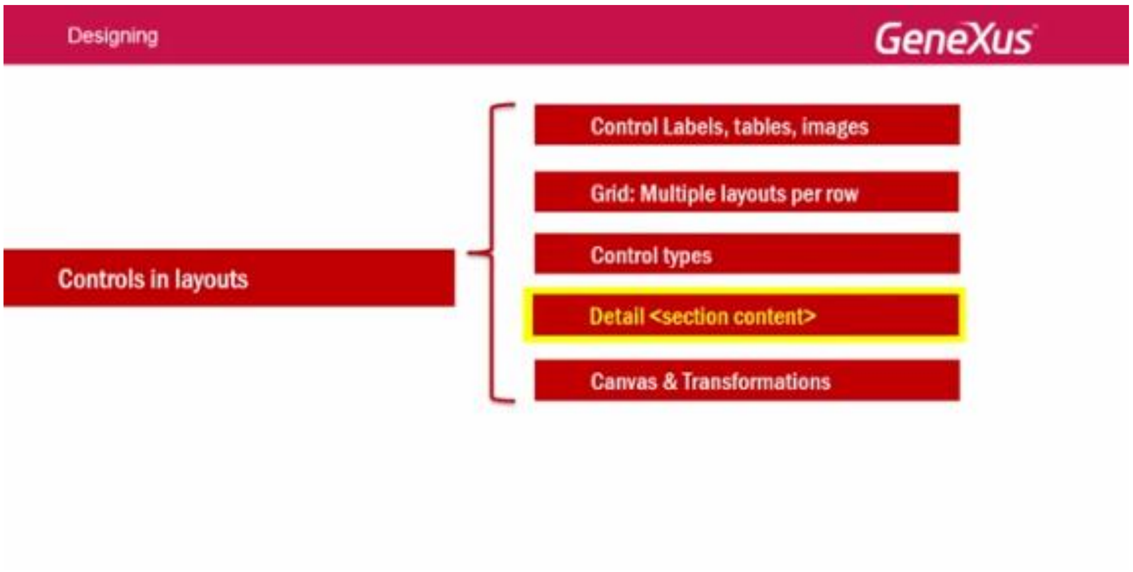

Designing

GeneXus

Controls in layouts

- Control Labels, tables, images
- Grid: Multiple layouts per row
- Control types
- Detail <section content>
- Canvas & Transformations

The possibility to change a control type, so that it looks and behaves in a different way than the default one.



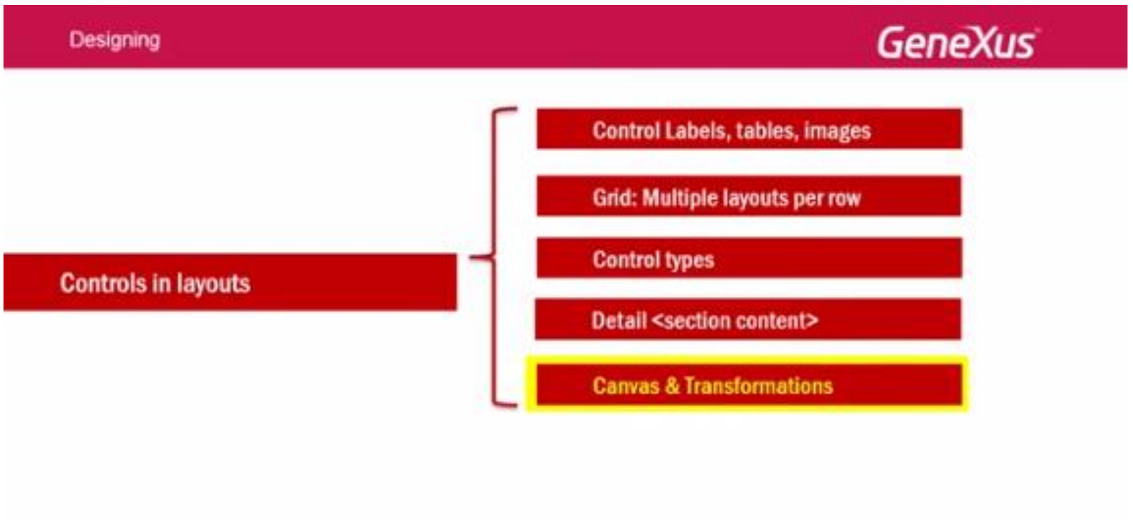
Designing

GeneXus

Controls in layouts

- Control Labels, tables, images
- Grid: Multiple layouts per row
- Control types
- Detail <section content>
- Canvas & Transformations

Section containers for the Detail of a Work With element.



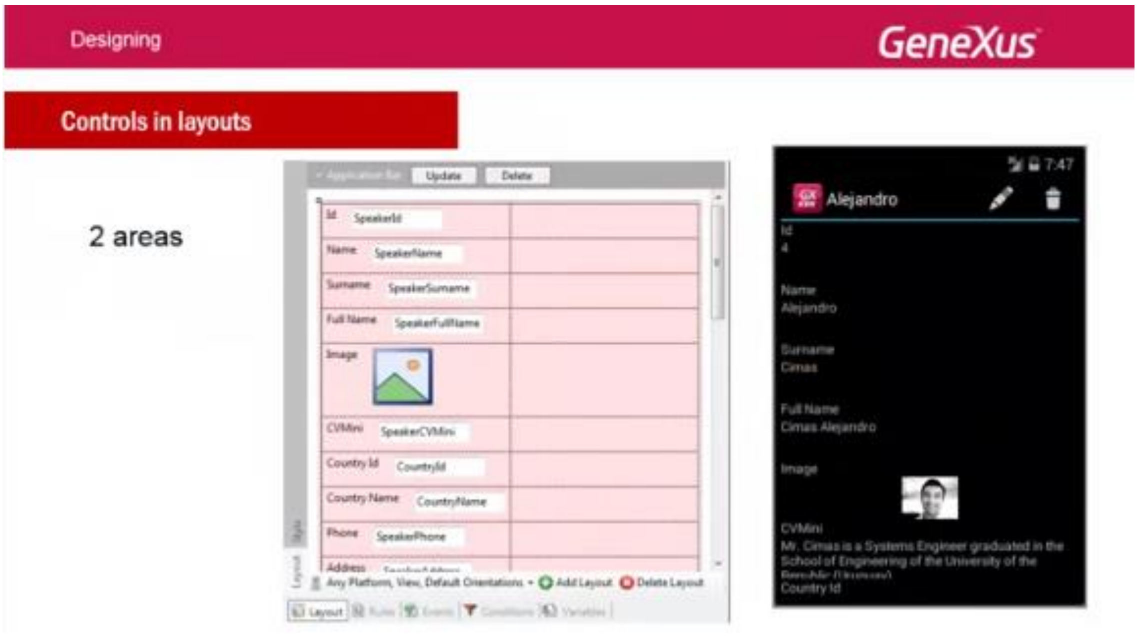
Designing

GeneXus

Controls in layouts

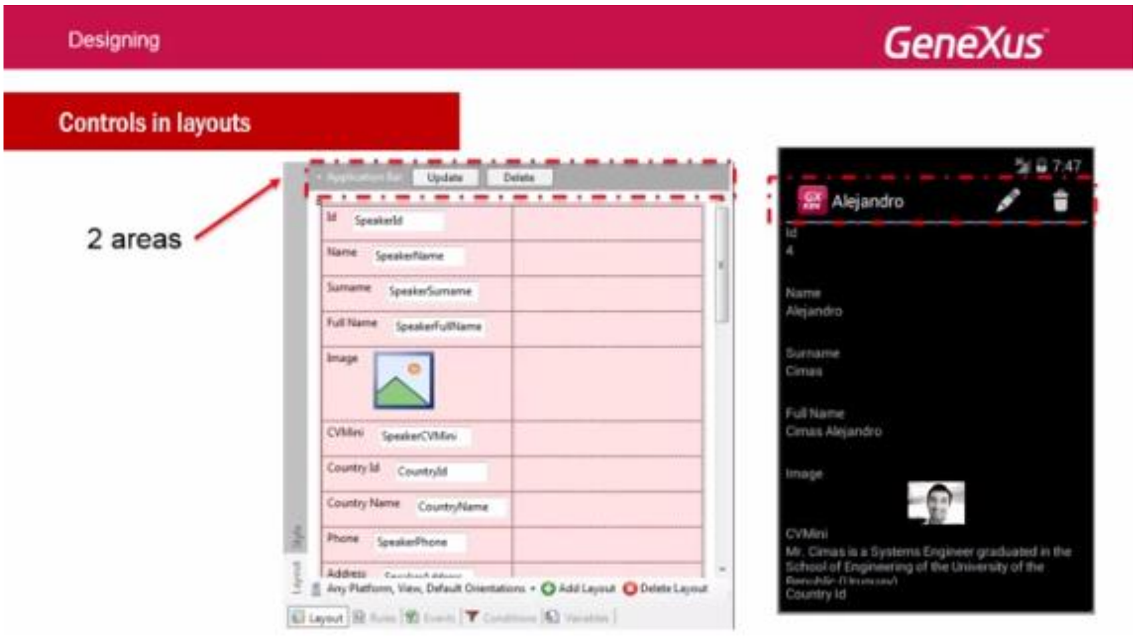
- Control Labels, tables, images
- Grid: Multiple layouts per row
- Control types
- Detail <section content>
- Canvas & Transformations

Lastly, the possibility to create a control that takes absolute positioning and can overlap with another in the Layout. This allows thinking in layers and therefore adds depth to the spatial axis.
In addition, we will see this feature combined with another related to behavior: the ability to move, resize, rotate and scale a control on the screen (these are the transformations).
Let's start by the first item:

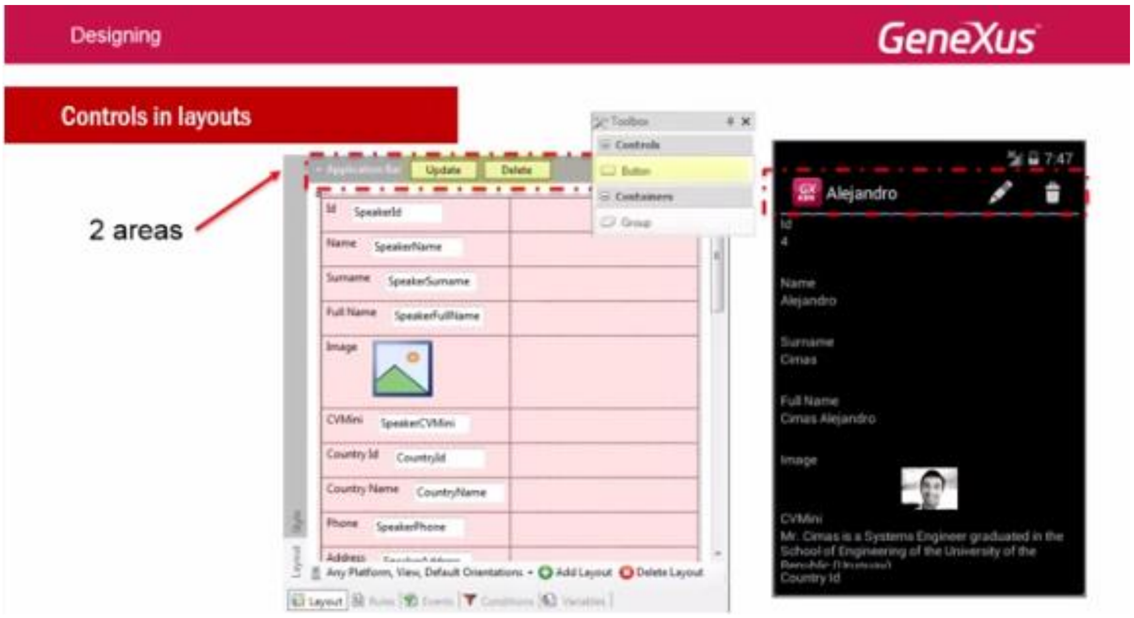


Two areas constitute a layout.

The area known as Application Bar:

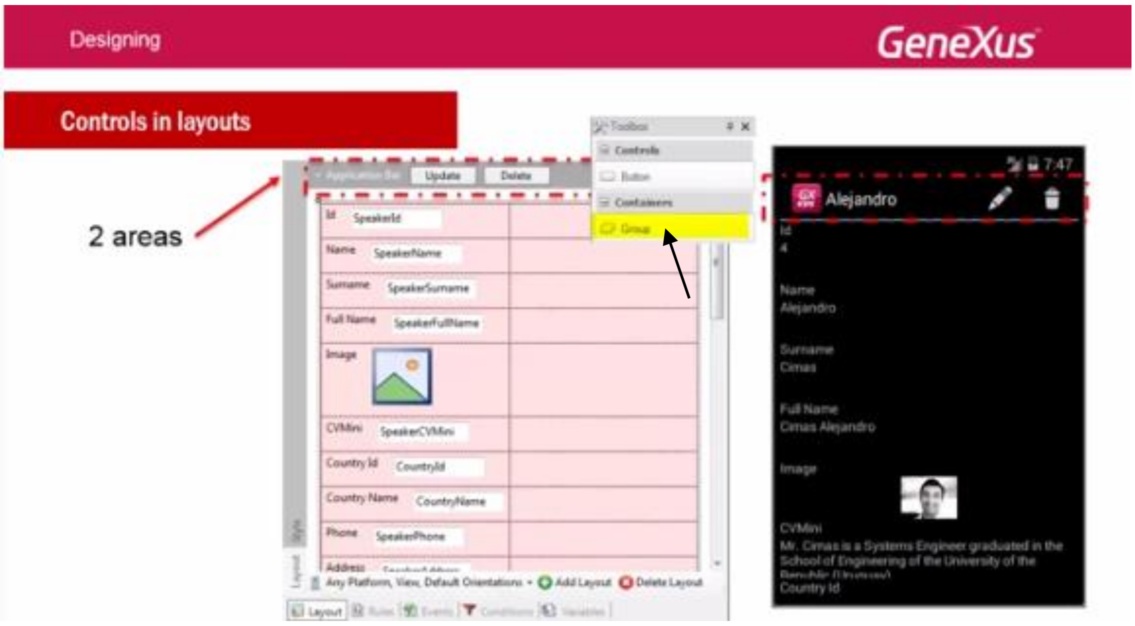


Where buttons can be placed



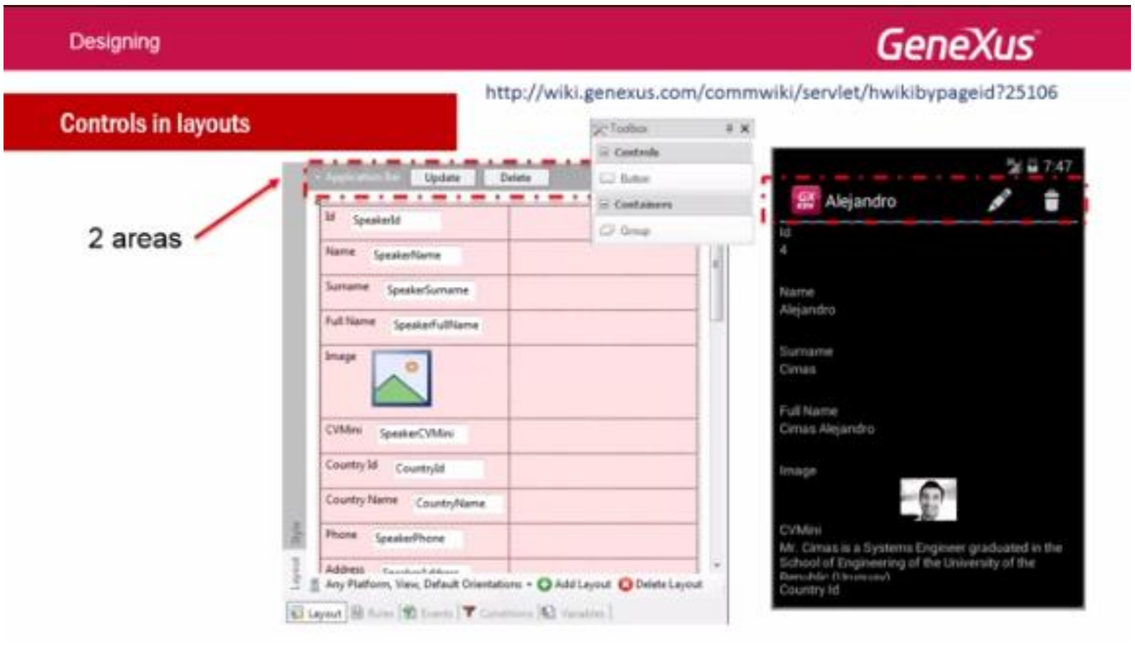
With or without associated images... corresponding to actions to be performed.

Or containers of groups of actions: Group Control



To group several actions and offer them, for example, as dropdown menus.

Here you will find more information about this topic:


Designing

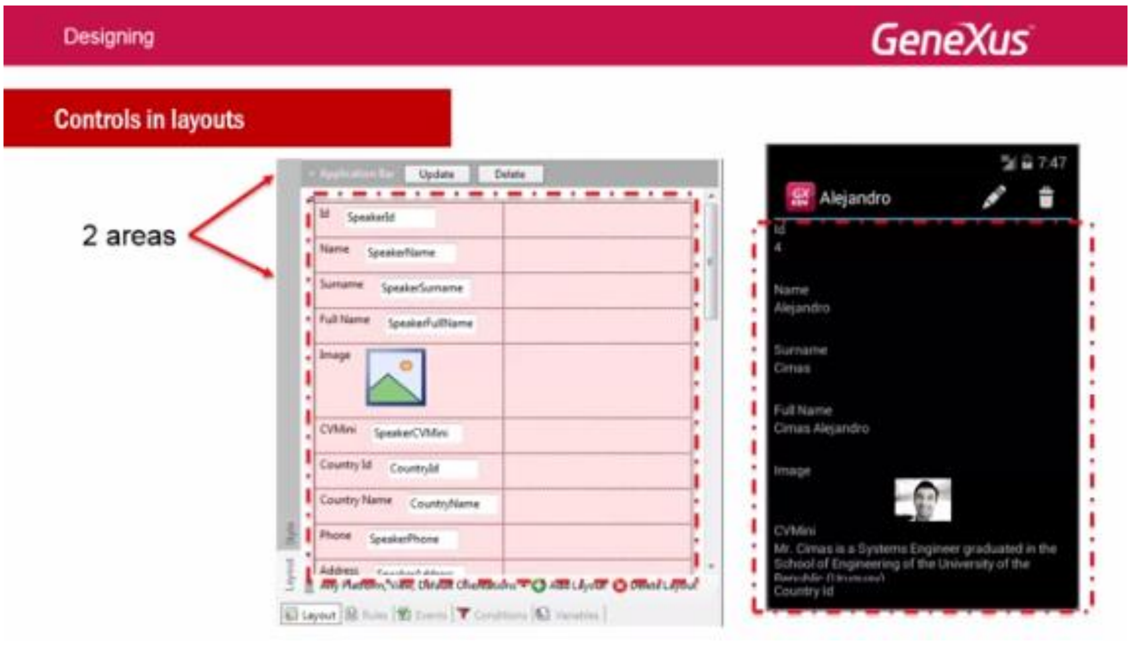
GeneXus

http://wiki.genexus.com/commwiki/servlet/hwikibypageid?25106

Controls in layouts

2 areas

The second area is the Layout itself:

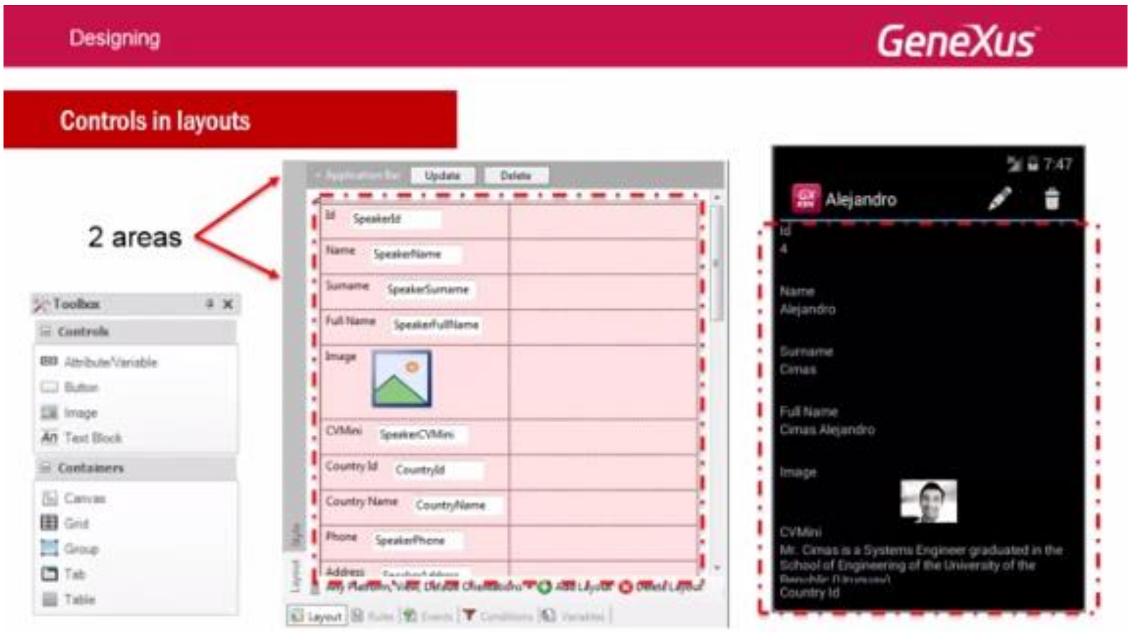

Designing

GeneXus

Controls in layouts

2 areas

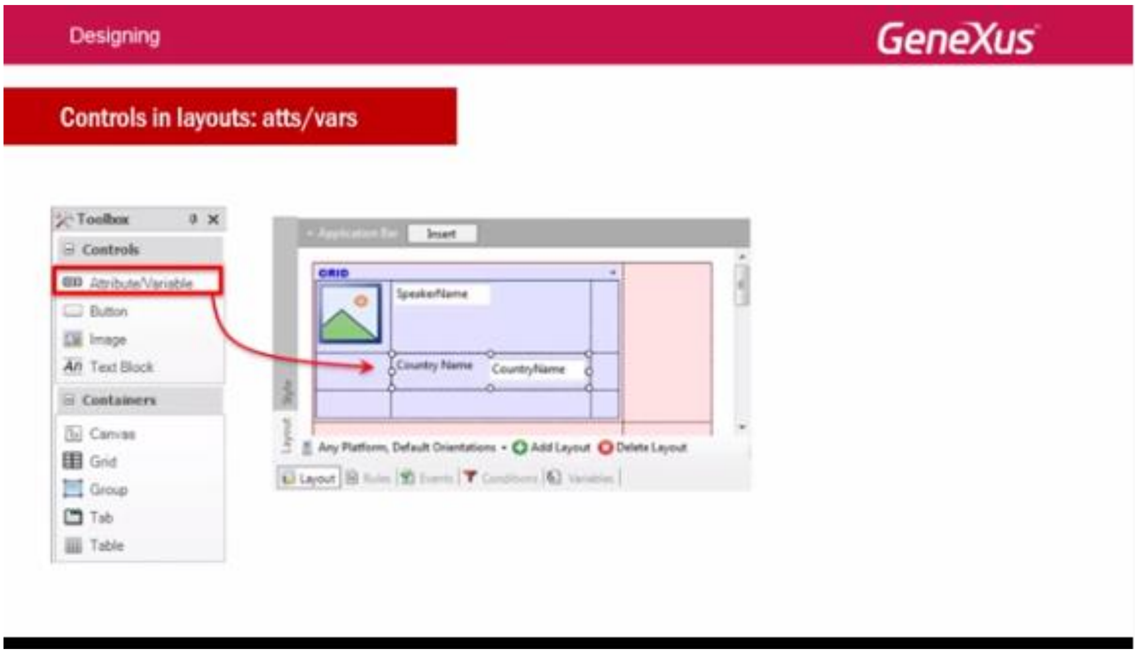
which offers the Toolbox:



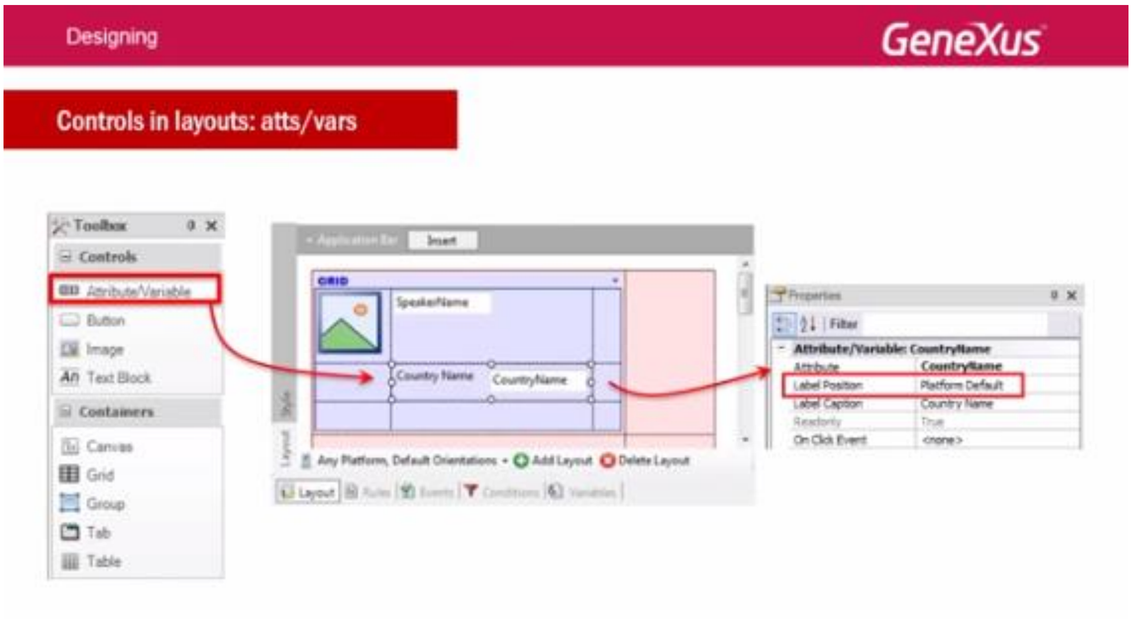
to insert controls.

For the Detail node of the Work With element, Placeholders will also be displayed as we will see later on.

We will focus on this second area and leave the first one for later when we study events.



For controls of attributes or variables, we have the Label Position **property**:

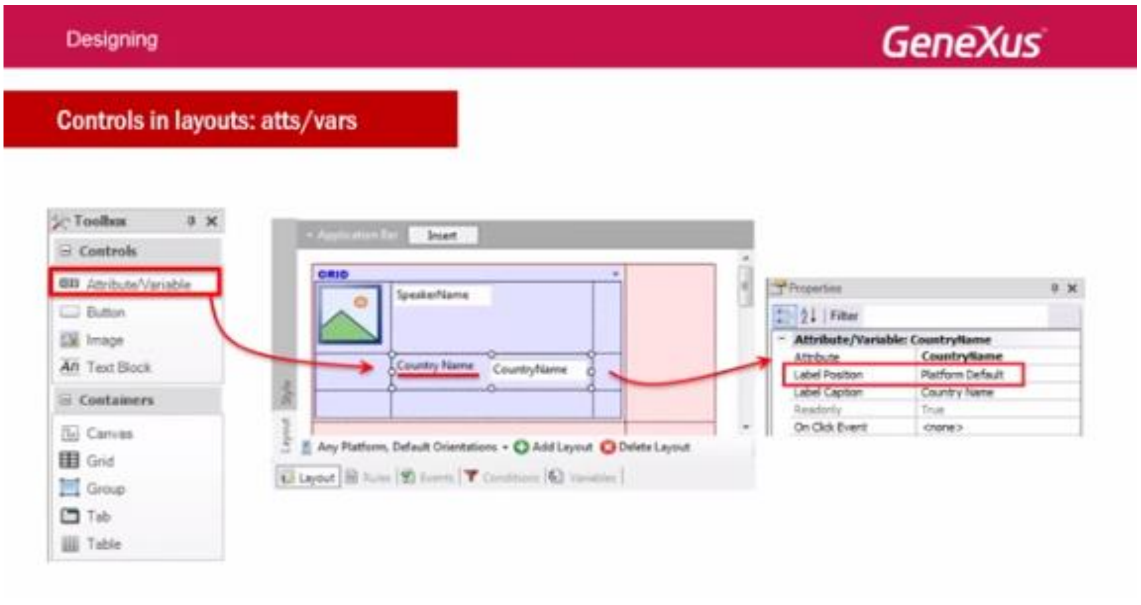

Designing

GeneXus

Controls in layouts: atts/vars

Attribute/Variable: CountryName	
Attribute	CountryName
Label Position	Platform Default
Label Caption	Country Name
Readonly	True
On Click Event	<none>

That will allow indicating the position that will take this attribute or variable tag:

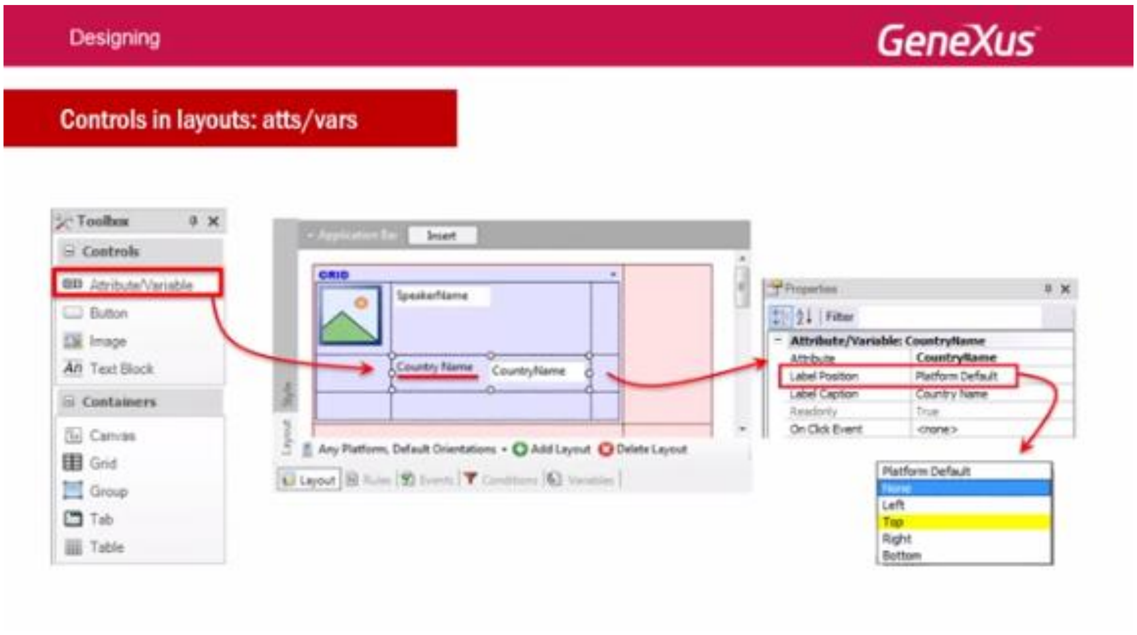

Designing

GeneXus

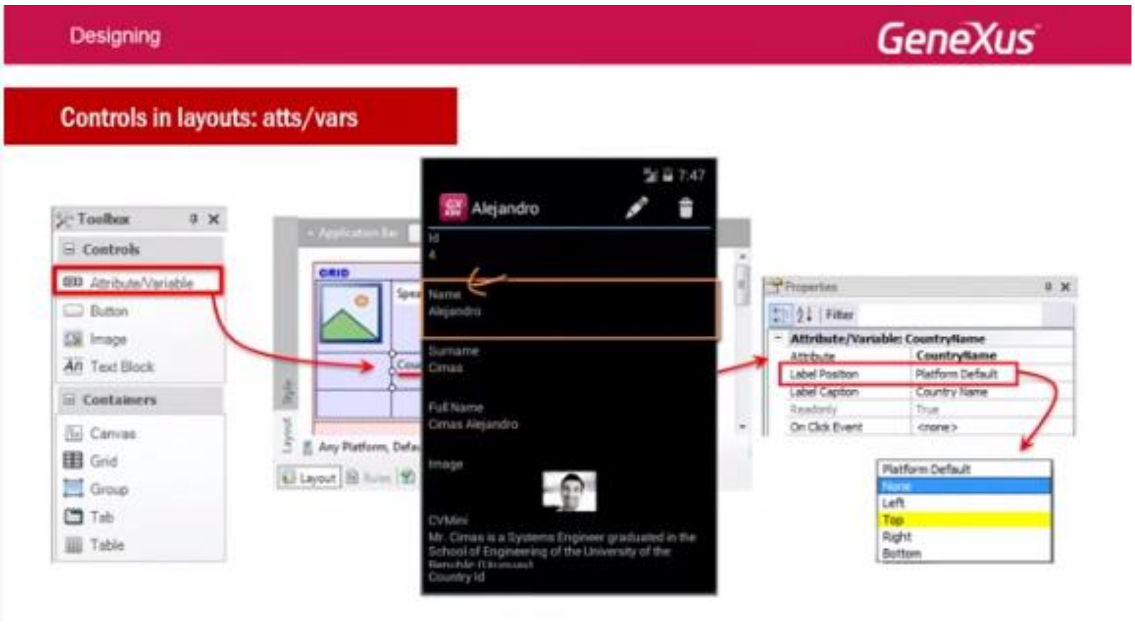
Controls in layouts: atts/vars

Attribute/Variable: CountryName	
Attribute	CountryName
Label Position	Platform Default
Label Caption	Country Name
Readonly	True
On Click Event	<none>

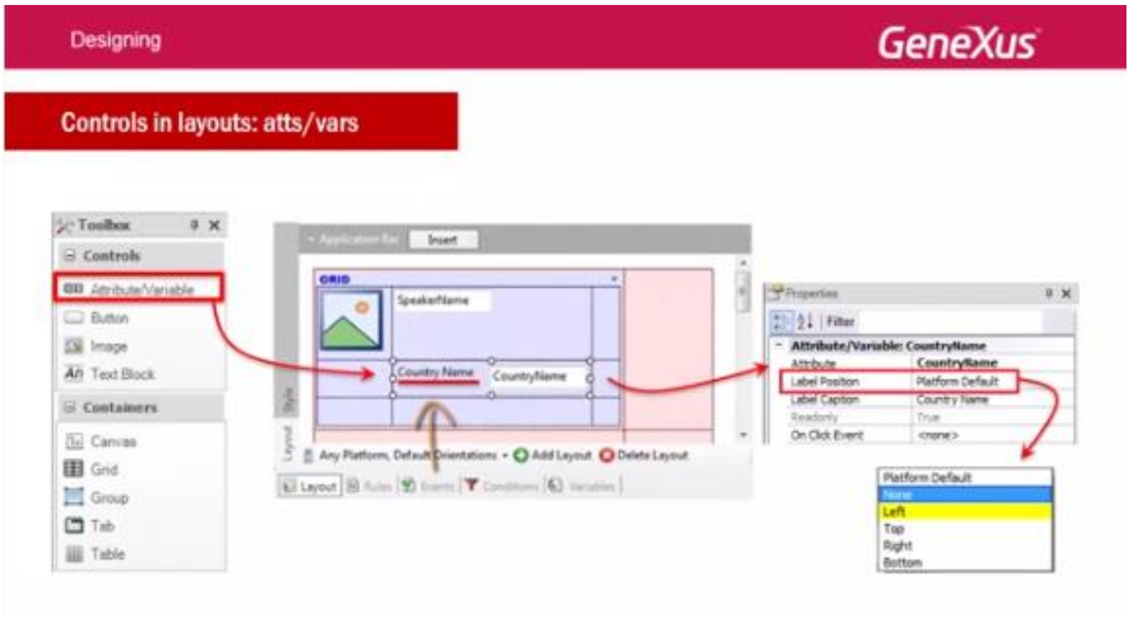
Each platform has a default value. In Android, for example, it is Top.



