

Chapter 2.

Luscious Lists (UX)



Long or short ...

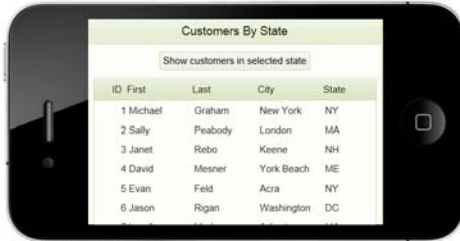
Regardless of their lengths, there's no doubt that lists are a great way to display your data. But it doesn't stop at there - lists have lots more uses. This chapter will give you the settings that will get you started.

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How this Chapter is Organized

Lists display data from a database or other resource. They are common in mobile applications, but are useful in web apps, too.



To kick off this chapter, we have reprinted an exercise from *Alpha Anywhere Web & Mobile Made Easy, The Basics and More for Version 12 –Volume 1*. It will serve as either a refresher for those of you who completed it there or an introduction for those who missed it.

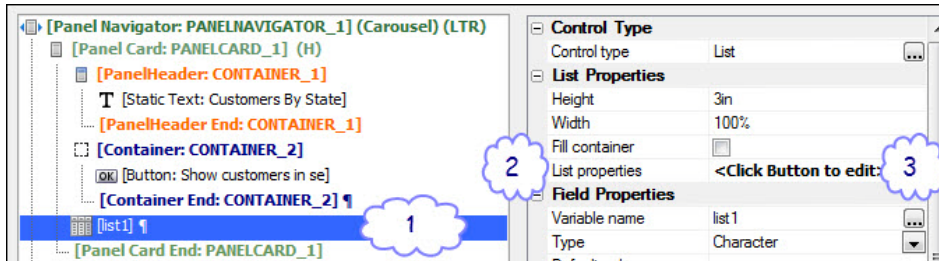
The exercise shows how to create and use a List Control that displays data from a database and how to use it to filter a report. Since it uses the Mobile Simulator, it also serves as a quick review on creating mobile applications.

Then we will dig into the many refinements available for the List Control and show how to enhance its appearance and the way it works. Then we will show how to set up searches and filters that behave much the way a Search part does for a Grid.

Shortcuts to the builders

LIST BUILDER

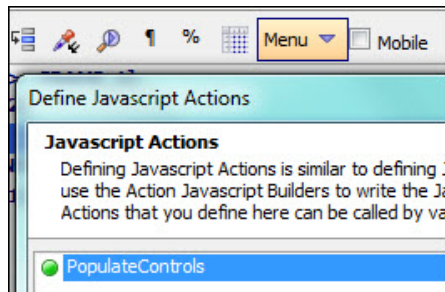
Lists are defined at the List Builder. There are three ways to open it:



- (1) Double click on the *List control* itself.
- (2) Select the List control, go to Properties: Double click on *List Builder*.
- (3) Select the List control, go to Properties > List Builder: Click the button.

ACTION JAVASCRIPT

Action Javascript is used quite often. In the List Builder, that can mean a lot of steps if you need to edit it. There is an easier way.



- (1) At the UX Builder, click Menu.
- (2) Choose Action Javascript Editor.
- (3) Choose the desired action.
- It is up to you to remember which action is where, however, because this shortcut does not reveal the event where it was defined.

Using a List Control to Filter a Report*

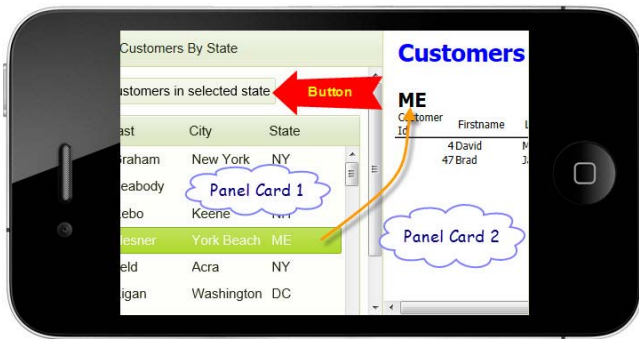
COMPLETED COMPONENT

The completed component for this section is *OpenReport*. The original is in the Mailing List Web Project. A copy is also in the List Control Web Project.

