

Cecilia Fernández

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GeneXus by Globant



In the previous video, I showed one unfinished implementation for the carousel of the Attractions panel.

Now we will analyze it in detail and think about other possibilities.



A grid control is used when we need to display a fixed or variable amount of repetitive information.

When the amount of information to be displayed is variable, the grid control is clearly used. This is our case, where the information to be displayed is that of the attractions in the database, which is clearly variable.



But it is also used for a fixed amount of information. For example, to model these cards of the Home panel, we will also use a grid, because, remember, it will be composed of 4 cards, fixed, where only 2 are visible on the screen at a time.

In this case, the grid will load 4 items of information, but each one with fixed values, not taken from the database.



The case of Attraction will be more similar to that of Attractions, not only because the visual structure of the information displayed is almost identical to that of the longer cards of this other grid, but also because it is taken from the database. In this case, from the second level of the Attraction transaction.



Although the 3 carousels will be implemented by means of grids, they will have particular features. Two of them can be thought of as **horizontal grids**, while the one we will study now will be of the **flex** type.

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| Version:GeneXus 18   |   |          |   |
| Data loading logic on a Panel screen   |   |          |   |
| In this video we will see how the screen of a panel object is loaded, depending on the graphical interface   |   | -        |   |
| components present in it, and how GeneXus automatically creates Data Provider objects responsible for  | Total length of vide                    | os: 5.5h |   |
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The GeneXus for Angular course includes this short video that describes the relationship of a grid with database attributes and the automatic loading of this grid. If you have never seen any of this, I recommend that you stop here and watch it.

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In the KB I had already implemented a first version of this grid, in the copy of the Attractions panel.

I'm going to do it now with you in detail, to explain the most relevant aspects from the frontender's point of view.

This area we have entered has a User Interface and also coding.

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I will start by inserting a grid in the second row of Attractions. It opens this window for us to select attributes and/or variables that we want to be part of each item displayed by the grid.

For our case, I could select, for example, CountryName, AttractionName, AttractionPhoto, AttractionRating.



Note that it placed the 4 attributes side by side, in 4 columns, but we can rearrange the elements as we want. This is different from what happens with tabular grids, where there are only columns and we can't do this.

We are going to choose the first case, clearly.

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I rearrange the elements as I want them to be displayed.



And now I want to execute.

So in the Master Panel... in the event associated with the Attractions button... I uncomment the invocation to the panel that we are building... and as for the invocation to the copy that already has the advanced grid, I place it for the About button, provisionally.



Nothing is being shown at runtime. Why?

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First of all, let's look at the size of the row in which the grid is located. 100% of the remaining height after removing 712 dips. Obviously there is no problem here.

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Among the properties of the Grid we see that it has Auto Grow set to False, so it will not grow as its content grows.

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| Undehs(1X)TaveAgency   |                      | 7/0/0/7 2   | 2/2 |

And if we analyze each content item, we see that it will be modeled as this table, which has 3 columns and two rows, and whose height is set to "platform default". And although it has Auto Grow set to true, since the grid doesn't have it, it will not apply.

| V O Home X +  |                       |     | 3  | - 1 | 0 | × |
|---|-----------------------|-----|----|-----|---|---|
| ← → C ⋒ (O localhost:49853/TravelAgency/Attractions-Level | Detail                | ,   | \$ | Ð   | s | : |
|   | Brazil                |     |    |     |   | • |
| -   | Christ the Redeemer   | 4   |    |     |   |   |
|   | United States         |     |    |     |   |   |
| -   | Smithsonian Institute | 3.9 |    |     |   |   |
| 12  | France                |     |    |     |   |   |
|   | Matisse Museum        | 3.5 |    |     |   |   |
|   | China                 |     |    |     |   |   |
|   | Forbidden city        | 3.9 |    |     |   |   |
|   | Italy                 |     |    |     |   |   |
|   | Cinque Terre          | 4.5 |    |     |   |   |
|   | Scotland              |     |    |     |   | 1 |
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|   | England               |     |    |     |   |   |
| -   | London Towers         | 4.5 |    |     |   |   |
|   | United States         |     |    |     |   |   |
| -   | Long Bridges          | 4.5 |    |     |   | 5 |
| 2   | China                 |     |    |     |   |   |
| 276.  |                       |     |    |     |   |   |

Let's see what happens if we change the Auto Grow of the grid to True...



