

Building a Mobile Experience in ServiceNow

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Introduction

Lab Overview

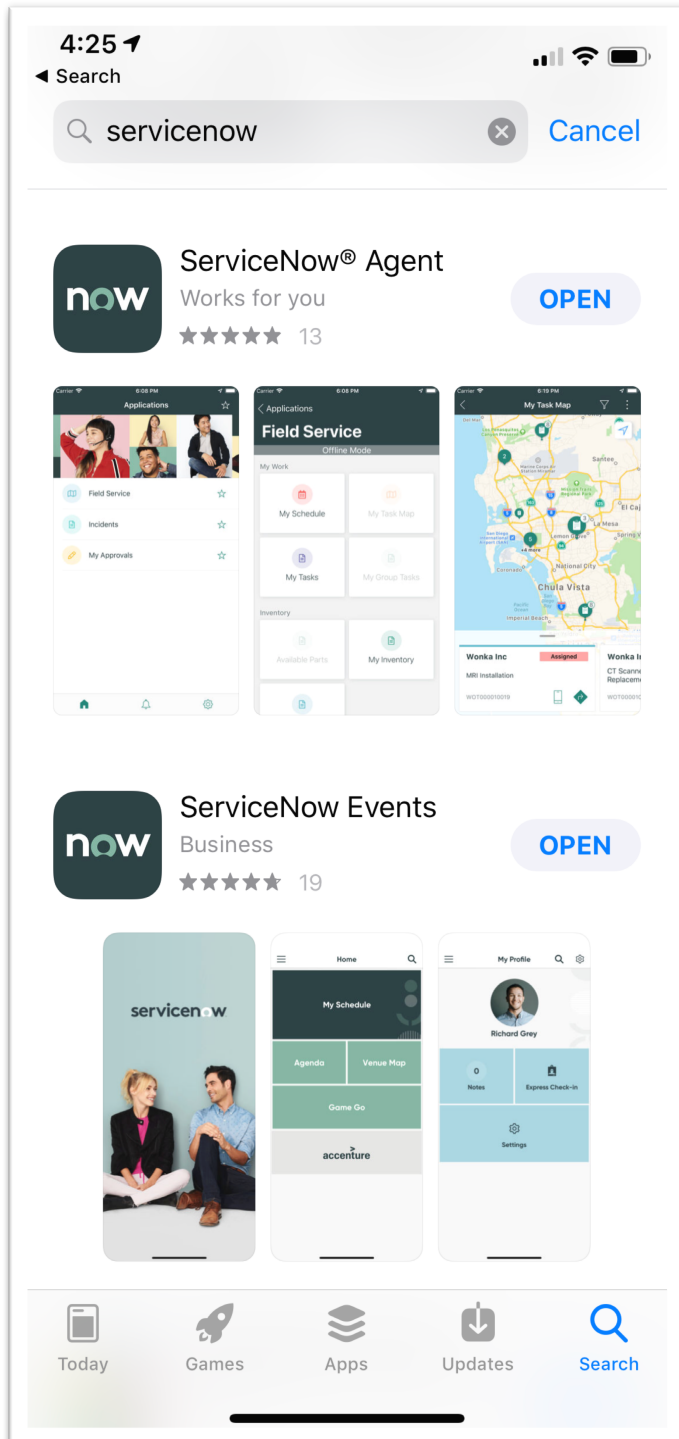
This lab is a beginner level introduction to the concepts around the use of mobile in the Madrid release of ServiceNow. It covers all the steps necessary to build out a working ServiceNow app and explains the development capabilities utilized. It does not cover the capabilities with regards to the ITSM and Field Management OOTB mobile agent applications.

Lab Outcomes

- An understanding of what the mobile capabilities are in the Madrid Release
- Insight into ServiceNow's strategy for mobile in future releases
- How to build a mobile app from the ground up including;
 - Requesting a Madrid developer instance
 - Installing the mobile agent on your phone
 - Connecting the mobile agent to your instance
 - Building a mobile app using studio.

