

HCLSoftware

The background features a dark blue gradient transitioning to a lighter teal on the right. Scattered throughout are numerous blue diamonds of varying sizes and opacities, some appearing as bright highlights. A prominent white plus sign is centered in the upper right quadrant.

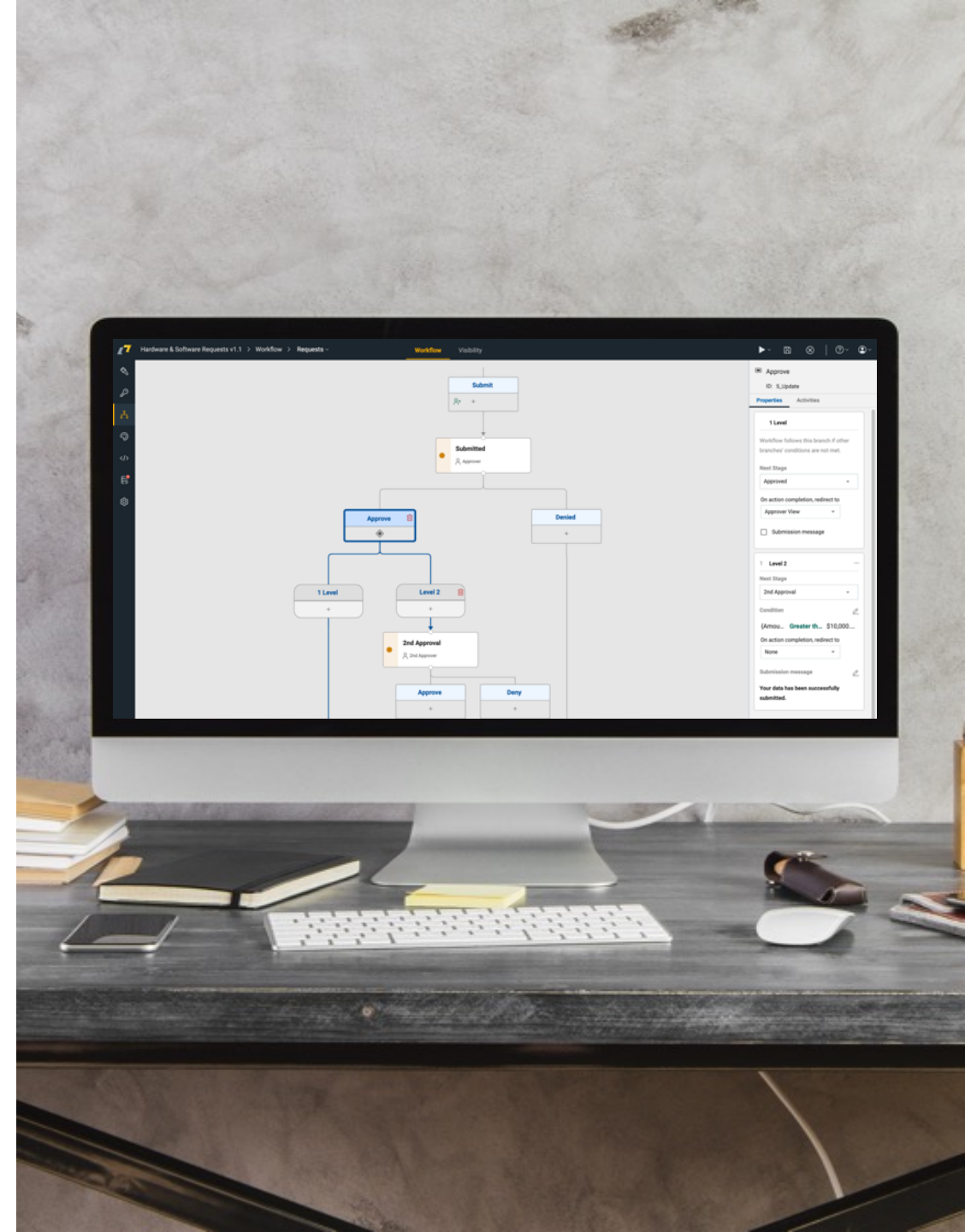
Leap Advanced Tips and Tricks

Engage 2023

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Leap is for Citizen Developers