The List Control has much of the functionality of a read-only Grid component. It can present lists from multiple sources. Here are just a few:[†]

- A static list of items, such as ball, balloon, bicycle.
- A full or filtered list of records in a SQL or DBF Table or View.
- Resources from the web, such as a list of stocks and bonds.

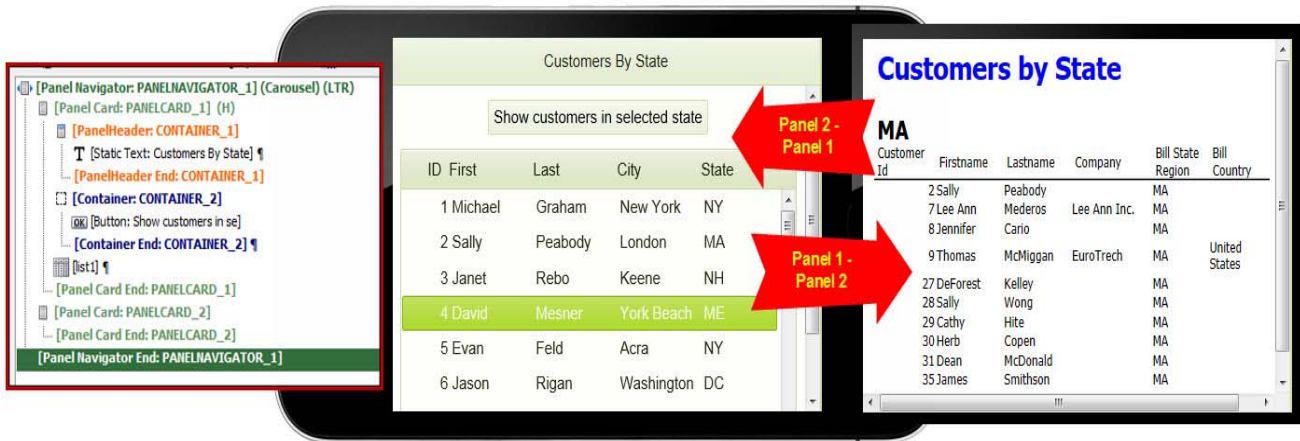
Once the list has been defined, it can be used in a variety of ways.



In this example, we will use a list to display records from the Customer Table of the AlphaSports database. This list will then serve as a filter for a report. When a record is selected and a button is clicked, a report will open, displaying the records for customers in the selected state.

This UX component uses Panel Cards and a Panel Navigator[‡] combined with a List Control and a Button.

Since this is a refresher, we will begin by opening the finished component and seeing how it works.



1. *Web Projects Control Panel > List Control Web Project: Open Open-Report* in Design mode.
2. Go to **Working Preview**.

*. This section is reprinted from *Alpha Anywhere Web & Mobile Made Easy, The Basics and More for Version 12 - Volume 1*, Chapter 3, page 117. Originally entitled “Understanding Panel Navigators and the List Control.”

†. See Video # 13, List Control - Multiple Data Sources - SQL, DBF, Static Data, Custom (Xbasic) and Javascript.

‡. If you need a refresher on Panel Navigators, watch this video: UX_V12----46. Panel Navigator.

3. **Select a record** in the list and click the **Show customers in selected state** button.
4. When the state list appears, **drag back** to return to page 1.

Understanding how this component was created is essential to making the most of the List Control feature. It is easy enough to produce a list – it's what you can do with it makes it an important application tool.

Creating the UX component

The instructions on how to create this mobile application sample are reprinted here for your convenience. If you are comfortable with the above, you can go directly to the next section: “Understanding List Control sources:” on page 24.

5. *Web Projects Control Panel:* Create a new UX component and save as **MyOpenReport**.

Adding a List Control

This control will list certain fields and all of the records in the table.

6. Expand the **Data Controls** menu option.
7. Scroll down to **[List]** and **click**.

Dialog Title: **New Control**

8. *Name:* **list1** (each list should have a unique name).
9. *Label position:* Choose **None**. (We will put the label in a header.)
10. Click **OK**.

The [list1] control is placed in the workspace and its properties open to the right.