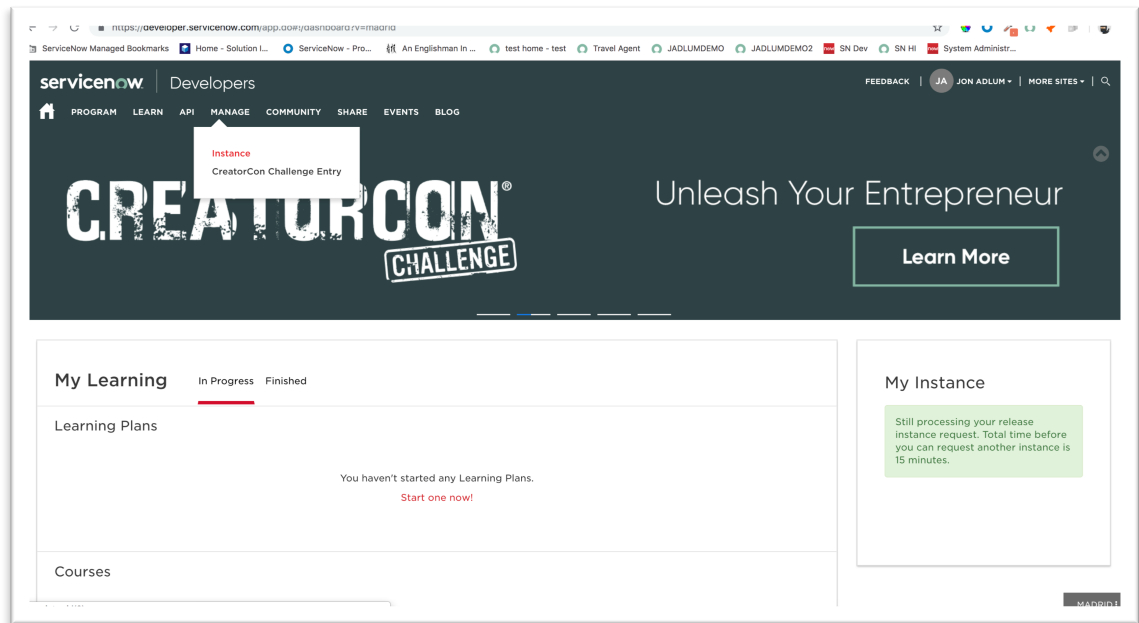
Step 1 - Get the Mobile App

- a. Download mobile app from your chosen store. It should be called **ServiceNow Agent**

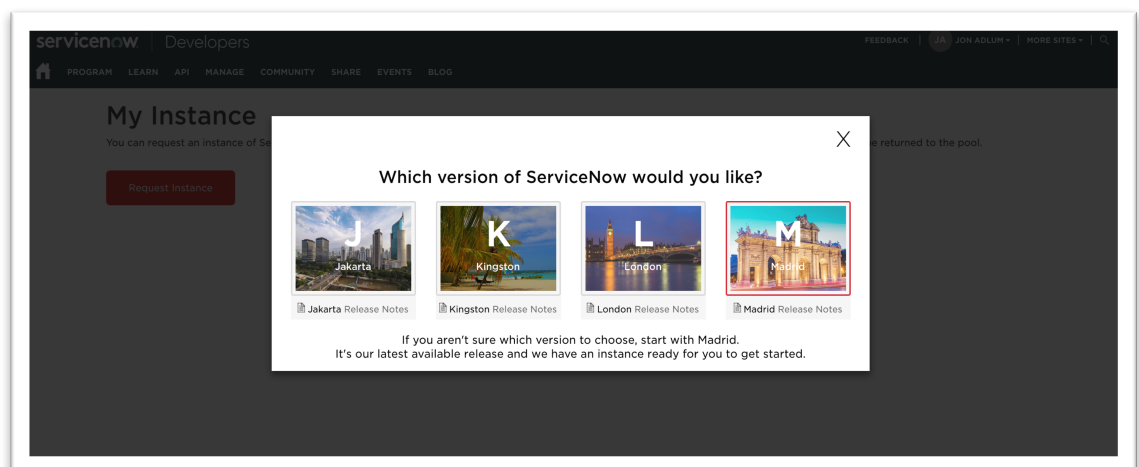


Step 2 - Get a Developer Instance

- b. If you do not have a MADRID personal developer instance:
- c. Visit [Developer.servicenow.com](https://developer.servicenow.com) and login or register if you don't have a login
- d. Once logged in use the MANAGE menu