We don't want a grid with Auto Grow, because we actually want a carousel that has a horizontal scroll. The height will have to be fixed.

| TravelAgency - GeneXus 18               |  |                           |                                     | o × |
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| 😚 KB Explorer 🤤                         | × 🛅 Attractions X 🛅 AttractionsCopy1 X 📓 TravelAgencyBase X 🦉 Attractions X 👩 Navigation View X 📅 MasterTravelAgency | × 🗸 🗸                     | Properties                          | 9 × |
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| Sout Module                             | ✓ Ⅲ MainTable  | •                         | Control Marine Marin Table          |     |
| > 😭 General                             | 8  |                           | Control Name Main Table             |     |
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|   | GRD  |                           | Auto Grow True                      |     |
| > RecicleBin                            | CountryName  |                           | Class                               |     |
| Attraction                              |  |                           | Background (none)                   |     |
| AttractionData                          |  |                           | Visible True                        |     |
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| AttractionsCopy1                        |  |                           | Enabled True                        |     |
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| GetMostVisitedAttractions               |  |                           | Scroll Factor 1                     |     |
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So I define this height for the row in which the grid is located...

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| WorkWithWebAttraction  | Success: Angular txecution started   | 20100000000                 | Gird Tex Textblock        | ~   |
| KB Explorer  | Success: Run Home  | Properties                  | T Toolbox                 |     |

...and I leave Auto Grow set to False.

I will have to work carefully with the sizes of this table.

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|---------------------------------------|---|----------------------|---------------------|
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What we can see so far is that by using attributes the grid loading is already automatic. It is a grid with Attraction base table. I didn't even have to make it explicit in this property. It inferred it automatically.



In the background, GeneXus builds a Data Provider that returns a collection SDT with all the necessary items to load the grid. Look at the navigation of this Data Provider. It goes to the Attraction table, accessing Country to get the CountryName.

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If we wanted to sort in descending order by AttractionRating, note that it would be enough to do this... define an order... according to this attribute that is NOT ascending.



And if we now ask to see the navigation list... here we see it reflected.

| TravelAgency - GeneXus 18   | Ann Mannaer Window Tank Tert Unio  |                                   | - 0 ×          |
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| S General   |  | Control Name                      | Activitatio    |
| V STravelAgency   | The most visited ATTRACTIONS & & & & & & & & & & & & & & & & & & &   | Layout Name                       | Large          |
| DesignSystems   |  | Appearance                        |                |
| Phone   |  | Width                             | 472dip         |
| > Tablet  | Contact Us   | Height                            | 560dip         |
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| images  |  | Background                        | (none)         |
| ~ 🔁 UI  |  | Visible                           | True           |
| > C RecicleBin  |  | Invisible Mode                    | Voen Serre     |
| Attraction  |  | Invisible Mode                    | Keep space     |
| AttractionData  | 8/AttractionsDataitem(0).CountryName   | Enabled                           | Irue           |
| AttractionsCopy1  | g p  | V Scroll Behavior                 |                |
| Contact   |  | Scroll Factor                     | 1              |
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| PGetAttractionForMP   |  | <ul> <li>Accessibility</li> </ul> |                |
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| V Attraction  | Show: Build  |                                   |                |
| > Associated Tables   | Specifying TravelAgency.Attractions_Level_Detail_Grid1 (1 of 1)  |                                   |                |
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In the implementation that I showed in the previous video, in which I didn't use attributes...



...I explicitly built a Data Provider, as well as the SDT that I use as a collection, and I also invoke it explicitly, so that it is loaded into the grid once I have its data.



Remember that the Refresh event will be fired before the grid is loaded.

So, I call the Data Provider, it returns the collection of data, of items, loaded...