This means that the tag will be displayed above the attribute / variable control:



It's different from what we see here, where it is shown to the left:


Designing

GeneXus

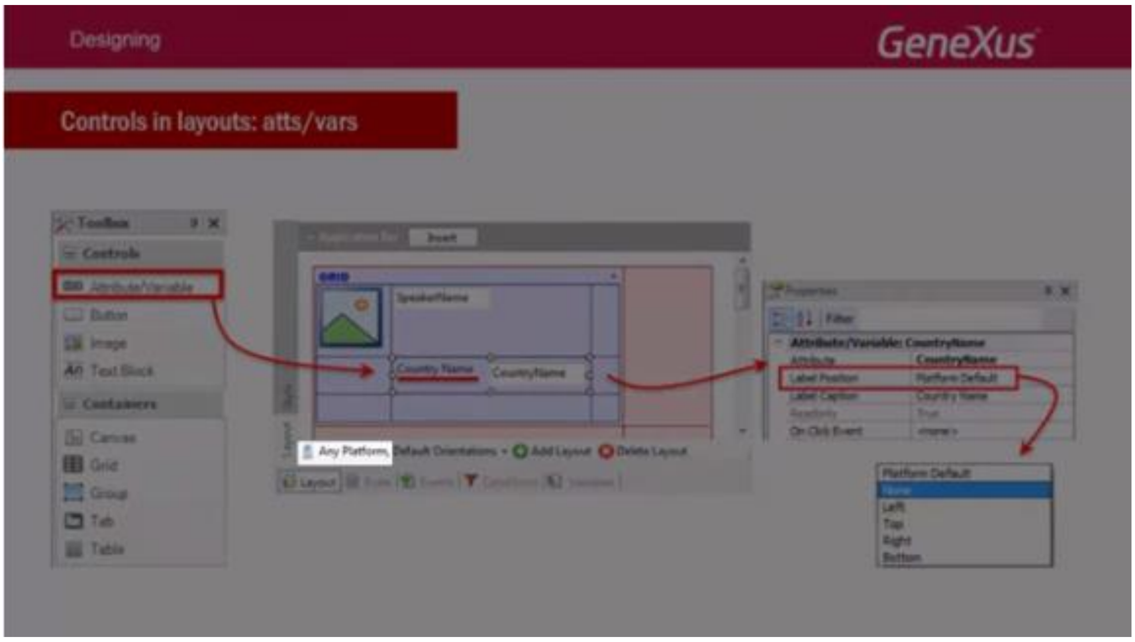
Controls in layouts: atts/vars

Attribute/Variable: CountryName

Attribute	CountryName
Label Position	Platform Default
Label Caption	Country Name
Readonly	True
On Click Event	<none>

Platform Default
None
Left
Top
Right
Bottom

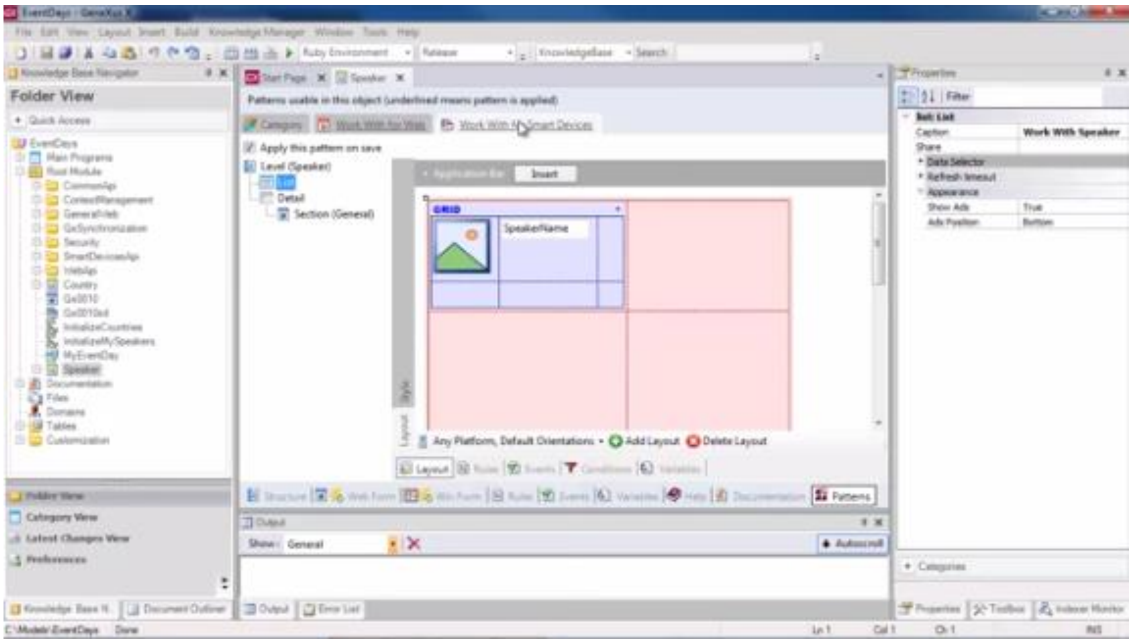
The reason is that it has to be shown in some way, and this screen is generic, not platform-specific.


Designing

GeneXus

Controls in layouts: atts/vars

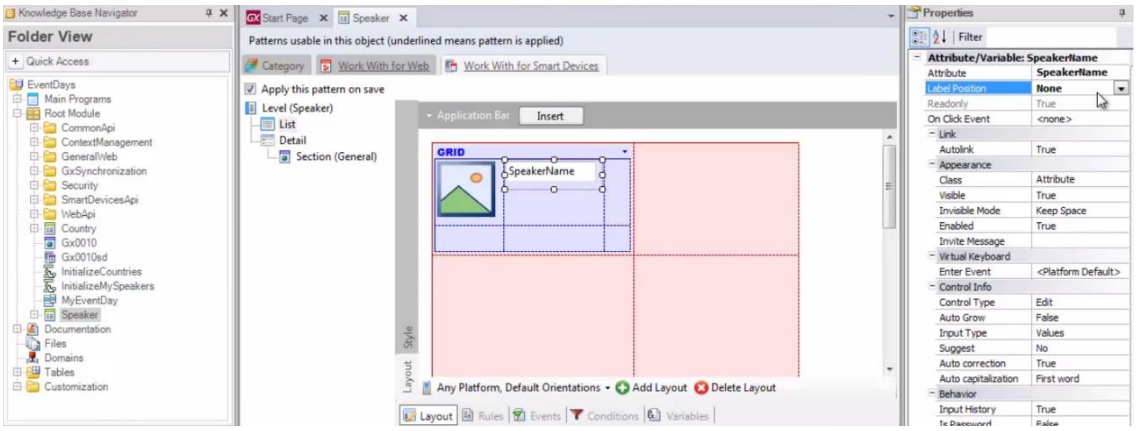
Let's see it in GeneXus:



We are positioned in the List of the Work With for Smart Devices element of the Speaker transaction.

Note that the pattern has automatically added the SpeakerName attribute control to the grid.

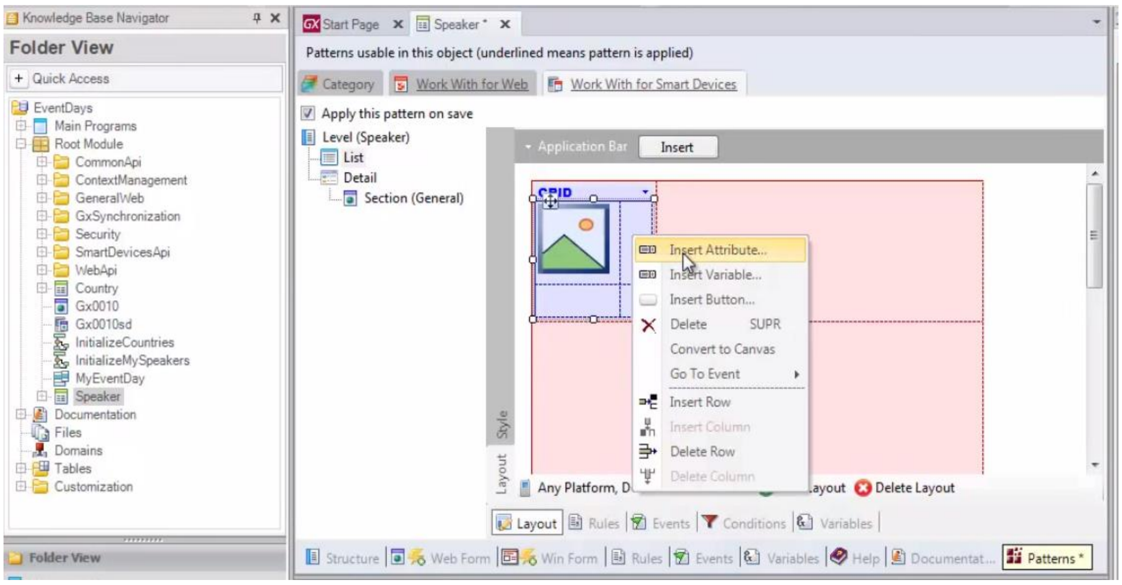
If we look at its properties, we see that the **Label Position** property takes the value None.



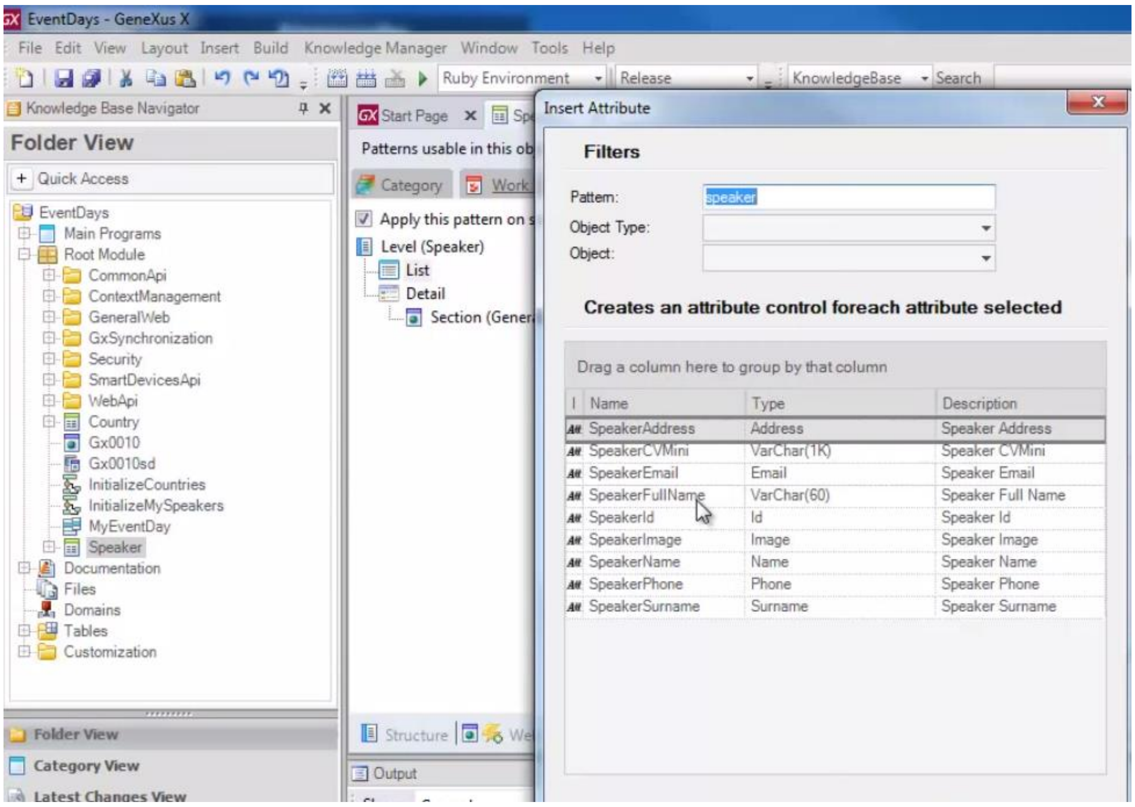
Attribute/Variable: SpeakerName	
Attribute	SpeakerName
Label Position	None
Readonly	True
On Click Event	<none>
Link	
Autolink	True
Appearance	
Class	Attribute
Visible	True
Invisible Mode	Keep Space
Enabled	True
Invite Message	
Virtual Keyboard	
Enter Event	<Platform Default>
Control Info	
Control Type	Edit
Auto Grow	False
Input Type	Values
Suggest	No
Auto correction	True
Auto capitalization	First word
Behavior	
Input History	True
Is Password	False

For this reason, there is no tag displayed for this control.

We will replace this control corresponding to SpeakerName with the speaker's full name. To do so, we delete this control and right-click inside the grid,



We select **Insert Atribute…**



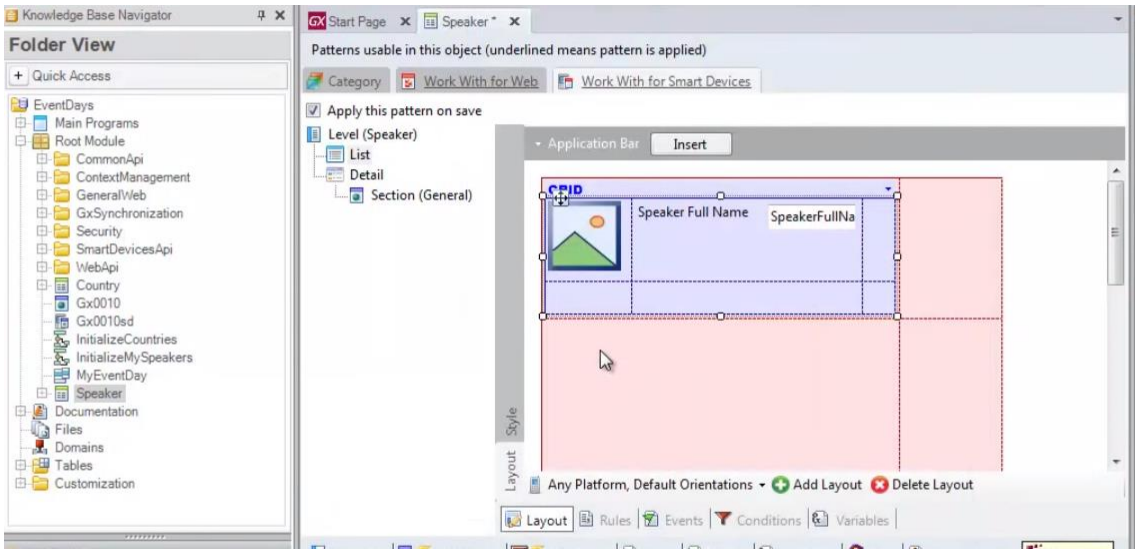
Pattern: speaker
Object Type:
Object:

Creates an attribute control foreach attribute selected

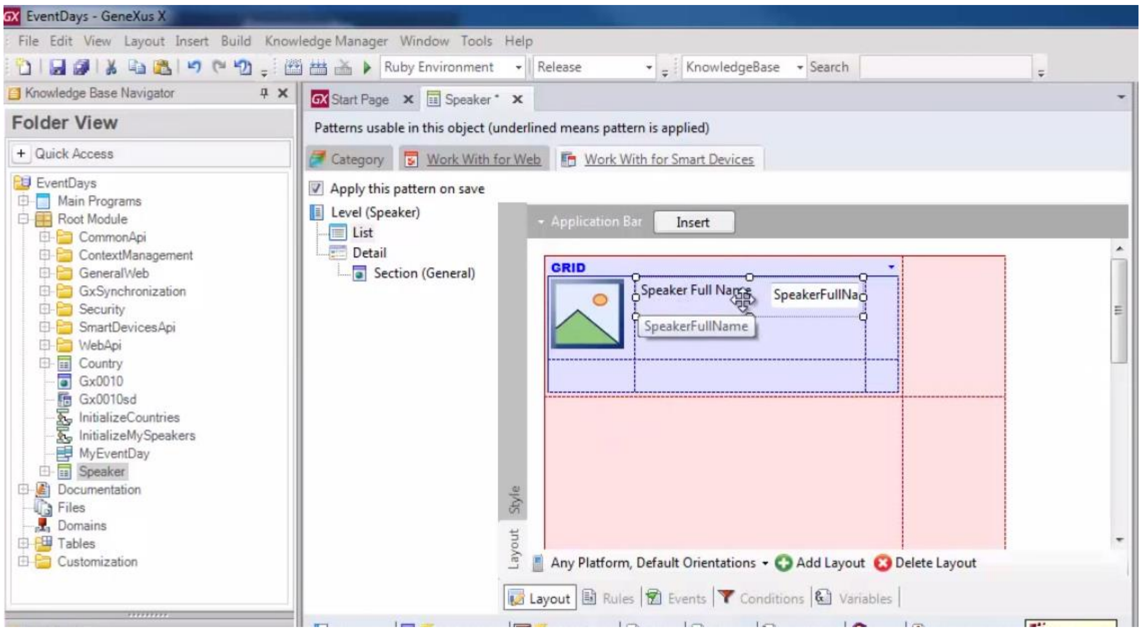
Drag a column here to group by that column

Name	Type	Description
SpeakerAddress	Address	Speaker Address
SpeakerCVMini	VarChar(1K)	Speaker CVMini
SpeakerEmail	Email	Speaker Email
SpeakerFullName	VarChar(60)	Speaker Full Name
SpeakerId	Id	Speaker Id
SpeakerImage	Image	Speaker Image
SpeakerName	Name	Speaker Name
SpeakerPhone	Phone	Speaker Phone
SpeakerSurname	Surname	Speaker Surname

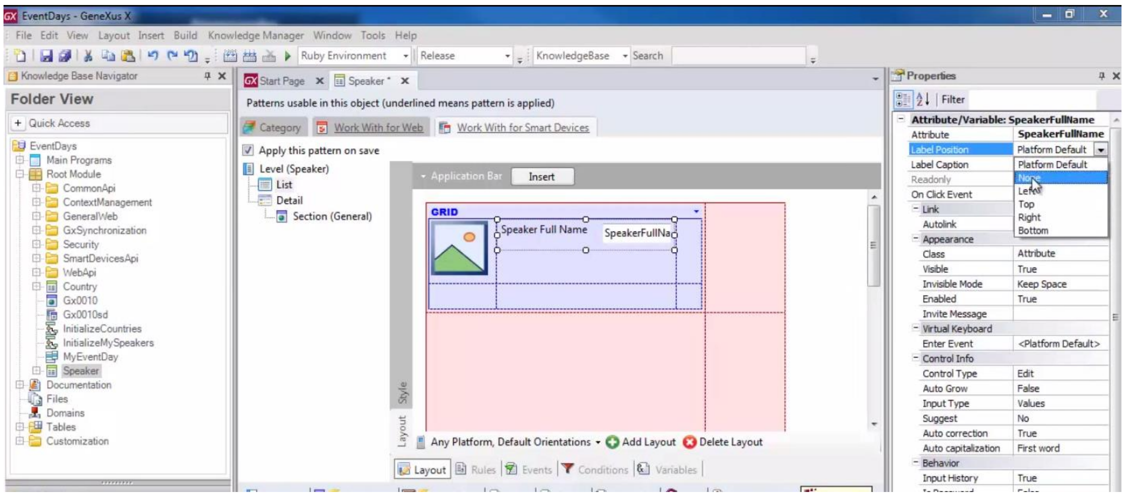
And add SpeakerFullName:



Note that the tag is now displayed by default:



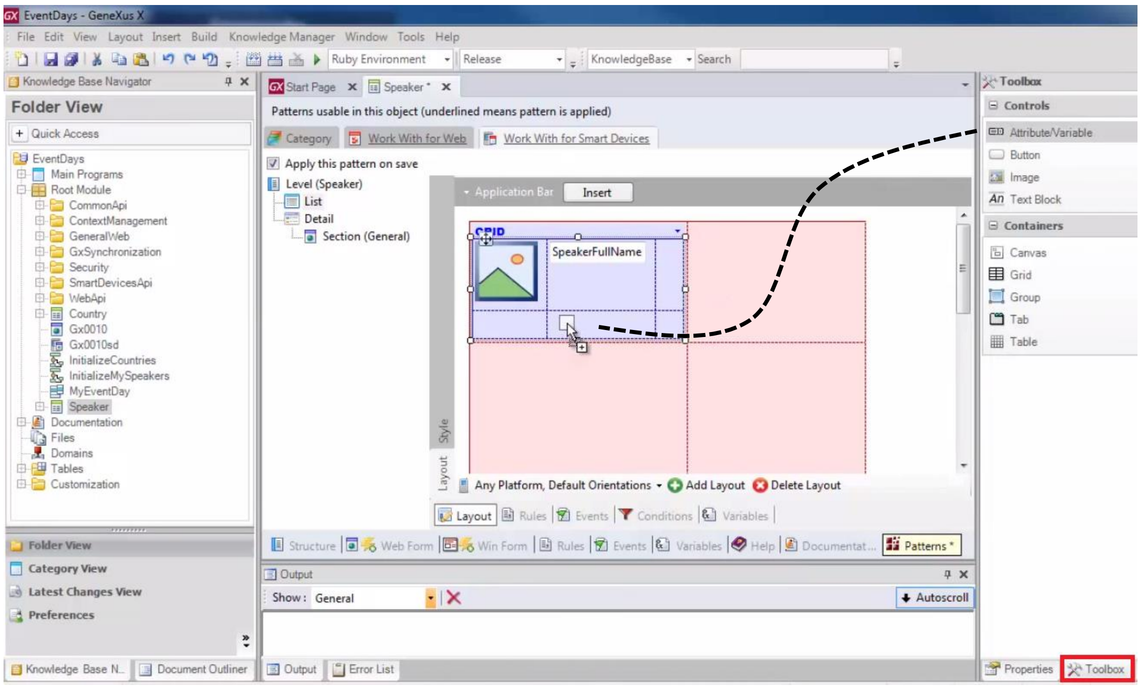
To hide it, we go to **Label Position** and change the Platform Default value to: None



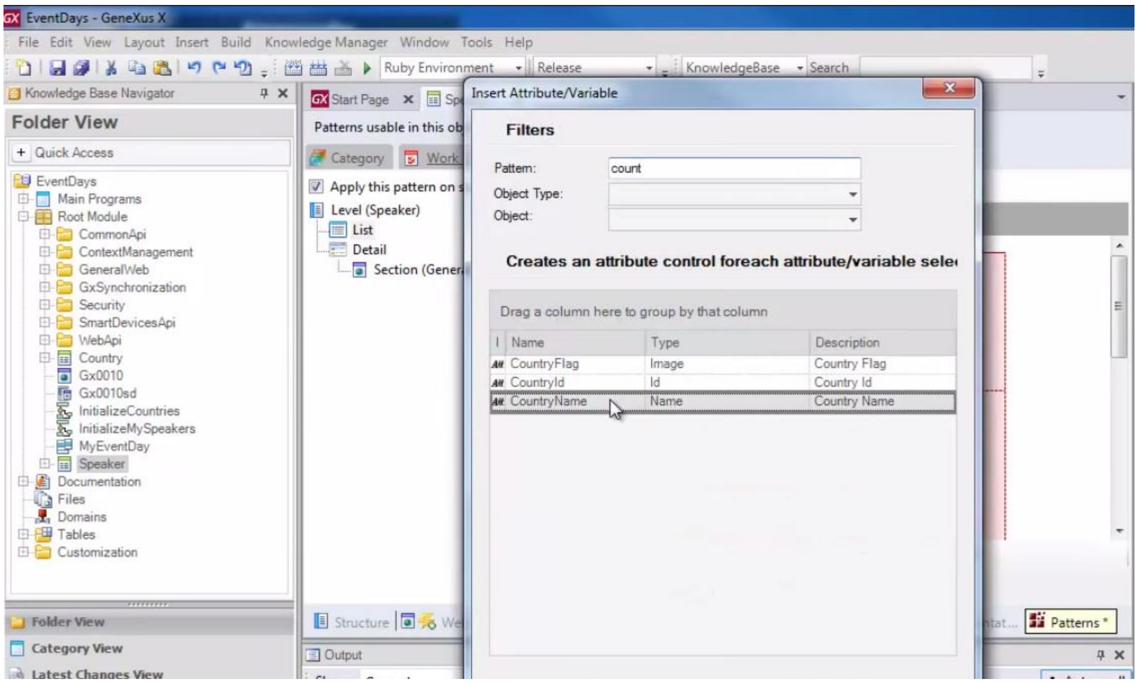
Attribute/Variable: SpeakerFullName	
Attribute	SpeakerFullName
Label Position	Platform Default
Label Caption	Platform Default
Readonly	
On Click Event	
Link	
Autolink	
Appearance	
Class	Attribute
Visible	True
Invisible Mode	Keep Space
Enabled	True
Invite Message	
Virtual Keyboard	
Enter Event	<Platform Default>
Control Info	
Control Type	Edit
Auto Grow	False
Input Type	Values
Suggest	No
Auto correction	True
Auto capitalization	First word
Behavior	
Input History	True

Now we will add the speaker's country name.

We right-click again or drag the attribute / variable control from the Toolbox



CountryName:


Insert Attribute/Variable

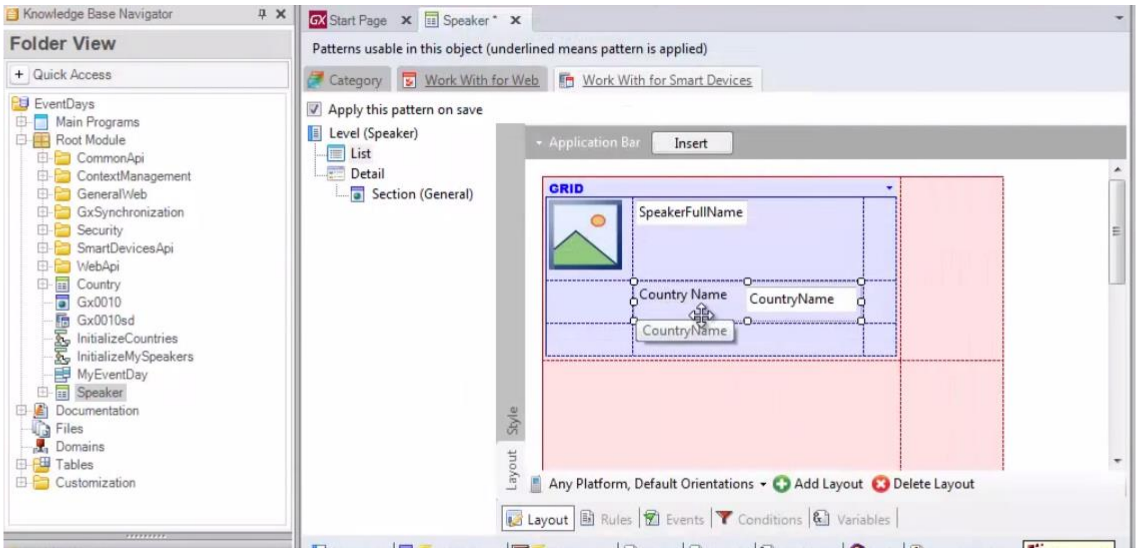
Filters

Pattern:	count
Object Type:	
Object:	

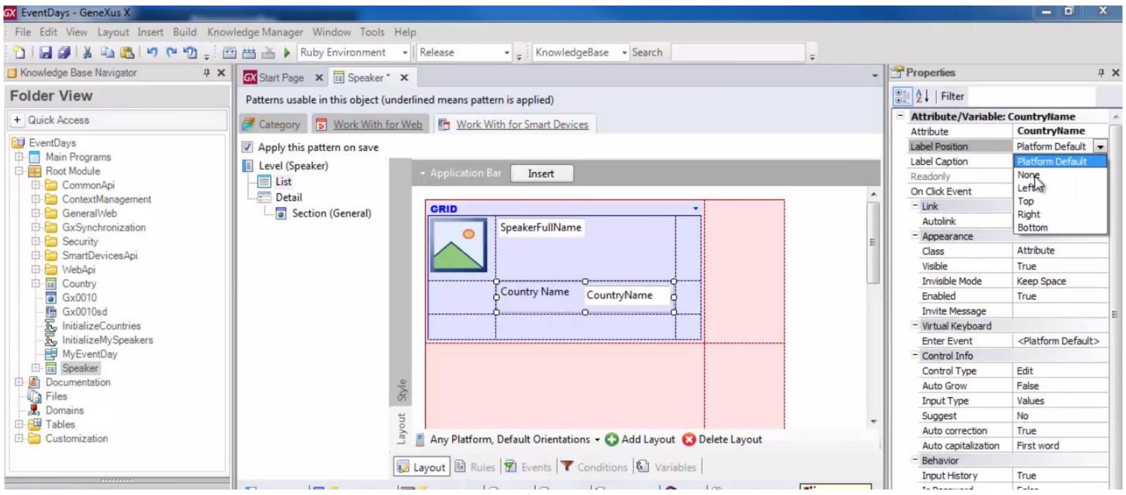
Creates an attribute control foreach attribute/variable sele

Drag a column here to group by that column

Name	Type	Description
CountryFlag	Image	Country Flag
CountryId	Id	Country Id
CountryName	Name	Country Name



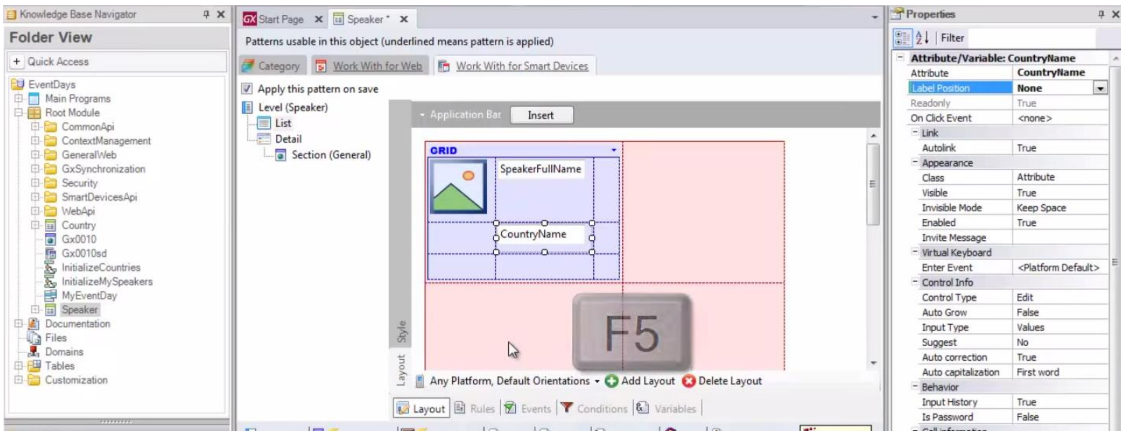
Again, in the properties we change the **Label Position** value to **None.**



Attribute/Variable: CountryName

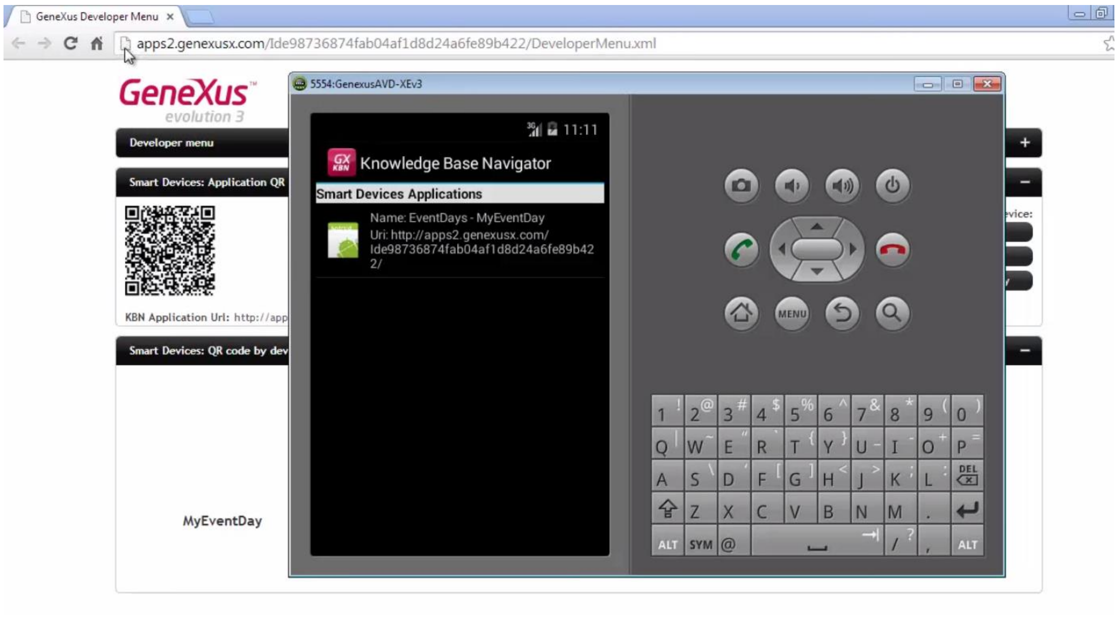
Attribute	CountryName
Label Position	Platform Default
Label Caption	
Readonly	
On Click Event	
Link	
Autolink	
Appearance	
Class	Attribute
Visible	True
Invisible Mode	Keep Space
Enabled	True
Invite Message	
Virtual Keyboard	
Enter Event	<Platform Default>
Control Info	
Control Type	Edit
Auto Grow	False
Input Type	Values
Suggest	No
Auto correction	True
Auto capitalization	First word
Behavior	
Input History	True

We press F5 to test what we've done:

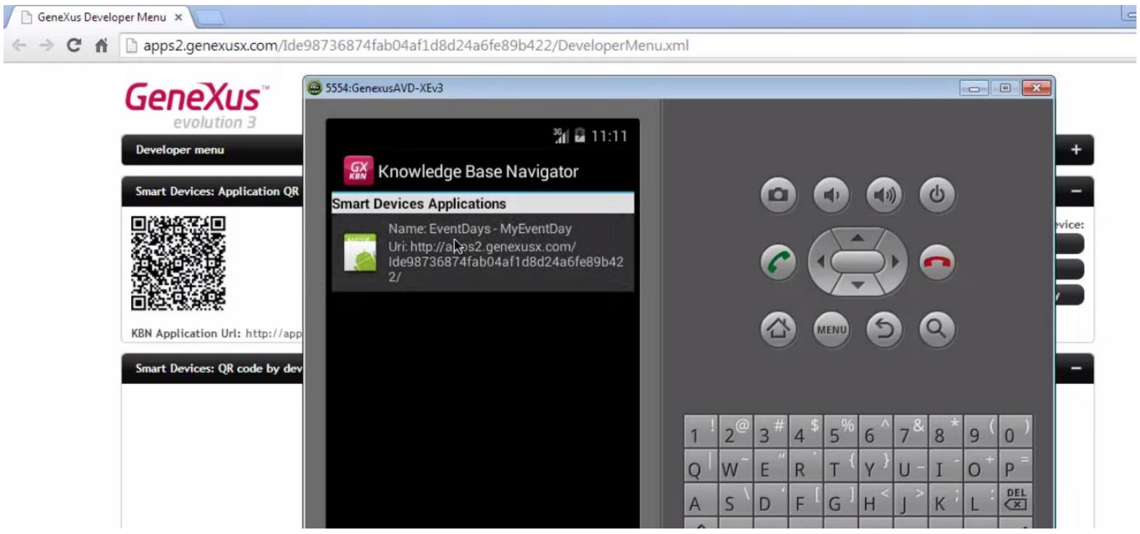


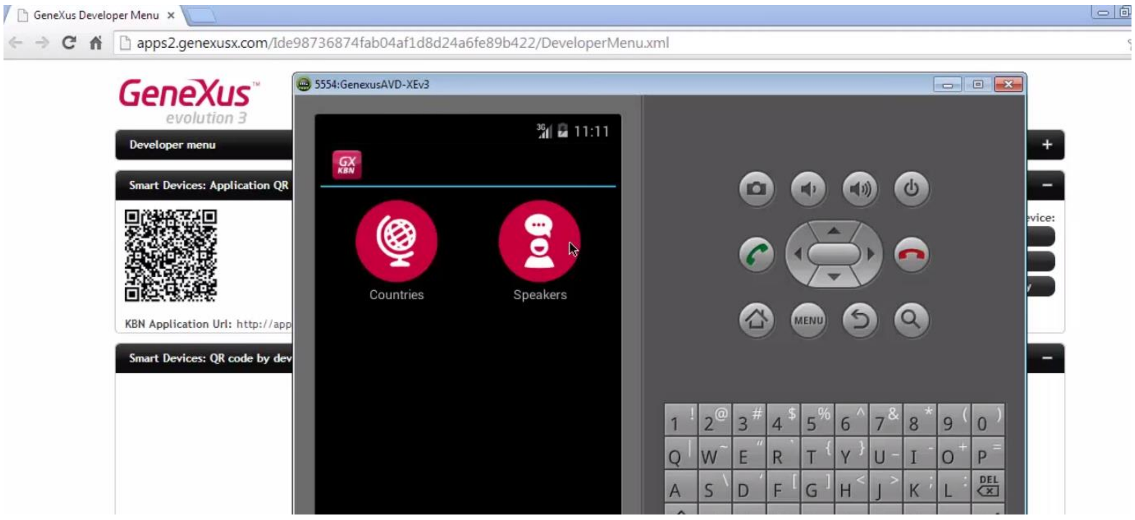
Attribute/Variable: CountryName

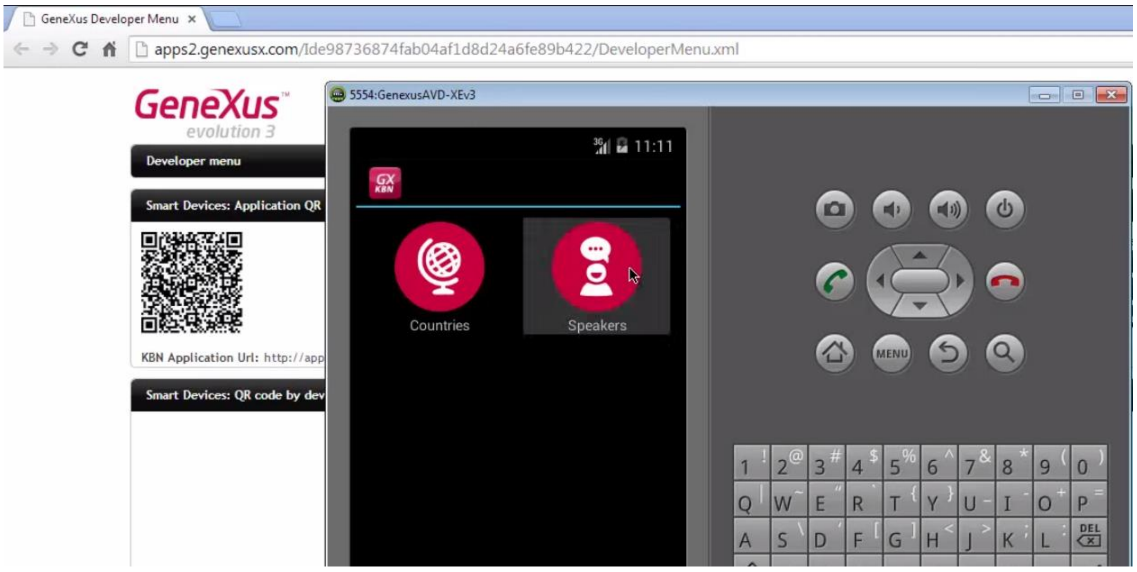
Attribute	CountryName
Label Position	None
Readonly	True
On Click Event	<none>
Link	
Autolink	True
Appearance	
Class	Attribute
Visible	True
Invisible Mode	Keep Space
Enabled	True
Invite Message	
Virtual Keyboard	
Enter Event	<Platform Default>
Control Info	
Control Type	Edit
Auto Grow	False
Input Type	Values
Suggest	No
Auto correction	True
Auto capitalization	First word
Behavior	
Input History	True
Is Password	False

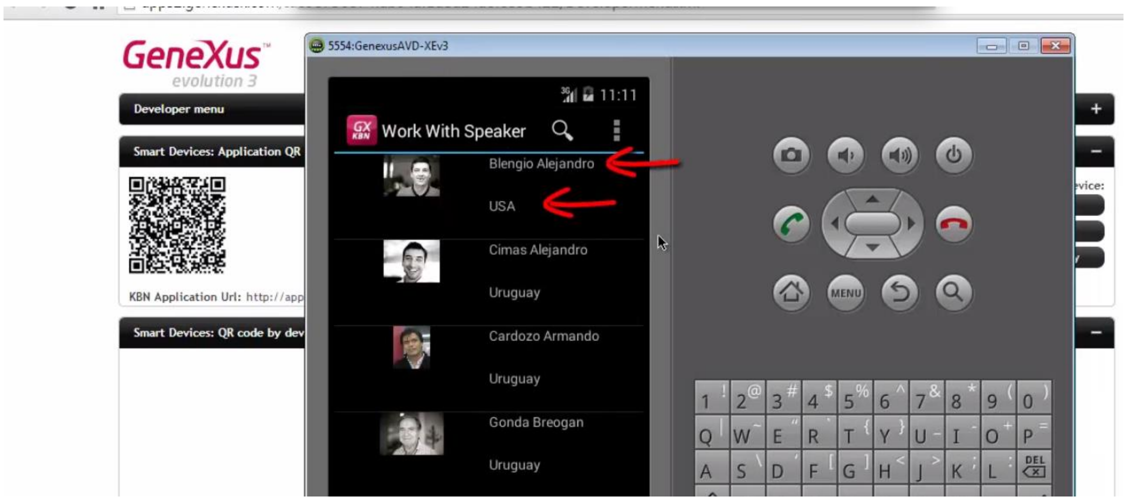

GeneXus Developer Menu
apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/DeveloperMenu.xml
GeneXus evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url: http://app
Smart Devices: QR code by dev
MyEventDay
5554:GenexusAVD-XEv3
11:11
Knowledge Base Navigator
Smart Devices Applications
Name: EventDays - MyEventDay
Uri: http://apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/

Since we don't have a Startup object defined, the web Developer Menu and the KBN were opened.

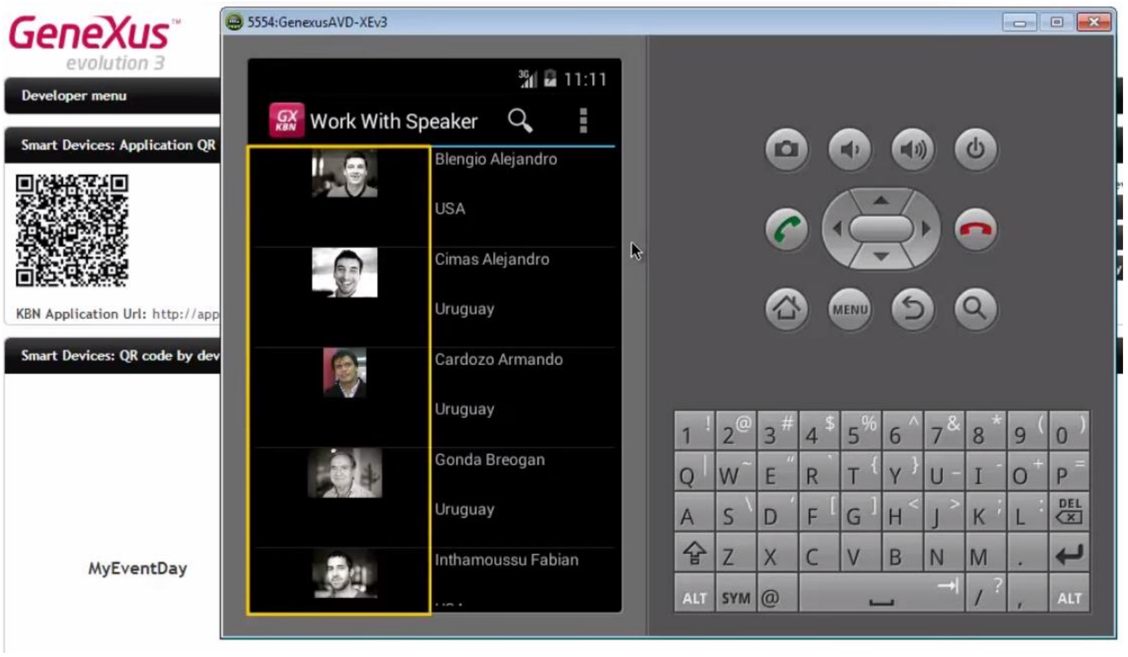

GeneXus Developer Menu
apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/DeveloperMenu.xml
GeneXus evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url: http://app
Smart Devices: QR code by dev
5554:GenexusAVD-XEv3
11:11
Knowledge Base Navigator
Smart Devices Applications
Name: EventDays - MyEventDay
Uri: http://apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/

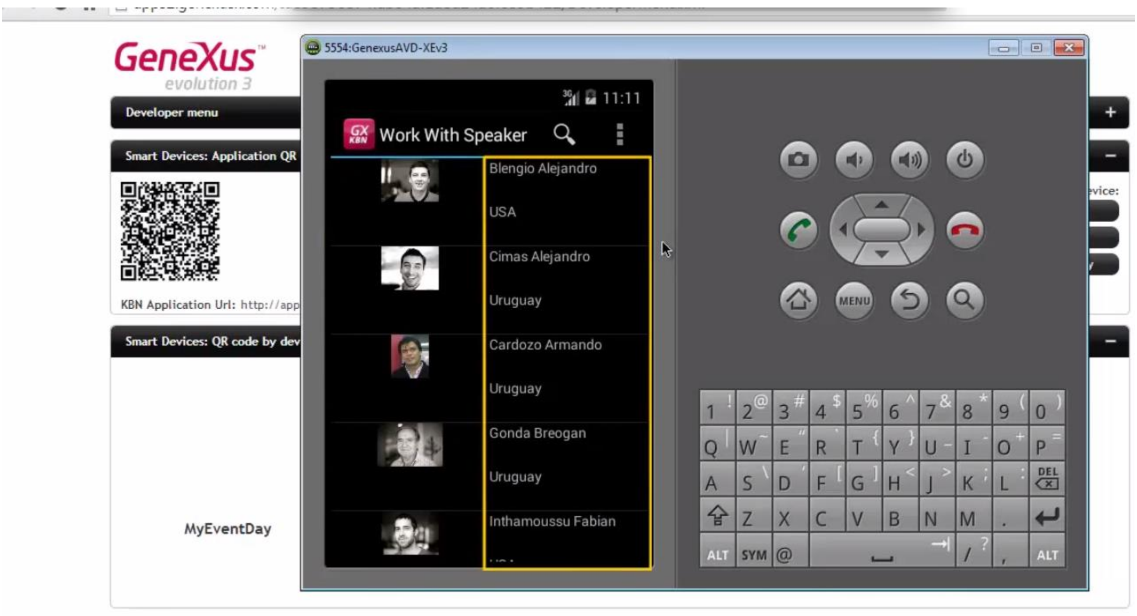

GeneXus Developer Menu
apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/DeveloperMenu.xml
GeneXus evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url: http://app
Smart Devices: QR code by dev
5554:GenexusAVD-XEv3
11:11
Countries
Speakers

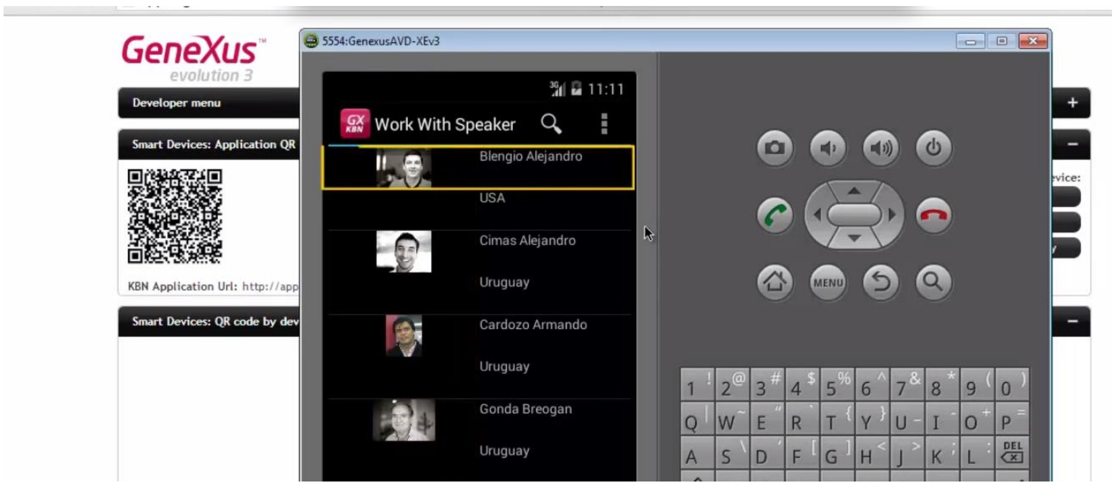

GeneXus Developer Menu
apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/DeveloperMenu.xml
GeneXus evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url: http://app
Smart Devices: QR code by dev
5554:GenexusAVD-XEv3
11:11
Countries
Speakers



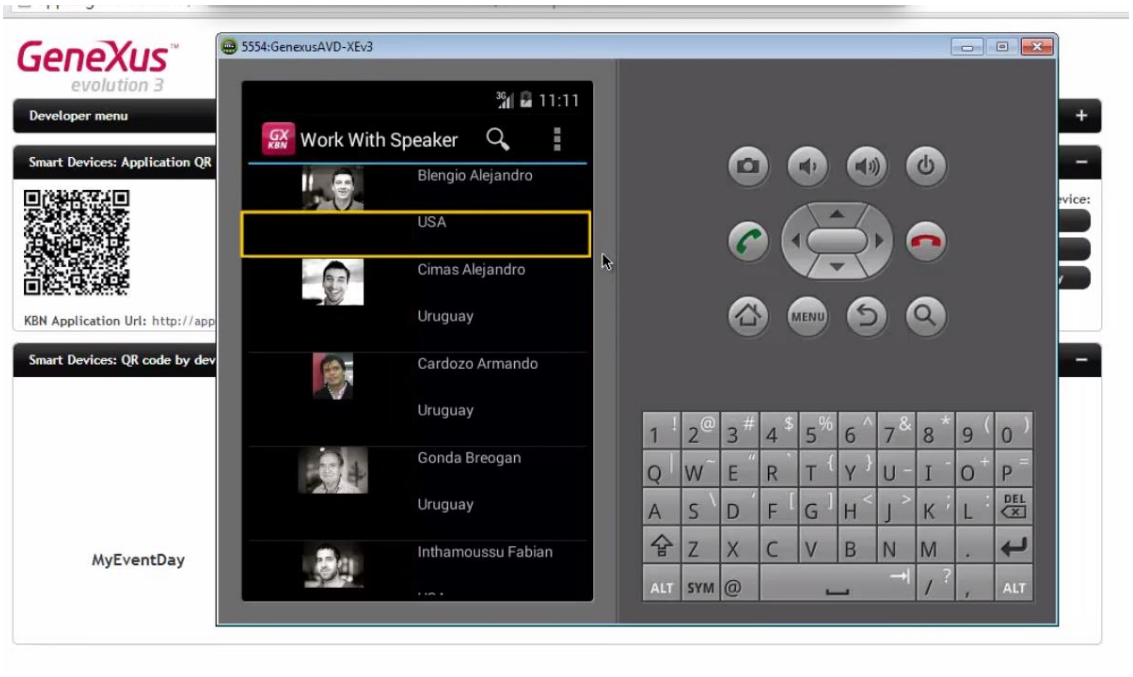
Note that it can be divided into 2 columns and 2 rows per line in the grid:





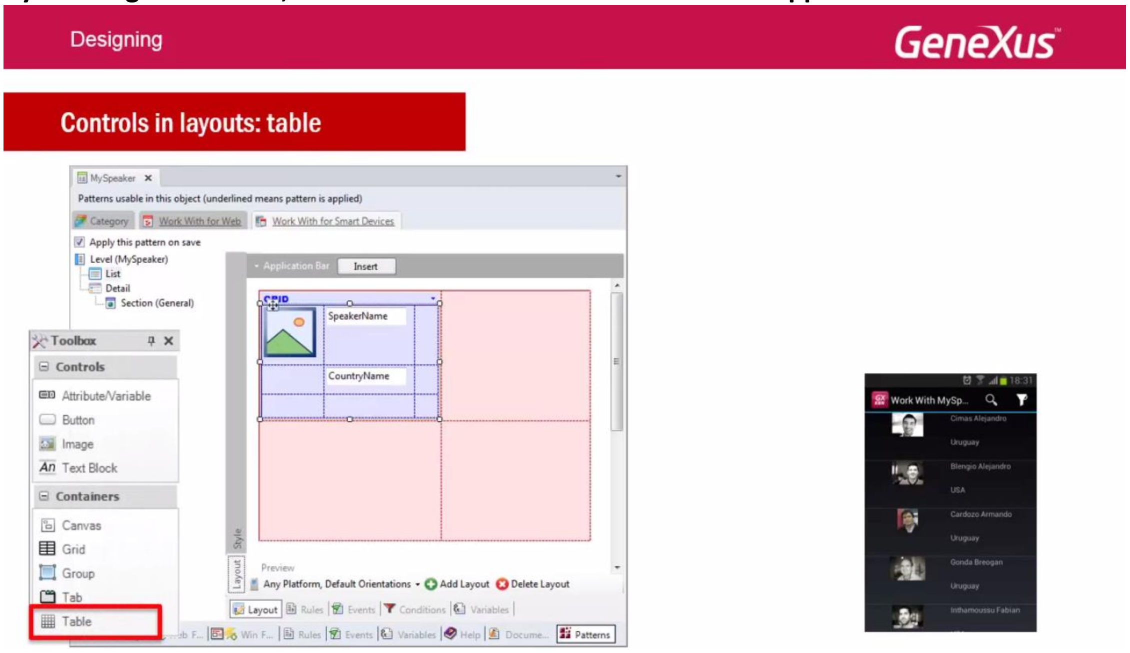


Video recorded with GeneXus X Evolution 3

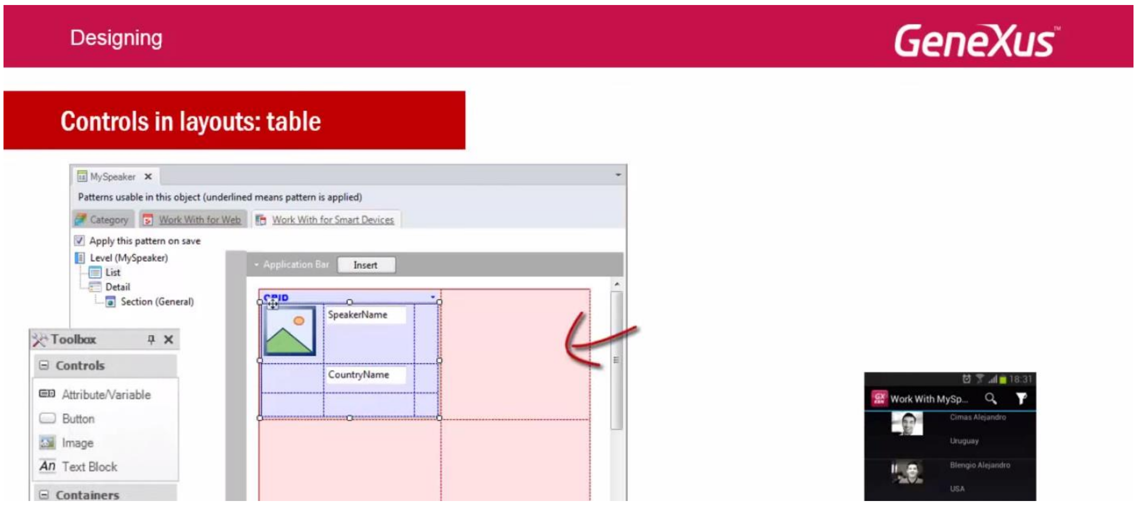


How do we change the place taken by controls within each row... and their distances?

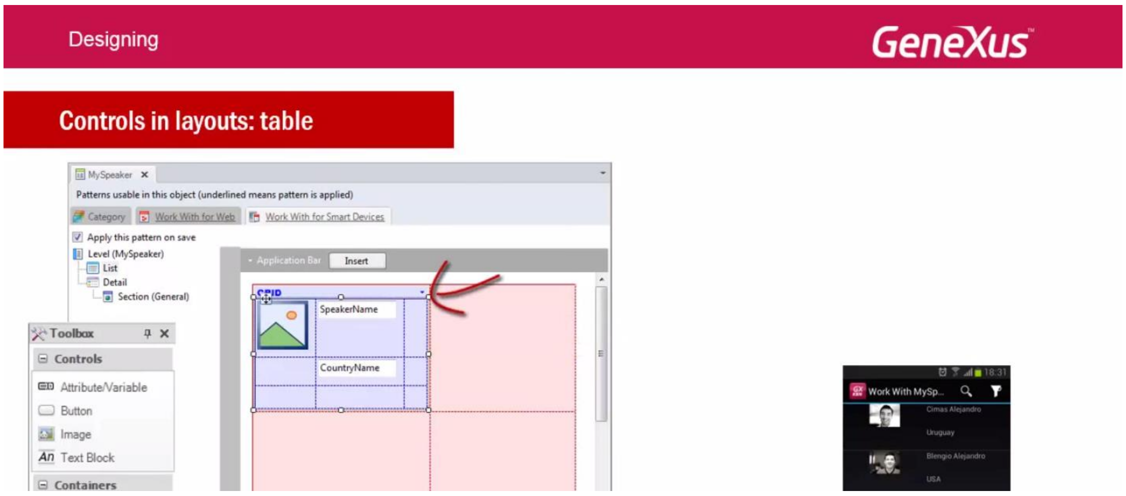
By working with tables, which will be essential in Smart Device applications.



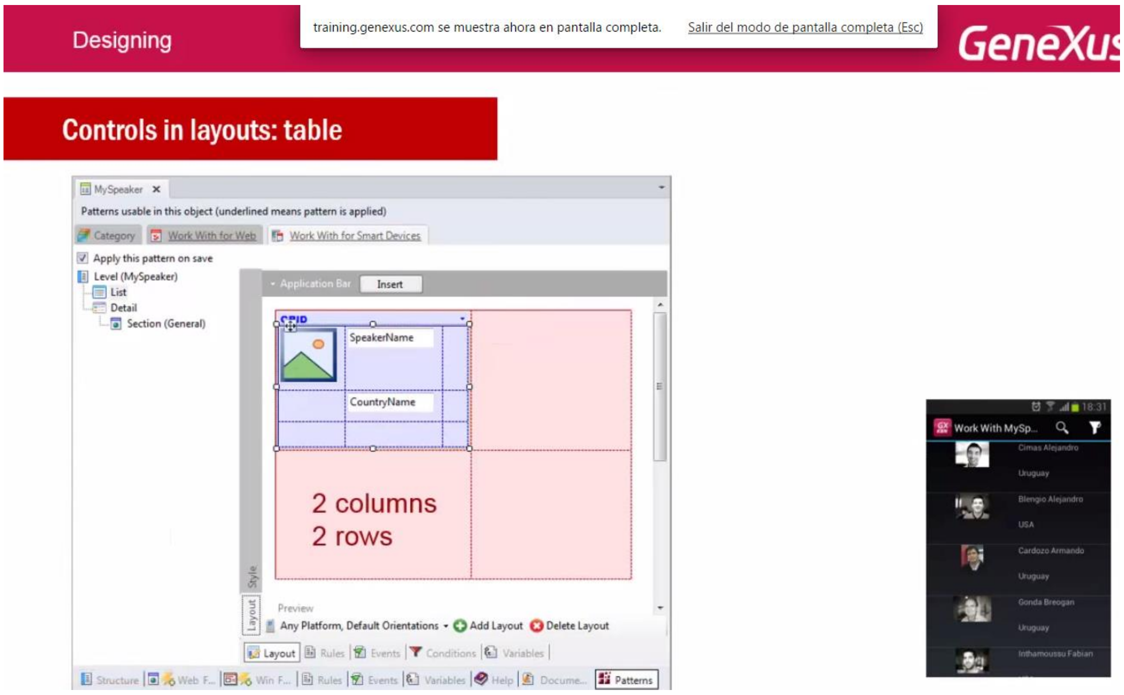
All Layouts have a **root table**, even when they are empty.



In turn, every grid will define a table to contain the controls of each line to be loaded:



In this case, the table has 2 columns and 2 rows...


Designing
training.genexus.com se muestra ahora en pantalla completa.
Salir del modo de pantalla completa (Esc)
GeneXus
Controls in layouts: table
MySpeaker
Patterns usable in this object (underlined means pattern is applied)
Category
Work With for Web
Work With for Smart Devices
Apply this pattern on save
Level (MySpeaker)
List
Detail
Section (General)
Application Bar
Insert
SpeakerName
CountryName
2 columns
2 rows
Any Platform, Default Orientations
Add Layout
Delete Layout
Layout
Rules
Events
Conditions
Variables
Patterns

Look at the 2 properties: **Columns Style** and **Rows Style.**

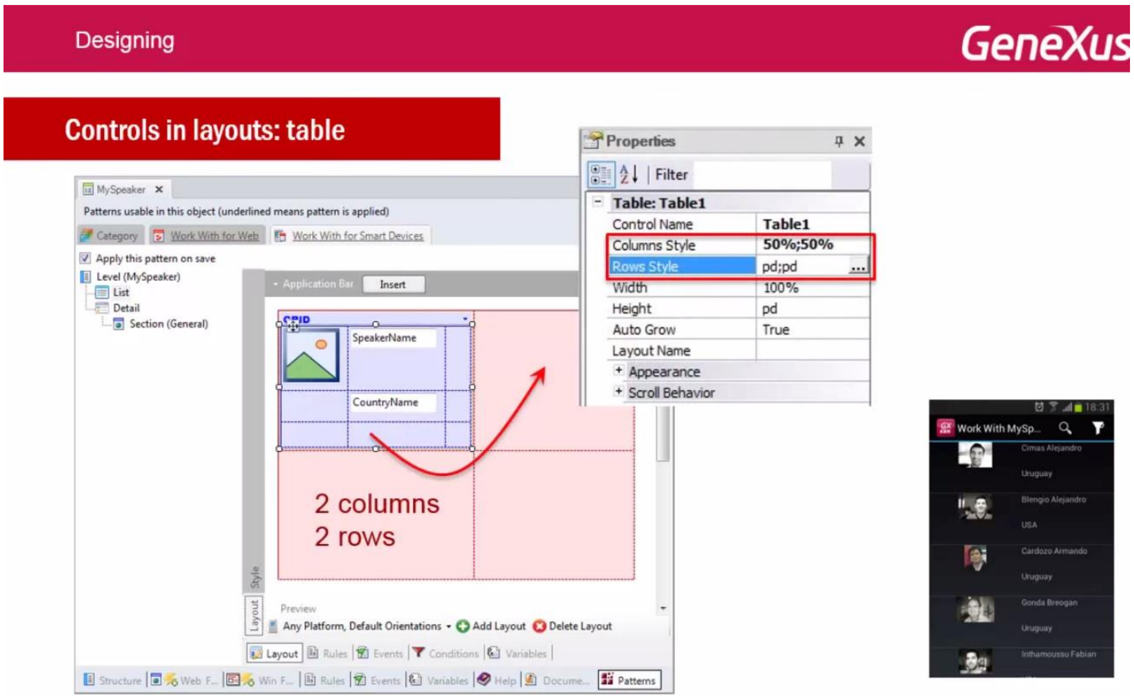
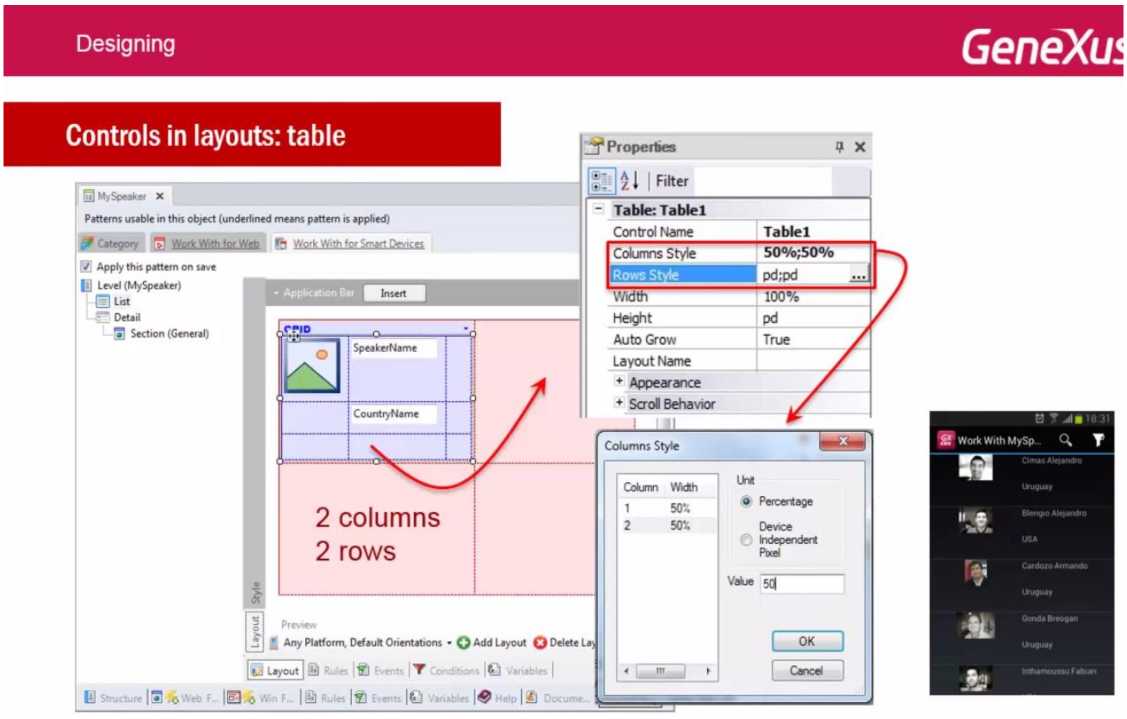


Table: Table1	
Control Name	Table1
Columns Style	50%;50%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
+ Appearance	
+ Scroll Behavior	

They allow defining the size that each column and row will take in the table.

Look at the columns. Their sizes can be specified in 2 units: percentage or DIPs (Device Independent Pixel):



Designing

Controls in layouts: table

Properties	
Table: Table1	
Control Name	Table1
Columns Style	50%;50%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
+ Appearance	
+ Scroll Behavior	

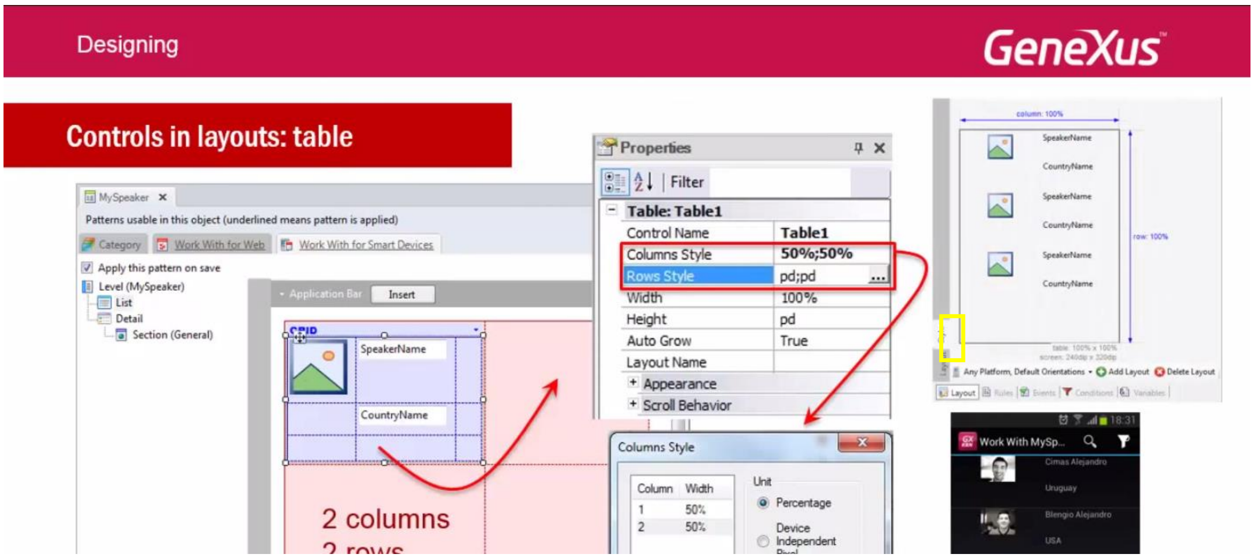
Columns Style

Column	Width
1	50%
2	50%

Unit: Percentage (selected) / Device Independent Pixel

Value: 50

Note that the "Style" tab shows how it will look at runtime.