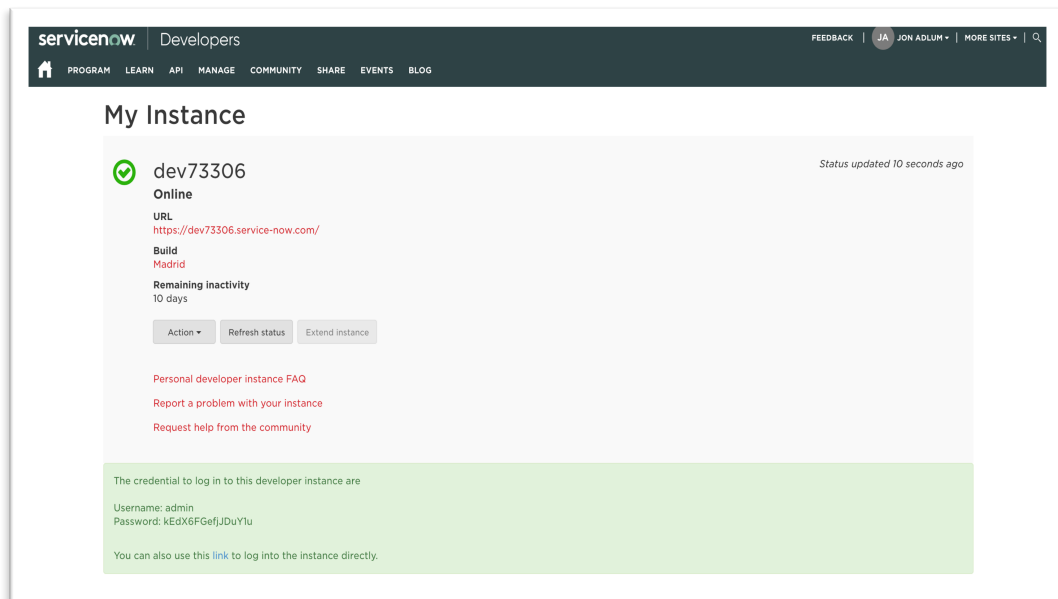


- e. Select REQUEST INSTANCE



- f. Select MADRID instance

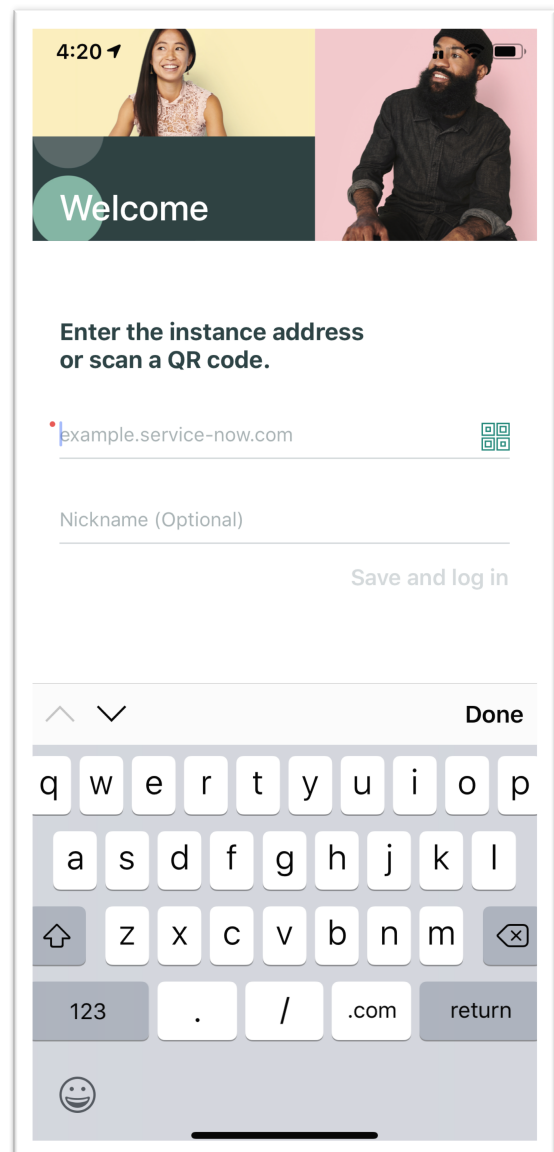
- g. Wait for the instance to be built out, it will display the instance name and the temporary one-use admin password.



- a. You will be asked to change this when you logon for the first time.
- b. Take this opportunity to logon and change the admin password before proceeding.

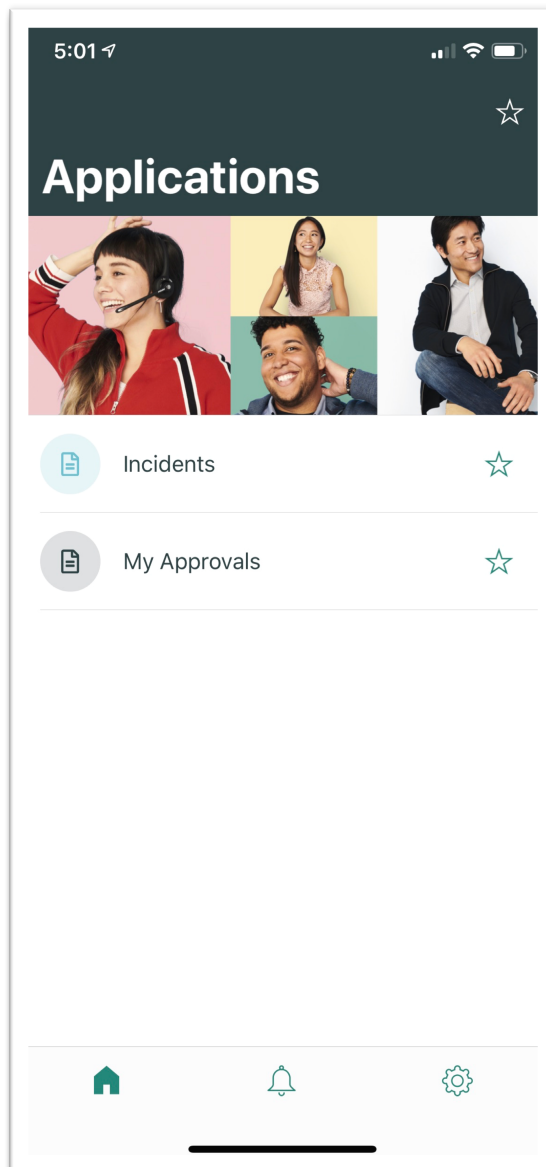
Step 3 - Now let's hook up the mobile app to your instance

- Load the app and it will ask you to setup your first instance to connect to:
- Enter your instance name and give it a nickname (I use Personal Developer Instance or PDI)
- It will then try to connect to the instance and ask for your username and password. Use the admin user and the new password you set in the previous step.
- Congratulations you now have your own PDI and a copy of the new Madrid Mobile App connected to it.



Step 4 - So what is the mobile agent app?

1. Before we go any further I want to share some of the mobile philosophy with you, so lets grab a quick break for 10 mins, get some coffee, and then ill spend a little time talking about ServiceNow's mobile strategy and we can move into building our first mobile app.



BREAK

Step 5 – A few slides on Mobile / ServiceNow

(see deck)

Main Lab

Stage 1 – Create your scoped app, create your tables and your first mobile app.