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| > 🚱 General                              |   | Control Name      | GndAttractions                 |   |
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| ~ 📇 UI                                   |   | Default Selected  | (10008)                        |   |
| > C RecicleBin                           |   | Control lafe      | (none)                         |   |
| Attraction                               |   | Control Into      |                                |   |
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| Attractions Conv.1                       |   | Auto Grow         | False                          |   |
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| GetHalf                                  | &AttractionsData.item(0).AttractionsData.item(0).AttractionRating   | Flex Wrap         | Wrap                           |   |
| GetMostVisitedAttractions                |   | Justify Content   | Flex Start                     |   |
| Tome                                     | å   | Align Items       | Flex Start                     |   |
| 5 Information                            |   | Align Content     | Elex Start                     |   |
| MasterTravelAgency                       |   | Angricoment       | The start                      |   |
| GetAttraction                            |   | Appearance        | 1                              |   |
| PGetAttractionForMP                      |   | Class             | Grid                           |   |
| Wait                                     |   | Visible           | True                           |   |
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| Transactions                             | Dutest 2 X  | Enabled           | True                           |   |
| Attraction                               |   | Rows              | <default></default>            |   |
| > Associated Tables                      | Specifying TravelAgency.Attractions_Level_Detail_Grid1 (1 of 1)   | Empty Grid Bar    | (none)                         |   |
| Attraction_DataProvider                  | warning spc0038: There is no index for order (AttractionRating); poor performance may be noticed in grid 'Grid1'. (Panel  | Empty Grid Ray    | Imaga                          |   |
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| Category                                 | Success: Snaclfication  | Linchi Ford The   | ·                              |   |

...and since I associate this collection with the grid, it will make a Load per item...



...firing for each one the Load event (which is programmed here to alternate between the cards: those of Small height and those of Large height...



That is to say, between these with a height of 260 and these other ones with a height of 560.



In grids we can define **multiple layouts** for their items; they don't have to be the same for all of them. And this is what I did in my grid. I defined two different layouts: this one that I called Large, and this one, which is the default, which I called Small.

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| V TravelAgency  | The proctulated ATTRACTIONS & BinformationText   | Layout Name                       | Large          |
| V 🐑 DesignSystems   |  | ~ Appearance                      |                |
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| Tablet  | Contact Us   | Height                            | 560dip         |
| Files   |  | Class                             | Table          |
| Images  | comp Large* cre  | Background                        | (none)         |
| ~ 🖨 u   |  | Visible                           | True           |
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| Attraction  |  | Freehlad                          |                |
| Attraction  | 8AttractionsData.item(0).CountryName   | Enabled                           | True           |
| AttractionsCopy1  | 0  | Scroll Behavior                   |                |
| Contect   |  | Scroll Factor                     | 1              |
| GetHalf   | exturactionsData_item(0)_AttractionRating  | Zoom Factor                       | 0              |
| GetMostVisitedAttractions   |  | Scroll Attachme                   | Parent         |
| To Home   | d o b  | > Layout Behavio                  | ,              |
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| GetAttraction   |  | Is Slot                           | Faise          |
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Although they look identical, actually they have one difference: the height of this table (which we can see is a canvas). That of the Large layout is 560 dips, while that of the Small layout is 260.



We can already think of this grid as a flex container, of this height, and with its items in column direction. The Wrap property is enabled, so the first two tourist attractions returned will be these two; if we start counting them at 0, then we will have this: 0 and 1 fit in the first column but 2 and 3 do not, so they go to a second column, and 4 and 5 in a third column, and so on.

Note that we can establish the alternation of the cards by looking at these four, because later the scheme will be repeated. Number 0 and 3 will correspond to Small height, and 1 and 2 to Large height.

For their multiples the same scheme applies. That is why I solved it this way.



In Refresh I set the counter of the attraction to 0 and then I calculate, for each item to be loaded in the grid, the position of the item, which will be the rest of that counter divided by 4; that is to say, it will be: 0, 1, 2 or 3.

If it is 0 or 3, I instruct it to load the item with the Small layout; and if it is 1 or 2, with the Large layout.