Designing

Controls in layouts: table

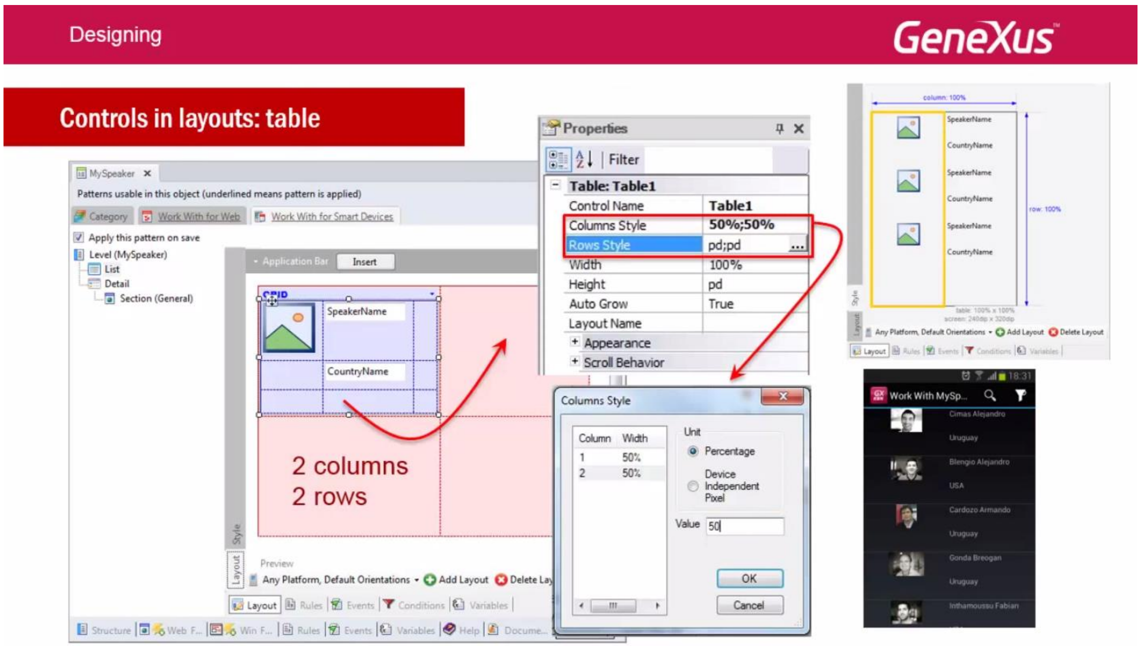
Properties	
Table: Table1	
Control Name	Table1
Columns Style	50%;50%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
+ Appearance	
+ Scroll Behavior	

Columns Style

Column	Width
1	50%
2	50%

Unit: Percentage (selected) / Device Independent Pixel

In the columns, this 50% is visually clear:



Designing

GeneXus

Controls in layouts: table

2 columns
2 rows

Properties

Table: Table1

Control Name	Table1
Columns Style	50%;50%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
+ Appearance	
+ Scroll Behavior	

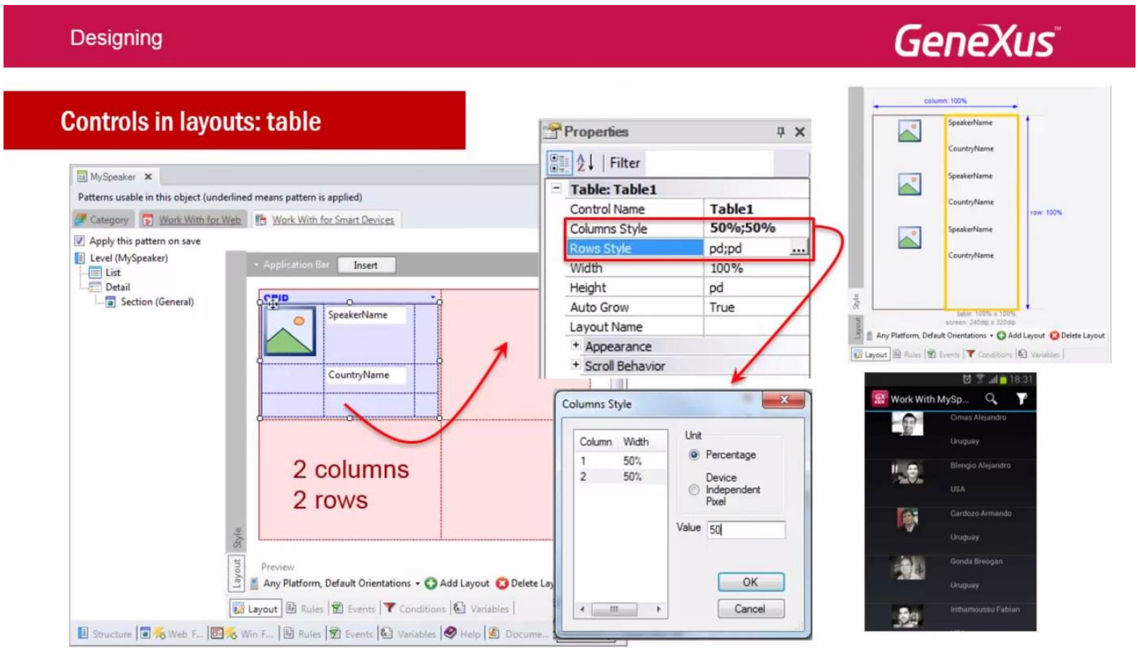
Columns Style

Column	Width
1	50%
2	50%

Unit: [✓ Percentage] Device Independent Pixel

Value 50

OK Cancel



Designing

GeneXus

Controls in layouts: table

2 columns
2 rows

Properties

Table: Table1

Control Name	Table1
Columns Style	50%;50%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
+ Appearance	
+ Scroll Behavior	

Columns Style

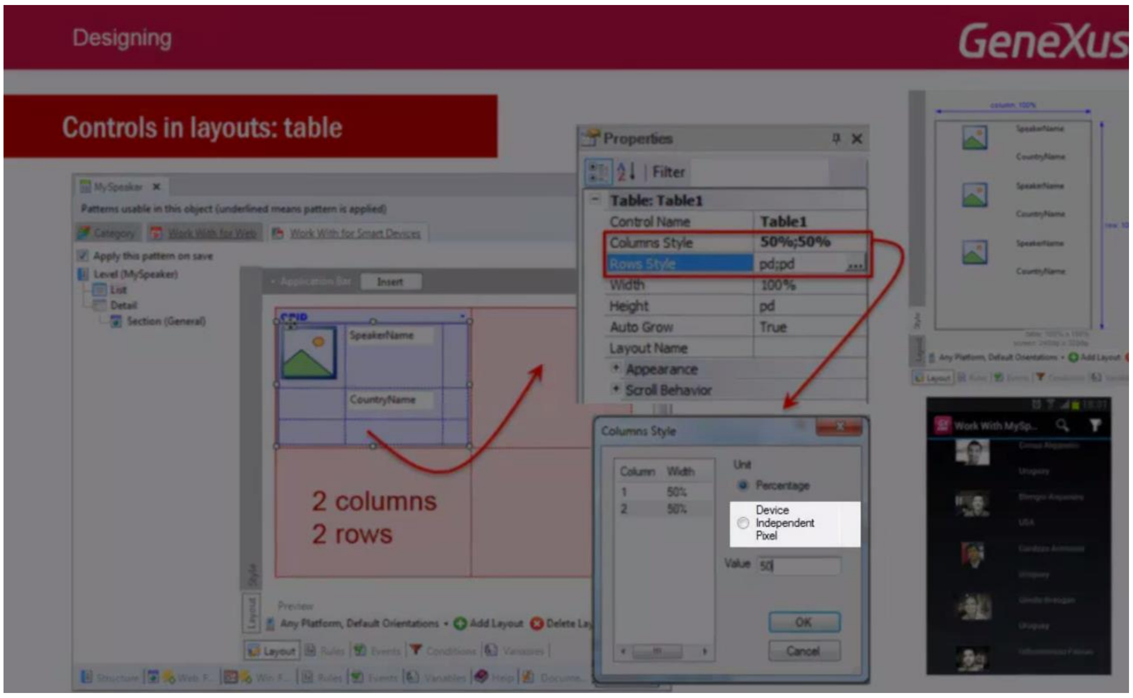
Column	Width
1	50%
2	50%

Unit: [✓ Percentage] Device Independent Pixel

Value 50

OK Cancel

The **Device Independent Pixel** unit corresponds to the abstraction of 1 pixel, which later an application converts to physical pixels in order to scale to different screen sizes:



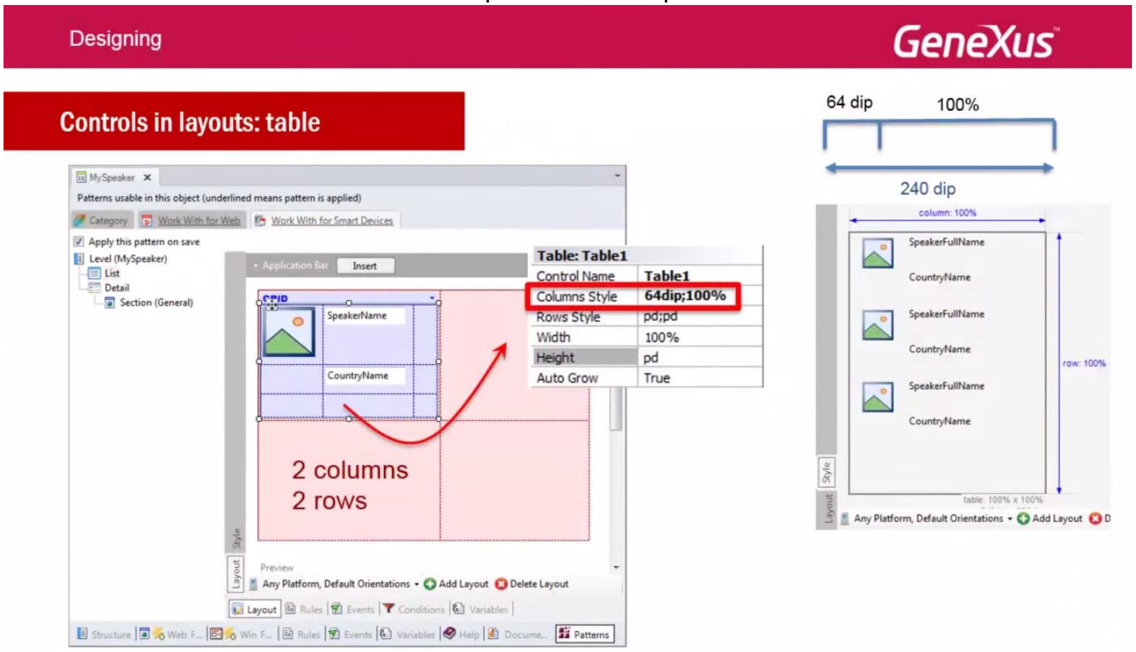
Designing

GeneXus

Controls in layouts: table

Table: Table1	
Control Name	Table1
Columns Style	50%;50%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	

The DIP value has a different number of pixels for each platform.



Designing

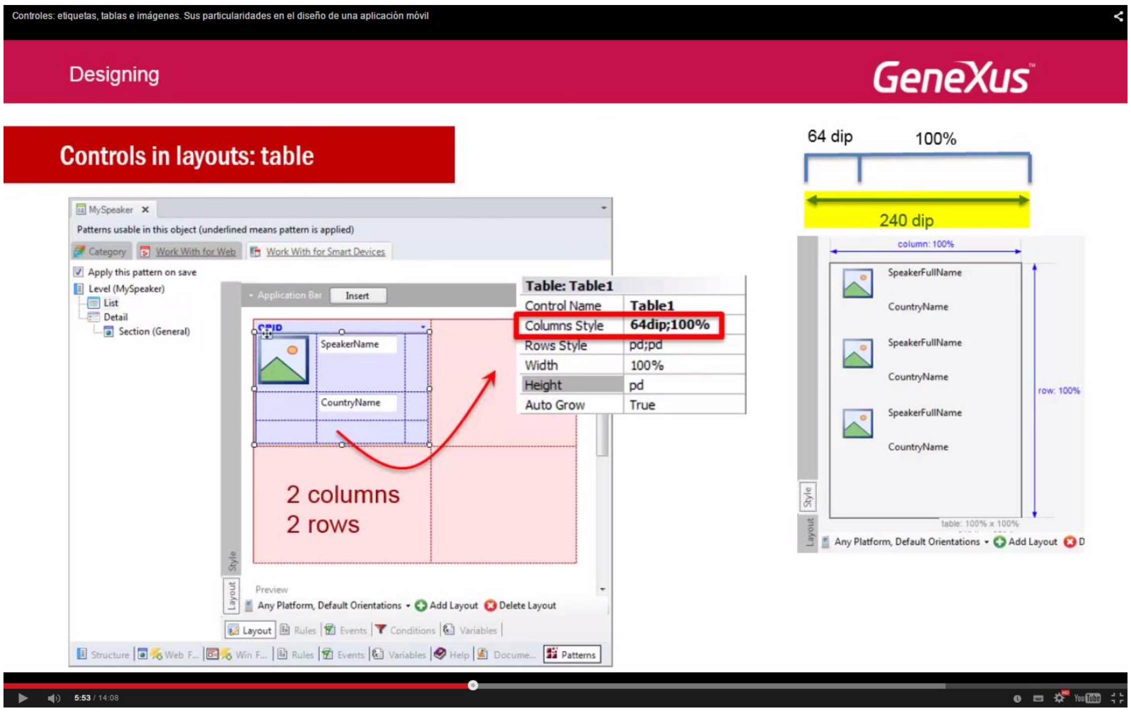
GeneXus

Controls in layouts: table

Table: Table1	
Control Name	Table1
Columns Style	64dip;100%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True

Percentages are relative to the value resulting from subtracting the total width; fixed values are expressed in DIPs.

In this way, the total width is 240 DIPs,



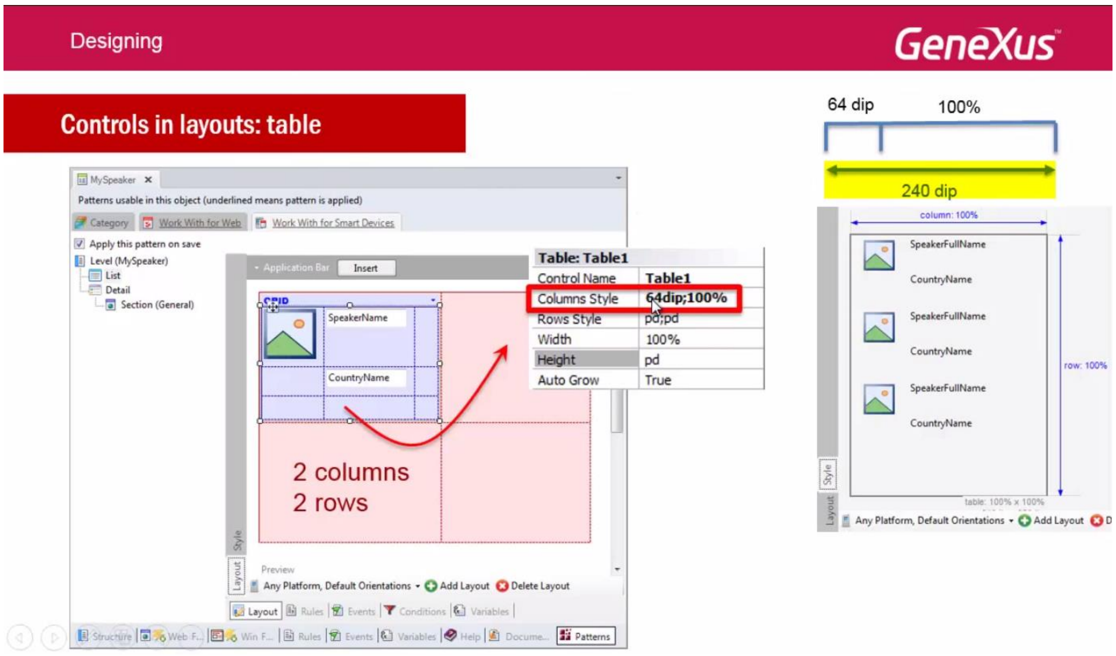
Controles: etiquetas, tablas e imágenes. Sus particularidades en el diseño de una aplicación móvil

Designing

Controls in layouts: table

Table: Table1	
Control Name	Table1
Columns Style	64dip;100%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True

and there's a column of 64 DIPs.



Designing

Controls in layouts: table

Table: Table1	
Control Name	Table1
Columns Style	64dip;100%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True

The value "100%" for the next one means that the second column will take the remaining 100%.

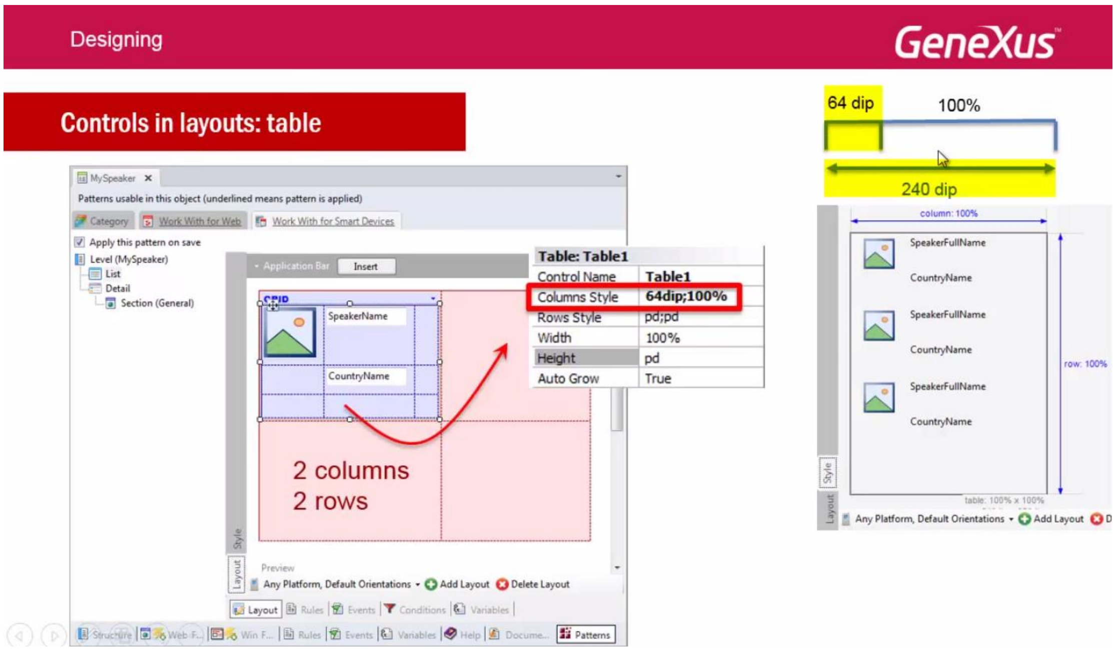


Table: Table1	
Control Name	Table1
Columns Style	64dip;100%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True

That is to say: 240 DIPs - 64 DIPs → 176 DIPs.

If we had 3 columns:

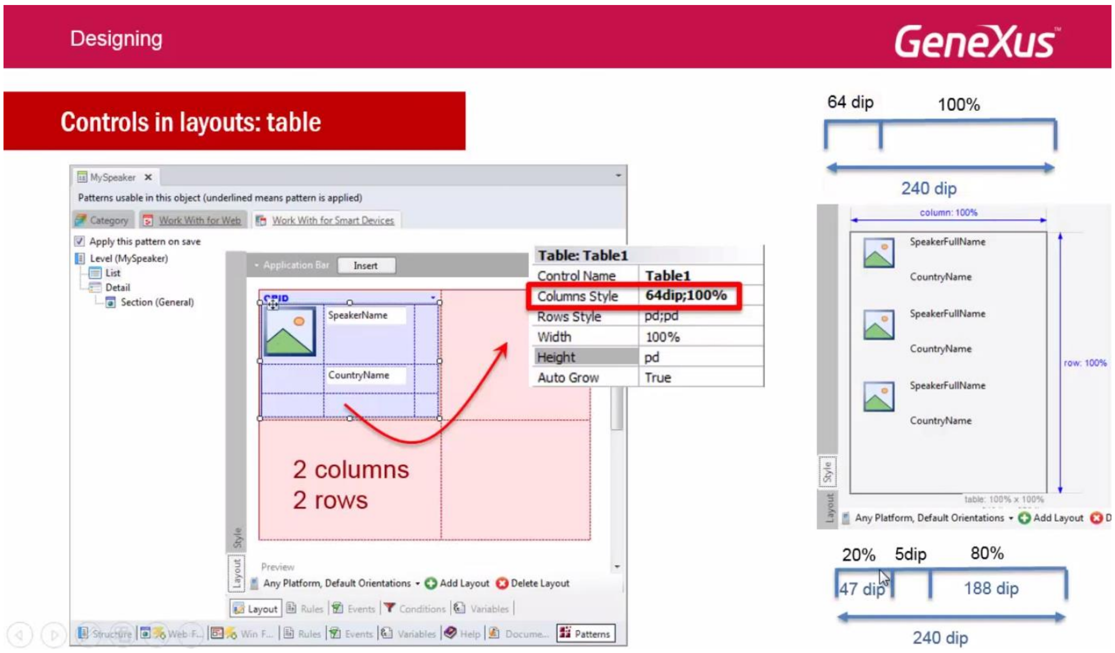
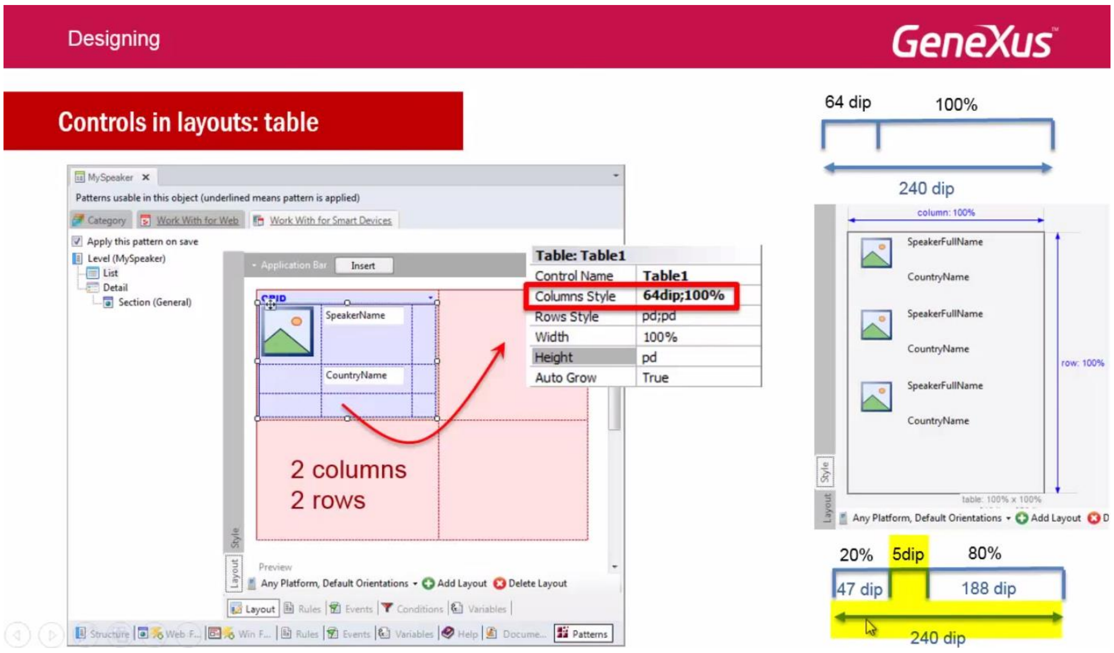


Table: Table1	
Control Name	Table1
Columns Style	64dip;100%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True

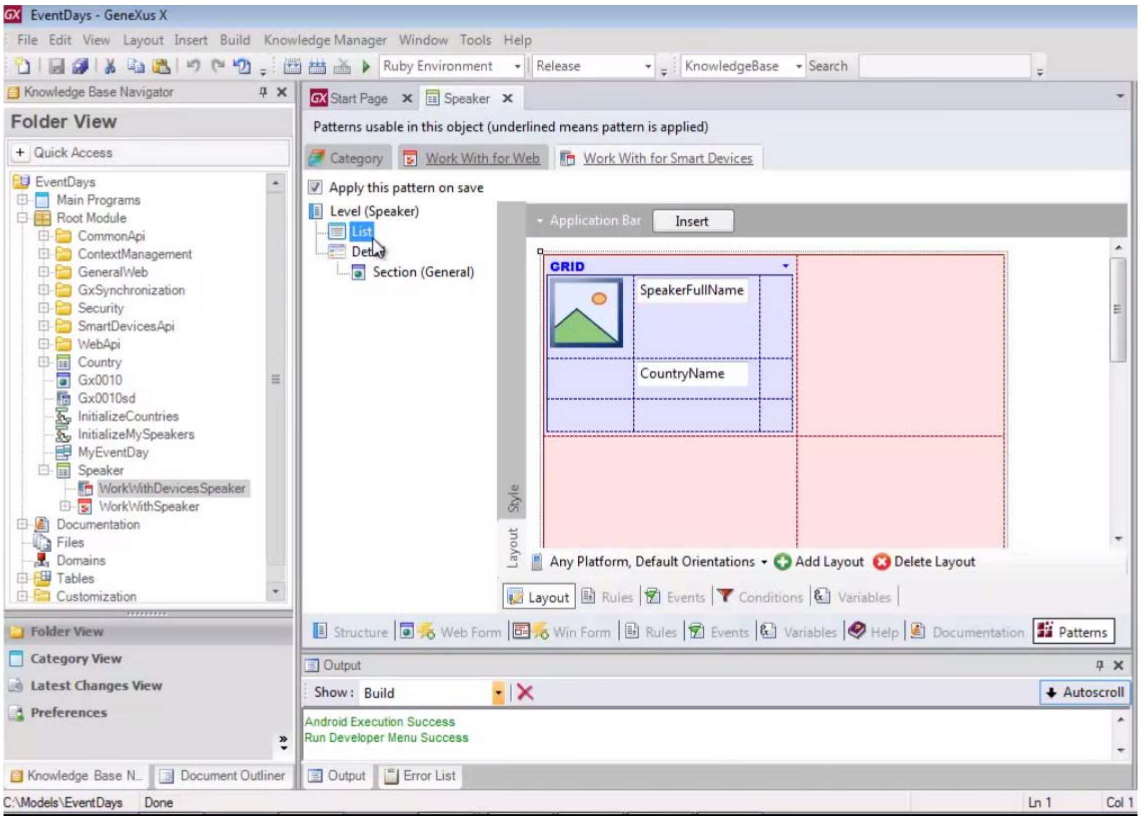
The first one of 20%, the second one with a fixed value of 5 DIPs, and the third one of 80%, the values that the first and the third one would take would be obtained by applying these percentages to the value resulting from subtracting the sum of the fixed values. Here we have only one: 5 DIPs, the table width:



The second column of 5 DIPs can be used as a blank space between the first and the third column.

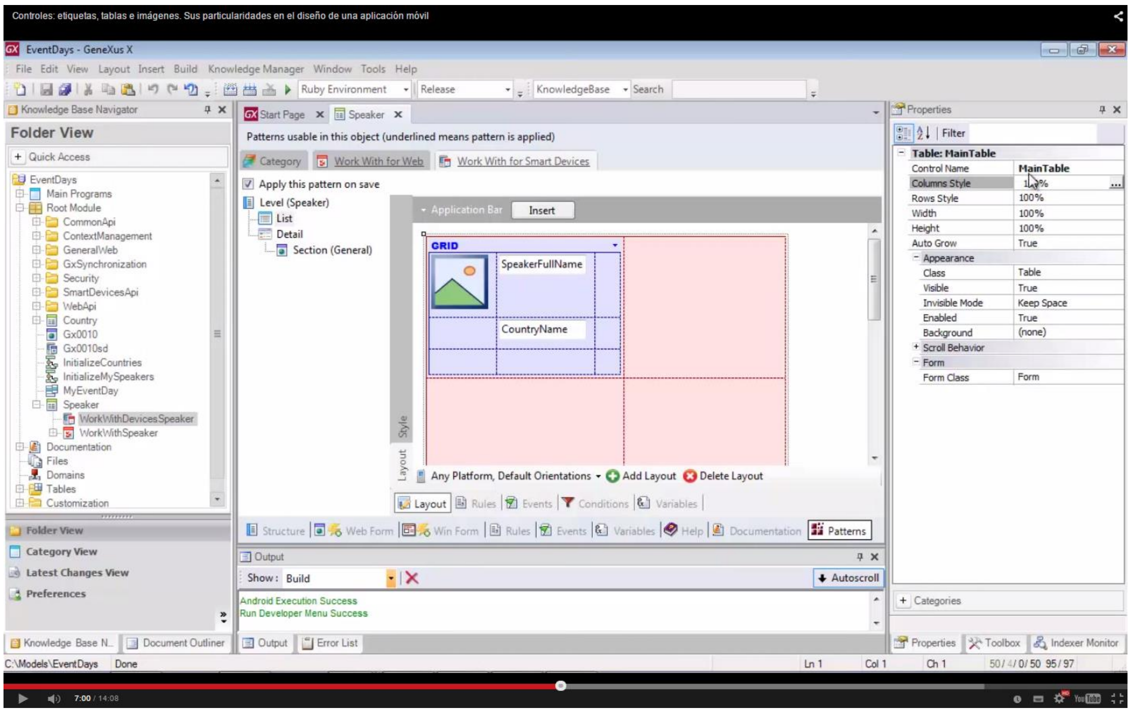
Let's customize this in GeneXus.

We see that for the List we have



EventDays - GeneXus X
Patterns usable in this object (underlined means pattern is applied)
Category
Work With for Web
Work With for Smart Devices
Apply this pattern on save
Level (Speaker)
List
Detail
Section (General)
Application Bar
Insert
GRID
SpeakerFullName
CountryName
Any Platform, Default Orientations
Add Layout
Delete Layout
Output
Show: Build
Android Execution Success
Run Developer Menu Success

The Main Table:


Controles: etiquetas, tablas e imágenes. Sus particularidades en el diseño de una aplicación móvil

Patterns usable in this object (underlined means pattern is applied)

Android Execution Success
Run Developer Menu Success

Table: MainTable	
Control Name	**MainTable**
Columns Style	100%
Rows Style	100%
Width	100%
Height	100%
Auto Grow	True
Appearance	
Class	Table
Visible	True
Invisible Mode	Keep Space
Enabled	True
Background	(none)
Scroll Behavior	
Form	
Form Class	Form

And the table corresponding to the grid: **Table1**

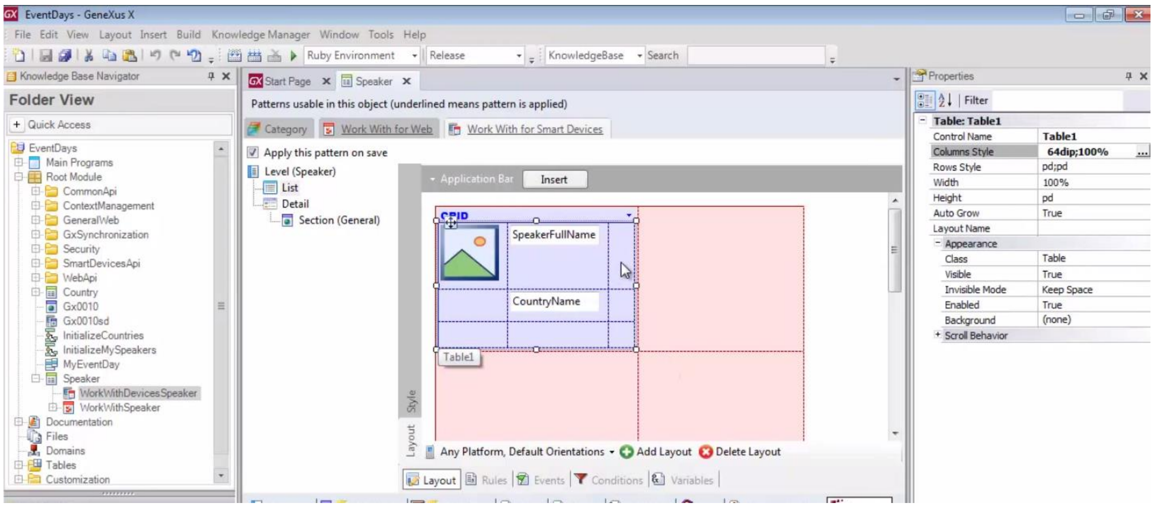
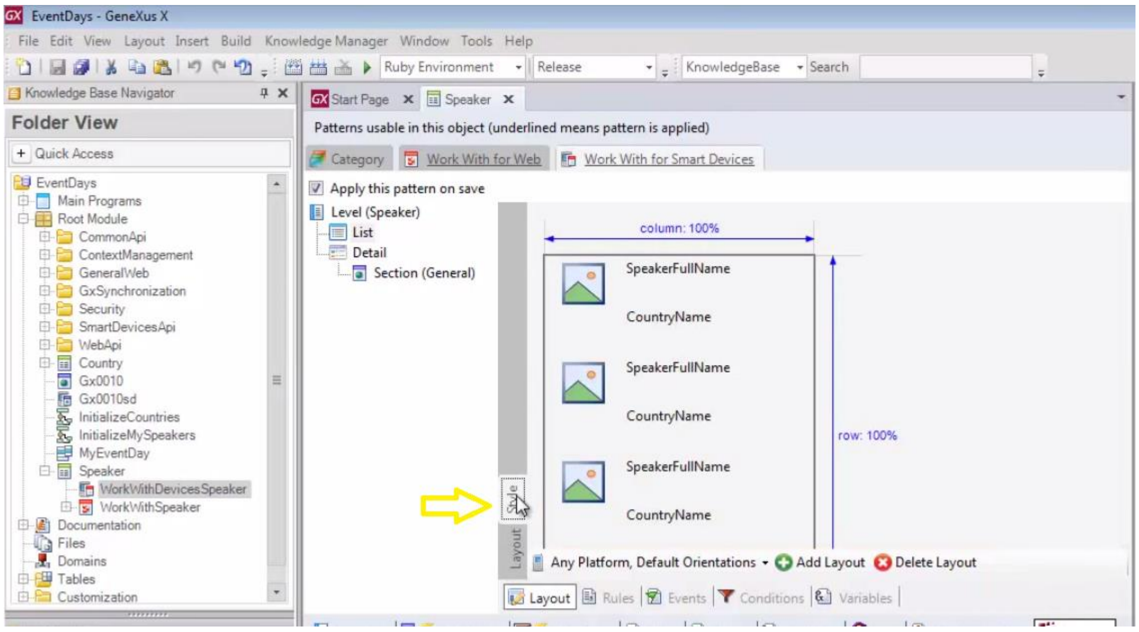

Patterns usable in this object (underlined means pattern is applied)

Table: Table1	
Control Name	**Table1**
Columns Style	**64dip;100%**
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
Appearance	
Class	Table
Visible	True
Invisible Mode	Keep Space
Enabled	True
Background	(none)
Scroll Behavior	

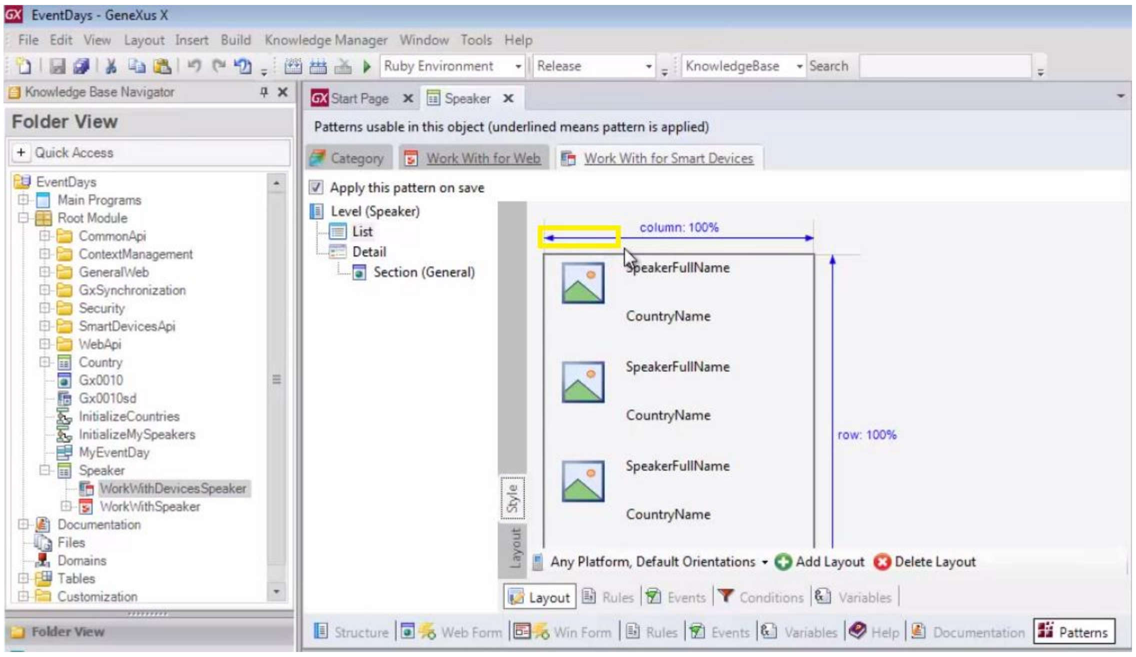
In the columns, in this case we see that the first one takes 64 DIPs (with the speaker's image) and the second one takes the remaining 100%.