1. Login to your Personal Developer Instance (PDI) as admin.
2. In the left-hand Filter navigator type 'Studio' and click on **Studio**
3. In the **Select Application** window, click on **CREATE APPLICATION** button in top left.
4. In the **Create Application** window, select the second option, **Create Custom Application** by selecting the **Create** button on the right.
5. Fill in the following values:

| Field | Value | Notes |
|-------|-----------|-------|
| Name | mobileLab | |

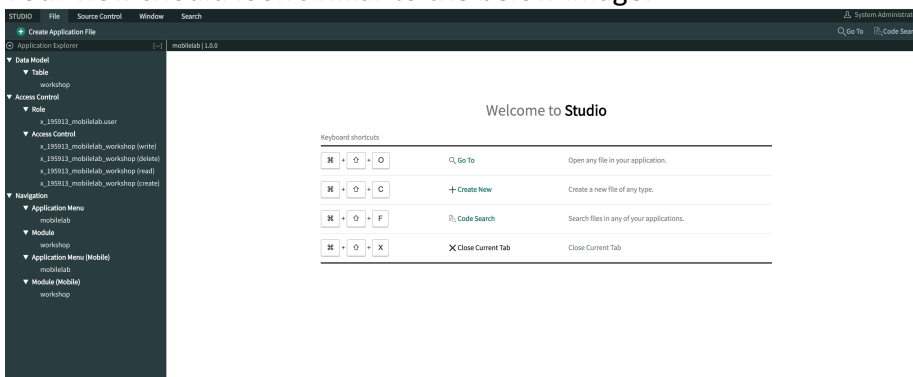
6. Toggle the **Create Table** switch to the right and populate the following fields:

| Field | Value | Notes |
|---------------|----------|---|
| Label | workshop | Make all table names singular as the system automatically makes them plural when needed |
| Extends Table | Task | Extending task gives us a large number of predefined fields and functions. |

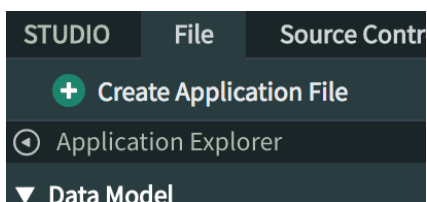
7. Toggle the Auto-Number slider to the right and set the following field(s):

| Field | Value | Notes |
|--------|-------|--|
| Prefix | WORK | This is the prefix for the NUMBER field. |

8. Click the **Create** button and say YES to the Are you sure message and wait.
9. Once created successfully (you should see a big green Success and tick mark), click on the **Switch to application** button
10. Your view should look similar to the below image:



11. Now let's quickly create a similar table for the stages in a workshop by clicking on **Create Application File** in the top left corner as shown below. This is where you create all the objects in your scoped app.



12. The **Create Application File** window will default to Table, so simply click on **Create** in the bottom right and let's build our stages table:

| Field | Value | Notes |
|--------------------|-----------|------------------------------|
| Label | stage | Again, keeping it singular |
| Extends table | Task | |
| Add module to menu | mobilelab | (this should be the default) |

13. Under the **Columns** tab, let's add a new field:

| Field | Value | Notes |
|--------------|-----------|------------------------------|
| Column Label | workshop | Again, keeping it singular |
| Type | Reference | |
| Reference | workshop | (this should be the default) |

14. Under the **Controls** tab, let's check the Auto-number field and fill in the fields:

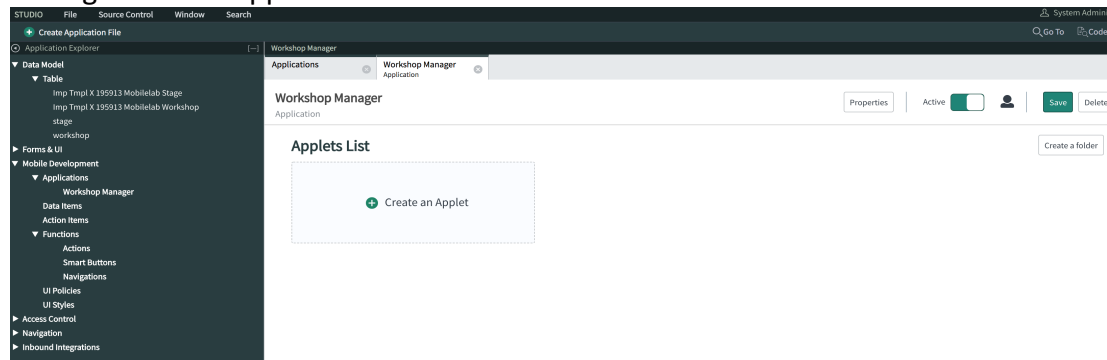
| Field | Value | Notes |
|--------|-------|---|
| Prefix | STAG | I like using upper case for number prefixes, as it makes identifying number values easier |

15. Under the **Application Access** Tab, check the boxes for CAN READ, CAN CREATE, CAN UPDATE and CAN DELETE. (You should do this for the WORKSHOP table too to ensure the mobile app can make changes to your data)
16. You can now click on **Submit** to create the table
17. Congratulations. You've built the scoped application and the data model for today's lab!
18. Let's load up some data to play with in our app.
19. In Studio, click on the Workshop table in the left-hand navigator
20. Scroll down the displayed data and click on Show list
21. Now you will see an empty list of workshops, so on the number field, right click and select Import.
22. Now download this file: [workshop.xls](#) and use it in the upload dialog. Preview the data load and commit the load.