- Powerful no-code app creation software that's easy to learn and use
- Build web forms, workflows, report and analyze data
- Let's business user innovate and improve efficiency – *without IT assistance*
- Easy and safe to deploy
- IT stays in control with governance and transparency
- Leap apps can be extended and enhanced by IT with Volt MX Iris



Topics

- Tracking pattern
- Data grid with on page filters and sorting
- Using the rowData to get data grid values
- Going modular - passing values from one app to another
- Populating dropdowns with services and cascading dropdowns
- Services that return a single record in an array

Tracking pattern

TrackingPattern.dleap

- View all records in data grid
- Update and create records

Tracking Pattern

Data Grid

Title ↑	Date	Location
Advanced Domino Volt	4/26/2020	New York
Intro to Domino	5/26/2020	Chicago
JavaScript Advanced	8/1/2020	Boston
JavaScript Basics	7/14/2020	New York
Leadership	5/12/2020	Boston

Show: 5 1-5 < >

[New Course](#)



Tracking Pattern

Course #

Title

Description

Date



Tracking Pattern

Course #

Title

Description

Date

Tracking pattern – step by step

1. Add data grid to a new form page or application page and set the source to the form. Set the page as 'home page' (on the settings tab)
2. Set data grid properties to allow users to open record in same tab
3. Set form properties to not show print and delete buttons
4. Set forms workflow actions to redirect to page with data grid and disable the submission message (on the workflow tab)
5. Add a link or button below the data grid to navigate to the form and disable 'open in new tab'
6. Add link or button to form to navigate back to the page with the data grid and disable 'open in new tab'

Home Page: ⓘ

Presentation ▼

Allow user to open record ⓘ

Open in same tab ▼

Show print and delete buttons ⓘ

On action completion, redirect to

Presentation ▼

Submission message

On click, navigate to

Form ▼

Open in new tab

On click, navigate to

Data Grid ▼

Open in new tab

Suppress leave page warning

Data Grid with column sorting and on page filters

DataGridTricksandTips#1.dleap

Data Grid Tips and Tricks

Location **Instructor**

Data Grid

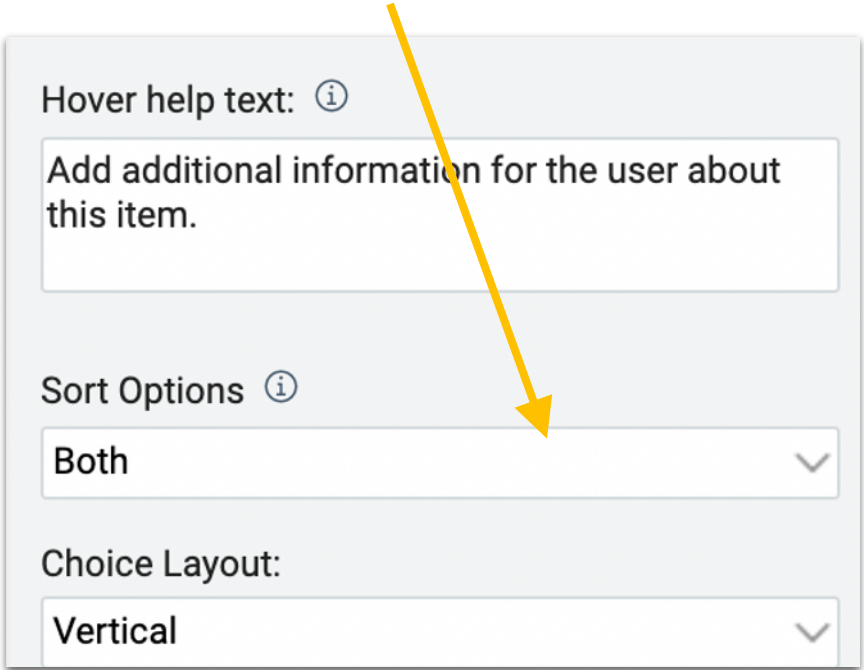
Title ↑	Date	Location
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Leadership	5/12/2020	Boston

Show: 5 1-5 < >

Data Grid with column sorting

This only applies to Domino Leap. Sorting is enabled by default in Leap.