To graphically see how the form will look at runtime, we open the “Style” tab:

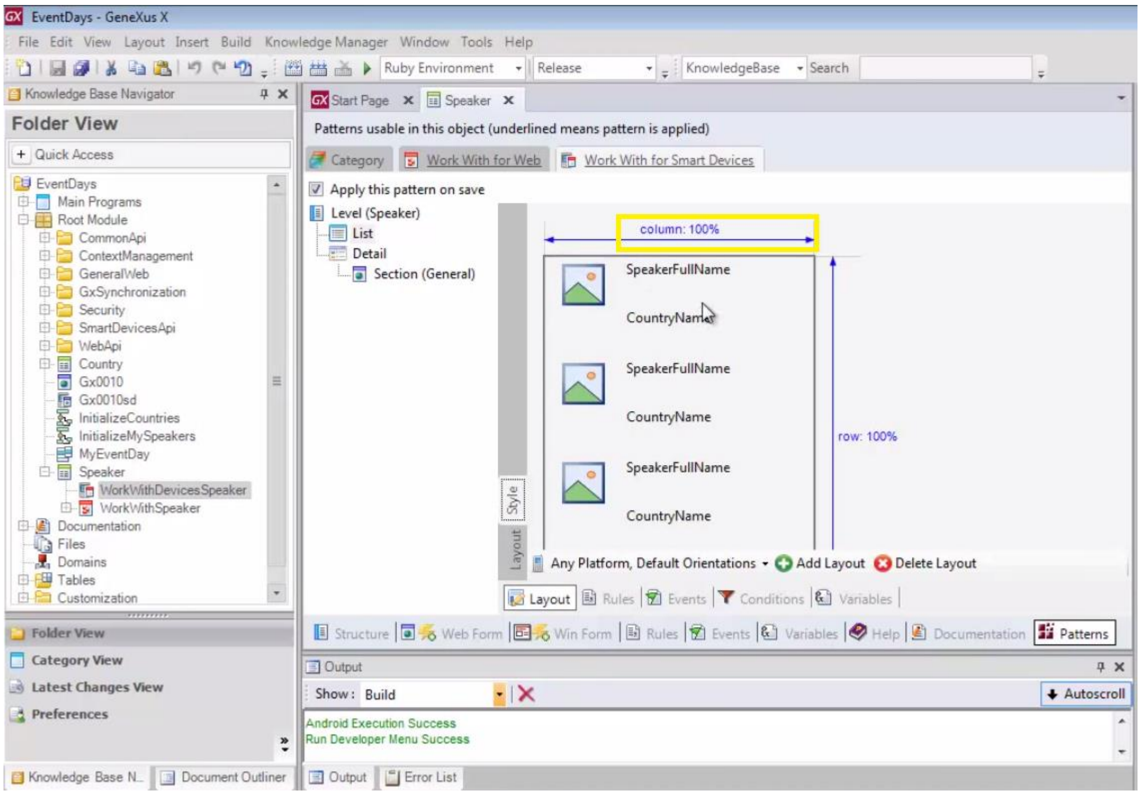


Here we see this division into columns, with their sizes.

64 DIPs:

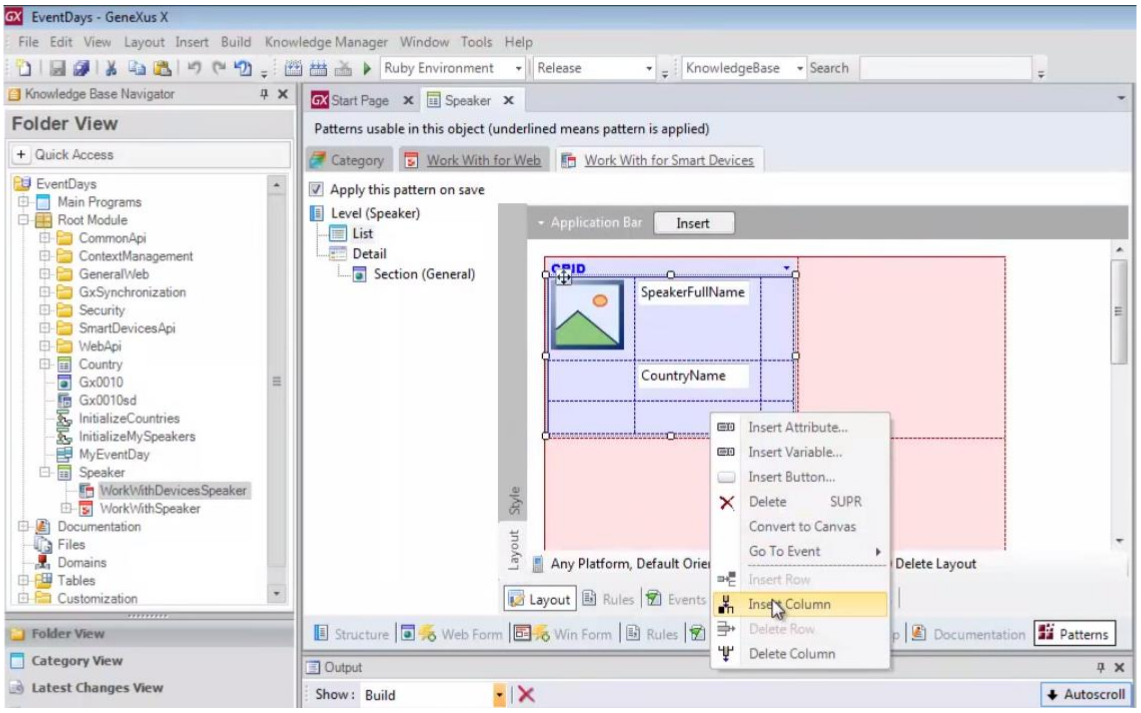


And the remaining 100%:

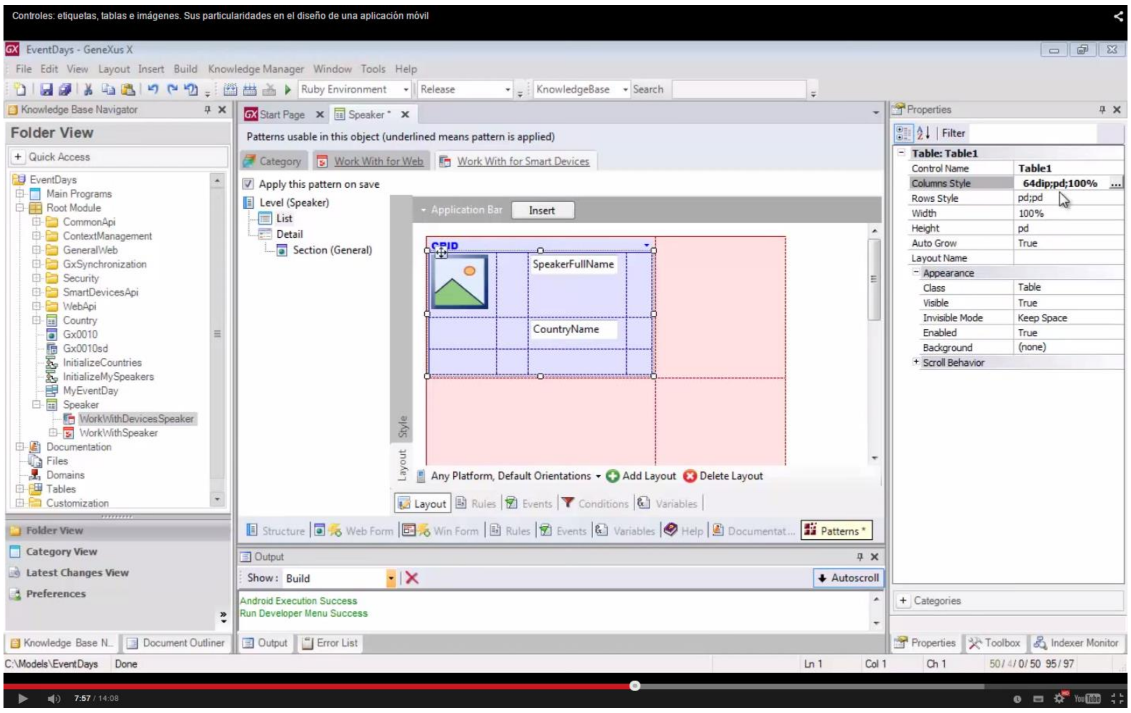

EventDays - GeneXus X
Patterns usable in this object (underlined means pattern is applied)
Category
Work With for Web
Work With for Smart Devices
Apply this pattern on save
Level (Speaker)
List
Detail
Section (General)
column: 100%
row: 100%
SpeakerFullName
CountryName
Any Platform, Default Orientations
Add Layout
Delete Layout
Android Execution Success
Run Developer Menu Success

We will add a column between the first and the second one, so as to have some "space" between the contents of each column.

So, we right-click and select **Insert Column.**

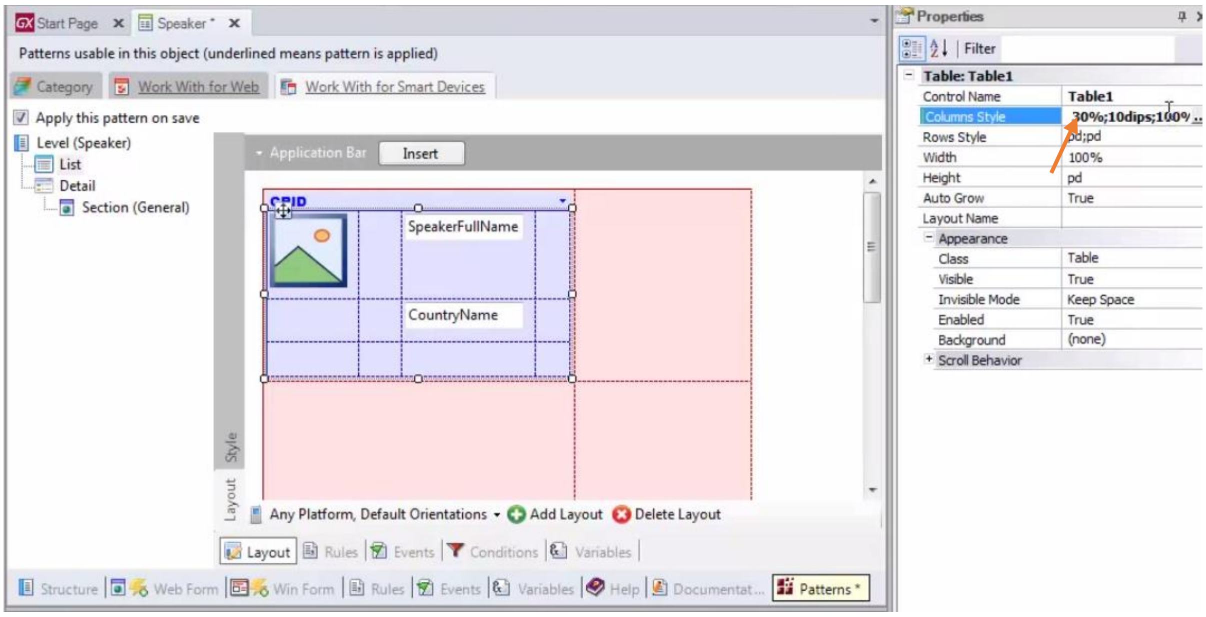


We look at their widths:


Controles: etiquetas, tablas e imágenes. Sus particularidades en el diseño de una aplicación móvil
Properties
Table: Table1
Control Name: Table1
Columns Style: 64dip;pd;100%
Rows Style: pd;pd
Width: 100%
Height: pd
Auto Grow: True
Class: Table
Visible: True
Invisible Mode: Keep Space
Enabled: True
Background: (none)
Android Execution Success
Run Developer Menu Success

A size was assigned to the column in the middle: pd (we will see it later).

We will change it because we want that column to take 10 DIPs (fixed size) and the first column to take 30% of the remaining width.



The third one, logically, will take 70%.

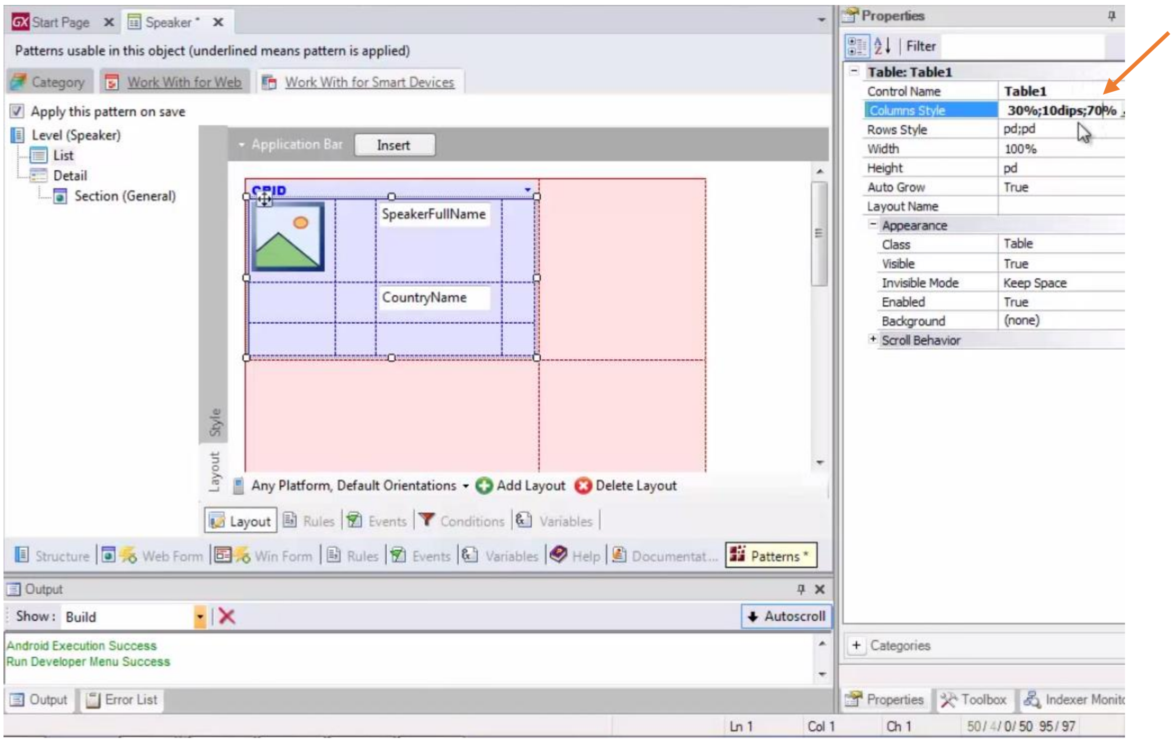


Table: Table1	
Control Name	Table1
Columns Style	30%;10dips;70%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
Appearance	
Class	Table
Visible	True
Invisible Mode	Keep Space
Enabled	True
Background	(none)
Scroll Behavior	

We can change it by writing on the property, or opening this window:

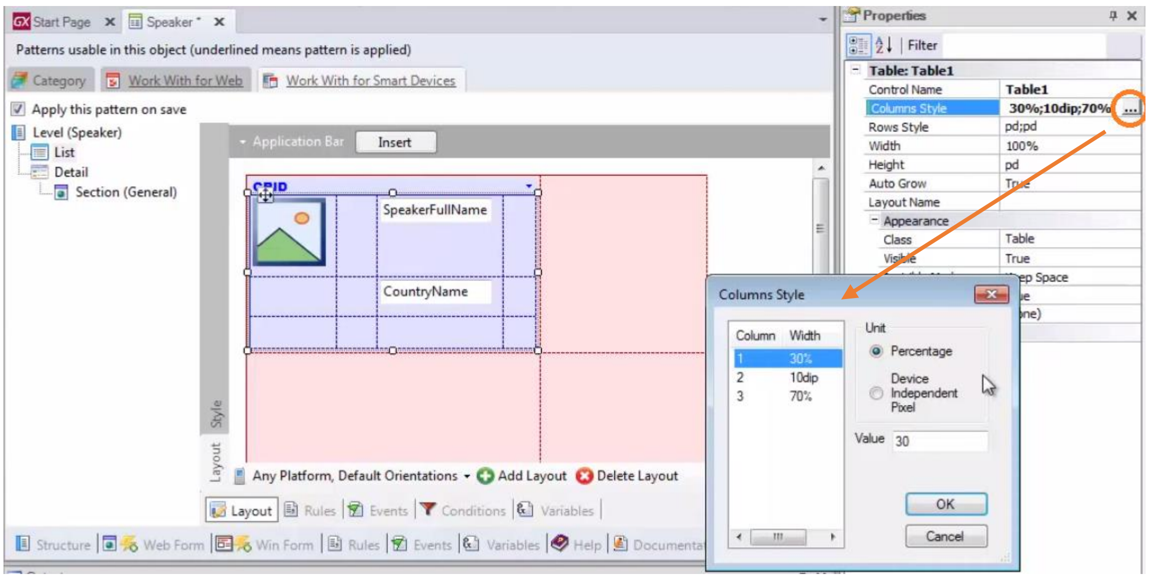


Table: Table1	
Control Name	Table1
Columns Style	30%;10dip;70%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
Appearance	
Class	Table
Visible	True

Column	Width
1	30%
2	10dip
3	70%

Value 30

We run it with F5..

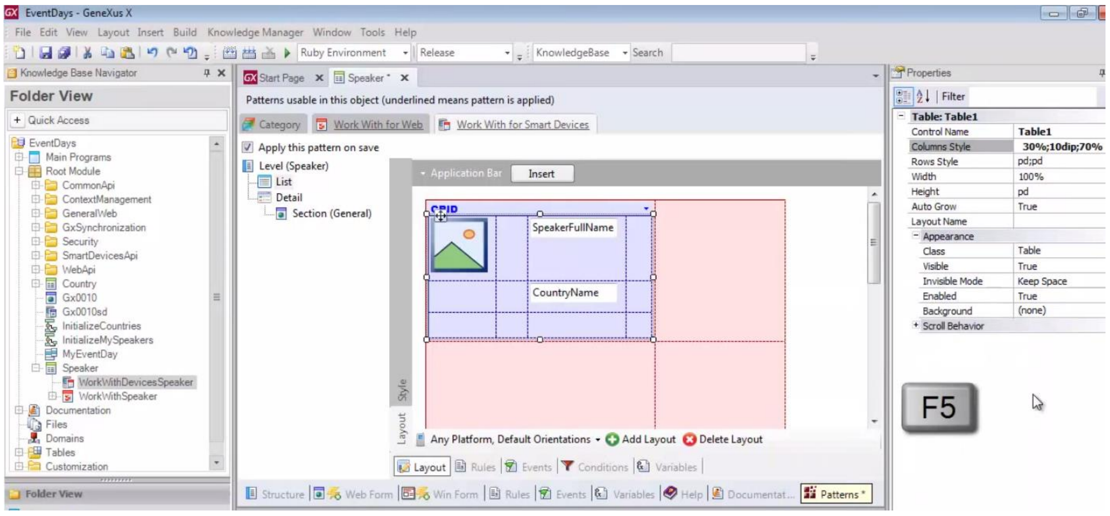
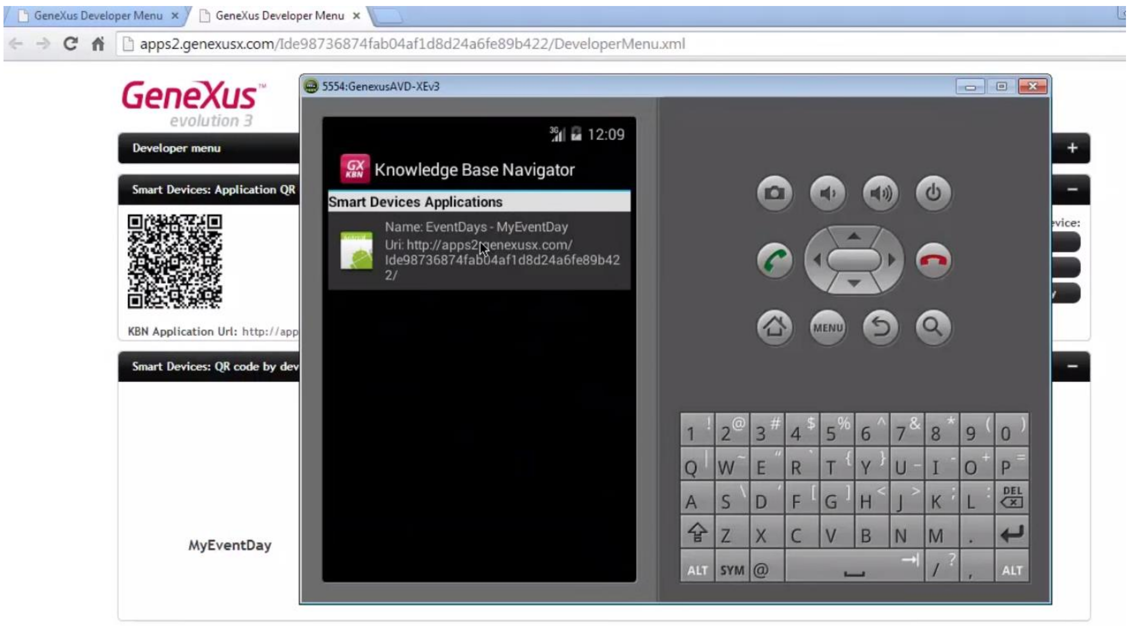
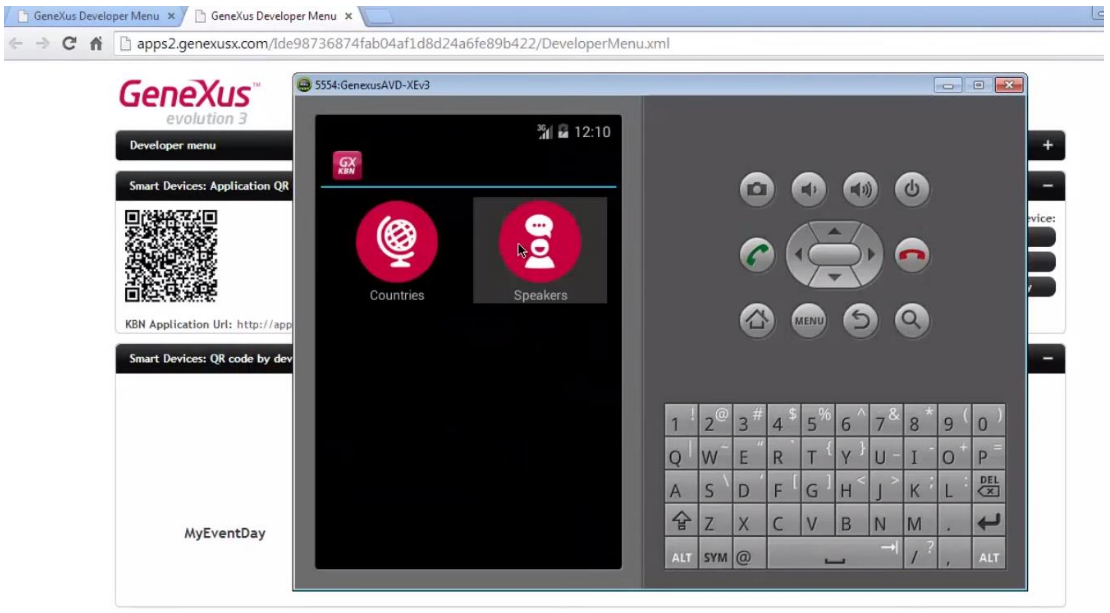
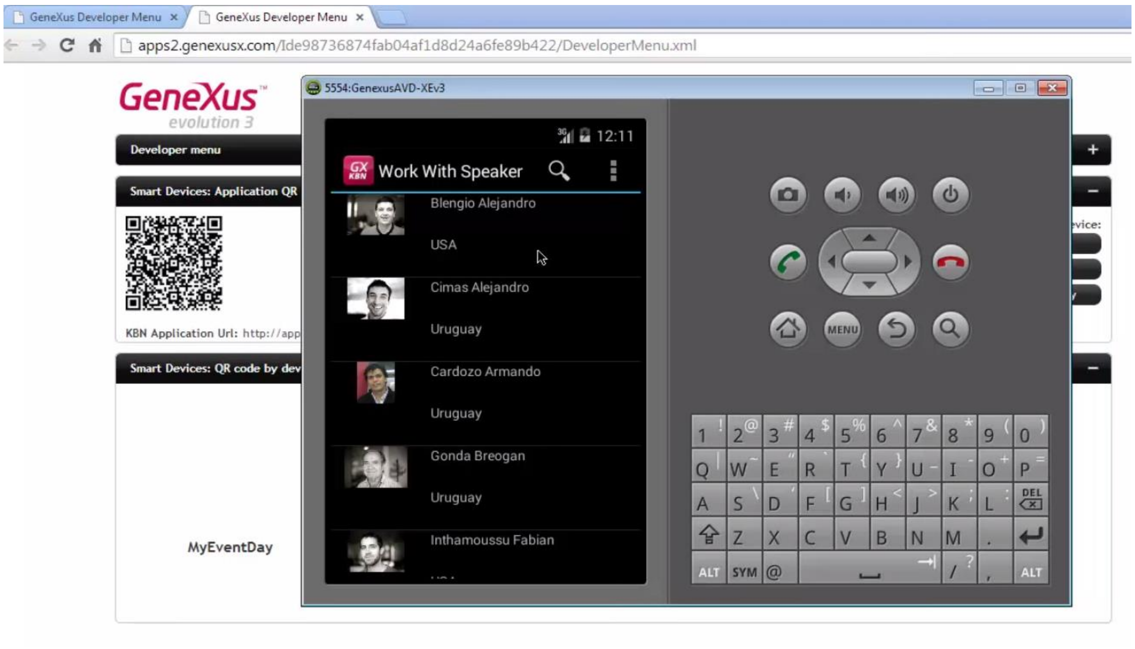


Table: Table1	
Control Name	Table1
Columns Style	30%;10dip;70%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
Appearance	
Class	Table
Visible	True
Invisible Mode	Keep Space
Enabled	True
Background	(none)
Scroll Behavior	

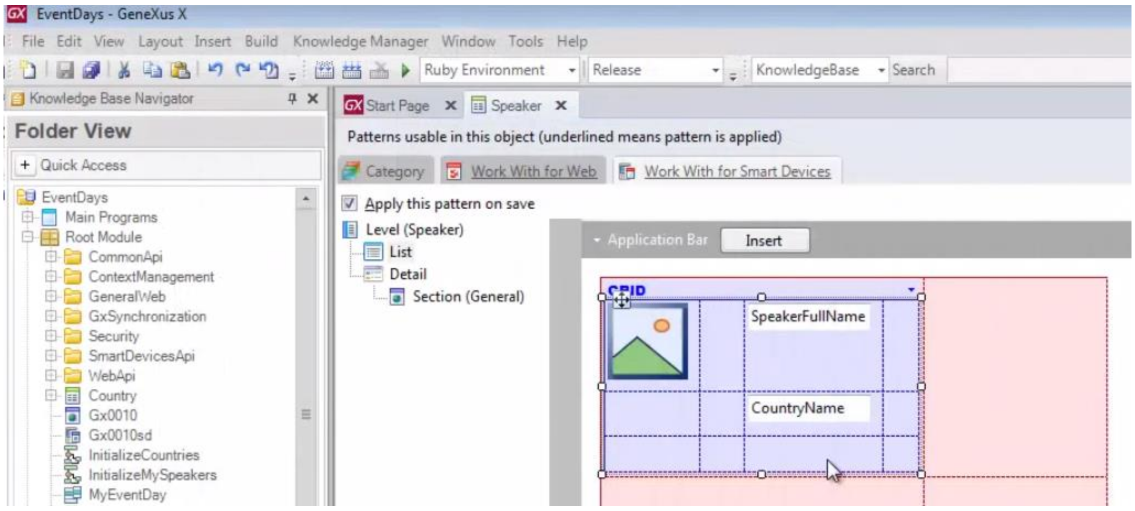

GeneXus Developer Menu
GeneXus Developer Menu
apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/DeveloperMenu.xml
GeneXus evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url: http://app
Smart Devices: QR code by dev
MyEventDay
5554:GenexusAVD-XEv3
12:09
Knowledge Base Navigator
Smart Devices Applications
Name: EventDays - MyEventDay
Uri: http://apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/


GeneXus Developer Menu
GeneXus Developer Menu
apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/DeveloperMenu.xml
GeneXus evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url: http://app
Smart Devices: QR code by dev
MyEventDay
5554:GenexusAVD-XEv3
12:10
Countries
Speakers

Video recorded with GeneXus X Evolution 3



If we now look at the rows:



we see that we have 2 with value pd

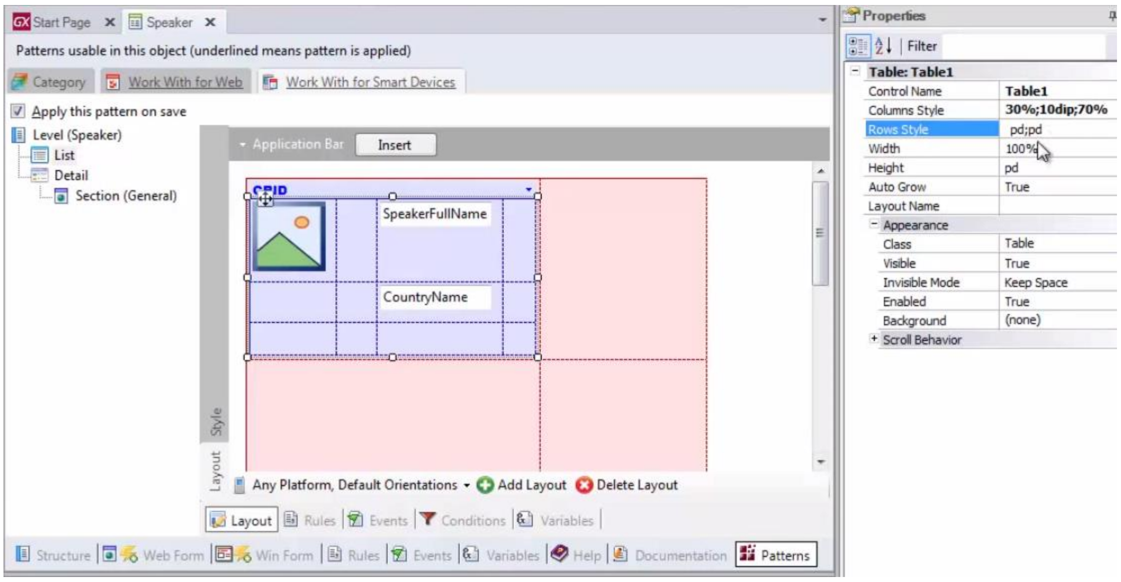
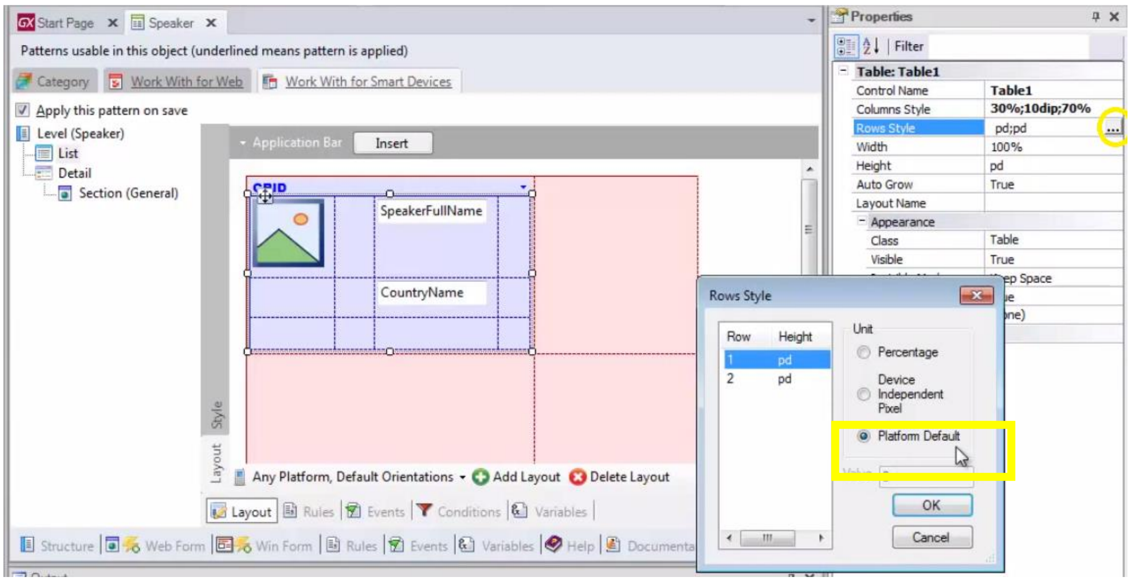


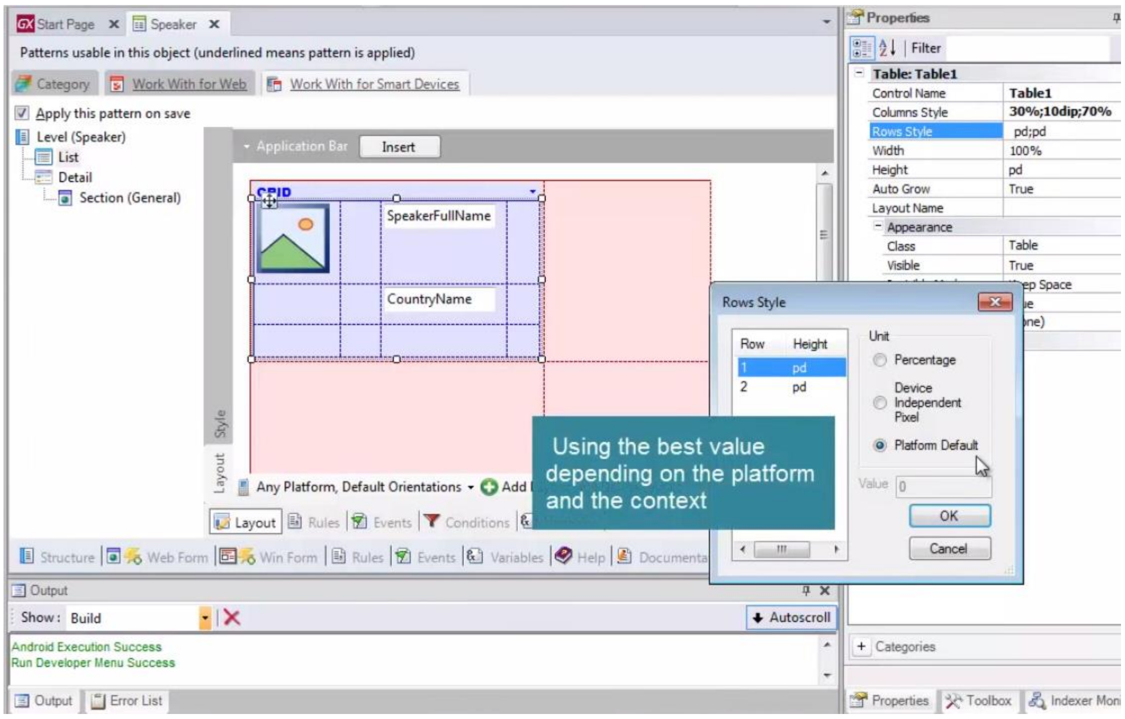
Table: Table1	
Control Name	Table1
Columns Style	30%;10dip;70%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
Appearance	
Class	Table
Visible	True
Invisible Mode	Keep Space
Enabled	True
Background	(none)
Scroll Behavior	

It corresponds to the **Platform Default** unit.