PROPERTIES: [LIST1]

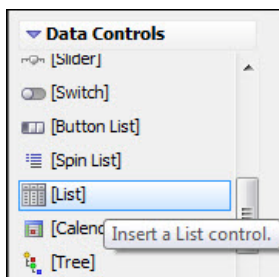
- *List Properties:* Click the button to open the **List Builder**.

The builder has four tabs, Data Source, Fields, Properties and List Layout.

11. Edit as follows:

TAB: DATA SOURCE

- *Data Source Type:* Choose **SQL**.
- *Connection String:* Click the button.
 - **Use a Named Connection string.** Choose **AlphaSports**.*
- *Method for defining SQL query:* Choose **FieldsFromTable**.
- *Table name:* Click the button and choose **Customer**.
- *Field list:* Click the button and choose the following fields:
 - Customer Id.



LIST PROPERTIES

SQL DATA SOURCE

*. If there is any problem connecting, see “Using connection strings developed for this book” on page 361.

- Firstname.
- Lastname.
- Bill_City.
- Bill_State-Region.

TAB: FIELDS

- Accept defaults.

TAB: LIST PROPERTIES

- Accept defaults.

TAB: LIST LAYOUT

- Move all Table fields to Columns in List.
- Click **Preview List** in bottom left of dialog.

We see that the column names could be shortened for better display. Also, the Customer ID and State columns could be narrower.

COLUMN PROPERTIES

PROPERTIES: CUSTOMER_ID

- Heading*: Change to **ID**.
- Column width*: **.5in**

COLUMN PROPERTIES

PROPERTIES: BILL_STATE_REGION

- Heading*: Change to **State**.
- Column width*: **.75in**

COLUMN PROPERTIES

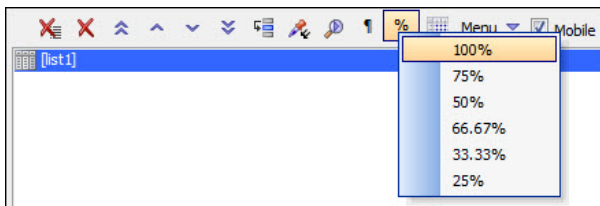
PROPERTIES: FIRSTNAME, LASTNAME, CITY

- Shorten the rest of the column headings as follows:
 - Firstname* to **First**; *Lastname* to **Last**, *Bill_city* to **City**.

- Click **Preview List** again to check the display.
- Click OK to close the List Builder.

SET LIST WIDTH

Next, we will set the width of the List to 100%.



This can be done in the Properties > List Properties > Width setting, but there is an even easier way.

- With the control selected, click the % button on the toolbar and choose **100%**.

- The value is automatically entered in the Properties section.

Adding a Panel Card

- Select **List1** and click **Panels > Panel Card**.
- Insert opening and closing tags?* **Yes**. (Click **Insert Around**)

I know you are tempted, but DON'T go to Working Preview yet, because we have two more things to discuss before we go there.

- Save** the component.

Viewing the report

Customers by State

AZ

Customer Id	Firstname	Lastname	Company	Bill State	Region	Bill Country
12	Larry	Eagle	Eagle Snacks	AZ		
16	Dillan	Macabe		AZ		
22	Michael	Johnson		AZ		
34	Linda	Dodds		AZ		
57	Joe	Smith		AZ		

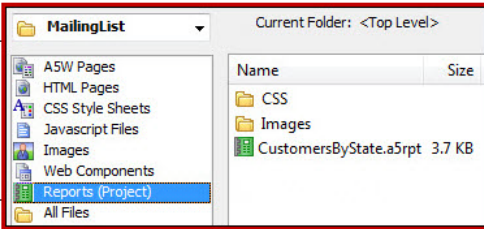
CA

Customer Id	Firstname	Lastname	Company	Bill State	Region	Bill Country
11	Willy	Winka				
14	Yvonne	Harrington				
21	Joan	McAndrews				
48	Leonard	Burtonski				
59	Peter	Harrison				
60	James	Mahoney				

CT

Customer Id	Firstname	Lastname	Company	Bill State	Region	Bill Country
49	Simon	White				

DC



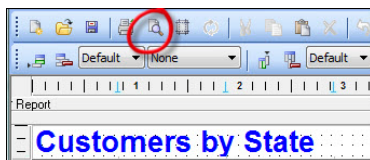
We have added a report for you. It shows the customers in the AlphaSports.mdb database, organized by State.* The *List Control* that we just created will be used to filter the report.