Set the Sort Options in the source form



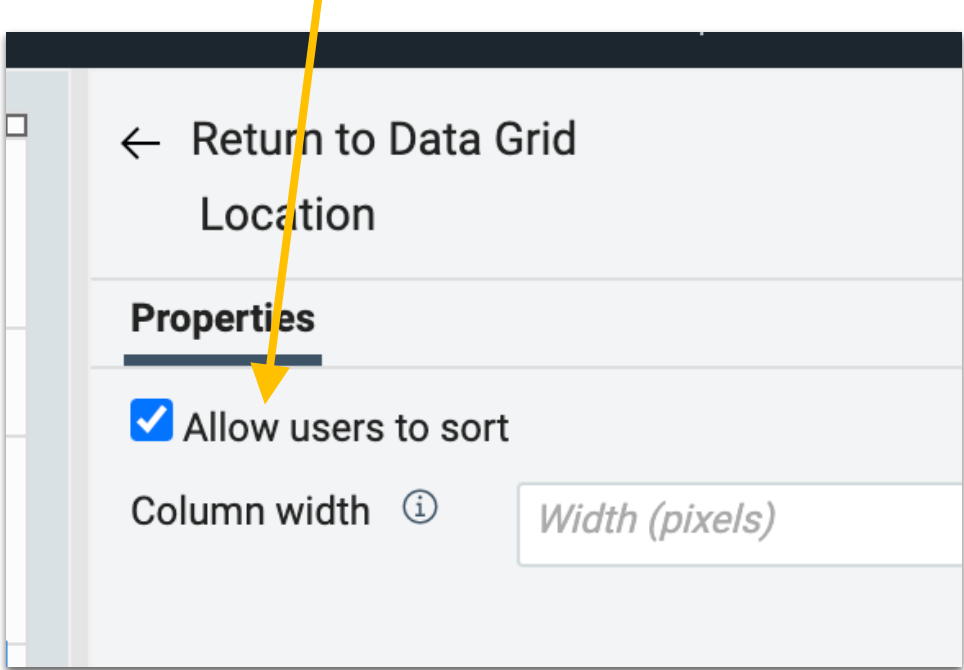
Hover help text: ⓘ
Add additional information for the user about this item.

Sort Options ⓘ
Both

Choice Layout:
Vertical

A yellow arrow points from the text above to the 'Sort Options' dropdown menu.

Allow sorting in Data Grid



← Return to Data Grid
Location

Properties

Allow users to sort

Column width ⓘ

A yellow arrow points from the text above to the 'Allow users to sort' checkbox.

Data Grid with on page filters

Add dropdowns to page and populate them with a search service

Set the default text for the dropdown. This will give you an option to turn off the filter

The screenshot displays a configuration interface for a data grid. At the top, there are two filter sections: 'Location' with a dropdown menu showing 'Data Grid Tricks and Tips /' and 'Instructor' with a dropdown menu showing 'All Instructors'. Below these is a 'Data Grid' table with columns for 'Title' and rows for 'Value 0' through 'Value 3'. A 'Drop Down Options' dialog is open, showing options to 'Use a Service' and 'Select a service configuration' with a dropdown menu showing 'Data Grid Tricks and Tips / Form / Search2'. To the right, a configuration sidebar includes an 'Options' section with an 'Edit' button, a 'Service (Data Grid Tricks)' section with a 'Default text' field containing 'All Instructors', and a 'Sort Options' section with a 'None' option.

Data Grid with on page filters

Select 'Another Item' and then the dropdowns

Configure Data Grid

Select Data Source Define Columns **Customize View**

Optional: Customize the default view for the data

Set a predefined filter to only show a subset of the data. If no filter is set then all the data will be displayed.