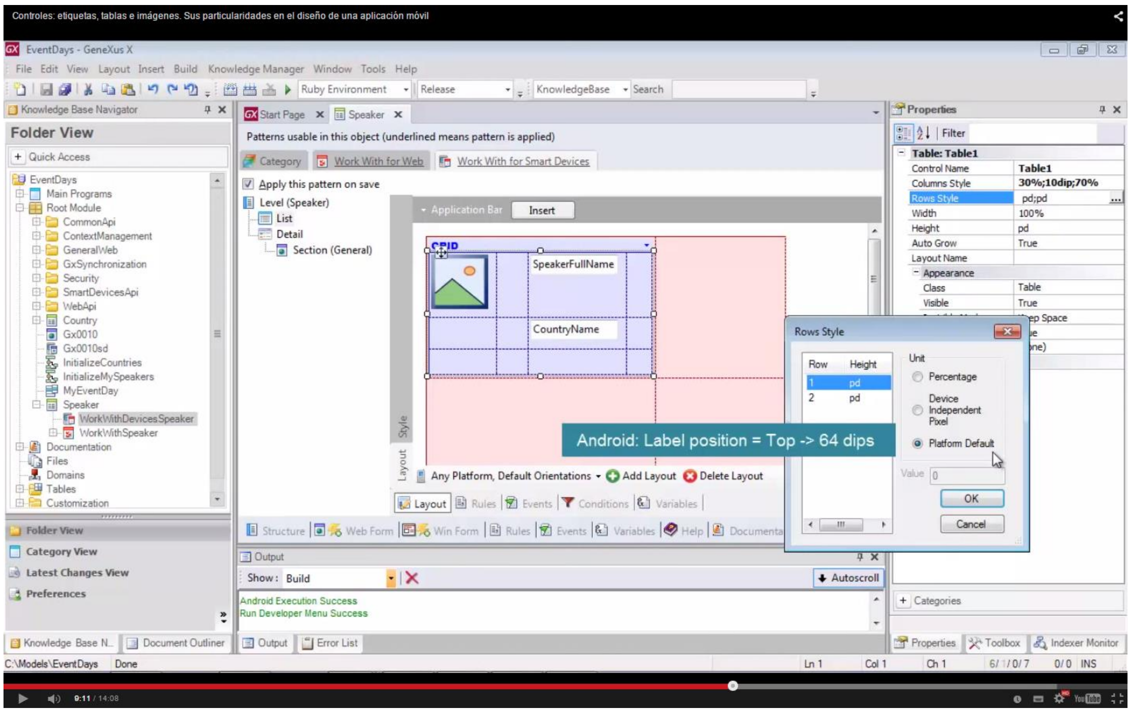
Row	Height
1	pd
2	pd

This unit varies with the platform. It is aimed at: **Using the best value depending on the platform and the context.**



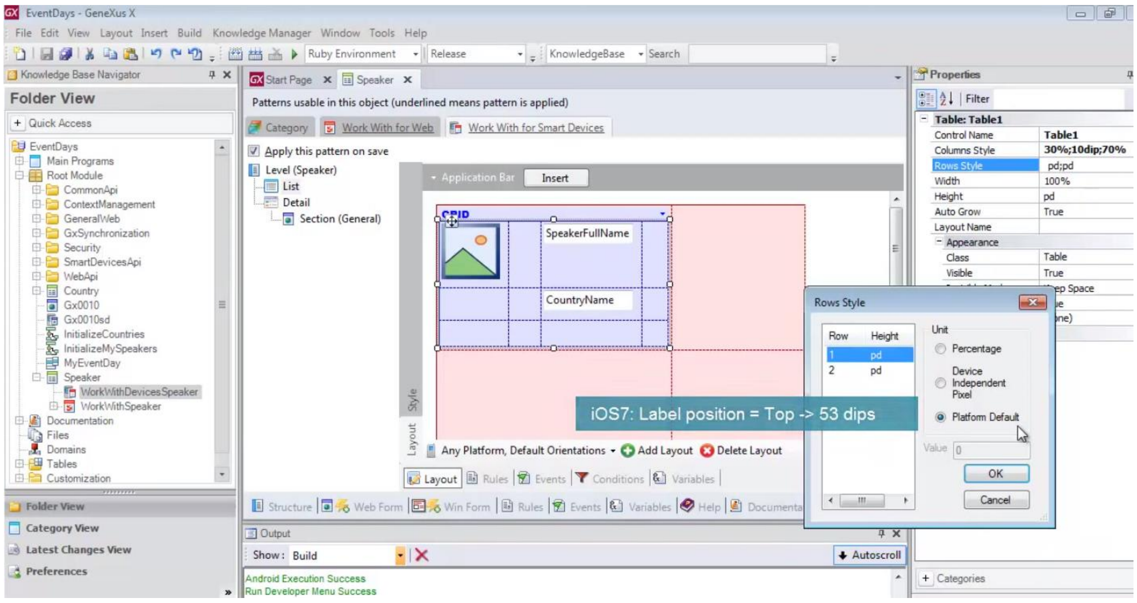
Using the best value depending on the platform and the context

For example, for Android with **Label Position = Top**, it is 64 DIPs

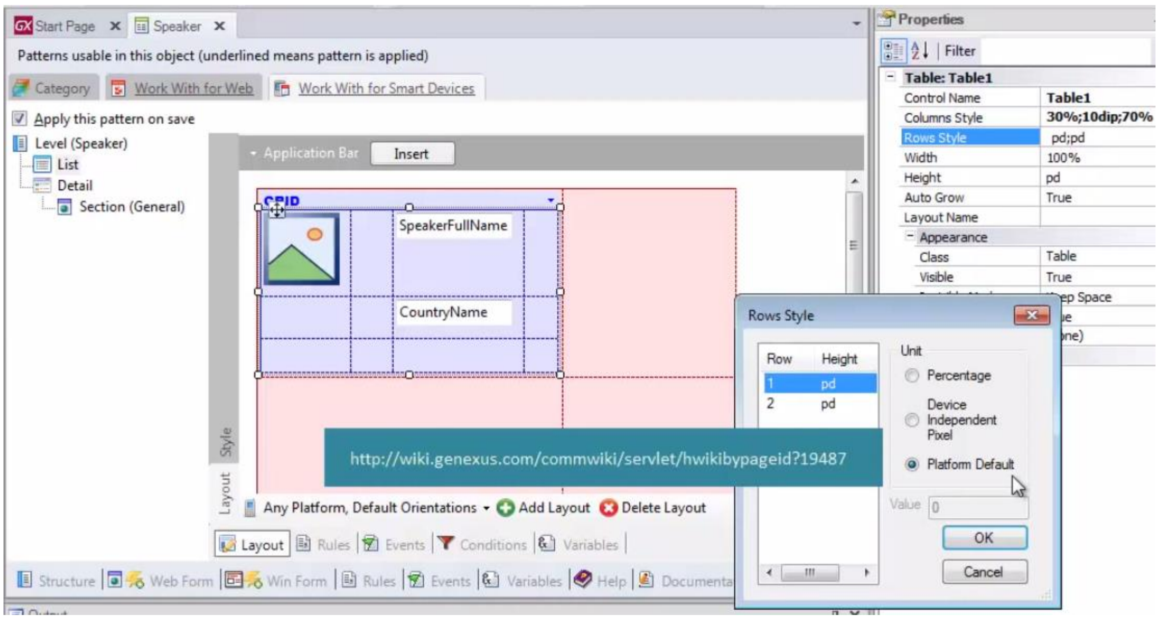

Controles: etiquetas, tablas e imágenes. Sus particularidades en el diseño de una aplicación móvil
Rows Style
Platform Default

Android: Label position = Top -> 64 dips

In iOS7 it is 53

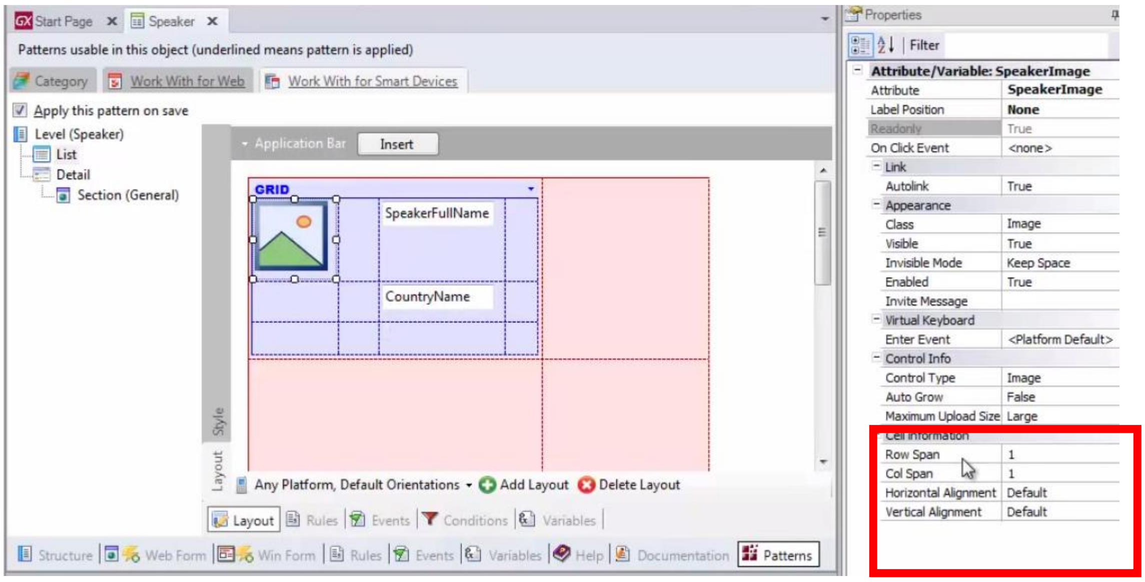


Here you can see all the values it takes:


http://wiki.genexus.com/commwiki/servlet/hwikibypageid?19487

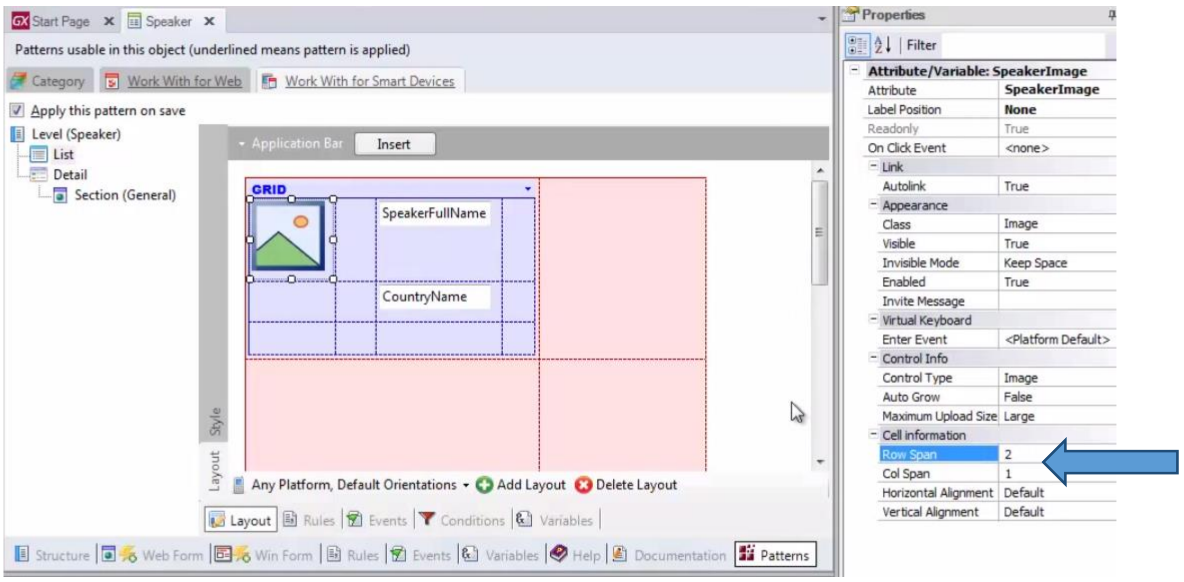
We will have our image spread across both rows.

Above the image, in **Cell Information:**

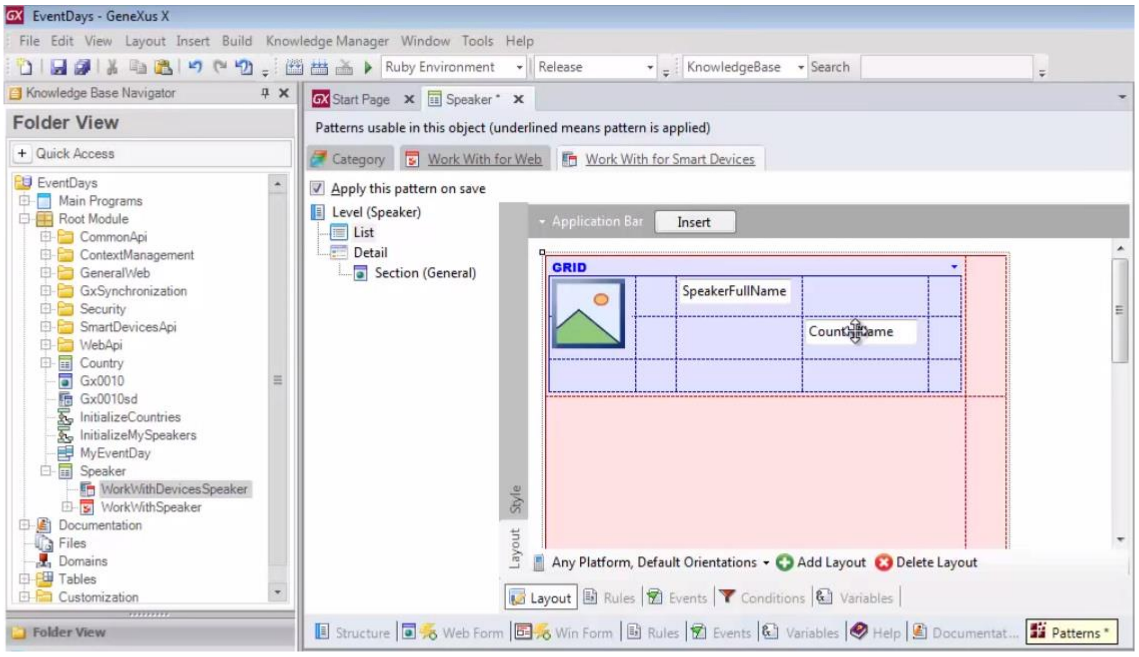


Attribute/Variable: SpeakerImage	
Attribute	SpeakerImage
Label Position	None
Readonly	True
On Click Event	<none>
Link	
Autolink	True
Appearance	
Class	Image
Visible	True
Invisible Mode	Keep Space
Enabled	True
Invite Message	
Virtual Keyboard	
Enter Event	<Platform Default>
Control Info	
Control Type	Image
Auto Grow	False
Maximum Upload Size	Large
Cell information	
Row Span	1
Col Span	1
Horizontal Alignment	Default
Vertical Alignment	Default

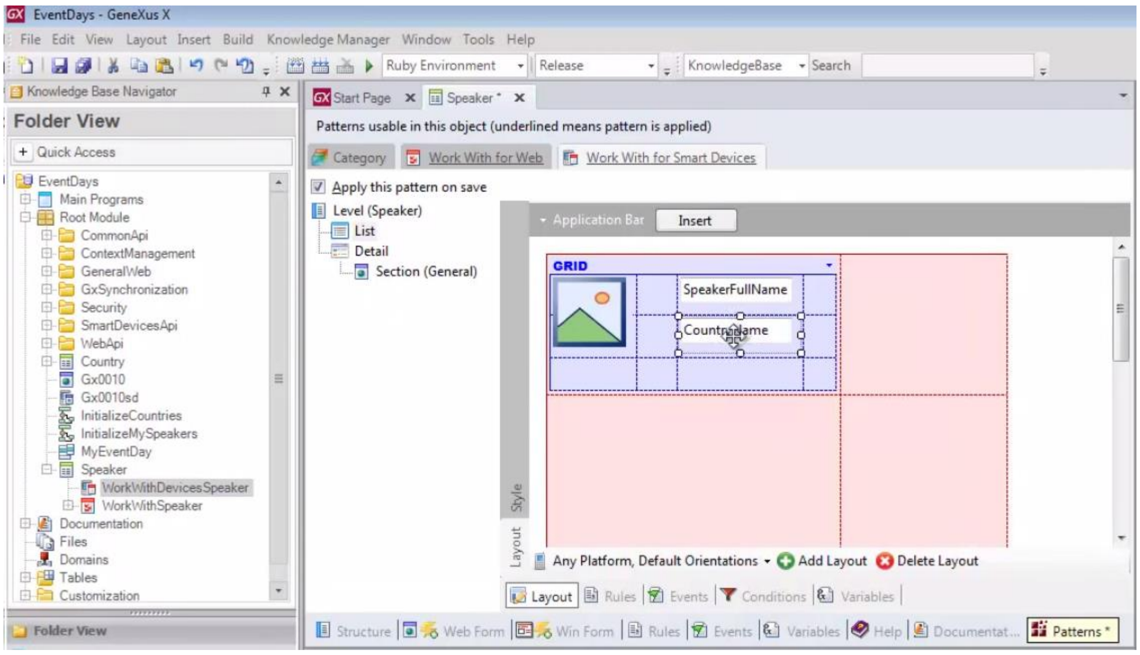
Row Span: 2



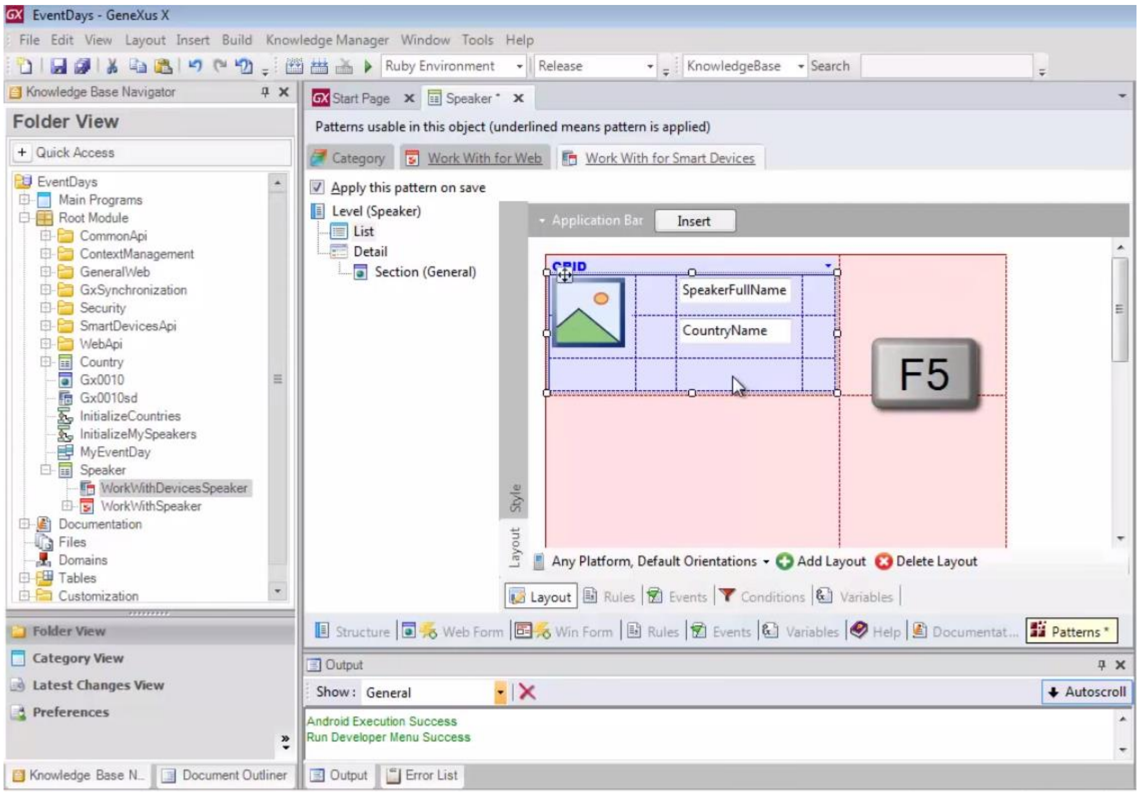
Attribute/Variable: SpeakerImage	
Attribute	SpeakerImage
Label Position	None
Readonly	True
On Click Event	<none>
Link	
Autolink	True
Appearance	
Class	Image
Visible	True
Invisible Mode	Keep Space
Enabled	True
Invite Message	
Virtual Keyboard	
Enter Event	<Platform Default>
Control Info	
Control Type	Image
Auto Grow	False
Maximum Upload Size	Large
Cell information	
Row Span	2
Col Span	1
Horizontal Alignment	Default
Vertical Alignment	Default



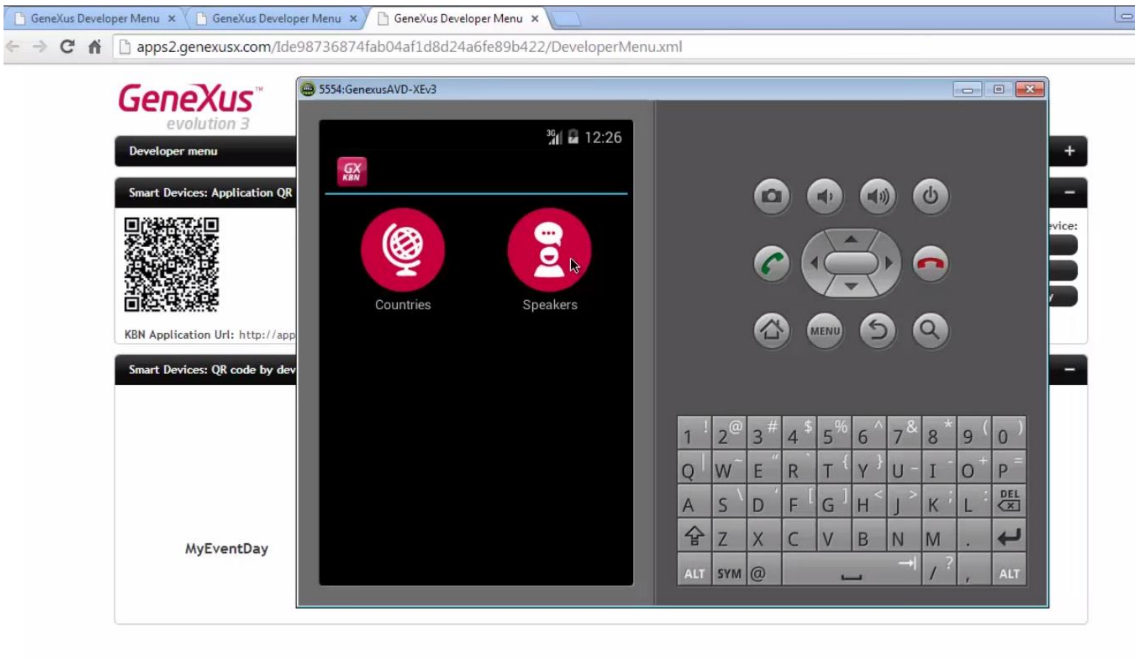
And we the arrange controls so that they look as we wanted:

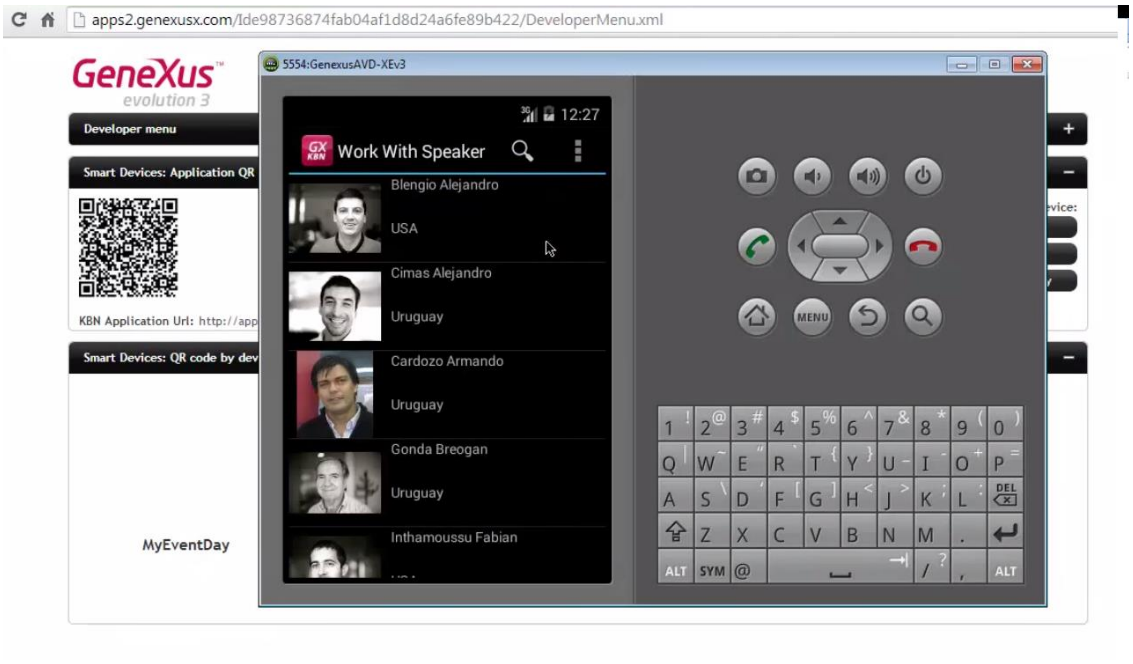


F5…

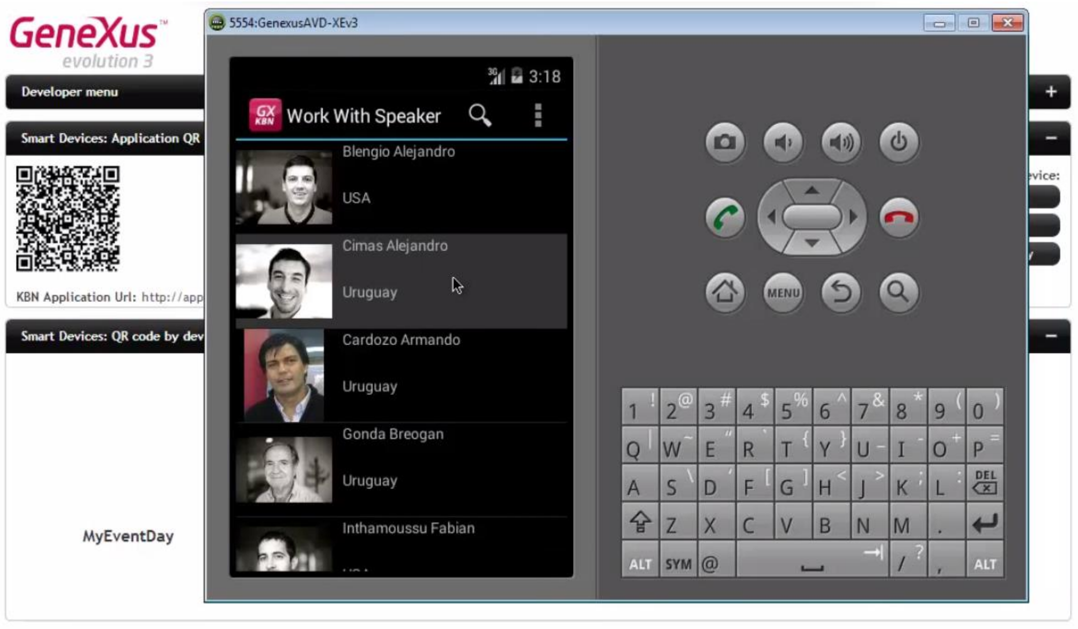


```
Android Execution Success
Run Developer Menu Success
```





Suppose that now we want the table background to be black instead of gray. Also, when the user taps on a line



it should turn to blue, and the speaker's full name should also be displayed in blue. Where do we configure it?

In the classes of each control.

Of the table control on one hand

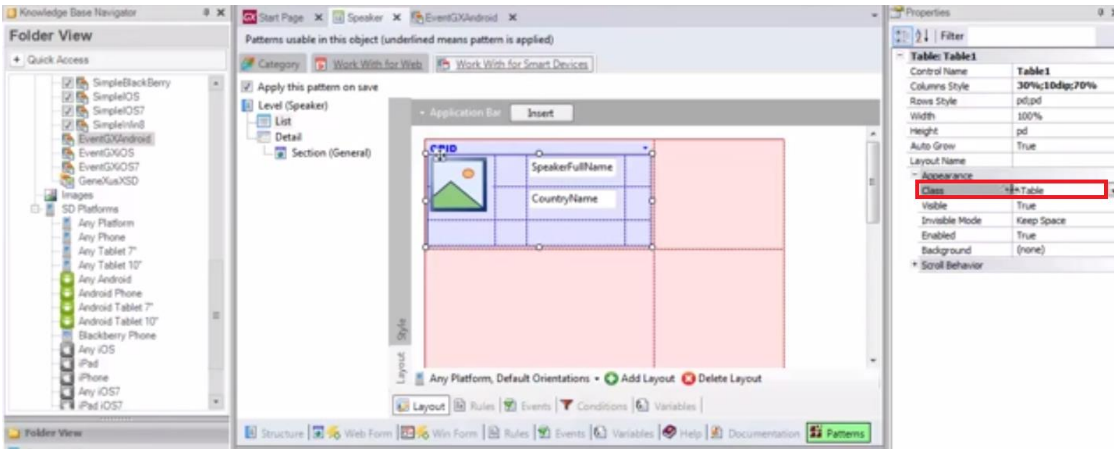
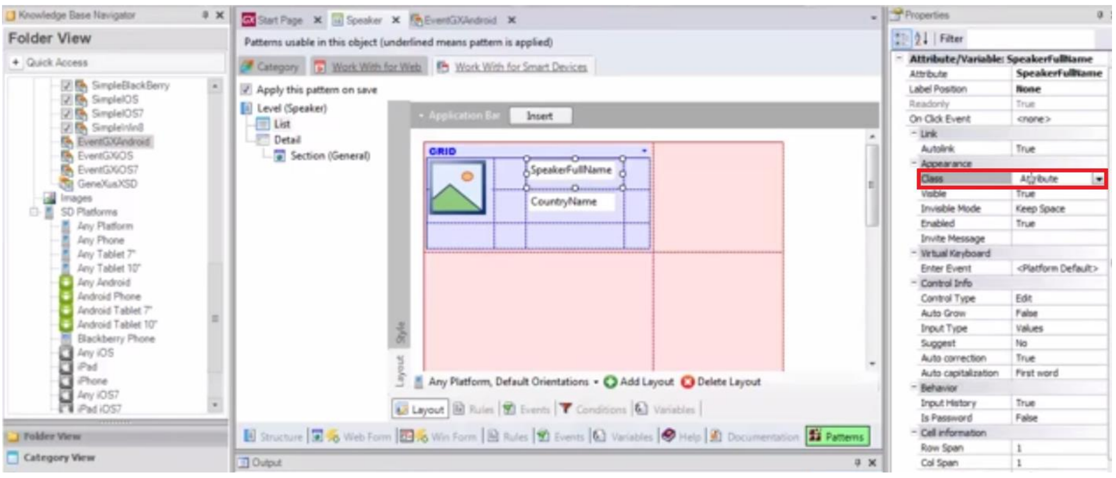


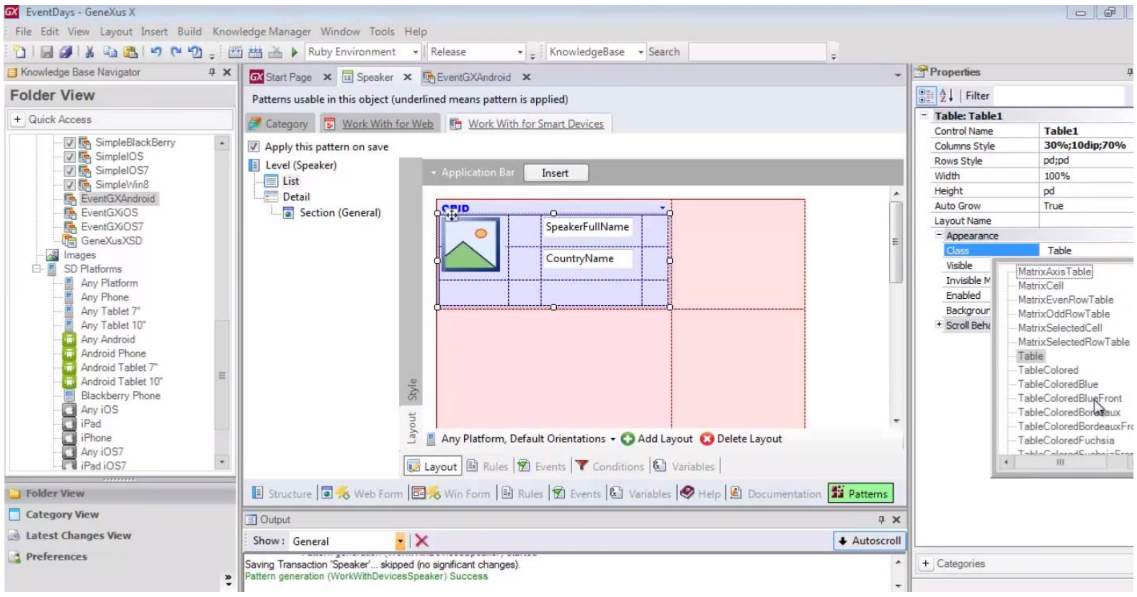
Table: Table1	
Control Name	Table1
Columns Style	30%;10dip;70%
Rows Style	pd;pd
Width	100%
Height	pd
Auto Grow	True
Layout Name	
Appearance	
Class	Table
Visible	True
Invisible Mode	Keep Space
Enabled	True
Background	(none)
Scroll Behavior	

and the attribute control on the other.