23. Now repeat the import but this time for the stage table with this file: **stage.xls**
24. Now we have a data model and data, let's build our mobile app. Click on **Create Application File** again, but this time in the filter type in Mobile, and select Mobile Application and click on the **Create** button.
25. Let's start by naming our mobile application, in the **Create an Application File** window:

| Field | Value | Notes |
|-------------|--|-------|
| Name | Workshop Manager | |
| Description | An application to help run workshops | |
| Icon | Choose something ..alter its color if you want | |

26. Click on Create, and you will be taken to the application screen for the Workshop Manager Mobile App. It should look like this:



27. You can amend the application details using the **Properties** button, and also setup security role based access by clicking on the **person icon**. The whole mobile app can be activated or deactivated by the **Active Toggle**.
28. Next up let's create a folder for our workshop applets, so click on **Create a folder**, and once it has displayed the folder, click on the words New folder and replace it with the word **Workshop**.
29. Now lets build our first applet. Click on **Create an Applet**
30. Fill in the following fields in the Create an Applet window:

| Field | Value | Notes |
|-----------------|------------------------------------|-------|
| Name | List Workshops | |
| Description | Show a list of available workshops | |
| Icon | Feel free to change icon/color | |
| Screen template | Click on list | |

31. Leave all the other defaults settings for now and click on **NEW**. The New Applet screen will appear. Now fill in the following fields.

| Field | Value | Notes |
|-------|-------|-------|
|-------|-------|-------|

| | | |
|------------------|---------------------------------------|--|
| Data Item | Click on the + to add a new data item | As you don't have any this is the only option. |
|------------------|---------------------------------------|--|

32. In the New Data Item Screen, fill in the following fields

| Field | Value | Notes |
|--------------------|-------------------------------|---------------------------------------|
| Name | List of workshops | |
| Description | A list of available workshops | |
| Table | workshop | Make sure you select the correct one. |

33. Click on the **SAVE** button, after being told the record has saved close this tab by clicking on the small 'x' in its tab (list of workshops tab) and return to the New Applet Tab.

34. Now you have an option called List of workshops for the Data Item field, select it, and your screen should look like this:

List Workshops
Applet

Properties
Display ☒
Save

▼ Field Configuration
Assign a field to each header element (e.g. E1, E2 ...)

All Fields

Search

All Fields
Active
Activity due
Actual end
Actual start
Additional assignee list
Additional comments
Approval
Approval history
Approval set
Assigned to
Assignment group

Selected Fields

List Item Fields (at least one)

E1
E2
E3
E4
E5
E6

Change List Item

List item

E1
E2
E3
E4
E5
E6

35. This view is key to the way the mobile renders lists on your device. For now do the following;

36. In all fields, click on Number and then click on the right chevron to move it into the Selected field slot E1. Your screen should now show the number in e1 and also in the layout view to the right like this:

All Fields

Search

All Fields
Follow up
Group list
Impact

Selected Fields

List Item Fields (at least one)

