# **Build a DSR App**

**Salesforce Platform Workshop**

Version: 1.2

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## **Overview**

This workshop will guide you through creating a Deal Support Request (DSR) app with the Salesforce Customer 360 Platform. In this workshop you will work in the following areas, features and disciplines:

* Salesforce Object Creator
* Data Modeling
* Data Model Extension
  + Lookup Fields
  + Formula Fields
* Process Automation with Process Builder
* Queues
* Validation Rules
* Extending the Sales App
* Creating a new Lightning App
* Reports
* Dashboards

## **Setup**

This workshop requires no specific org and can be built in Developer Orgs, Trailhead Playgrounds or Scratch Orgs. Depending on the org chosen, users may need to create Account and Opportunity records.

For ease of setup and speed to build, the following steps begin with the use of the Org Launcher. The only drawback of using the Org Launcher and Scratch Orgs is the Scratch Org timeout 24 hours after creation.

**Scratch Org Setup:**

Navigate here:<https://hosted-scratch.herokuapp.com/launch?template=https://github.com/mshanemc/adoption-sales>

***\* NOTE: Do Not Close The SFDX Public Deployer Tab* (it will be needed to access your scratch-org)**

Click **Launch**

Allow notifications if prompted

**\*NOTE:** If you’re in Classic mode, Click **Switch to Lightning Experience** (top right navigation area)

**Desktop Setup:**

Open a text editor (TextEdit, Notepad, Atom, anything will do as this is for saving UserIDs, etc…)

**User Setup:**

Setup > Home

Click Administration > Users > **Users**

Click **Edit** next to “User, User”

Copy the **Username** & save for reference

Change the **Email** field to **YOUR** email **address**

Click **Save**

Check your Inbox for a message and follow the enclosed link to finish changing the email address

Back in Setup Users > **Users**

Click **checkbox** next to “User, User”

Click **Reset Password(s)** top-center over the user list

Check your email for a reset message and follow the link to set a new password e.g. workshop1

Now you have the Username & Password for your Scratch Org, add this to your text editor

**CSV File Download**

Download the DSR-Object-Creator.csv file from GitHub:

<https://github.com/bmc-sf/Workshop-Platform/blob/master/DSR-Object-Creator.xlsx>

Click **Download**

**Setup Complete**

**Tip**

Keep 2 tabs open while working and building in Salesforce

* Tab 1: Salesforce
* Tab 2: Setup

Simply switch back and forth between tabs, using refresh to see changes as you make them

## **Hands On**

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| ***First we need to create a Custom Object for our Deal Support Requests.***  ***We can do that manually or we can automate the creation with Salesforce Object Creator*** | |
| Setup > **Object Manager** (tab)  Click **Create** and Click **Custom Object From Spreadsheet**  Click **Log in with Sandbox** (use credentials saved from above steps)  Enter **Username** and **Password** saved from Setup steps above  Click **Allow**  Click **Upload** and select the DSR-Object-Creator.csv file you downloaded  Click **Open** | **object-creator.png** |
| ***Let’s override some suggestions, then preview our data*** | |
| Change the following fields to **Picklist** field types:   * Onsite Presence Required * Request Type * Status   Change the following field to the **Text Area** field type:   * Status Comments | object-creator-fields.png |
| ***One more change and a preview before we move on*** | |
| Change Record Field Name to **Deal Support ID**  (right side, above the grid)  Click the eyeball to preview the data for import  Click **Next** | image.png |
| Change the Label, Plural Label and API Name as follows:  Label = Deal Support Request  Plural Label: Deal Support Requests  API Name = Deal\_Support\_Request  Click **Finish** |  |
| Congratulations!  You’ve just created the **Deal Support Request** object, populated it with data, and it’s now ready for use in a Salesforce Lightning App |  |
| *You can now close the Object Creator tab* | |
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| ***What did we get? Let’s take a look*** | |
| Click the **App Launcher** (waffle on top-left)  Start typing **deal support request** in the Search box  Click **Deal Support Requests** |  |
| Change the **List View** to **All Records**  **TIP:** Click the **Pin icon** to pin this as the default list going forward |  |
| Click a **Deal Support ID** to view the page layout |  |
| Click **Edit** on the record and review the field types, noting the picklist fields you defined in the Object Creator |  |
| *Salesforce Object creator automatically created a few things for us:*   * *Deal Support Request object* * *Fields* * *Page Layout* * *Tab*   *It also imported the spreadsheet data* | |