To see the report and test the connection, go to:

18. *Web Projects Control Panel* > **Reports** (inset).

19. Double click on **CustomersByState.a5rpt** to open it.

- This report requires the following connection string: *AlphaSportsMDB*.[†] If the connection is not made automatically, do the following:
 - a. Top toolbar: Click **SQL**.
 - b. Choose **AlphaDAO Connection Strings**.
 - c. Edit the path as follows:
 - :\\Alpha_WebMobileBook_3.0_Volume2 \\ ABC_WebMobile_ - Lessons\\ SQL: Choose AlphaSports.
 - d. **Double click** on the report again to confirm that it opens.
 - Once the connection string exists, the report will connect to it automatically.

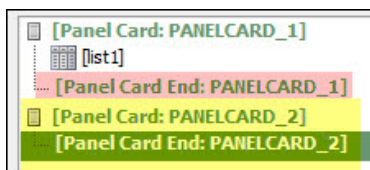


20. With the report open in Design mode, click the **Preview** button on the report design toolbar (red circle) and look it over (screen shot above).

21. Click **Exit Preview** when finished and then **close** the report design window.

22. Return to the **MyOpenReport** UX component.

PANEL CARD FOR OPENED REPORT



Next, we will add a Panel Card that will receive the opened report (yellow below).

23. In the list of controls, select **[PANEL CARD END: PANELCARD_1]** (pink).

24. *Navigator* > *Panels*: Click on **Panel Card**.

25. Accept the defaults and click **Insert After**.

- Note that this is Panel Card 2.

*. Learn how to make this report and others in *Alpha Anywhere Report Writer, Reporting and Charting Made Easy* (for Desktop, Web and Mobile applications) by Susan Hussey Bush. Available at www.libertymanuals.com.

†. Instructions for creating this report are in *Alpha Anywhere Report Writer, Reporting and Charting Made Easy*. For desktop, web and mobile applications. Available at www.libertymanuals.com.

Adding a button that opens a filtered report

Since it is a client-side action, Javascript is used to define buttons. We will use Action Javascript to write the code for us. The button will open the report and then filter it based on the *State* value in the selected record.

CLICK VS ON CLICK

UX components have two sets of Javascript actions. (For example, you can use either *click* or *onClick* to define what happens when the button is clicked.) As its name implies, the first group works for both mobile and web. The second is best reserved for web apps.

- **Javascript – (Touch, mouse, pointer events) > click.**

- Recommended for mobile and web applications.

- **Javascript > onClick.**

- The original, designed for web applications. Works with mouse / pointer.

- To begin, we will insert the button that opens the report after the List Control. Then we will define the action to be taken when the button is clicked.

26. In the builder listing, select **[list1]**.

27. *Navigator > Other Controls:* Click on **[Button]**.

PROPERTIES: [BUTTON]

- *Button text:* Change to **Show customers in selected state.**

- *click:* Click the button. Enter as follows:

a. *Editing mode:* Choose **Action Javascript.**

b. Click **Add New Action.**

c. *Categories:* Choose **Reports.**

d. *Actions:* Choose **Open a Report, Label or Letter layout.**

e. Click **OK.**

Dialog Title: Action Javascript - Edit a Report, Label or Letter layout

- f. *Layout print definition > Report name:* Click the button.

Dialog Title: Report Print Genie

g. *Layout type:* **Report.**

h. *Layout name:* Click **Select.**

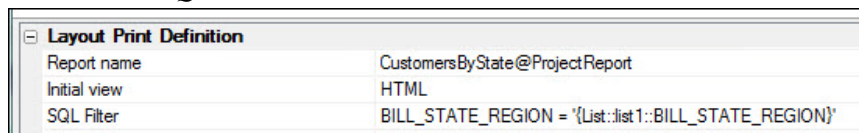
Dialog Title: Select Layout

i. Choose **MyCustomersByState.**

j. Click **OK.**

Dialog Title: Report Print Genie

k. *SQL Filter:* Click **Build.**



Layout Print Definition	
Report name	CustomersByState@ProjectReport
Initial view	HTML
SQL Filter	BILL_STATE_REGION = '{List:list1::BILL_STATE_REGION}'

Dialog Title: Specify Filter

FILTERING WITH A LIST CONTROL

We will use a field in the List control to filter the report.

i. Define the filter as follows:

`Bill_state_region='{List::list1::BILL_STATE_REGION}'`

- Clicking *Insert field from Current Component* will bring up the second half of the filter.
- Don't forget the quotes.

m. Click OK twice.