Note that this is the name of the grid, and this is the property that indicates which is the layout of the item.

| KB Explorer 9 ×                        | 🛄 Attractions X 🛄 AttractionsCopy1 X 📓 TravelAgencyBase X 🦉 Attractions X 🙆 Navigation View X 🛅 MasterTravelAgency X 🛅 GetMostVisitr | > Properties      |                     | + × |
|--|--|-------------------|---------------------|-----|
| pen: Name or Pattern                   | Layout Rules Events Conditions Variables Documentation   | General           |                     |     |
| TravelAgency                           |  | ZI 🌾 Filter       |                     | 2   |
| Root Module                            | Imm MainTable     EGridAttractions   | Grid: GridAttract | tions               |     |
| > 🚱 General                            |  | Control Name      | GridAttractions     |     |
| TravelAgency                           |  | Collection        | & Attractions Data  |     |
| ✓                                      | The most visited ATTRACTIONS anintermation text  | Default Action    | <default></default> |     |
| > 😭 Desktop                            |  | Selection Type    | Platform Default    |     |
| > Phone                                | Contact lie  | Enable Multiple S | Ealea               |     |
| > 😚 Tablet                             |  | Dull To Defeat    | False               |     |
| Piles                                  |  | Pull To Ketresh   | Faise               |     |
| ······································ | GRD Smalt  | Inverse Loading   | False               |     |
| > P RecicleBin                         |  | Default Selected  | (none)              |     |
| Attraction                             |  | Control Info      |                     |     |
| AttractionData                         |  | Control Type      | Flex Grid           | ~   |
| Attractions                            | o & & & & & o  | Auto Grow         | Charts              | ^   |
| AttractionsCopy1                       |  | Elex Direction    | Flex Grid           |     |
| Contact                                | &AttractionsData.item(0).AttractionName  | Flow Wran         | City                | -   |
| GetHalf                                |  | riex wrap         | Grid                |     |
| GetMostVisitedAttractions              |  | Justify Content   | Hork Sital Grid     |     |
| S Information                          | <u> </u>   | Align Items       | Image Map           |     |
| MasterTravelAgency                     |  | Align Content     | Legacy Grid         |     |
| GetAttraction                          |  | Appearance        | Magazine Viewer     | 4   |
| GetAttractionForMP                     |  | Class             | Grid                |     |
| PGetAttractionForMP                    |  | Visible           | True                |     |
| D Wait                                 |  | Invisible Mede    | Kaan Casan          |     |
| images                                 |  | Invisible mode    | Keep space          |     |
| Transactions                           |  | Enabled           | True                |     |
| Attraction                             |  | Rows              | <default></default> |     |
| Attraction DataProvider                |  | Empty Grid Bac    | (none)              |     |
| WorkWithWebAttraction                  |  | Empty Grid Bad    | Image               |     |
|  |  |                   | -                   |     |

If we now look at the **Control Info** section of the grid, we see that here I specified that it is not a common grid, but a **Flex** one. Look at all the options we have.

This one corresponds to the default.

| File Edit View Layout Insert Build Knowle | ge Manager Window Tools Test Help  |                   |                     |
|---|--|-------------------|---------------------|
| 😚 KB Explorer 🛛 🥺 🗙                       | 🛅 Attractions X 🛅 AttractionsCopy1 X 🦉 TravelAgencyBase X 🦉 Attractions X 👩 Navigation View X 📑 MasterTravelAgency X 🛅 GetMostVisite 🔿 | Properties        | ÷ )                 |
| Open: Name or Pattern                     | Layout Rules Events Conditions Variables Documentation   | General           |                     |
| TravelAgency                              |  | Eilter            | )                   |
| > 💽 Main Programs                         | * Application Bar  | Grid: Grid1       | 1                   |
| V 🕐 Root Module                           | (i) MainTable E Grid1  | Control Name      | Grid1               |
| > 🚱 General                               |  | Collection        | Gilai               |
| V STravelAgency                           | The most visited ATTRACTIONS & & BinformationText  | Collection        |                     |
| DesignSystems                             |  | Default Action    | <default></default> |
| Desktop                                   |  | Selection Type    | Platform Default    |
| Tablet                                    | Contact Us   | Enable Multiple S | S False             |
| Files                                     |  | Pull To Refresh   | False               |
| Images                                    | Posto · · · · · · · · · · · · · · · · · · ·  | Inverse Loading   | False               |
| ~ 🖰 u                                     | Countralhame   | Default Selected  | (0000)              |
| > 🛅 RecicleBin                            | Country varite   | Default Selected  | (none)              |
| Attraction                                | o o  | Control Info      |                     |
| AttractionData                            |  | Control Type      | Grid                |
| Attractions                               | Attractionivame Attraction   | Auto Grow         | Charts ^            |
| Contractions Copy 1                       | 0 0  | Scroll Direction  | r Flex Grid         |
| GotHalf                                   |  | Snap To Grid      | Grid                |
| GetMostVisitedAttractions                 |  | Items Lavout N    | Herizontal Grid     |
| Home                                      |  | iterits cayour it | - Honzontal Grid    |
| 5 Information                             |  | ~ Appearance      | Image Map           |
| MasterTravelAgency                        |  | Class             | Legacy Grid         |
| E GetAttraction                           |  | Visible           | Magazine Viewer 🗸 🗸 |
| GetAttractionForMP                        |  | Invisible Mode    | Keep Space          |
| PGetAttractionForMP                       |  | Enabled           | True                |
| Wait                                      |  | Rows              | <default></default> |
| Images                                    |  | Emety Grid Pa     | (accel              |
| Attraction                                |  | Empty Grid Ba     | c (none)            |
| Associated Tables                         |  | Empty Grid Ba     | c Image             |
| Attraction_DataProvider                   |  | Empty Grid Tex    | ×                   |
| > 🔂 WorkWithWebAttraction                 |  | Empty Grid Tex    | x TextBlock         |
| SKB Explorer                              | Any Platform, Default Orientations - 🗘 Add Layout 😵 Delete Layout  | O Properties T To | xolbox              |