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| ***Review our new object, make an update and add new fields*** | |
| In **Setup**, Click the **Object Manager** tab  Start typing “deal support request” in the Quick Find search box  Click the **Deal Support Request** object label to open it |  |
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| Click **Fields & Relationships** |  |
| *First, let’s make a small update to the format of our Deal Support Request ID field so that all new DSRs use an auto number and the format we want* |  |
| Locate the **Deal Support ID** field  Click the dropdown arrow on the far right and click **Edit** |  |
| Change the **Data Type** to **Auto Number**  Click  **Save** |  |
| Enter **DS-{000000}** for the Display Format  Set the **Starting Number** to **200000**  Click **Save** |  |
| *Now, let’s add a relationship to connect our Deal Support Request to the Account object so we can display additional information about the related account* |  |
| *Create an Account Lookup field & relationship* Click the **New** button |  |
| Click **Lookup Relationship**  Click **Next**  Set **Related To** to **Account**  Click **Next**  Set **Field Name** to **Account**  Click **Next**  Click **Next**  Click **Next**  Click **Save** |  |
| *Now lets create new Lookup relationships for*  Opportunity   * Related to **Opportunity** * Label **Opportunity** * Child Relationship name **Deal\_Support\_Requests\_Opportunity**   Entered on behalf of   * Related to **User** * Label **Entered on behalf of** * Child Relationship name **Deal\_Support\_Requests\_Behalf**   Preferred Expert - Lookup (User)   * Related to **User** * Label **Preferred Expert** * Child Relationship name **Deal\_Support\_Requests\_Expert** |  |
| Go back to the Deal Support Request in Salesforce, click Refresh in your browser and try the new fields on your page.  Edit a DSR and associate the record to: Account = **Burlington Textiles**  Opportunity = **Burlington Textiles Weaving Plant Generator**  Entered on behalf = **User User**  Preferred Expert = **User User**  **Save**  Click the Opportunity in the DSR  On the Opportunity page, notice the new related list for Deal Support Requests (scroll down) |  |
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| ***Now you’ll take an advanced approach to using Salesforce data with formula fields***  ***Using formulas an admin can dynamically show data from a related object and field*** | |
| Just like you did previously, in the Deal Support Request **Fields & Relationships**, click **New**  Select **Formula** for this new field  Click **Next** |  |
| Label = **Account Executive**  Field Name = **Account\_Executive**  Formula Return Type = **Text**  Click **Next**  **TIP:** Enter the label name and press {tab} to auto fill the Field Name |  |
| In Step 3, click the **Advanced Formula** tab  Click the **Insert Field** button  Select:  Deal Support Request>  Opportunity>  Account>  Account Owner>  First Name  Click **Insert**  *You’ve just followed the relationship from the DSR to the Opportunity to the Account to get the Account Owner’s first name* |  |
| After **.FirstName** type the following  **& “ “ &**  This is to make the Account Owner name we’re assembling look correct on screen |  |
| Click the **Insert** button and repeat the previous steps to insert the **Account Owner Last Name**  Click **Check Syntax** to verify the formula is valid |  |
| Click **Next, Next, Save** |  |
| *Now lets create new Formula fields for*  Opportunity Owner   * Label **Opportunity Owner** * Return Type = **Text** * Formula (see image)   Opportunity Stage   * Label **Opportunity Stage** * Return Type = **Text** * Formula (see image)   ***Hint:*** *Insert Field and click:*  *Deal Support Request>*  *Opportunity>*  *Opportunity Owner>*  *First Name/Last Name* | \*Notice the use of the TEXT function on StageName |
| *Notice the use of the TEXT() function to retrieve the text from the Opportunity Stage value because it is a picklist. We only want the selected value, not the full list of possible values.*  *Review the Functions list to right of the formula editor* |  |
| *Go back to the DSR you have open, refresh the browser and review the changes* |  |
| *Congratulations! You’ve completed the data model updates.* | |

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| ***Make it available:***  ***Add our DSR to the Sales App*** | |
| In **Setup > Home**, type **App Manager** in the **Quick Find** box  Click **App Manager** |  |
| Locate the **Sales** app with the the Developer Name **LightningSales**  Click the dropdown arrow on the far right and click **Edit** |  |
| Click **Navigation Items** |  |
| Locate **Deal Support Requests** in the Available Items list, select it and add it to the **Selected Items** list  Use the up/down **arrows** to **move it** under **Home**  Click **Save**  Click **Back** (left arrow on top left of page) |  |
| Refresh the tab in your Sales app and notice the new DSR tab next to the Home tab |  |