HTML VS PDF

Reports can be viewed in two formats – PDF and HTML.

- PDF works best for Free-form reports.*
- HTML works best for Layout Table reports.
- Since ours is a Layout Table style report, we will choose HTML. We don't need the print/export options, however, so we will remove them.

Dialog Title: Action Javascript - Edit a Report, Label or Letter layout

n. *Layout Print Definition > Initial View*: Choose **HTML**.

o. *HTML Report Viewer Options*. **Uncheck** the following.

- Export to Excel, Export to Word, Export to Text & Print.

TARGET WINDOW, DIV, PANE

Next, we will tell Alpha Anywhere where to display the report. Options are *Window, DIV, Tabbed UI Pane, Download, Xbasic, Panel* and *Dynamic Panel*.†

Target Window, DIV, Tabbed UI Pane or Panel	
Target	Panel
Target Panel	PANELCARD_2
Working message	Working...
Working message icon	CSS/A5System/images/wait.gif

• We want to show the report in the Panel Card 2, the one that we created for it (see “Panel card for opened report” on page 19).

p. Target Window, DIV ...

- *Target*: Choose **Panel**.
- *Target Panel*: Choose **PANELCARD_2**.

q. Click OK.

28. *Comment*: Enter **Open CustomersByState report**. (Click OK)

Dialog Title: Edit Click Event.

29. Click **Save**.

30. **CTRL + S** to save the Component.

Oops – we have an error here. Alpha Anywhere notifies us all Panels in a UX must be contained within a single top level Panel Layout or Panel Navigator. We currently have 2 Panels at the top level of the Component.

- Adding a Panel Navigator will get us back on track.

*. Alpha Anywhere has two report styles, Free-form and Layout Table. This one is a Layout Table.

†. The tips window at the bottom of the Properties list describes how these are used.

31. Click OK to dismiss the error message.

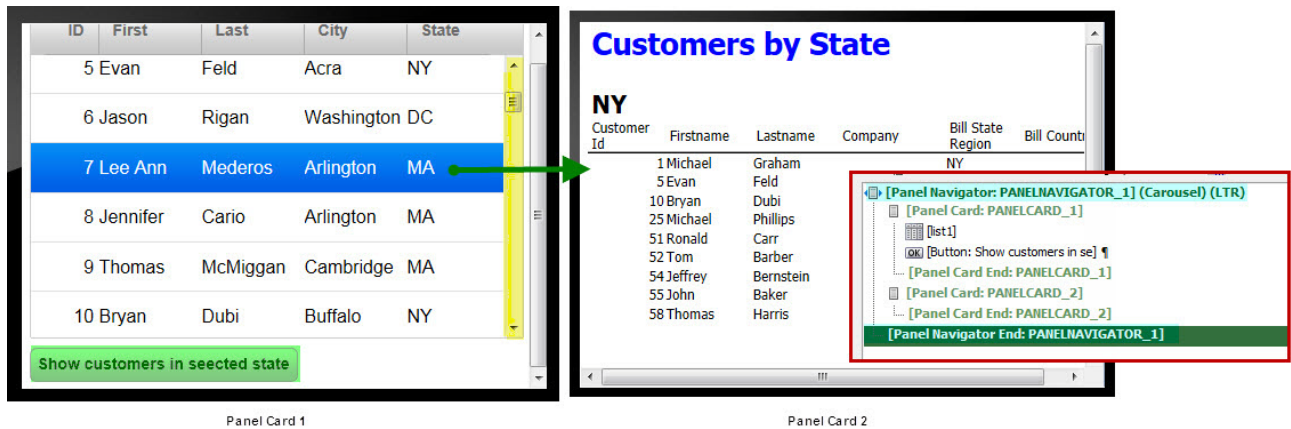
Adding a Panel Navigator

We will use a *Carousel style Panel Navigator* in this example. If you have watched the videos like good boys and girls, you will know that this permits the end user to switch between panels using a “swipe” motion with the fingers. On a standard computer, this is accomplished by using the mouse to drag from one panel to the other.