Let's see that of the grid we inserted in Attractions.

| KB Explorer P >             | 🕻 🕞 Attractione V 📑 Attractione Court V 📓 Translansov Base V 📓 Attractione V 🖪 Naviation View V 📑 MasterTranslansov V 🛤 GatMeetVie | a > 7 0 Properties | 9                   |
|-----------------------------|--|--------------------|---------------------|
| pen: Name or Pattern        | Invest Rules Function Variables Documentation  | General            |                     |
| TravelAgency                |  | 1 🗄 🛃 🌾 Filter     |                     |
| > 💽 Main Programs           | Application Bar  | Grid: GridAttrac   | ctions              |
| - Poot Module               | MainTable  | Control Name       | GridAttractions     |
| > 🚱 General                 |  | Collection         | St Attractions Data |
| TravelAgency                | The most visited ATTRACTIONS &InformationText  | Collection         | ocattractionsbata   |
| > P Designoystems           |  | Default Action     | <default></default> |
| > Phone                     |  | Selection Type     | Platform Default    |
| > 😭 Tablet                  | Contact Us   | Enable Multiple S  | 5 False             |
| Files                       |  | Pull To Refresh    | False               |
| Images                      | GRID Small-  | Inverse Loading    | False               |
| ~ 🖨 u                       |  | Default Selected   | (none)              |
| > RecicleBin                |  | V Control Info     |                     |
| Attraction                  |  | Control Tuno       | Elem Crid           |
| Attractions                 | o 8/AttractionsData.item(0).CountryName o  | control type       | Pick Onu            |
| AttractionsCopy1            |  | Auto Grow          | Charts              |
| Contact                     | RAttractionsData item/0) AttractionName  | Flex Direction     | Flex Grid           |
| GetHalf                     | &AttractionsData.item(0).AttractionRating  | Flex Wrap          | Grid                |
| E GetMostVisitedAttractions |  | Justify Content    | Horizontal Ggid     |
| To Home                     | å o b  | Align Items        | Image Map           |
| 5 Information               |  | Align Content      | Lenacy Grid         |
| MasterTravelAgency          |  | Announce           | Legacy ond          |
| GetAttraction               |  | Appearance         | Magazine viewer     |
| PGetAttractionForMP         |  | Class              | Grid                |
| > Wait                      |  | Visible            | True                |
| Images                      |  | Invisible Mode     | Keep Space          |
| Transactions                |  | Enabled            | True                |
| Attraction                  |  | Rows               | <default></default> |
| Associated Tables           |  | Empty Grid Ba      | v (none)            |
| Attraction_DataProvider     |  | Empty Grid Da      | - (none)            |
| WorkWithWebAttraction       | × ×  | Empty Grid Bad     | c Image             |

Here I clearly changed it to **Flex**. But also note that the **Horizontal** one appears, which can be convenient to implement the other carousels.