Location	▼	Equals	▼	Another item	▼	Location	▼	+	🗑️
Instructor	▼	Equals	▼	Another item	▼	Instructor	▼	+	🗑️

And Or

Display information from the selected row


Data Grid Tips and Tricks

Location **Instructor**

Data Grid

Title ↑	Date	Location
JavaScript Basics	7/14/2020	New York
Leadership	5/12/2020	Boston

1 row selected Show: 5 1-2 < >

Instructor: Ted Monson 

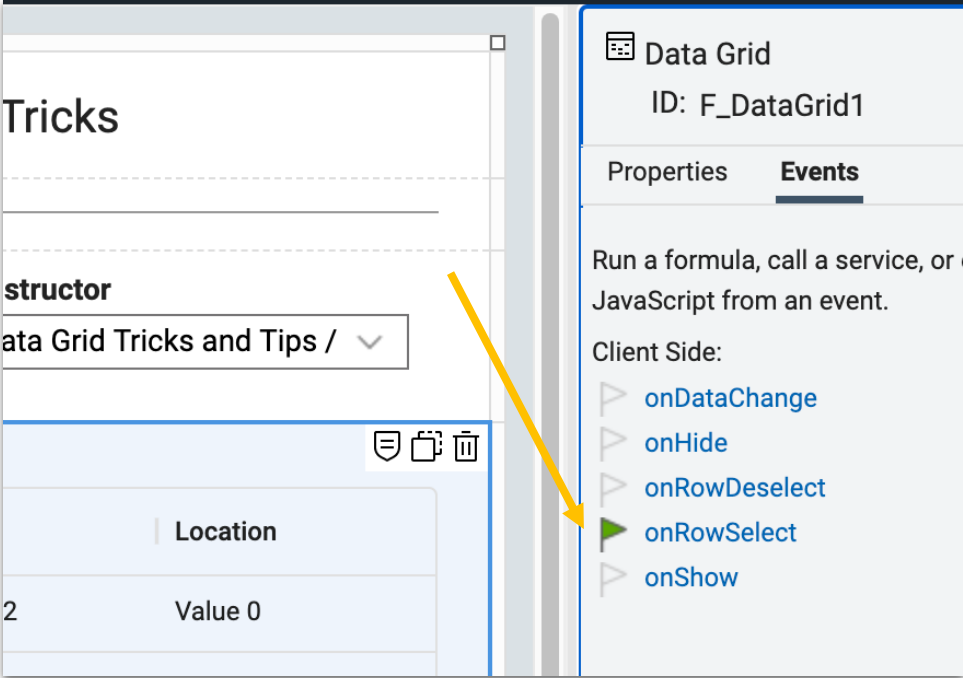
Cost

Improve your performance by increasing your effective leadership skills and be ready to meet the difficult challenges of today's economy and business world. Greewell's leadership seminars provide numerous avenues for enhancing the qualities of good leadership in you and in your team.

Every value from the selected row is available – even if its not shown in the data grid

Use rowData on the onRowSelect event to get the data

rowData.<field ID you want to get>



onRowSelect

This event is invoked when a row is selected in the Data Grid

Predefined Actions:

- Run a Formula
- Call a Service ⓘ

Custom Actions:

This environment allows a reduced set of javascript and HTML. [Learn More](#)

```
1 page.F_InstructorText.setContent(rowData.F_Instructor1.savedValue);
2
3 BO.F_Cost.setValue(rowData.F_Cost1);
4
5 page.F_InstructorImage.setURL(rowData.F_Picture1);
6
7 page.F_DescriptionText.setContent(rowData.F_Description1);
```

rowData schema

```
{ uid: "f308d85b-9bd6-449f-87b7-b09ea27fa23c",
  stageld: "ST_Submitted",
  stageTitle: "Submitted",
  lastModified: Date obj,
  lastModifiedBy: {
    displayName: "Daisy Dixon/Acme",
    email: "Daisy Dixon/Acme",
    login: "CN=Daisy Dixon/O=Acme"
  },
  created: Date obj,
  createdBy: {
    displayName: "Daisy Dixon/Acme",
    email: "Daisy Dixon/Acme",
    login: "CN=Daisy Dixon/O=Acme"
  },
  F_SingleLine1: "hello world",
  F_EmailAddress1: "test@example.com",
  F_Number1: 56.89,
  F_Currency1: 12.34,
  F_CheckBox1: true,
  F_RichText1: "<p>this is<span style=\"color:#2980b9\"><span style=\"font-size:18px\"><strong>rich </strong></span></span>text</p>",
  F_DropDown1: {savedValue: "opt1", displayValue: "Option 1"},
  F_SelectOne1: {savedValue: "opt1", displayValue: "Option 1"},
  F_SelectMany1: [
    {savedValue: "opt1", displayValue: "Option 1"},
    {savedValue: "opt2", displayValue: "Option 2"}
  ],
  F_Attachment1: {
    uid: "abc123",
    fileName: "MyFile.png",
    viewUrl: "https://...",
    downloadUrl: "https://..."
  },
  F_Name1 {
    displayName: "Doug D'Antonio",
    id: "CN=Doug D'Antonio/O=Acme",
    email: "Doug D'Antonio/Acme",
    type: "user"
  }
};
```