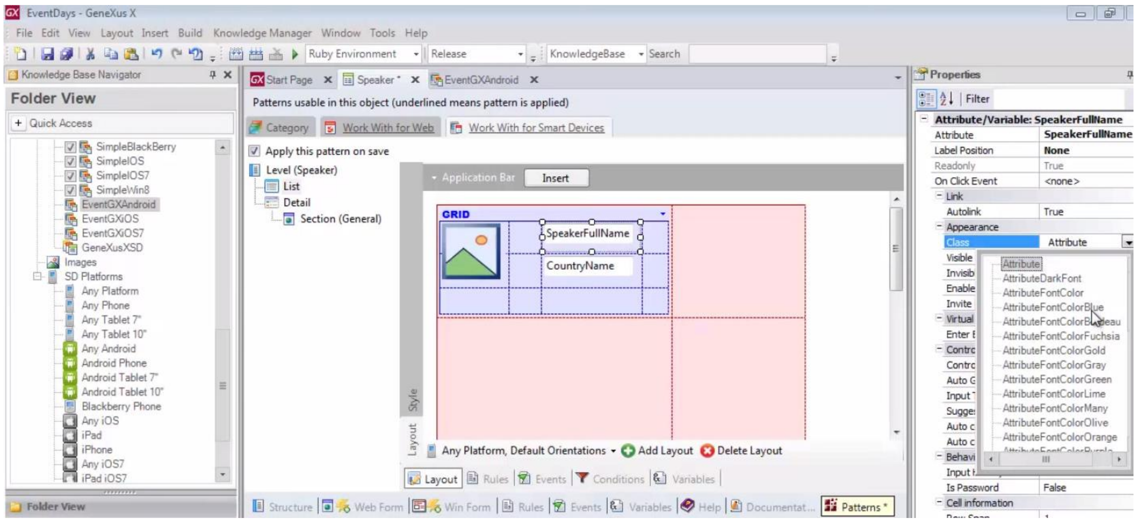
Attribute/Variable: SpeakerFullName	
Attribute	SpeakerFullName
Label Position	None
Readonly	True
On Click Event	<none>
Link	
Autolink	True
Appearance	
Class	Attribute
Visible	True
Invisible Mode	Keep Space
Enabled	True
Invite Message	
Virtual Keyboard	
Enter Event	<Platform Default>
Control Info	
Control Type	Edit
Auto Grow	False
Input Type	Values
Suggest	No
Auto correction	True
Auto capitalization	First word
Behavior	
Input History	True
Is Password	False
Cell information	
Row Span	1
Col Span	1

So, for the table control we will replace its predefined **Table** class with the class: **TableColoredBlueFront**



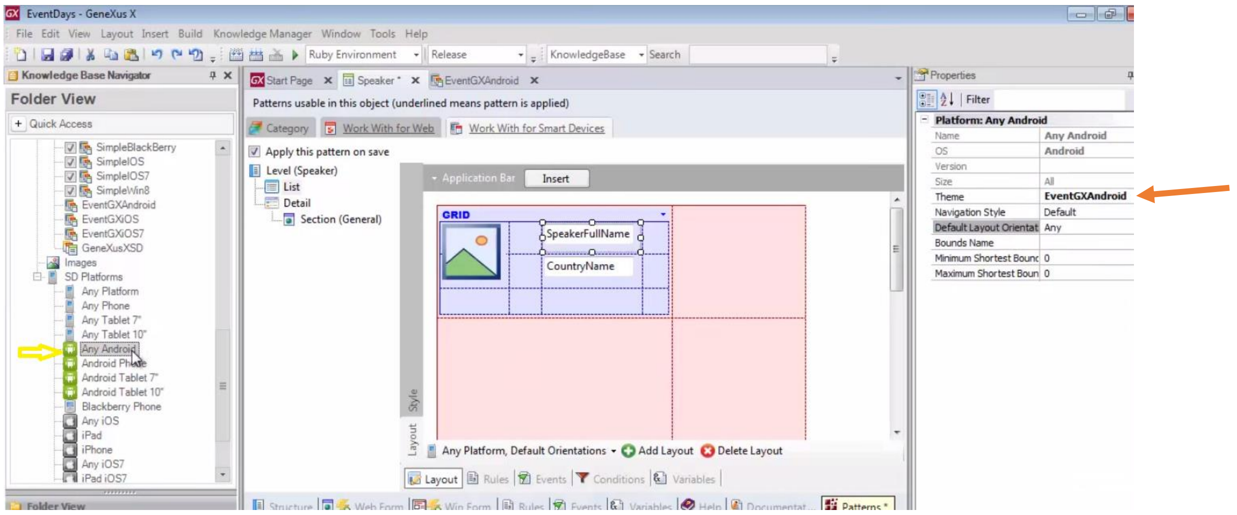
```
Saving Transaction 'Speaker'... skipped (no significant changes).
Pattern generation (WorkWithDevicesSpeaker) Success
```

For the attribute we will change its attribute class to **AttributeFrontColorBlue**

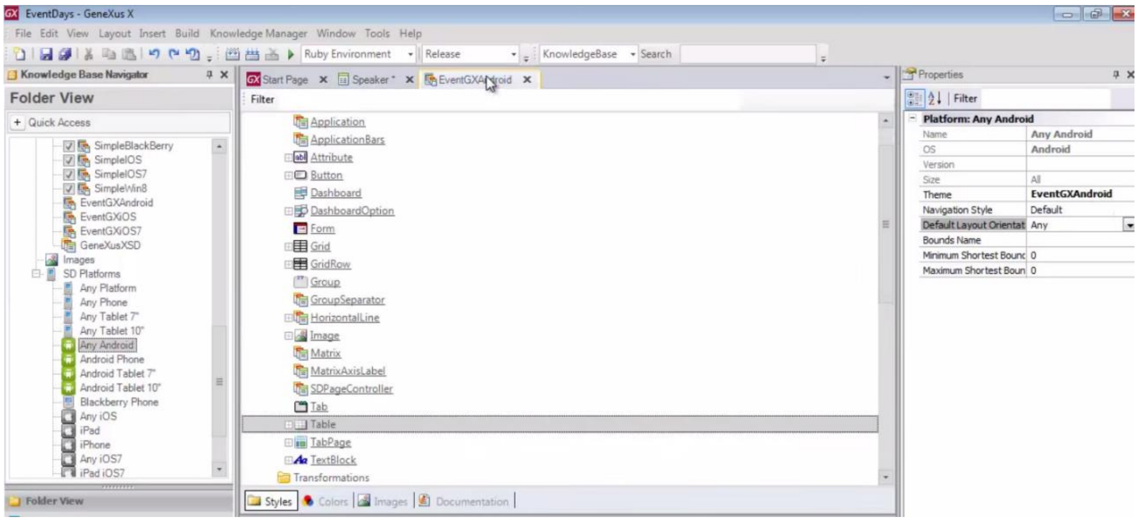

Attribute/Variable: SpeakerFullName

Attribute	SpeakerFullName
Label Position	None
Readonly	True
On Click Event	<none>
Autolink	True
Class	Attribute

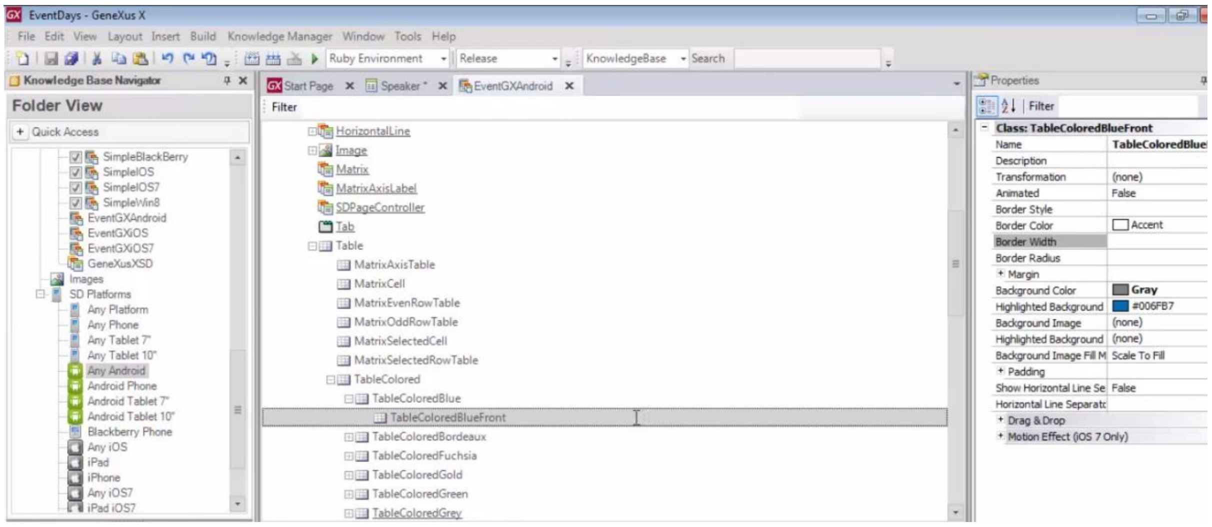
If we open the theme corresponding to the Android platform that we're running (remember that it was EventGXAndroid)


Platform: Any Android

Name	Any Android
OS	Android
Version	
Size	All
Theme	EventGXAndroid
Navigation Style	Default
Default Layout Orientat	Any
Bounds Name	
Minimum Shortest Bounc	0
Maximum Shortest Boun	0


Application
ApplicationBars
Attribute
Button
Dashboard
DashboardOption
Form
Grid
GridRow
Group
GroupSeparator
HorizontalLine
Image
Matrix
MatrixAxisLabel
SDPageController
Tab
Table
TabPage
TextBlock
Transformations

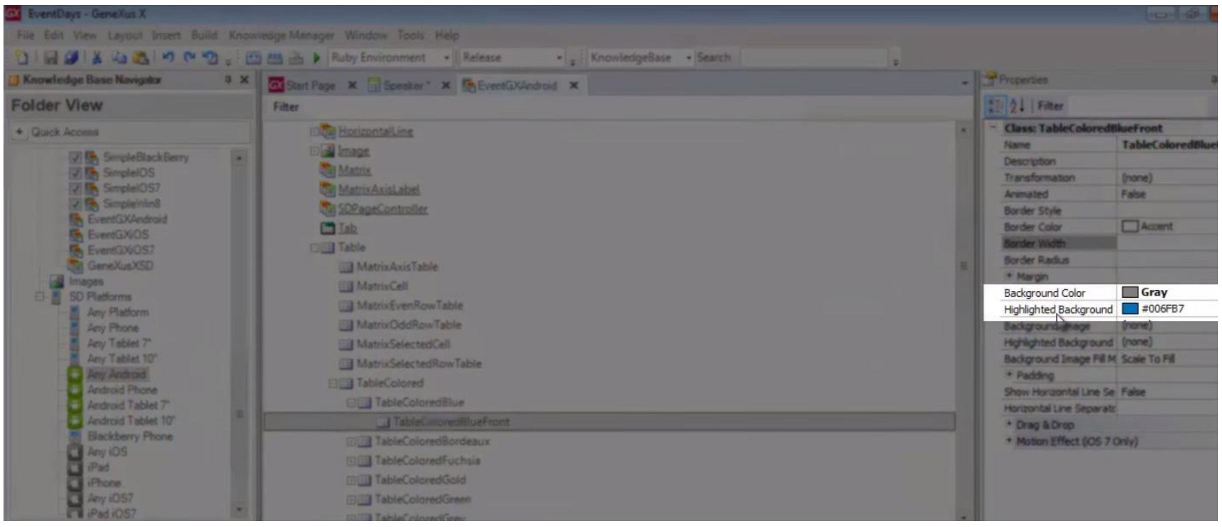
and look for these classes...



Class: TableColoredBlueFront

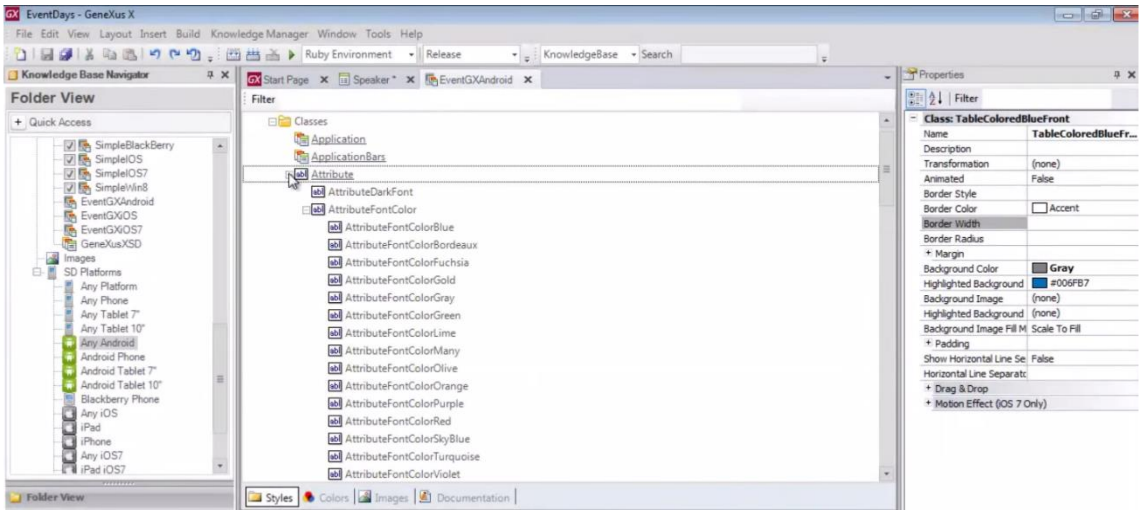
Name	TableColoredBlue
Description	
Transformation	(none)
Animated	False
Border Style	
Border Color	Accent
Border Width	
Border Radius	
Margin	
Background Color	Gray
Highlighted Background	#006FB7
Background Image	(none)
Highlighted Background	(none)
Background Image Fill M	Scale To Fill
Padding	
Show Horizontal Line Se	False
Horizontal Line Separatc	
Drag & Drop	
Motion Effect (iOS 7 Only)	

we see that the class **TableColoredBlueFront** is the one that takes the values we want for the properties **BackgroundColor** and **HighlightedBackround** of the table (on one hand)**:**



Background Color	Gray
Highlighted Background	#006FB7

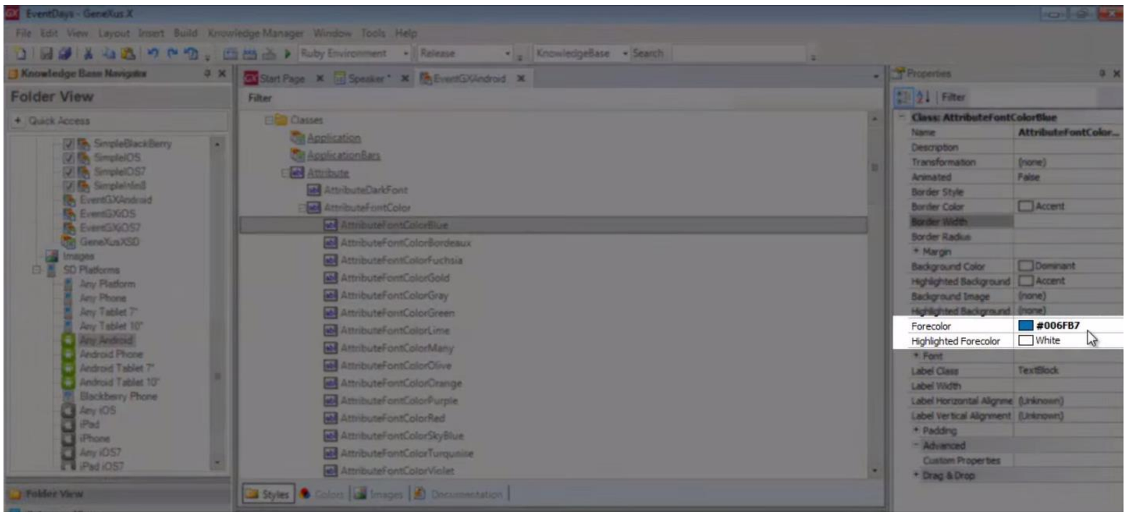
And for the attribute



Class: TableColoredBlueFront

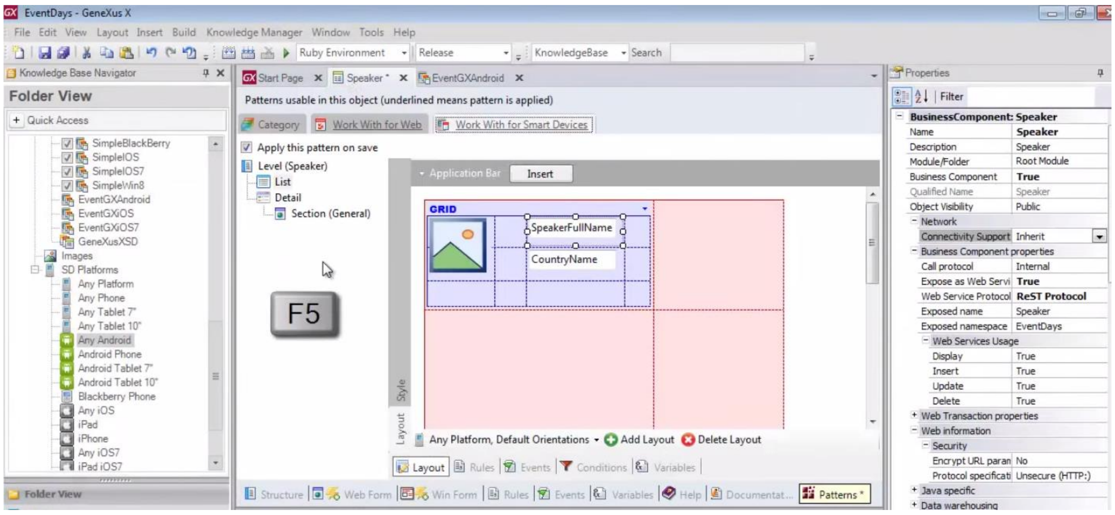
Name	TableColoredBlueFr...
Description	
Transformation	(none)
Animated	False
Border Style	
Border Color	Accent
Border Width	
Border Radius	
Margin	
Background Color	Gray
Highlighted Background	#006FB7
Background Image	(none)
Highlighted Background	(none)
Background Image Fill M	Scale To Fill
Padding	
Show Horizontal Line Se	False
Horizontal Line Separatc	
Drag & Drop	
Motion Effect (iOS 7 Only)	

These two:

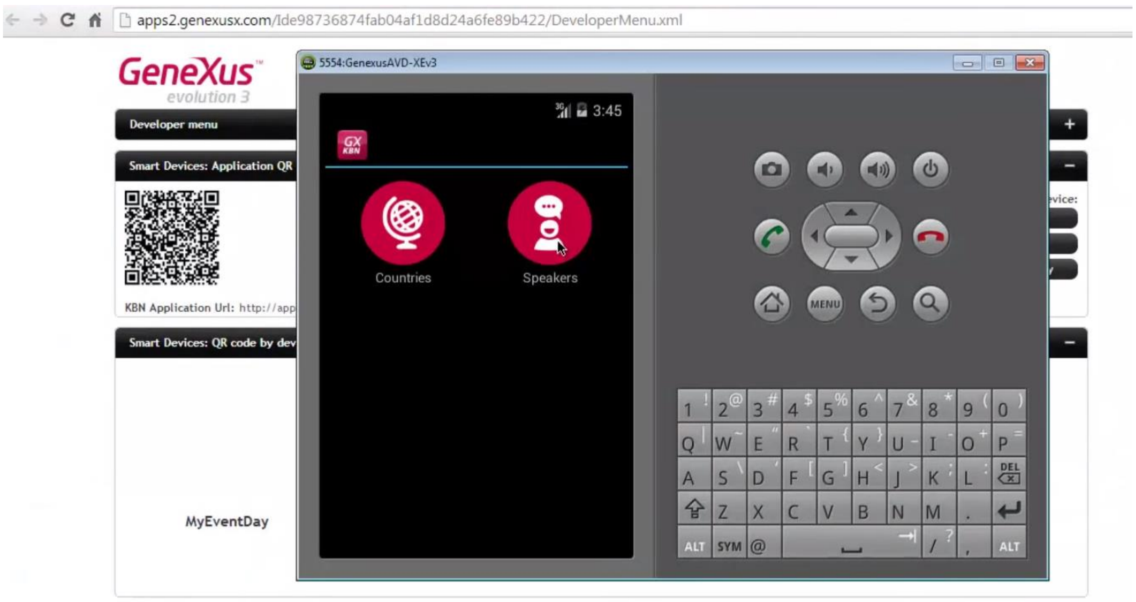


Name	AttributeFontColor...
Description	
Transformation	(none)
Animated	False
Border Style	
Border Color	Accent
Border Width	
Border Radius	
Margin	
Background Color	Dominant
Highlighted Background	Accent
Background Image	(none)
Highlighted Background	(none)
Forecolor	#006FB7
Highlighted Forecolor	White
Font	
Label Class	TextBlock
Label Width	
Label Horizontal Alignment	(Unknown)
Label Vertical Alignment	(Unknown)
Padding	
Advanced	
Custom Properties	
Drag & Drop	

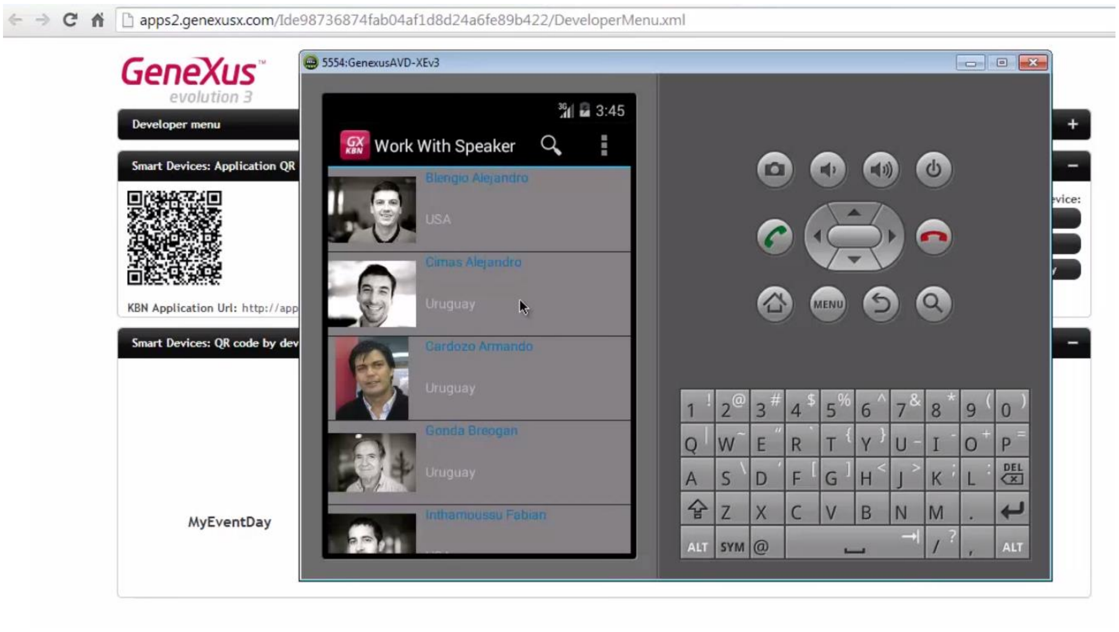
F5



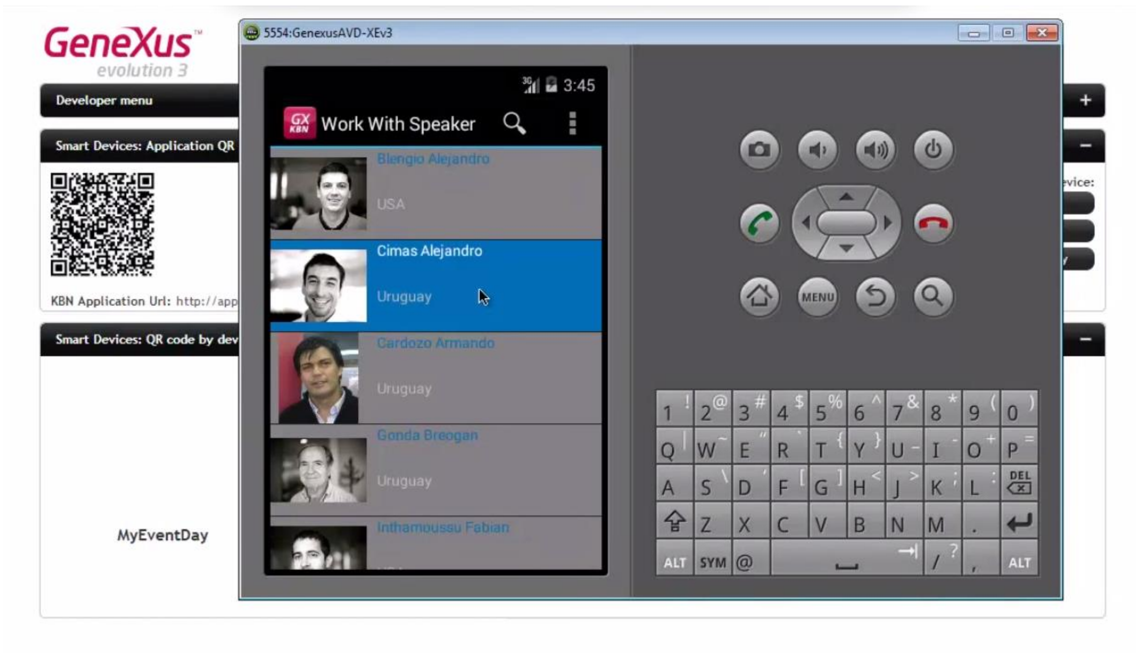
BusinessComponent: Speaker	
Name	Speaker
Description	Speaker
Module/Folder	Root Module
Business Component	True
Qualified Name	Speaker
Object Visibility	Public
Network	
Connectivity Support	Inherit
Business Component properties	
Call protocol	Internal
Expose as Web Servi	True
Web Service Protocol	ReST Protocol
Exposed name	Speaker
Exposed namespace	EventDays
Web Services Usage	
Display	True
Insert	True
Update	True
Delete	True
Web Transaction properties	
Web information	
Security	
Encrypt URL paran	No
Protocol specificati	Unsecure (HTTP:)
Java specific	
Data warehousing	


apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/DeveloperMenu.xml
GeneXus
evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url: http://app
Smart Devices: QR code by dev
MyEventDay
5554:GenexusAVD-XEv3
3:45
Countries
Speakers
MENU

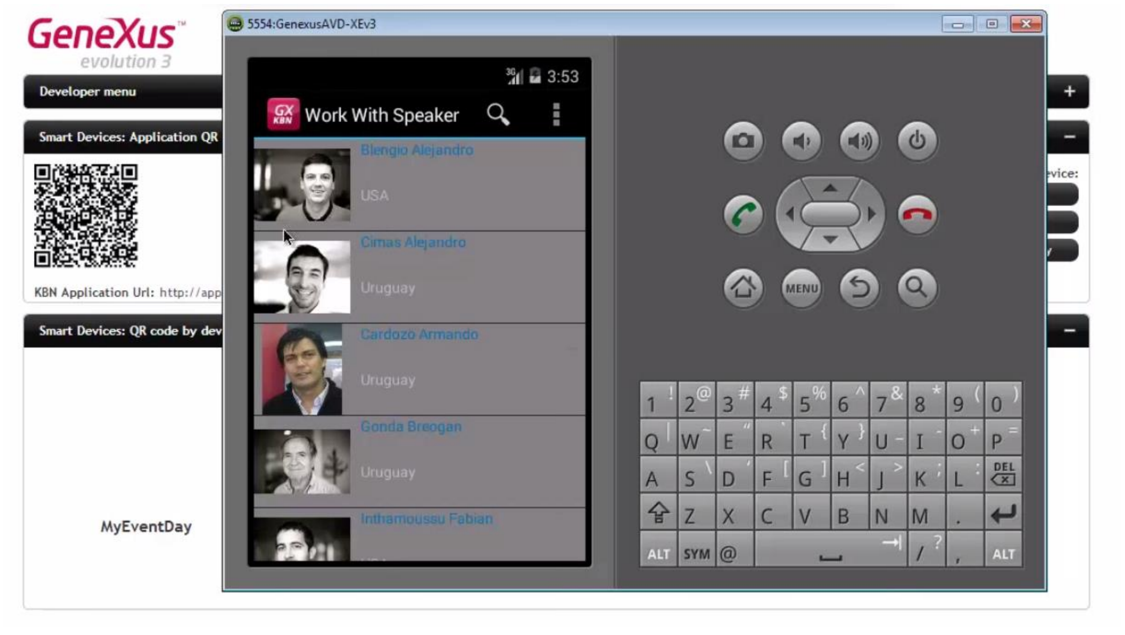
Here we see it:



Tapping on an element changes its background color:

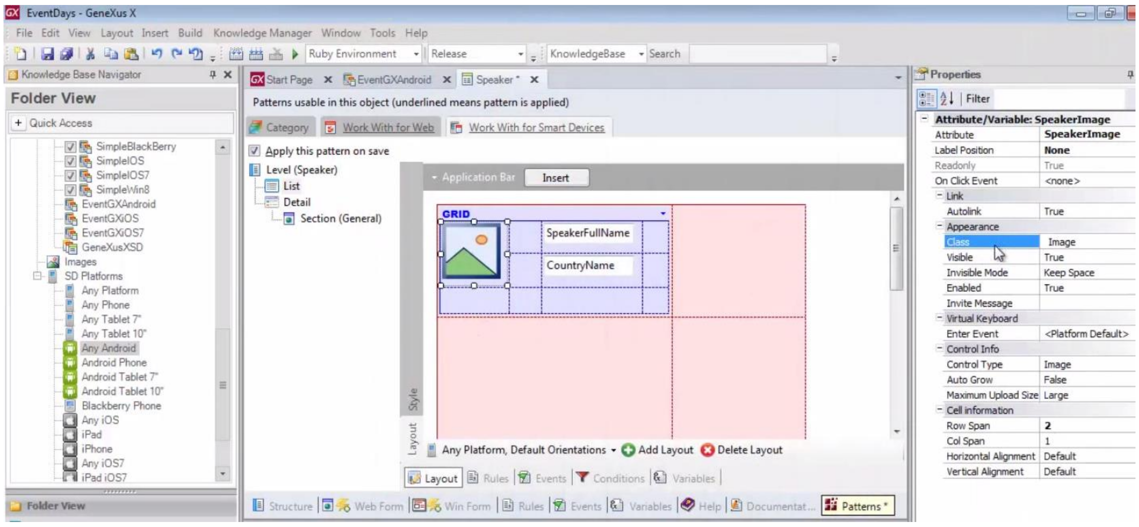


Now let's pay attention to the **shape** of each image within the cell that contains it.



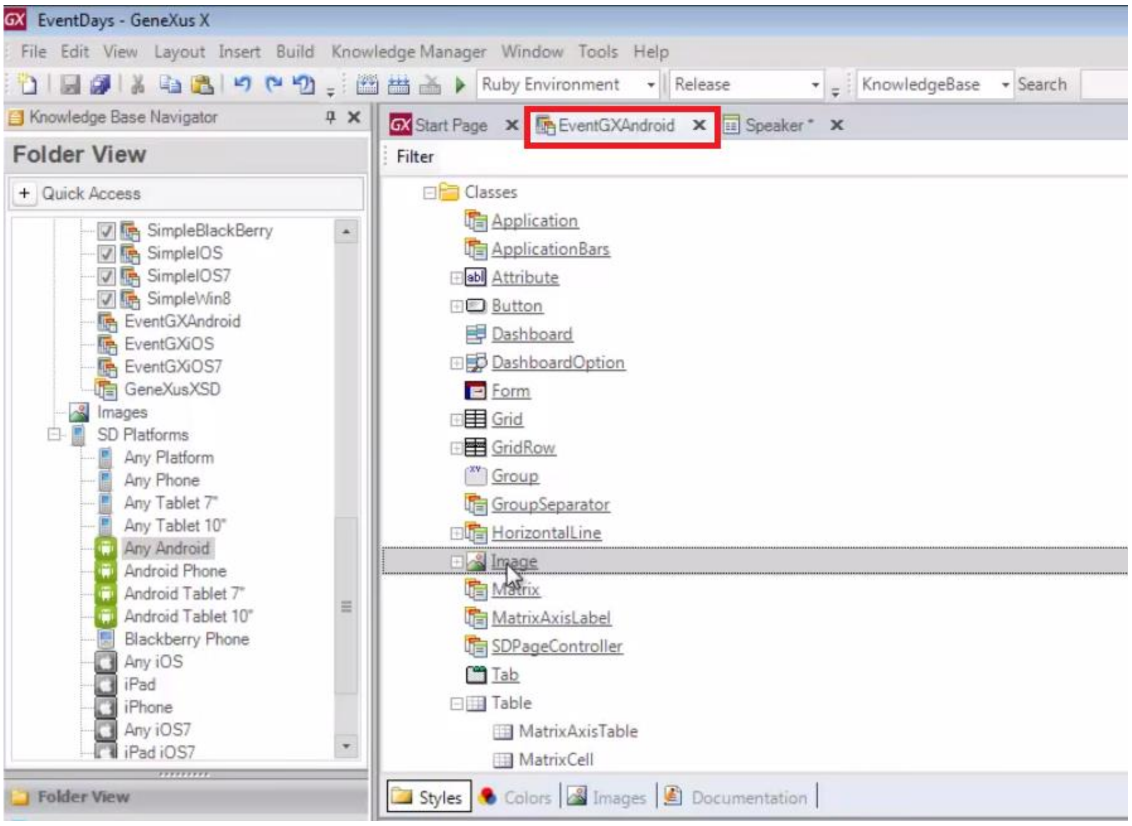
Are these images being scaled? If so, How?