| The second second state of the second s   |  |                       |                     |     |
|--|--|-----------------------|---------------------|-----|
|  |  |                       |                     | _   |
| B KB Explorer P X  | 🖸 Attractions X 🔽 AttractionaCopy1 X 🧕 TravelAgencyBase X 🧕 Attractions X 🙍 Navigation View X 🛅 MasterTravelAgency X 😫 GetMostVisite | Properties            |                     | ₹ × |
| Ipen: Name or Pattern  | Layout Rules Events Conditions Variables Documentation   | General               |                     |     |
| TravelAgency   | * Application Bar  | E 2 Filter            |                     | >   |
| > C Main Programs  |  | 🗸 🗸 Grid: GridAttract | tions               | 1   |
| Root Module  | Imainfable     Imainfable     Imainfable     Imainfable  | Control Name          | GridAttractions     |     |
| SP TravelAgency  |  | Collection            | &AttractionsData    |     |
| SesignSystems  | The most visited ATTRACTIONS & difformationText  | Default Action        | <default></default> |     |
| > 😭 Desktop  |  | Enlaction Turns       | Distform Default    |     |
| > 😭 Phone  |  | Selection type        | Plation Delauit     |     |
| > 🕎 Tablet   | Contact US   | Enable Multiple S     | halse               |     |
| Files  |  | Pull To Refresh       | False               |     |
| Images   | GRD Small-   | Inverse Loading       | False               |     |
| V 🔂 U  |  | Default Selected      | (none)              |     |
| Attraction   |  | Control Info          |                     |     |
| AttractionData   |  | Control Type          | Flex Grid           | ~   |
| Attractions  | o & & & & & & & & & & & & & & & & & & &  | Auto Grow             | Ealea               |     |
| AttractionsCopy1   |  | Flav Direction        | Caluma              |     |
| Contact  | &AttractionsData.item(0).AttractionName  | Flex Direction        | Column              |     |
| GetHalf  | (oAttractionsDataItem(0)AttractionRating   | Flex Wrap             | Wrap                |     |
| GetMostVisitedAttractions  |  | Justify Content       | Flex Start          |     |
| L0 Home  | 0 0 0  | Align Items           | Flex Start          |     |
| MasterTravelAgency   |  | Align Content         | Flex Start          |     |
| CetAttraction  |  | ~ A Serance           |                     |     |
| CetAttractionForMP   |  | 65                    | Grid                |     |
| PGetAttractionForMP  |  | Class                 | and a               |     |
| 🕽 Wait   |  | Visible               | Irue                |     |
| 🔛 Images   |  | Invisible Mode        | Keep Space          |     |
| Transactions   |  | Enabled               | True                |     |
| V I Attraction   |  | Rows                  | <default></default> |     |
| Associated Tables  |  | Empty Grid Bac        | (none)              |     |
| Attraction_DataProvider  |  | Empty Grid Bac        | Image               |     |
| the state of the s |  |                       |                     |     |

Also note that after choosing the **Flex** grid type, the typical properties of a flex container appear: Flex Direction, Flex Wrap, justification, alignment.