Example

rowData.F_SingleLine1 is how you would get the value of the field *F_SingleLine1* for the selected record

Make sure something is always selected

Data Grid Tips and Tricks

Location
All Locations ▾

Instructor
Mary Jones ▾

Data Grid


Title ↑	Date	Location
Intro to Domino	5/26/2020	Chicago
New Hire Orientation	5/23/2020	Boston

1 row selected

Show: 5 ▾ 1-2 < >

Instructor: Mary Jones

Cost
\$3,000.00



Learn the basics concepts and best practices for HCL Leap. The course will cover creating service definitions, asscess roles and privlidges and building applications that have workflow. Particpantrs will be provided with hands on use of HCL Leap to build sample application that include integration with popular cloud services.

The details below the the data grid will be incomplete or out of sync if a row isn't always selected

Use selectFirstRow() so something is always selected

```
page.F_DataGrid1.selectFirstRow();
```

The screenshot shows a software development environment with a Data Grid component. The right-hand pane displays the 'Events' tab for the component, listing several client-side events: `onChange`, `onHide`, `onRowDeselect`, and `onRowSelect`. The `onChange` event is selected, and its configuration panel is open. This panel includes a description of the event, predefined actions (Run a Formula and Call a Service), and a custom actions section. The custom actions section contains a text area with the following code:

```
1 page.F_DataGrid1.selectFirstRow();
```

A yellow arrow points from the text on the right to this line of code.

Add the line of JS to the data grid's `onChange` event.

This event is invoked when:

- The grid is first populated
- When filters are changed
- When columns are sorted
- When paging through results

Register for the selected item

Registration form needs to be prefilled based on selection


Data Grid

Title ↑	Date	Location
JavaScript Basics	7/14/2020	New York
Leadership	5/12/2020	Boston

1 row selected Show: 5 ▾ 1-2 < >

[Register](#) →

Instructor: Ted Monson



Cost
\$2,000.00

JavaScript is easy to learn. JavaScript is the programming language of HTML and the Web. This course will teach you JavaScript basic concepts and commands. When completed you will be able to create a web application that include JavaScript.

Data Grid Tips and Tricks

Registration for: Marty Lechleider

Course: JavaScript Basics

Date: 7/14/2020

Location: New York

Cost: \$2,000.00

[Register](#)

Two approaches

A

Registration is part of the discovery and selection form



1 form

Pro's:

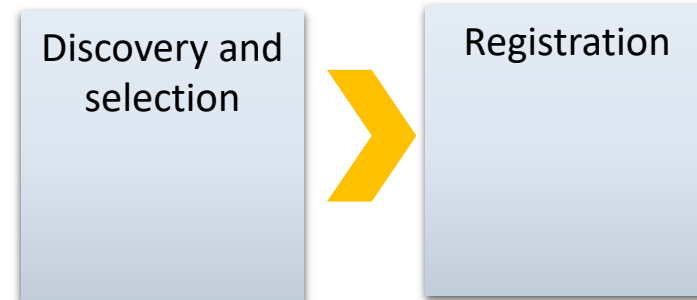
- Simpler to build

Con's:

- Potential of a complex database table
- Can't use an app page

B

Registration form is separate from the discovery and selection form or app page



2 forms *or* an app page and a form

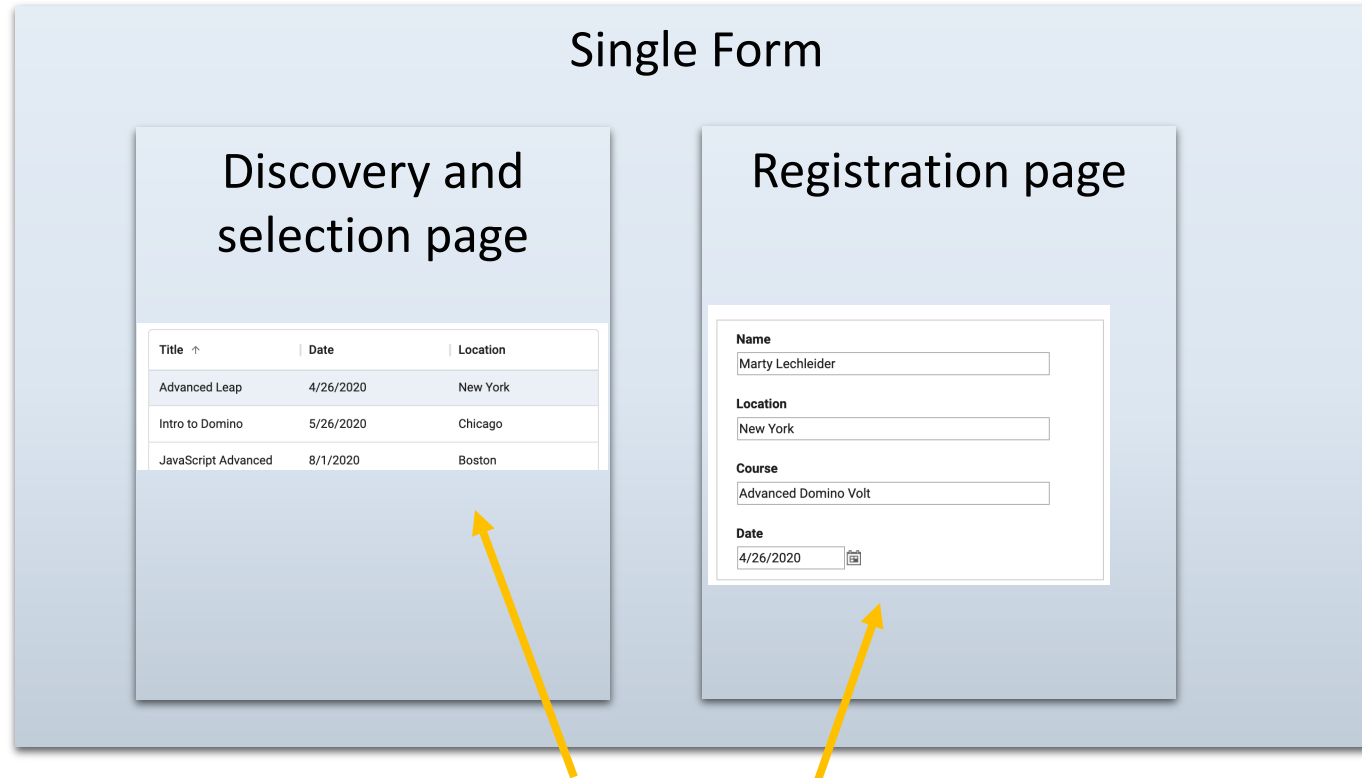
Pro's:

- Simplify the form
- Clean separation of selection and registration

Con's:

- A few more concepts to learn

Approach A



use rowData to
populate all the form
fields

onRowSelect

```
BO.F_Location.setValue(rowData.F_Location1.savedValue);  
BO.F_Course.setValue(rowData.F_Title1);  
BO.F_Date.setValue(rowData.F_Date1);  
BO.F_Cost.setValue(rowData.F_Cost1);
```

Approach B

Discovery and selection

Title ↑	Date	Location
Advanced Leap	4/26/2020	New York
Intro to Domino	5/26/2020	Chicago
JavaScript Advanced	8/1/2020	Boston


register

form or app page

pass the UID of the select item as a parameter



Registration

UID 

populate the fields via service based on UID value

form

Approach B

Build and set link with parameter

onClick

```
var uid = app.getSharedData().uid;
var url = app.getFormLaunchURL("F_Request")+ '&recordNum='+uid;
page.F_RegisterLink.setLinkValue(url);
```

Discovery and selection

Title ↑	Date	Location
Advanced Leap	4/26/2020	New York
Intro to Domino	5/26/2020	Chicago
JavaScript Advanced	8/1/2020	Boston