Let's look at the Image control class: Image

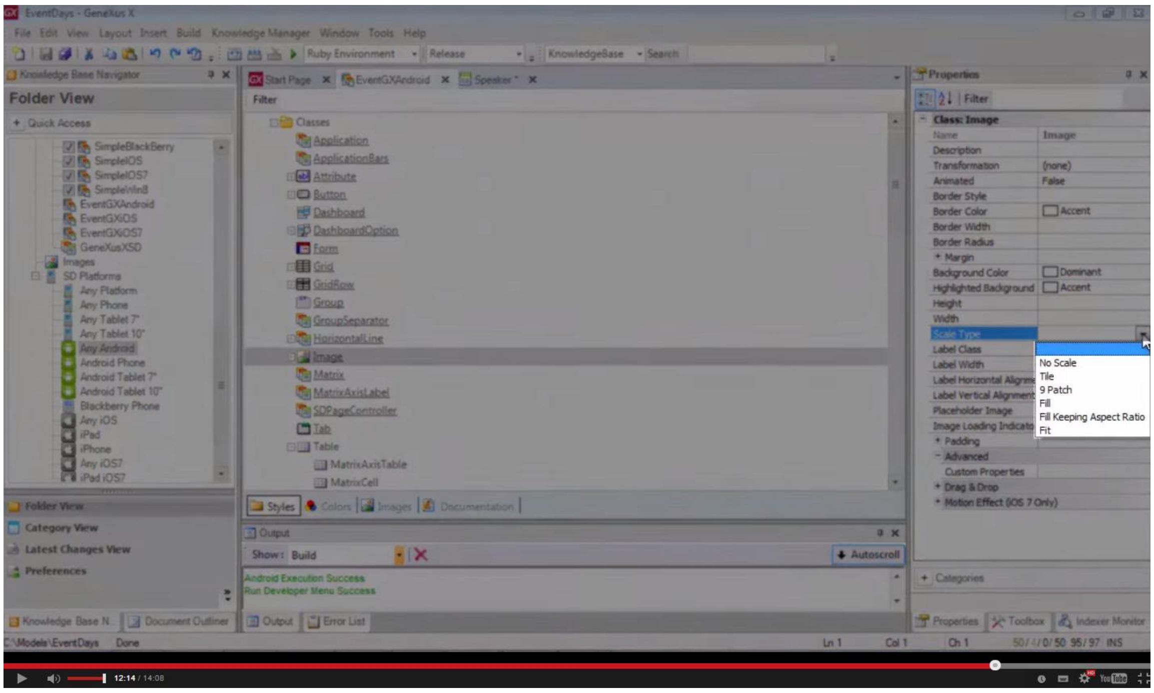


Attribute/Variable: SpeakerImage	
Attribute	SpeakerImage
Label Position	None
Readonly	True
On Click Event	<none>
Link	
Autolink	True
Appearance	
Class	Image
Visible	True
Invisible Mode	Keep Space
Enabled	True
Invite Message	
Virtual Keyboard	
Enter Event	<Platform Default>
Control Info	
Control Type	Image
Auto Grow	False
Maximum Upload Size	Large
Cell information	
Row Span	2
Col Span	1
Horizontal Alignment	Default
Vertical Alignment	Default

If we open this class properties within the theme

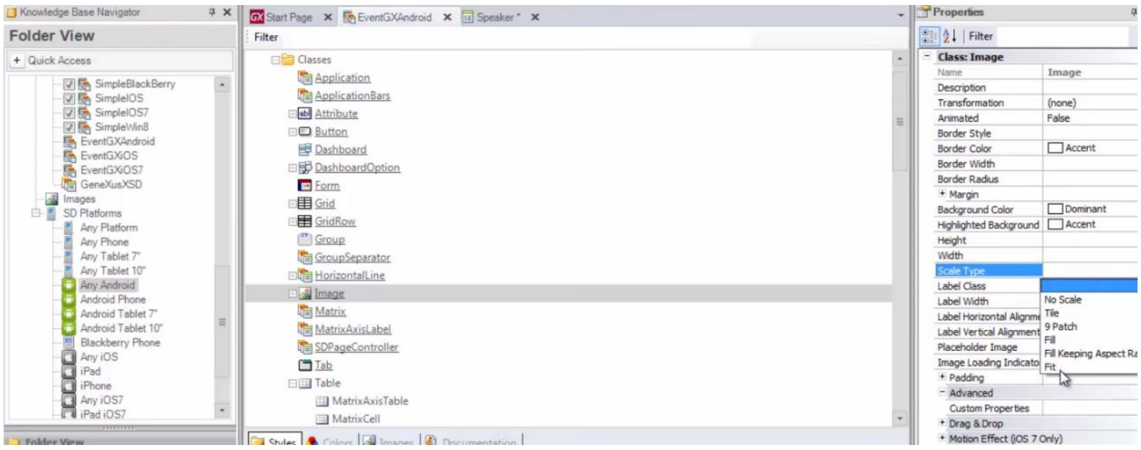


We see that there is a **Scale Type** property that can take one of the following values



These values will determine the way in which the image is scaled -if it is scaled- within the control area that contains it.

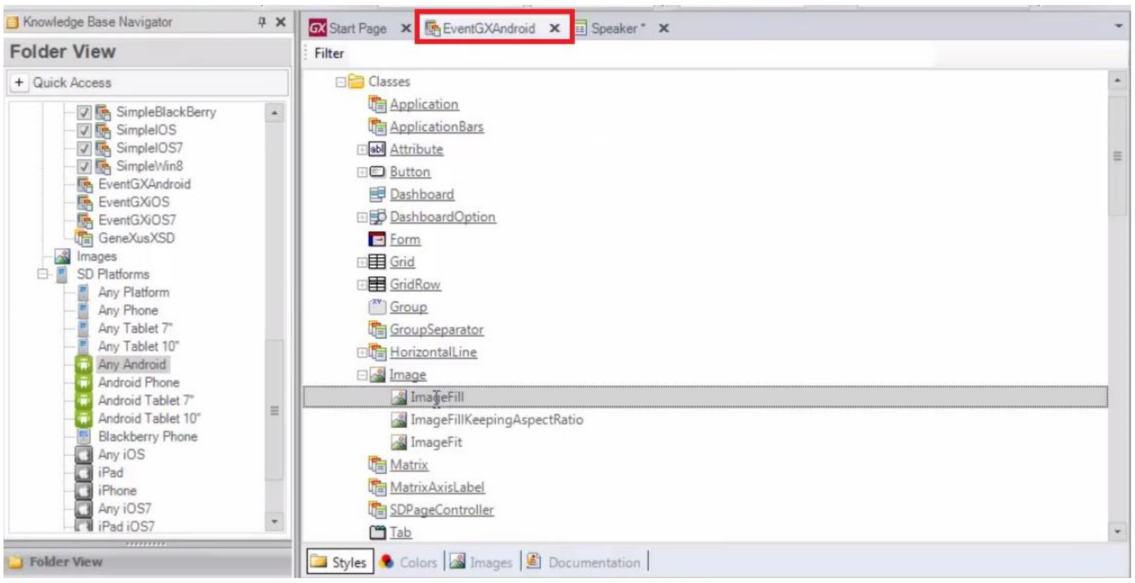
If we don't indicate anything, the value used is Fit



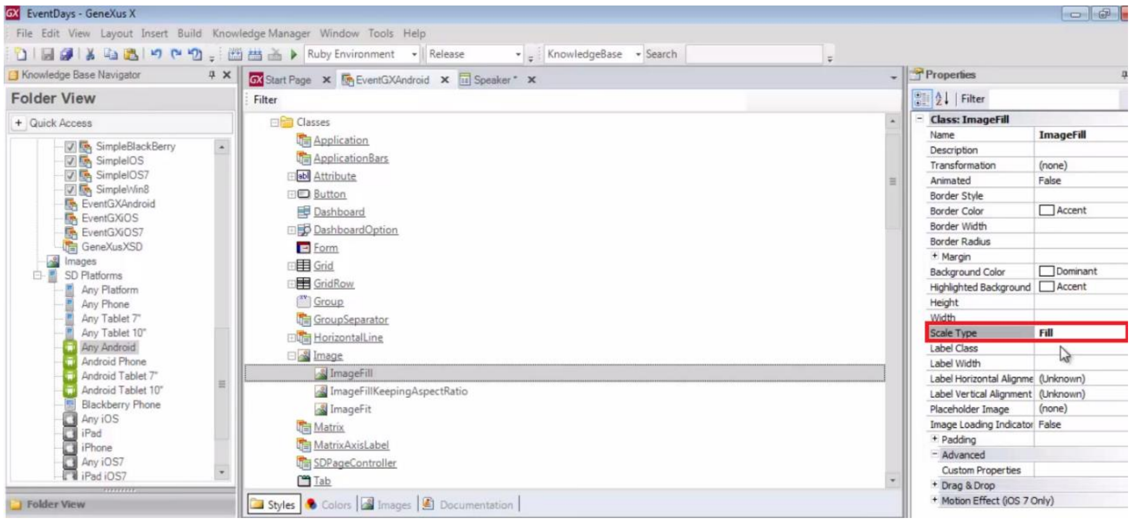
Class: Image	
Name	Image
Description	
Transformation	(none)
Animated	False
Border Style	
Border Color	Accent
Border Width	
Border Radius	
+ Margin	
Background Color	Dominant
Highlighted Background	Accent
Height	
Width	
Scale Type	

This will cause the image's width and length to be scaled, so as to fit in the space while keeping its original appearance.

Remember that classes have been added to this theme...



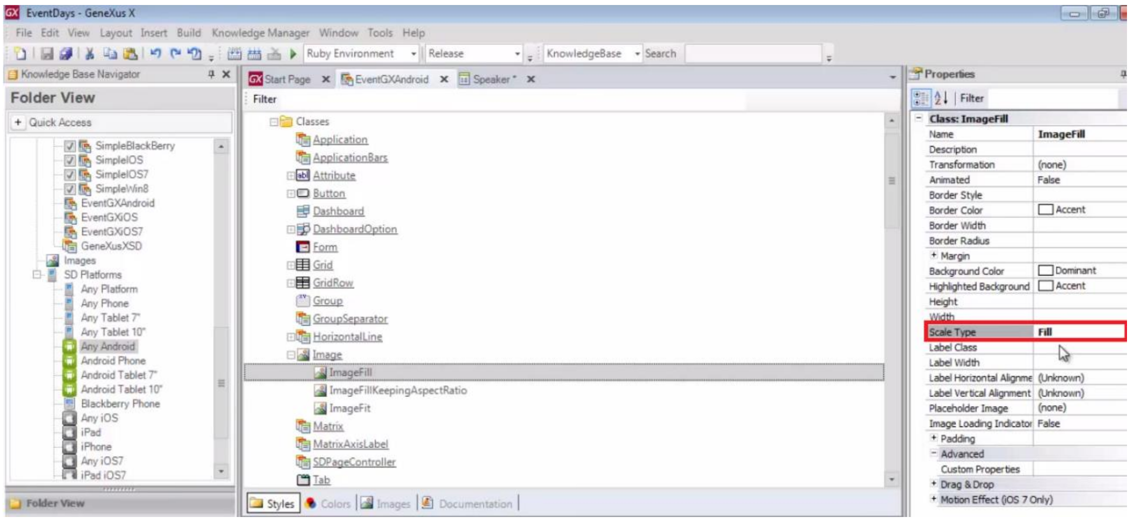
they only set this property



Class: ImageFill	
Name	ImageFill
Description	
Transformation	(none)
Animated	False
Border Style	
Border Color	Accent
Border Width	
Border Radius	
+ Margin	
Background Color	Dominant
Highlighted Background	Accent
Height	
Width	
Scale Type	Fill
Label Class	
Label Width	
Label Horizontal Alignme	(Unknown)
Label Vertical Alignment	(Unknown)
Placeholder Image	(none)
Image Loading Indicator	False
+ Padding	
- Advanced	
Custom Properties	
+ Drag & Drop	
+ Motion Effect (iOS 7 Only)	

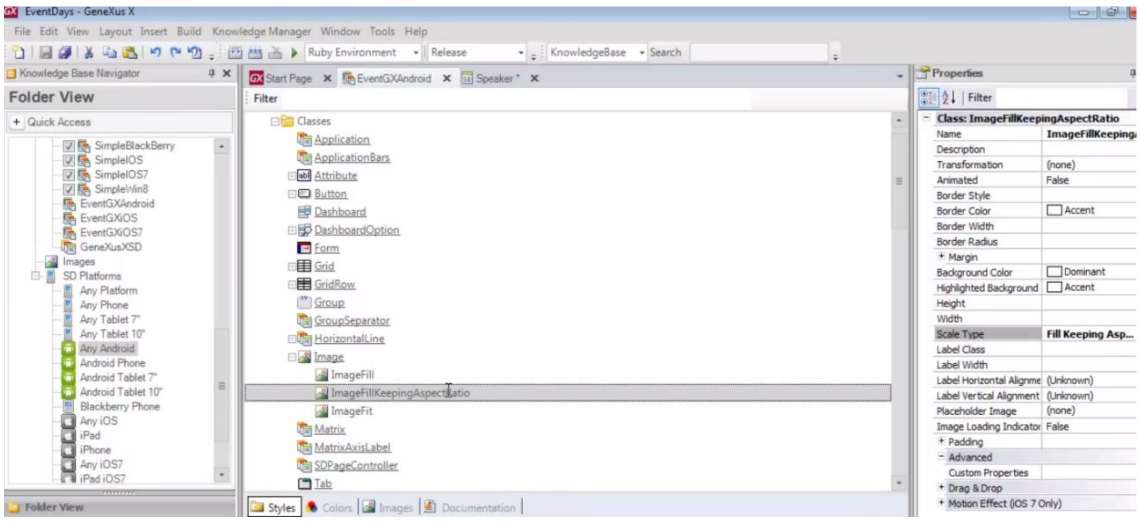
In order to adopt one of the other values.

Fill:



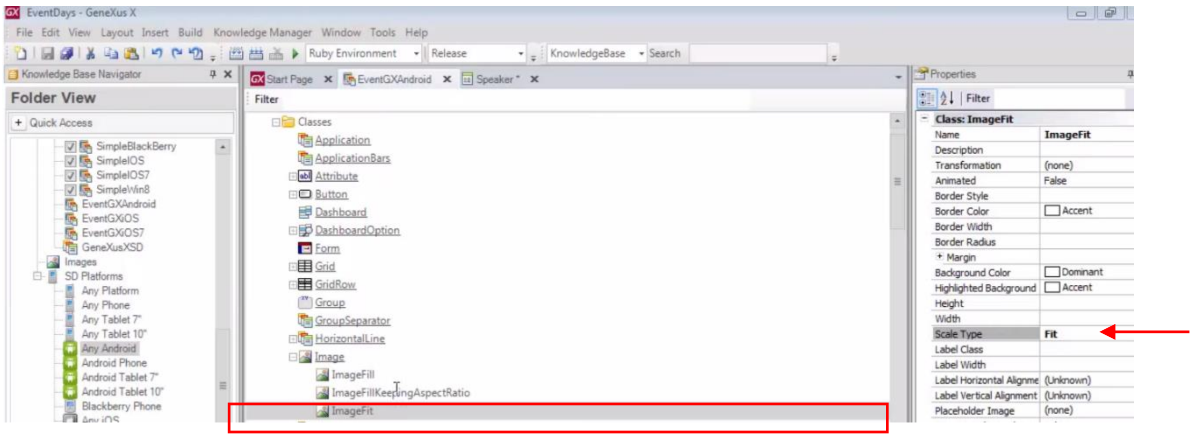
Class: ImageFill	
Name	ImageFill
Description	
Transformation	(none)
Animated	False
Border Style	
Border Color	Accent
Border Width	
Border Radius	
Margin	
Background Color	Dominant
Highlighted Background	Accent
Height	
Width	
Scale Type	Fill
Label Class	
Label Width	
Label Horizontal Alignme	(Unknown)
Label Vertical Alignment	(Unknown)
Placeholder Image	(none)
Image Loading Indicator	False

Fill Keeping Aspect Ratio:



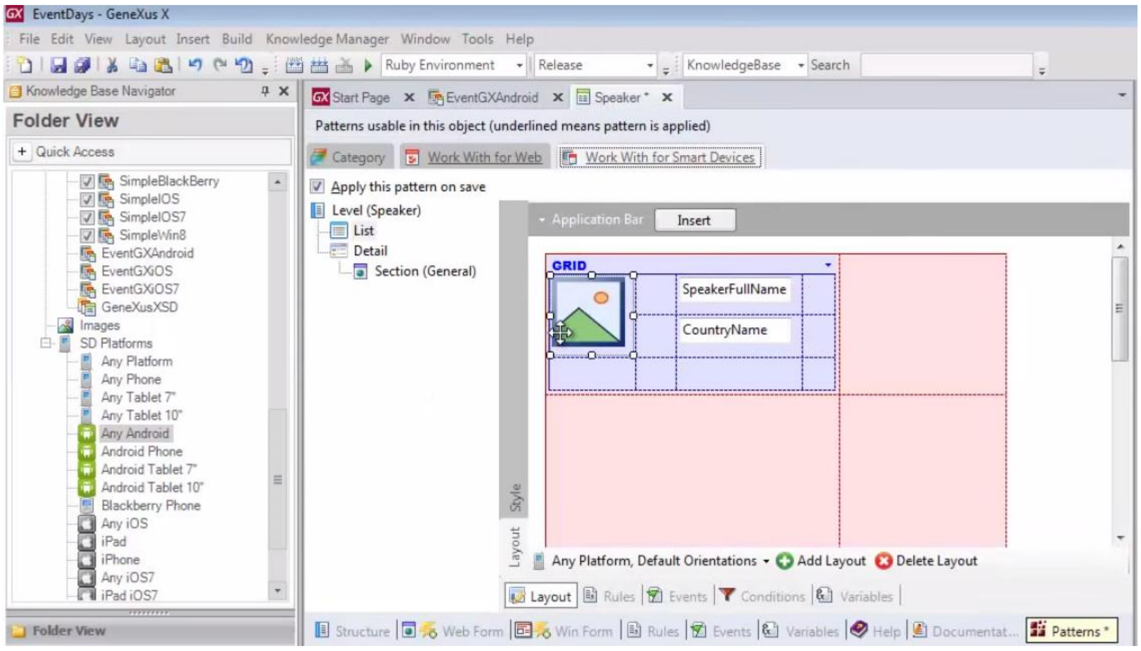
Class: ImageFillKeepingAspectRatio	
Name	ImageFillKeeping
Description	
Transformation	(none)
Animated	False
Border Style	
Border Color	Accent
Border Width	
Border Radius	
Margin	
Background Color	Dominant
Highlighted Background	Accent
Height	
Width	
Scale Type	Fill Keeping Asp...
Label Class	
Label Width	
Label Horizontal Alignme	(Unknown)
Label Vertical Alignment	(Unknown)
Placeholder Image	(none)
Image Loading Indicator	False

Or Fit:

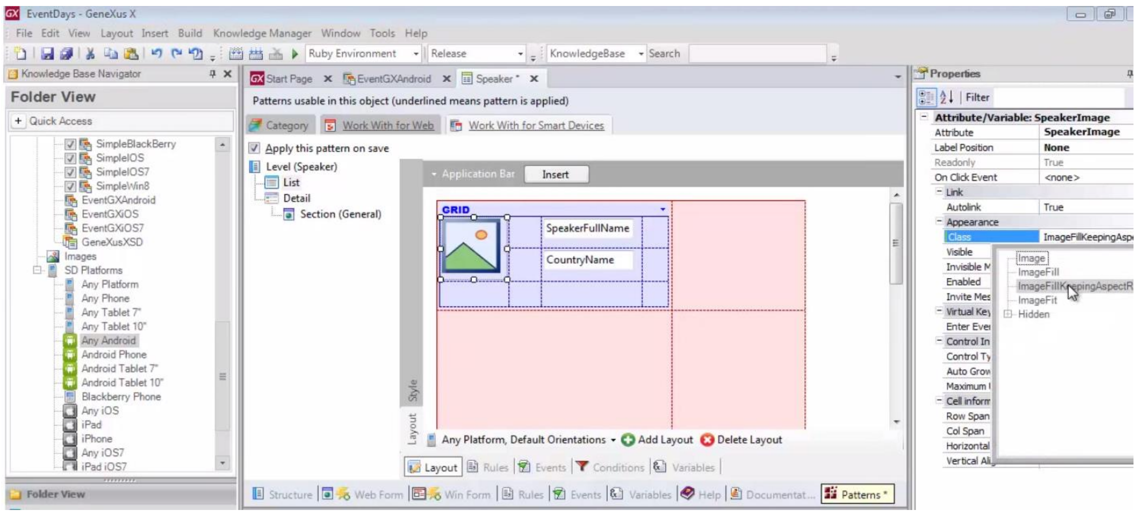


Class: ImageFit	
Name	ImageFit
Description	
Transformation	(none)
Animated	False
Border Style	
Border Color	Accent
Border Width	
Border Radius	
Margin	
Background Color	Dominant
Highlighted Background	Accent
Height	
Width	
Scale Type	Fit
Label Class	
Label Width	
Label Horizontal Alignme	(Unknown)
Label Vertical Alignment	(Unknown)
Placeholder Image	(none)

Suppose that we want to enlarge or reduce our image, so that it occupies the entire cell.

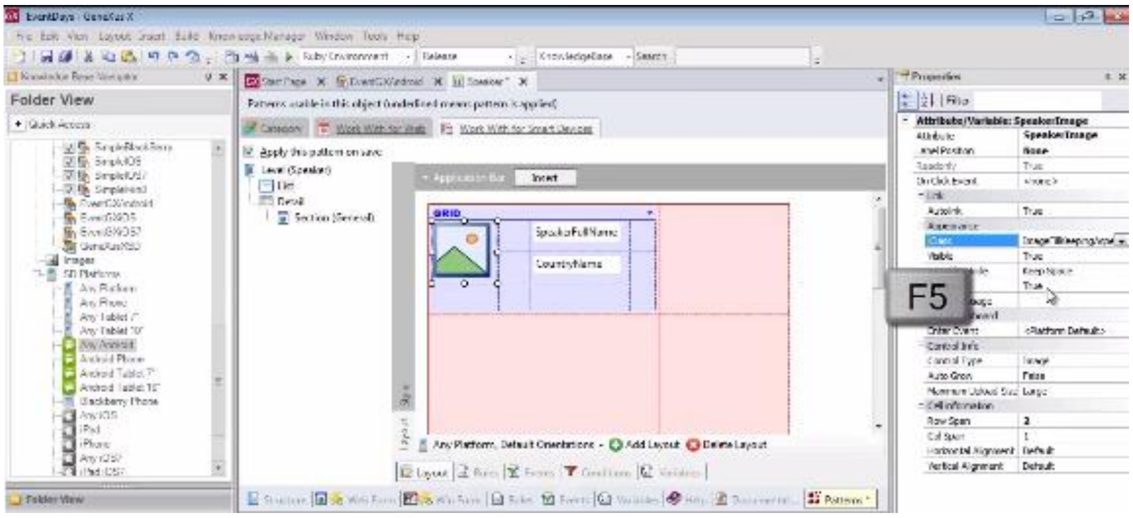


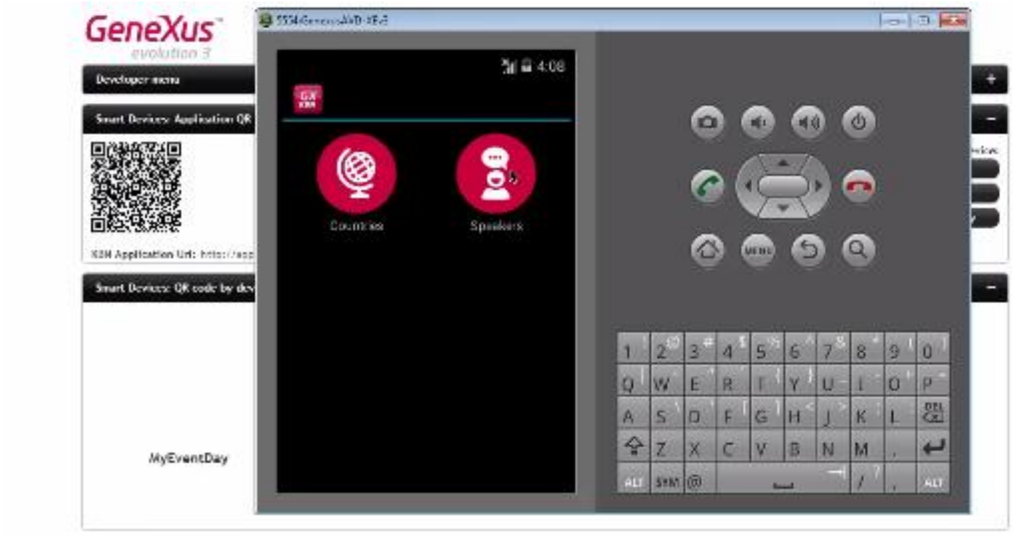
To do so, we will change the class

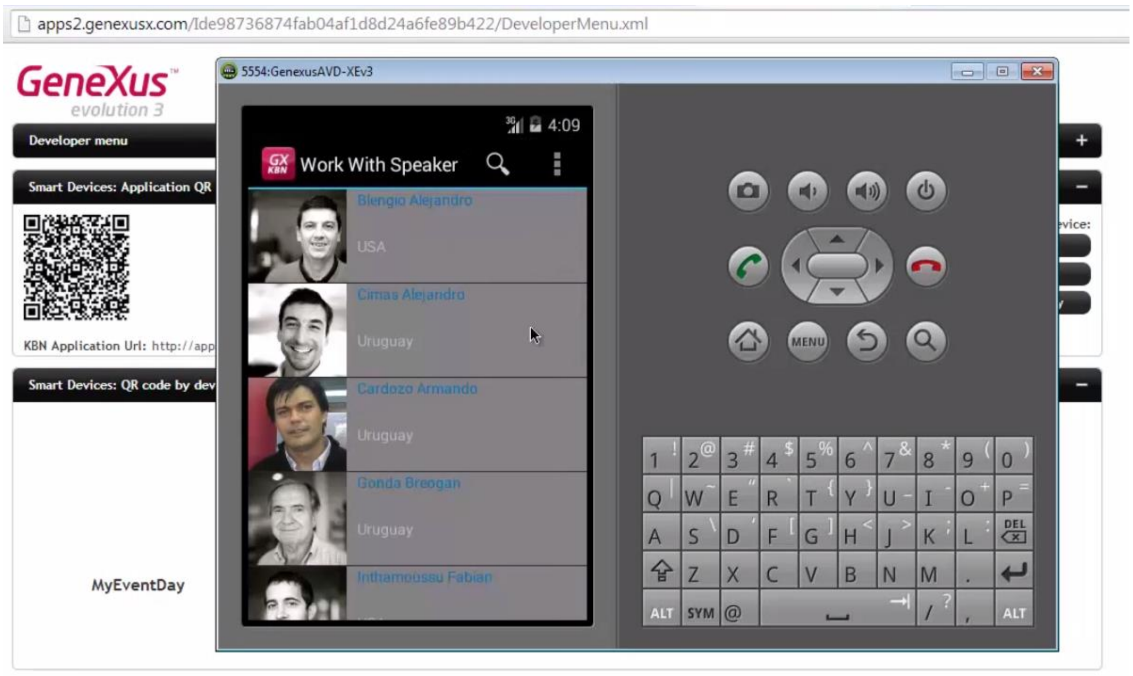


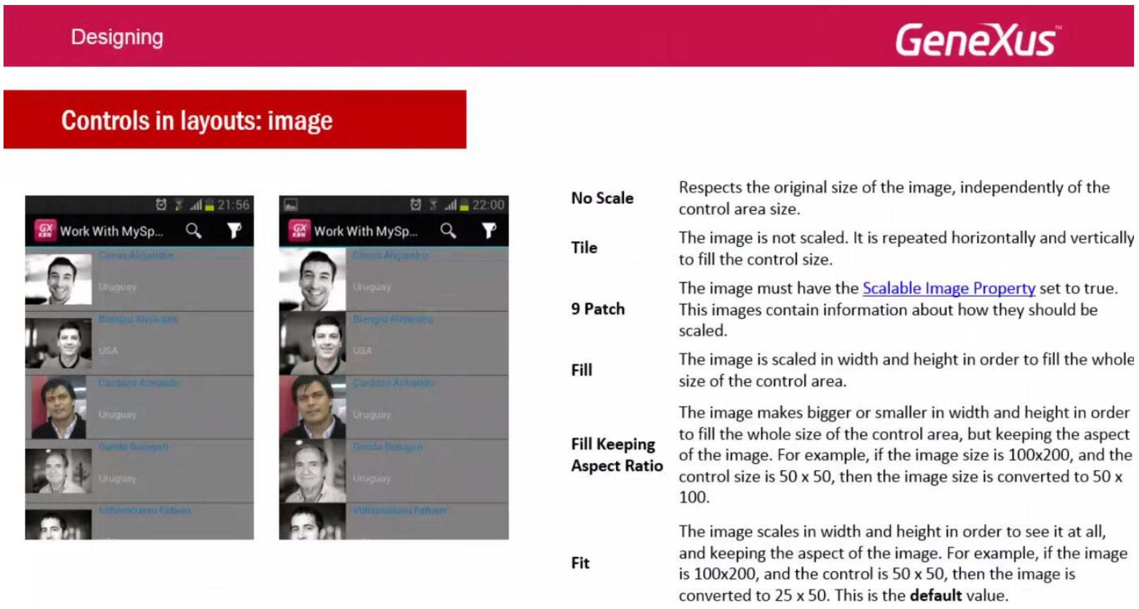
To **ImageFillKeepingAspectRadio**

Let's see it at runtime... F5


Folder View
Any Platform, Default Orientations
Add Layout
Delete Layout
SpeakerFullName
CountryName
F5
Properties
Attribute/Variable: SpeakerImage


GeneXus evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url:
Smart Devices: QR code by dev
MyEventDay
5554:GenexusAVD-XEv3
4:08
Countries
Speakers


apps2.genexusx.com/Ide98736874fab04af1d8d24a6fe89b422/DeveloperMenu.xml
GeneXus evolution 3
Developer menu
Smart Devices: Application QR
KBN Application Url: http://app
Smart Devices: QR code by dev
MyEventDay
5554:GenexusAVD-XEv3
4:09
Work With Speaker
Blengio Alejandro
USA
Cimas Alejandro
Uruguay
Cardozo Armando
Uruguay
Gonda Breogan
Uruguay
Inthamoussu Fabian


Designing

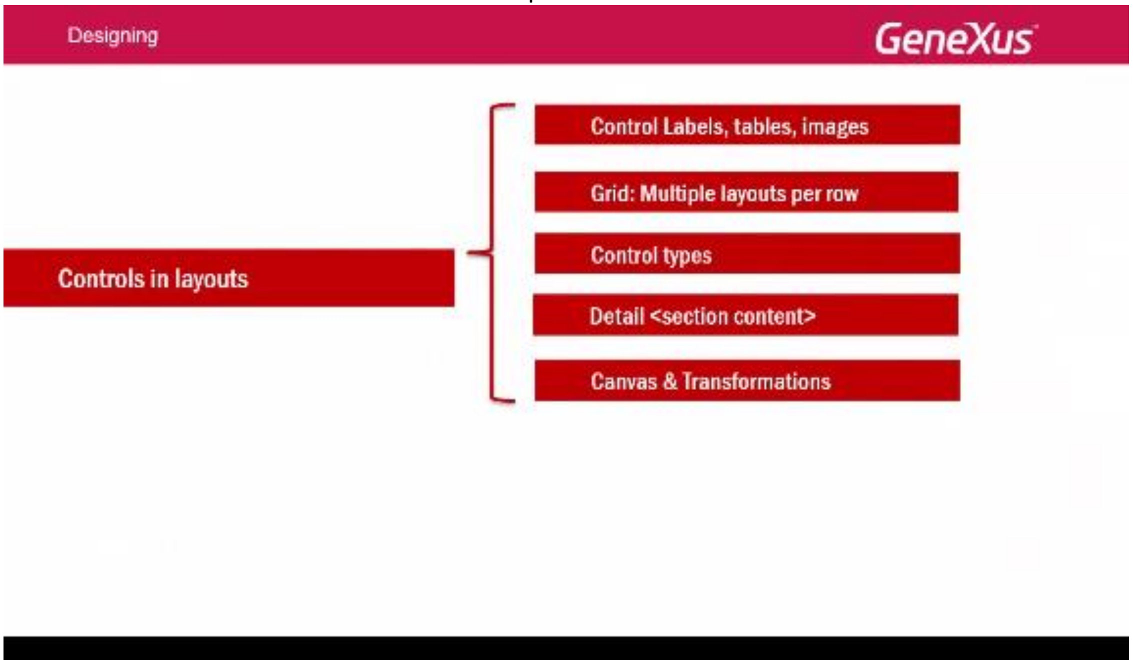
GeneXus

Controls in layouts: image

No Scale	Respects the original size of the image, independently of the control area size.
Tile	The image is not scaled. It is repeated horizontally and vertically to fill the control size.
9 Patch	The image must have the Scalable Image Property set to true. This images contain information about how they should be scaled.
Fill	The image is scaled in width and height in order to fill the whole size of the control area.
Fill Keeping Aspect Ratio	The image makes bigger or smaller in width and height in order to fill the whole size of the control area, but keeping the aspect of the image. For example, if the image size is 100x200, and the control size is 50 x 50, then the image size is converted to 50 x 100.
Fit	The image scales in width and height in order to see it at all, and keeping the aspect of the image. For example, if the image is 100x200, and the control is 50 x 50, then the image is converted to 25 x 50. This is the **default** value.

Here we see a summary of what each value does.

You will find more information about this topic in our wiki.

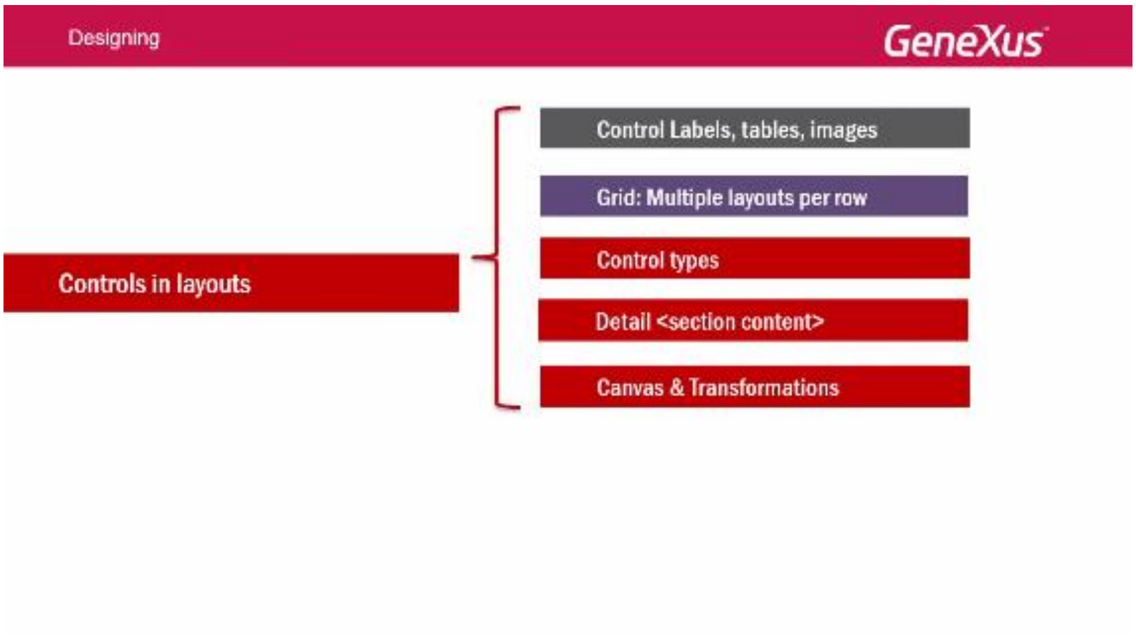

Designing

GeneXus

Controls in layouts

- Control Labels, tables, images
- Grid: Multiple layouts per row
- Control types
- Detail <section content>
- Canvas & Transformations

This is the end of the first item proposed in relation to controls in layouts... and now we will talk about the second one.



Designing

GeneXus

Controls in layouts

- Control Labels, tables, images
- Grid: Multiple layouts per row
- Control types
- Detail <section content>
- Canvas & Transformations