| 11日回より自つでの。 西世                | A Release . Test                                  | s Build Build - 🐰   |                                    |     |
|-------------------------------|---|---|------------------------------------|-----|
| KB Explorer 9 ×               | Attractions × T AttractionsCopy1 × M TravelAger   | cyBase X 📓 Attractions X 👩 Navigation View X 🛅 MasterTravelAgency | K 🛅 GetMostVisite > 🗢 💽 Properties | 9 X |
| open: Name or Pattern         | Layout Rules Events Conditions Variables Document | tation  | General                            |     |
| TravelAgency                  |   |   | 🔠 🛃 🌾 Filter                       | >   |
| > 💽 Main Programs             | Application Bar                                   |   | Table: MainTable                   |     |
| V 😵 Root Module               | MainTable   |   | Control Name MainTable             | -   |
| > 😭 General                   | 0   |   | Annahrance                         |     |
| C TravelAgency                | The most visited ATTRACTIONS                      | &InformationText  | ~ Appearance                       |     |
| DesignSystems                 |   |   | Columns Style 100%                 |     |
| Desktop                       |   |   | Rows Style 712dip;852dip           |     |
| > Tablet                      | Contact Us  |   | Width 100%                         |     |
| Files                         |   |   | Height 100%                        |     |
| Images                        | GRID  | Small*  | Auto Grow True                     |     |
| ~ 🖰 u                         |   |   | Char                               |     |
| > 🛅 RecicleBin                |   |   | Class                              |     |
| C Attraction                  |   |   | Background (none)                  |     |
| AttractionData                |   |   | Visible True                       |     |
| CO Attractions                | 8.Att   | ractionsData.item(0).CountryName                                  | Invisible Mode Keep Space          |     |
| AttractionsCopy1              |   |   | Enabled True                       |     |
| Contect                       | &AttractionsData.item(0).AttractionName           | ttractionsData.item(0).AttractionRating                           | Scroll Behavior                    |     |
| GetMostVisitedAttractions     |   |   | Coroll Easter 1                    |     |
| The Home                      |   | 1   | Scroll Pactor 1                    |     |
| S Information                 |   |   | Zoom Factor 0                      |     |
| MasterTravelAgency            |   |   | Scroll Attachme Parent             |     |
| E GetAttraction               |   |   | ~ Form                             |     |
| E GetAttractionForMP          |   |   | Form Class Form                    |     |
| PGetAttractionForMP           |   |   | Enable Header False                |     |
| D Wait                        |   |   | Laurent Polosia                    |     |
| 🚵 Images                      |   |   | > Layout Behavior                  |     |
| - Constructions               |   |   | Control Info                       |     |
| Attraction                    |   |   | Is Slot False                      |     |
| Associated Tables             |   |   | ~ Accessibility                    |     |
| Attraction_DataProvider       |   |   | Accessible Role Main               |     |
| > Los WorkWithWebAttraction * |   |   |                                    |     |

Since the sum of the height of a Small and a Large card is 260 + 560, that is, 820, and the grid has Auto Grow set to false, and the row in which it is located is 852 dips...



...(I don't know why I entered that value, when the space missing from the 820 dips is the spacing of the cards, something I haven't implemented yet, but we can already see that it is 11 pixels; I also have to add, as we will see in the next video, the space of the scroll bar)...

|                           | NETSOL Server + Release + Tests Build                   | Build .  |                                    |               |
|---------------------------|---|--|------------------------------------|---------------|
| S KB Explorer P X         | Attractions X T AttractionsCopy1 X TravelAgencyBase     | X X Attractions X Navigation View X T MasterTravelAgency | X 🛤 GetMostVisite > 🗢 🖸 Properties | + x           |
| Open: Name or Pattern     | Rules Events Conditions Variables Decommentation        |  | General                            |               |
| TravelAgency              | Rules   Events   Conditions   Valiables   Documentation |  | Filter                             | >             |
| >  Main Programs          | pplication Bar  |  | Table MainTable                    |               |
| V 🕄 Root Module           | # MainTable   |  | +                                  | 14.1.7.11     |
| > 😭 General a             |   |  | Control Name                       | MainTable     |
| V TravelAgency            | The meet visited ATTRACTIONS                            | &InformationText   | ~ Appearance                       |               |
| ✓ Interior Systems        | The most visited ATTRACTIONS                            |  | Columns Style                      | 100%          |
| > 😭 Desktop               |   |  | Rows Style                         | 712dip;800dip |
| > Tablet                  | Contact Us  |  | Width                              | 100%          |
| Files                     |   |  | Height                             | 100%          |
| Images (                  |   | Gmat*  | Auto Grow                          | True          |
| ~ 🗇 u                     |   |  | Auto drow                          | Hoe           |
| > C RecicleBin            | ~   |  | Class                              |               |
| C Attraction              |   |  | Background                         | (none)        |
| AttractionData            |   |  | Visible                            | True          |
| To Attractions            | &AttractionsI   | Data.item(0).CountryName                                 | Invisible Mode                     | Keep Space    |
| AttractionsCopy1          |   |  | Enabled                            | True          |
| Contact                   | &AttractionsData.item(0).AttractionName                 | IsData.item(0).AttractionRating                          | Scroll Behavior                    |               |
| GetHalf                   |   |  |                                    |               |
| GetMostVisiteQAttractions |   |  | Scroll Factor                      | 1             |
| Information               |   |  | Zoom Factor                        | 0             |
| MasterTravelAgency        |   |  | Scroll Attachme                    | Parent        |
| GetAttraction             |   |  | ~ Form                             |               |
| GetAttractionForMP        |   |  | Form Class                         | Form          |
| PGetAttractionForMP       |   |  | Enable Header                      | False         |
| > Wait                    |   |  | Charles Person                     |               |
| Timages                   |   |  | > Layout Benavio                   | yr            |
| C Transactions            |   |  | ~ Control Info                     |               |
| Attraction                |   |  | Is Slot                            | False         |
| Associated Tables         |   |  | ~ Accessibility                    |               |
| MarkWithWebAttraction     |   |  | Accessible Role                    | Main          |
|                           | N   |  | Constant Tra                       |               |

...but let's see what happens if I set a value lower than the sum of the heights of the cards, such as 800, for example...