PANEL NAVIGATOR STYLES

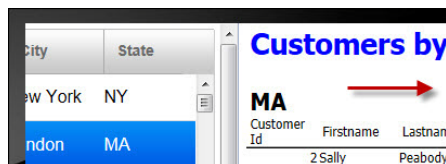
There are several styles, all of which can be seen in *Panel Navigator Properties > Navigator type*. The default is *Carousel*, which is the one we will use here. The others are: *Programmatic*, *TabButtons*, *TabBand*, *List* and *OrientationChange*.

32. *Controls list*: Select the top control and drag to the bottom until **all controls are selected**.
33. *Navigator > Panels*: Click [**Panel Navigator**].
34. *Insert opening and closing tags = Yes*. (Click OK)
 - The Panel Navigator surrounds the controls (aqua below)
35. **Save** and go to **Working Preview**.



36. *Display*: Choose **iPhone 4 (horizontal)**.

37. Select the record for **Lee Ann Mederos, NY**.



38. **Scroll down** in the **phone simulator** (yellow above) until you see the button (green) and **click**.

•The report is shown in Panel 2.

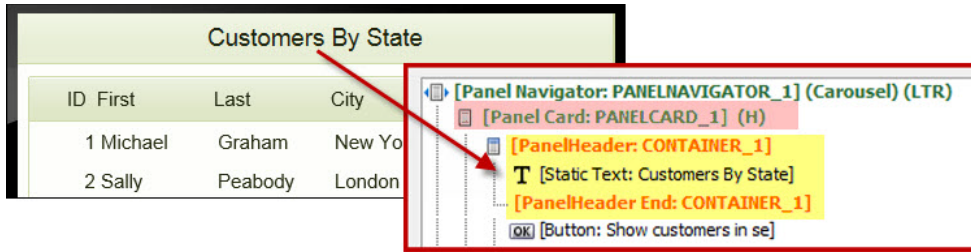
39. Using the mouse, drag the report panel **slowly** to the right (simulating a finger swipe on an actual phone) until you can see both panels.

40. Continue the swipe until Panel 1 comes completely into view.

41. Test the design with the other device simulator displays.

42. Return to **Design** mode.

Giving the panel a header with a title



A title will identify the purpose of the pane.

Placing it in a header will give a more finished look.

ADD HEADER

43. **Right click** on the **Panel Card: PANELCARD_1** control (pink above).

44. Select **Header** and click **Yes** to turn it on.

ADD STATIC TEXT

The title is created with a *Static Text* control.

45. Select the **PanelHeader: CONTAINER_1** control (yellow above).

46. *Navigator > Other Controls*: Select **Static Text**.

PROPERTIES: [STATIC_TEXT]

- *Static text*: Enter **Customers By State**.

STATIC TEXT PROPERTIES

CENTER TEXT

We want the title to be centered in the header. This is done in the *Panel-Header* properties.

PROPERTIES: [PANELHEADER: CONTAINER_1]

- *Container alignment*: Change to **Center**.

CONTAINER BEGIN PROPERTIES

47. **Save** and go to **Working Preview**.