[register](#)

Set global variable to uid

onRowSelect

```
app.getSharedData().uid = (rowData.uid);
```

Link
ID: F_RegisterLink

Properties Events

Link Alias:
Register

On click, navigate to
Request

Open in new tab
 Suppress leave page warning

Set link navigation to Request form and suppress the warning

Approach B

Get and use parameter

onNew (form event)

```
BO.F_uid.setValue(app.getUrlParameter('recordNum'));
```

Registration

uid

0a844767-38bd-4f6e-900b-2c77cdc47f63

Populate form based on parameter

onNew (form event)

Service retrieves values for uid

must be done
in this order



inputs

Data Grid Tricks and Tips #2 / Form / Retrieve

Select target:

ab Retrieve by Unique Identifier ✓ ⓘ

outputs

Request

Select target:

- Name ⓘ
- Course ✓ ⓘ
- Date ✓ ⓘ
- Location ✓ ⓘ
- Cost ✓ ⓘ

Approach B

Form onNew event called when new instance of form is created

onNew

This event is invoked when a new form instance is created allowing for pre-population of form item values

Predefined Actions:

- Run a Formula
- Call a Service ⓘ

Custom Actions:

This environment allows a reduced set of JavaScript and HTML. [Learn More](#)

```
1 BO.F_uid.setValue(app.getUrlParameter('recordNum'));
2
3 form.getServiceConfiguration("SC_RetrieveSelected").callService();
4
5 BO.F_Name.setValue(app.getCurrentUserDisplayName());
```

Get and use parameter

Call service to populate form based on parameter. Done via JS to control the order

Populate the name field with logged in user

Cascading dropdowns

Assumes a data source with fields to match dropdowns

Country	Region
Andorra	Europe
United Arab Emirat...	Middle east

1. Use a search service to populated the 1st dropdown
2. Use a search service to populated the 2nd dropdown based on the selection in the first. The service needs to be triggered by the 1st dropdown onChange event.

Options:

[Edit](#)

Service (Service to Populate Region DropD...

Drop Down Options

Select an option type and then set the option details

Use a Service ▾

Select a service configuration

Service to Populate Region DropDown

[Add/Edit Service Configuration](#)

onChange

This event is invoked when an item or any of a compound item's sub-items are changed.