E1
Number
E2
E3
E4
E5

Change List Item

List item

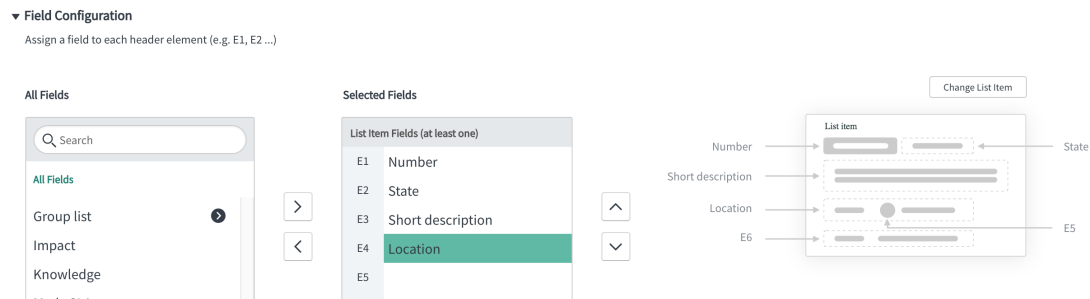
Number
E2
E3
E4
E5
E6

37. Repeat step 35 for the following fields:

38. **State** into **E2**

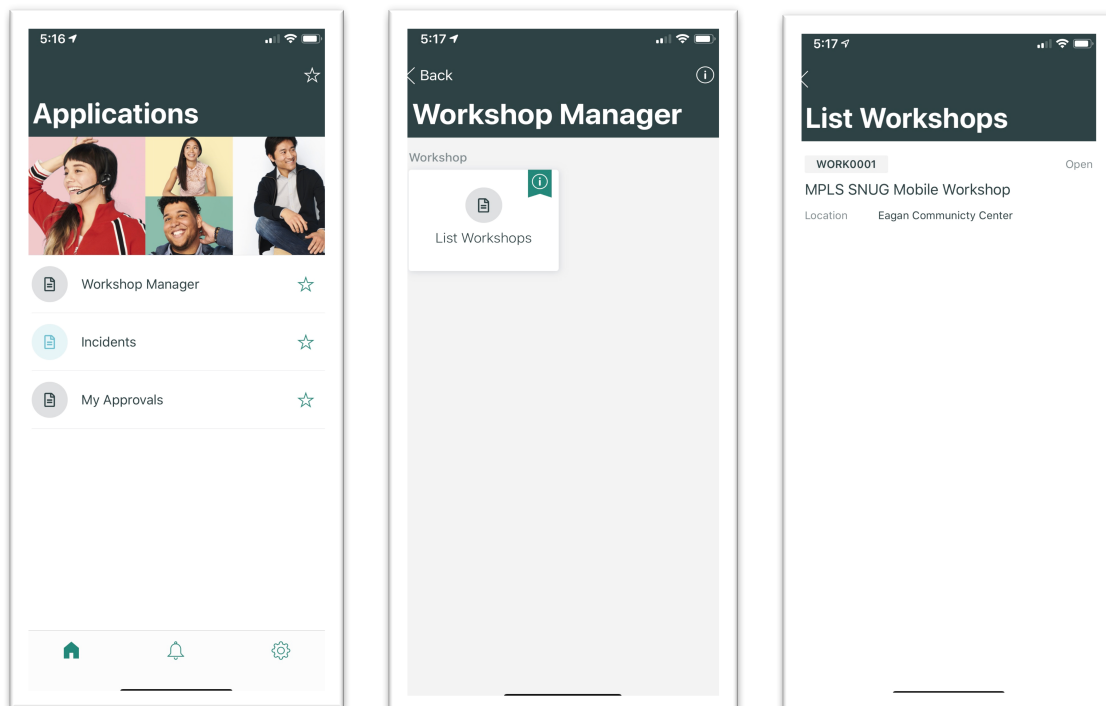
39. **Short Description** into **E3**

40. **Location** into **E4**, and your screen should look like this:



41. For now, click on **SAVE**.

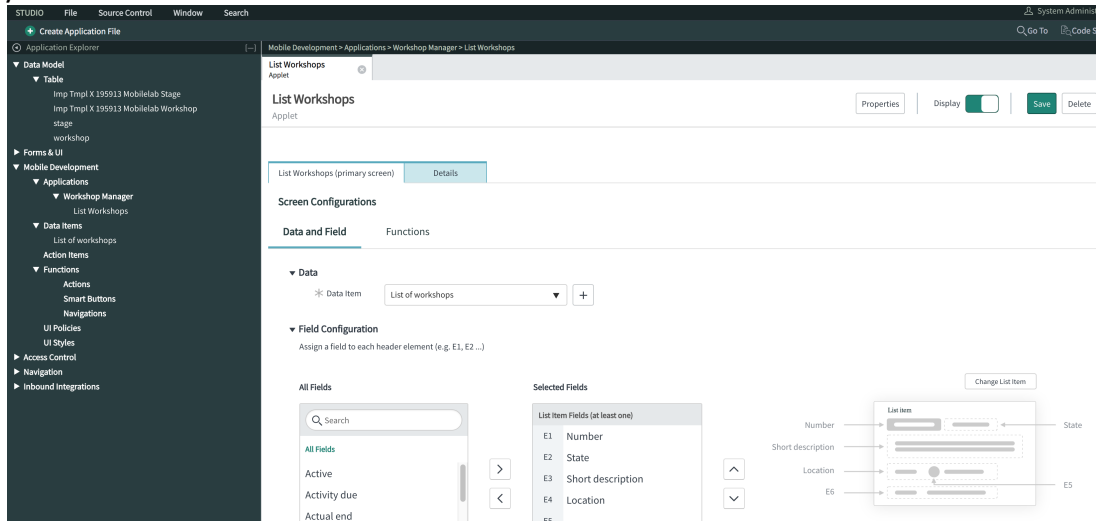
42. **Congratulations** you have created your first **mobile app** and **list applet**. As there is content to display your app will now appear in the Mobile Agent you connected. Go take a look. It should look like this:



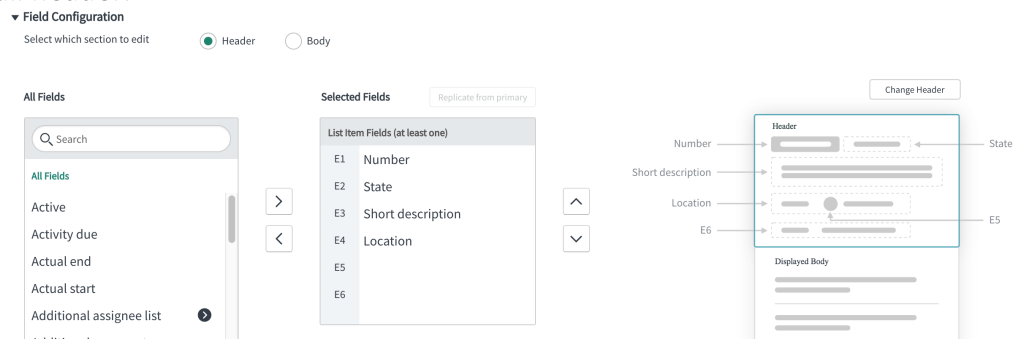
Stage 2 – Adding Details and Smart Buttons to your forms

In this stage, we will expand the List workshops applet to show details and then enhance some of the fields to make use of native mobile capabilities:

1. Let's first add some details to the list of workshops, as right now when we click a list item it doesn't show us anything.
2. Open Studio and click on **List Workshops** under the **Workshop Manager (Application)**, your screen should look like this:



3. Click on the **Detail** Tab, and let's setup the header of our details screen. To save time, let's simply click on the Replication from primary button (next to selected fields) and bring forward the layout we used in the list. This should give you this layout for your detail header.



4. From here, click on the **Body** radio group button so we can edit the body of the details screen. Here let's just add in the **DESCRIPTION** by selecting it in the **All Fields** list and using the right chevron to include it in the **Selected Fields** list. Save the form, and go look at the change to your applet. It now allows you to drill down into the list items and shows the new details you have added to that screen.
5. Let's add a couple of fields to workshop to demonstrate how smart buttons work. In Studio go back to the data model > Table and click on **workshop**.