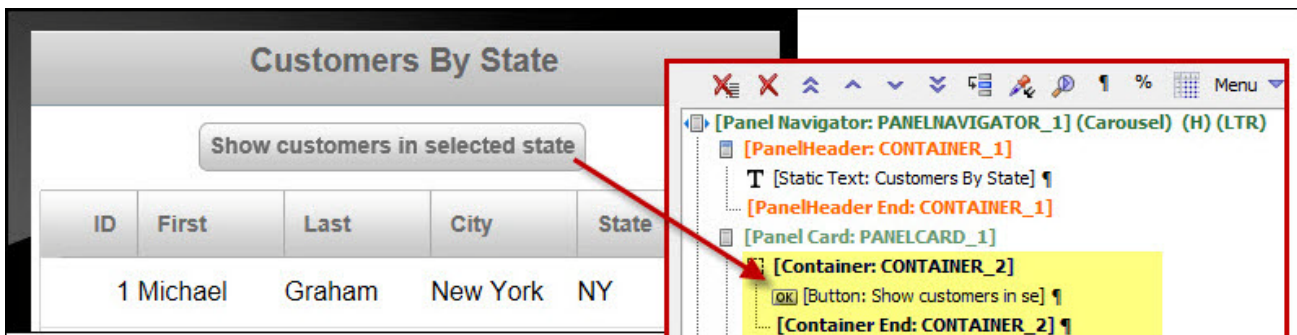
48. **Scroll down** to see the button.

- Next, we will move the button to the top of the display where it will be easier to see.

Placing the button at the top of the panel

CONTAINER CONTROL

We want to place the button at the top of the display, under the header and lock it into position so it will always be in view, even when the user scrolls to see more records. This action uses a *Container* control.



49. Return to **Design** mode.
50. *Controls list*: Select [**Button: Show customers in se**].
51. Using the arrows on the toolbar, move it **above** [**list1**].
52. *Navigator > Containers*: Select **Container**.
53. *Insert opening and closing tags*: **Yes**. (Click **Insert Around**)

CENTER BUTTON

Now we will center the button. This is done in the Container begin properties. We also need to change the button width.

PROPERTIES: [CONTAINER: CONTAINER_2]

- *Container alignment*: Choose **Center**.

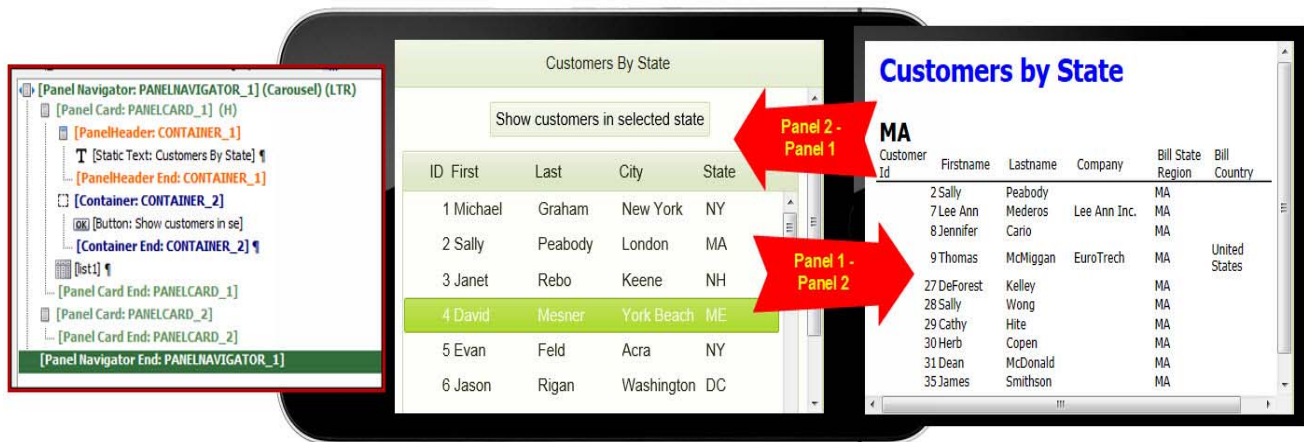
PROPERTIES: [BUTTON: SHOW CUSTOMERS IN SE]

- *Container width*: Enter **100%**.

CONTAINER BEGIN PROPERTIES

BUTTON PROPERTIES

54. **Save** and go to **Working Preview**.
55. **Select a record** and **click the button**.
56. Use the cursor to drag back to the contacts list.



57. Close the component when you are finished or leave it open for the next exercise.

See the following to learn more about alignment.

- Videos > Filter: Enter **Align**. Choose:
 - RPT_V12--2. Using HTML Reporting in a Mobile Application.
 - See also “B. Aligning Buttons in Panel Cards” on page 124.

Understanding List Control sources:

Now that you have an understanding of how lists work and how they can be used, it is time to dig into the details about the various data source types that are available.