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| ***Make it available Part 2: That was neat, but is that really an app?***  ***No, let’s create an app now*** | |
| In **App Manager**, click **New Lightning App** |  |
| For App Name, enter **DSRs**  Click **Next**  Click **Next** (accepting defaults)  Click **Next** |  |
| Add **Navigation** items   * Deal Support Requests * Dashboards * Reports   Click **Next** |  |
| Add **System Administrator** to Selected Profiles.  Click **Save & Finish** |  |
| Refresh the tab in your Sales app and click the **App Launcher > View All**  Click the **DSRs app** |  |

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| ***Add a DSR button to the Opportunity Page*** | |
| Go to the **Opportunity** object in **Object Manager**  Click **Buttons, Links and Actions** (left side)  Click **New Action** |  |
| Action Type = **Create a Record**  Target Object = **Deal Support Request**  Label = **New DSR**  Name = **New\_DSR**  Click **Save** |  |
| After saving you’re brought to the Page Layout Editor  Drag and Drop Fields onto the page to get the following layout |  |
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| Click **Save** |  |
| To add the New DSR button to the Opportunity layout,  Click **Page Layouts**  Click **Opportunity Layout** |  |
| Click **Mobile & Lightning Actions** and drag **New DSR** down next to Post  Click **Save**  NOTE: You may need to click the wrench icon on the **Salesforce Mobile and Lightning Experience Actions** section to override and customize |  |
| Refresh the tab in your DSRs app, open a DSR, click the opportunity in the open DSR and notice the New **DSR butto**n on the top right toolbar  You can also open the Sales app and navigate to an existing opportunity to test the New DSR button |  |
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| ***Automation with Process Builder*** | |
| In **Setup > Home** click **Users > Queues**  Click **New** |  |
| Name = **DSR Queue**  Send Email to Queue Members **= Checked**  Available Objects = **Deal Support Requests**  Queue Members = **User User** |  |
| Click **Save** |  |
| In the **Quick Find**, type Process Builder  Click **Process Builder** to open it  Click **New** |  |
| Process Name = **DSR Assignment**  Starts When = **A Record Changes**  Click **Save** |  |
| Click **Add Object**  Object = **Deal Support Request**  Start the process = **When a record is created or edited**  Click **Save** |  |
| Click **Add Criteria**  Criteria Name = **New DSR**  Criteria for Executing Actions = **Conditions are met**  Click **Field** select **Status** from the list  Click **Choose**  Operator = **Equals**  Type = **Picklist**  Value = **New**  Click **Save** |  |
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| Click **Add Action**  Action Type = **Update Records**  Action Name = **Queue Assignment**  Record Type = **Select the Deal\_Support\_Request\_\_c record that started your process**  Field = **Owner ID**  Type = **Queue**  Value = **DSR Queue** (start typing DSR for match)  Click **Save** |  |
|  | |
| Click **Activate**  Click **Confirm**  Click **Back To Setup** (top right of page) |  |
| In the Sales tab try changing the status of an existing DSR to New   * Notice the Owner field changes * Check the queue in the DSR List View to see it in the queue |  |

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| ***Validation Rules*** | |
| Go to the **Deal Support Request** object in **Object Manager**  Click **Validation Rules** (left side)  Click **New** |  |
| Rule Name = **Minimum Opportunity Value**  Description = **Opportunity must be $10,000 or greater** |  |
| In **Error Condition Formula**, click **Insert Field** and select  Deal Support Request>  Opportunity>  Amount |  |
| Enter the following after Opportunity\_\_r.Amount:  **< 10000** |  |
| Enter the following **Error Message**:  **Opportunity must be greater than $10,000** |  |
| Click **Save** |  |
| On the Sales tab, open an opportunity. If necessary, change it’s amount to less than $10,000.  Then try entering a DSR on the opportunity. |  |

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| ***Reports and Dashboards*** | |
| In the DSRs app, click the **Reports** tab |  |
| Click **New Report** |  |
| Start typing **deal** in the **Search Report Types** box |  |
| Click **Deal Support Requests with Account**  Click **Continue** |  |
| Add additional fields to your report using the **Columns** dropdown list |  |
| Add **Status** to the GROUP ROWS section |  |
| Click **Add Chart** Add the type of chart you prefer |  |
| Click **Save & Run** |  |
| Name for your new report **DSRs by Account**  Click **Save** |  |
| Click the **Dashboards** tab  Click **New Dashboard** |  |
| Name the new dashboard **DSR Dashboard**  Click **Create** |  |
| Click **+Component** |  |
| Click **DSRs by Account**  Click **Select**  Click **Add** |  |
| Click **+Component** again  Add the **DSRs by Account** component as a **Table** display |  |
| Click **Save**  Click **Done** |  |
| Review your new dashboard which is now accessible in your new DSRs app |  |
| ***Congratulations!***  ***You’ve just completed building a Deal Support Request app on the Salesforce Platform!*** | |