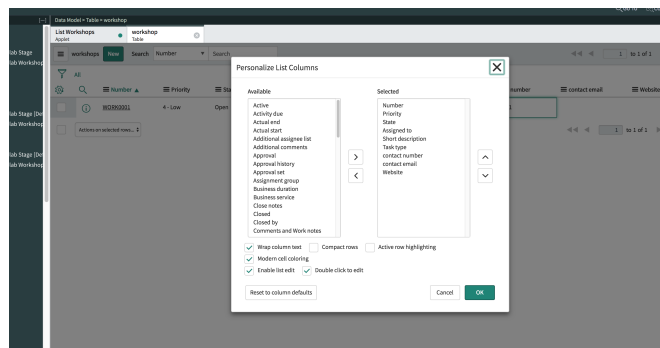
6. Now add the following fields to the workshop table:

| Column Label | Type | Ref | Max Length |
|----------------|--------|-----|------------|
| Contact Number | String | | 15 |
| Contact Email | String | | 50 |
| Website | String | | 100 |

7. This should now look like this:

| Column Label | Type | Ref | Max Length |
|---------------------|-----------|---------|------------|
| Company | Reference | Company | 32 |
| Contact type | String | (empty) | 40 |
| Correlation display | String | (empty) | 100 |
| contact number | String | | 15 |
| contact email | String | | 50 |
| Website | String | | 100 |

8. After Updating (saving the changes), go view the list of data in the workshop table and add in some data for the MPLS SNUG data for the 3 new fields so we can test this new functionality. I recommend simply customizing the list view to add in the new field as shown below.

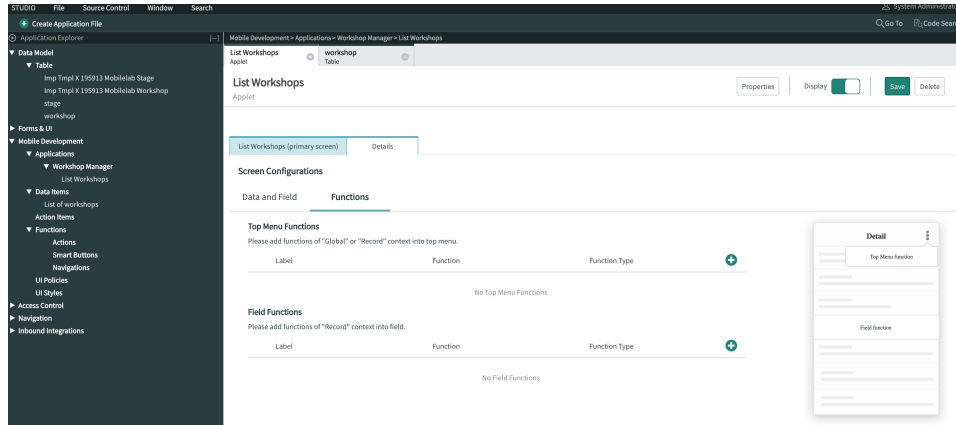


9. Make sure you use a full url like <http://www.servicenow.com> for the website, here is what I used:

| Number | Priority | State | Assigned to | Short description | Task type | contact number | contact email | Website |
|----------|----------|-------|-------------|---------------------------|-----------|----------------|--------------------------|---|
| WORK0001 | 4 - Low | Open | (empty) | MPLS SNUG Mobile Workshop | workshop | 6517856721 | jon.adlum@servicenow.com | http://www.servicenow.com |

10. Now let's go back to the List Workshops applet view in Studio, and selecting Details, click on the Data and Field section, and add in the three new fields we created description as per step 4

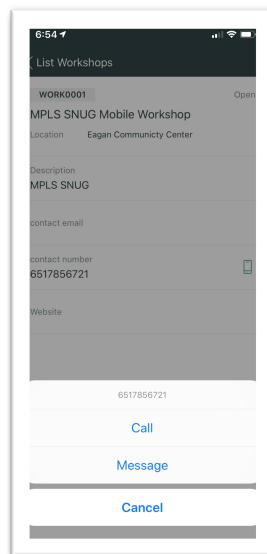
11. Now switch to the Functions section on the details tab, so your view looks like this:



12. We are going to add some smart buttons to our details form and we do this by adding in Field functions as follows
13. Click on the + button to the right of the field functions and in the pop up widow and select the CONTACT NUMBER field. Click the plus to add a function and select NEW SMART BUTTON.
14. On the new Smart Button Field populate the following fields:

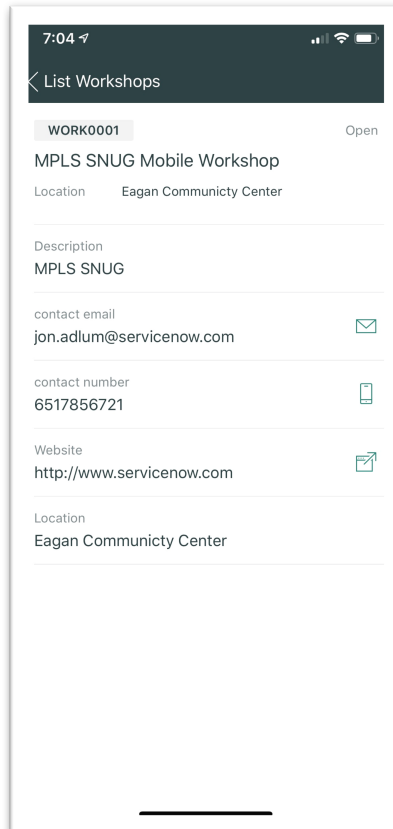
| Field | Value | Notes |
|--------------|----------------|-------|
| Name | Contact Phone | |
| Type | Phone | |
| Table | Workshop | |
| Field | Contact number | |

15. Save the button and return to the List Workshop applet form. Now you can pick the smart button you just added for the function from the drop down menu. Click Done. If you go check your Mobile Agent you will see the following:



Notice how just by clicking on the smart button, the mobile app leverages the native mobile functions to make a call or send a text. (feel free to send me a text!!)