There is not enough space to place two cards per column, so this happens...

| KR Evolution II N           |   | N PT Descention   | 100                            |
|-----------------------------|---|-------------------|--------------------------------|
| Name or Pattern             | Lo Attractions X Lo Attractions Copyl X Attractions X Attractions X Lo Navigation view X Lo Master Internagency X Ed Getmostvar | General           |                                |
| TravelAgency                | Layout Venes   Events   Conditions   Vanables   Documentation   | H 0 V Filter      |                                |
| Main Programs               | Application Bar   | Grid: Grid Attrac | tions                          |
| Soot Module                 | MainTable HGridAttractions  | > Grand Grand     | C-1484-C-11-C-C                |
| > 😭 General                 |   | Control Name      | GridAttractions                |
| V TravelAgency              | The most visited ATTRACTIONS SufformationText   | Collection        | &AttractionsData               |
| Operations                  |   | Default Action    | <default></default>            |
| Desktop                     |   | Selection Type    | Platform Default               |
| Tablet                      | Contact Us  | Enable Multiple S | S False                        |
| Files                       |   | Pull To Refresh   | False                          |
| Images                      | GRID 0 Smatt- €0  | Inverse Loading   | False                          |
| ~ 🖰 U                       |   | Default Selected  | (none)                         |
| > C RecicleBin              |   | S Control Info    | Transf                         |
| Attraction                  |   | Control Into      |                                |
| AttractionData              | 8/AttractionsData.item(0).CountryName   | Control Type      | Flex Grid                      |
| Attractions Conv1           |   | Auto Grow         | False                          |
| Contect                     |   | Flex Direction    | Column                         |
| GetHalf                     | &AttractionsData.item(0).AttractionRating   | Flex Wrap         | No Wrap 🗠                      |
| E GetMostVisitedAttractions |   | Justify Content   | Flex Start                     |
| E Home                      | d o o   | Alian Items       | Flex Start                     |
| 5 Information               |   | Alian Content     | Elay Start                     |
| MasterTravelAgency          |   | Augin content     | The start                      |
| GetAttraction               |   | Appearance        |                                |
| PGetAttractionForMP         |   | Class             | Grid                           |
| > Wait                      |   | Visible           | True                           |
| Images                      | 🗋 Any Platform, Default Orientations - 🗘 Add Layout 😵 Delete Layout   | Invisible Mode    | <ul> <li>Keep Space</li> </ul> |
| - C Transactions            | E Output  | Enabled           | True                           |
| Attraction                  |   | Rows              | <default></default>            |
| > Associated Tables         | Success Execution   | Empty Grid Ba     | (none)                         |
| Attraction DataProvider     | Calculating Mobile Targets for Frontend (Front end)   |                   |                                |
|                             |   | Empty Grid Ra     | c Imaga                        |

In short, if the Grid doesn't have Auto Grow, the number of items that will be placed in each column will depend on the height of each item and the height of the cell in which that grid is located.

Remember that the columns are created because of the Wrap. If there were no Wrap there would be a single column, since the direction is Column.



I don't know if you notice it, but there is a double scroll bar. I will press F12 to see it better.

We have a vertical scroll bar of the grid. And the scroll bar of the panel.



On the other hand, if the property has Wrap enabled... and we set the row height, for example, to 850 dips, for the moment...

Note that we have the vertical scroll bar of the page and now for the grid a horizontal scroll bar (instead of a vertical one).

And also, of course, 2 cards can be placed in each column.

Well, I'll end this video here so that it doesn't become boring. In the next one, we will see in some detail the implementation of the layout of each card of the grid, and then return to the grid itself.

See you soon.



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