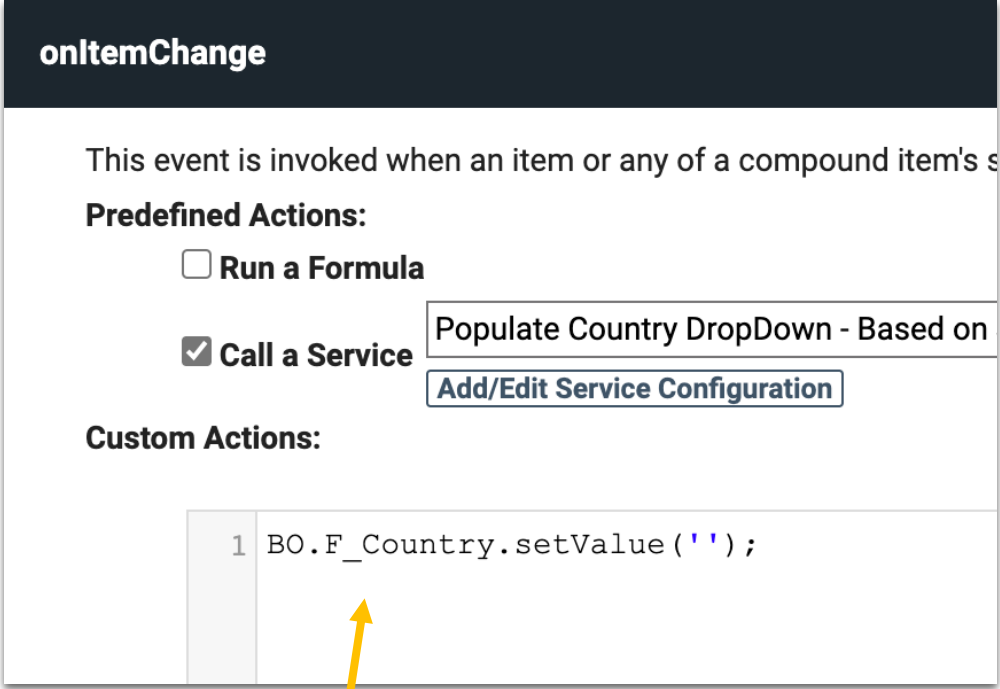
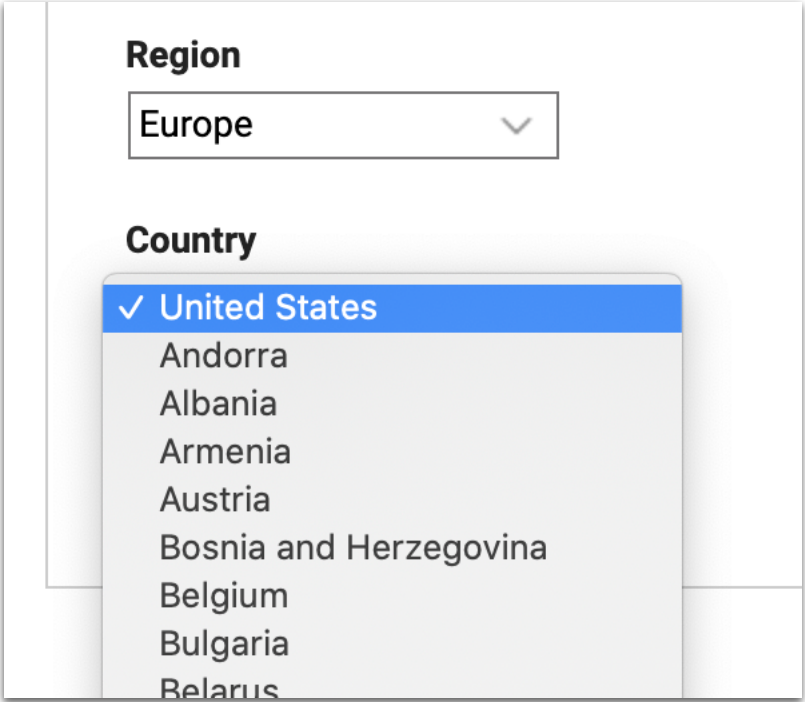
Predefined Actions:

Run a Formula

Call a Service ⓘ

[Add/Edit Service Configuration](#)

Cascading dropdowns – how to fix left over option issue



Set the value of the 2nd dropdown to "" when to 1st dropdown is changed

From a timing perspective, JavaScript always beats a service call

Mapping service results when a single record is returned in an array

How do you get the 'text' response into the answer field?

Leap will not let you map an array value to a field on the form

The image shows a mapping configuration interface. On the left, a 'Select source:' panel lists several data fields: 'response' (with a grid icon), 'finish_reason' (with an 'ab' icon), 'text' (with an 'ab' icon, a green checkmark, and an information icon), and 'opstatus' (with a '.0' icon). On the right, the 'Leap/ChatGPT Integration' form has a section for 'Answer' with a large text input field. A red warning box with a triangle icon and the text 'Invalid assignment.' is placed between the two panels. Two yellow arrows originate from the 'text' field in the source list and point to the 'Answer' field in the form, indicating that the mapping is invalid because 'text' is an array value.

Map it to a hidden table which passes the value to the field

Add JavaScript to the table onChange to grab the value and put it in the field

Hide the table

```
var tbl = BO.F_Table1;  
BO.F_Answer.setValue(tbl.get(0).F_AnswerTable.getValue());
```

Select source:

- response
- finish_reason
- text ✓
- opstatus

Leap/ChatGPT Integration

Ask ChatGPT

Go!

{Answer}

Answer

onChange

This event is invoked when an item or any of a compound item's sub-items are changed.

Predefined Actions:

- Run a Formula
- Call a Service

Custom Actions:

```
1 var tbl = BO.F_Table1;  
2 BO.F_Answer.setValue(tbl.get(0).F_AnswerTable.getValue());
```

Summary

- Tracking pattern
- Data grid with on page filters and sorting
- Using the rowData to get data grid values
- Going modular - passing values from one app to another
- Populating dropdowns with services and cascading dropdowns
- Services that return a single record in an array