16. Now repeat the process and add a smart button for the contract email and the website. Which should allow you to send emails to the contact email address you inserted and to visit the website. Here is my screen:

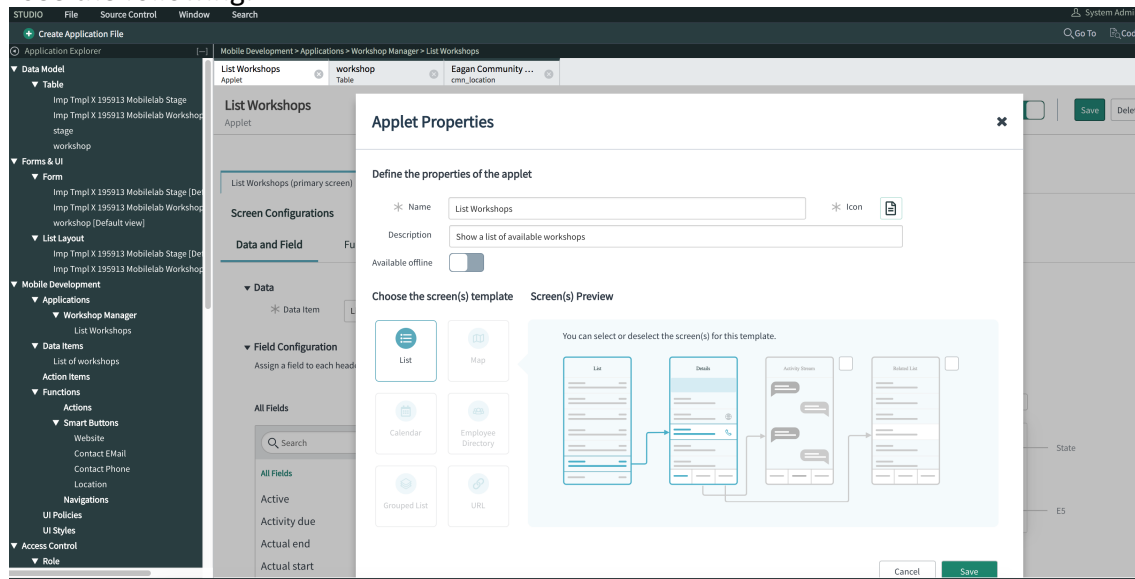


17. As a bonus task, add LOCATION to the detail view and add a smart button of type ADDRESS to it.

Stage 3 – Adding in Work Notes and Swipe Left / Right Functions

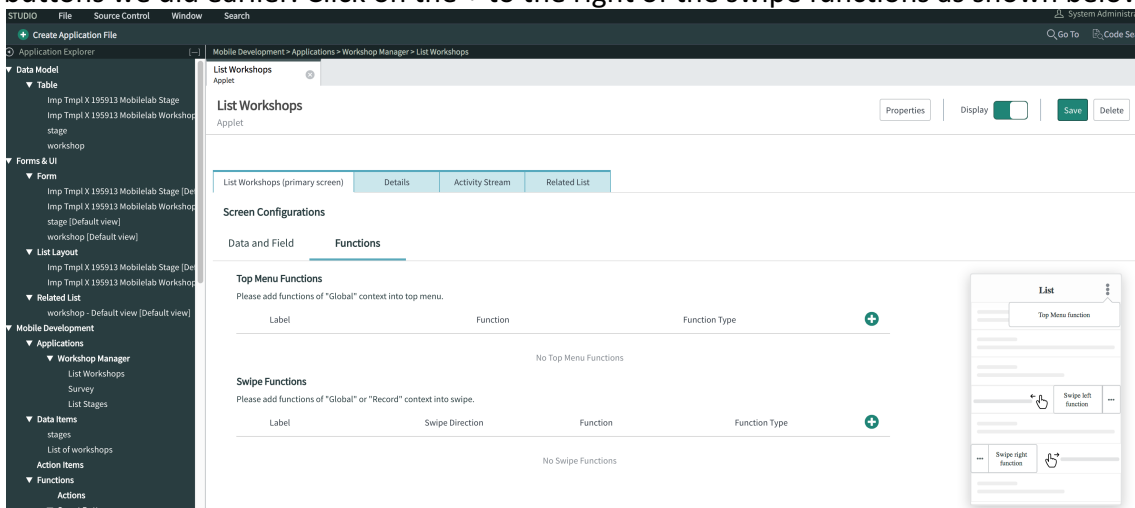
In this section, we will quickly configure the List of workshops to show work/notes

1. In studio pull up the List Workshop Applet and click on its properties, where you should see the following:



2. By checking the first of the two checkboxes in the Screen Preview you will automatically add in the screens for the activity screen.
3. Save and reload your app on the mobile agent and try to do the following:
4. Add in a picture to work notes

To add swipe functions, let's go back to the List Workshop applet, and on the primary screen (not the details), select functions. This is a very similar process to adding the smart buttons we did earlier. Click on the + to the right of the swipe functions as shown below



5. .
6. In the pop up **Swipe Function definition** window, enter the following:

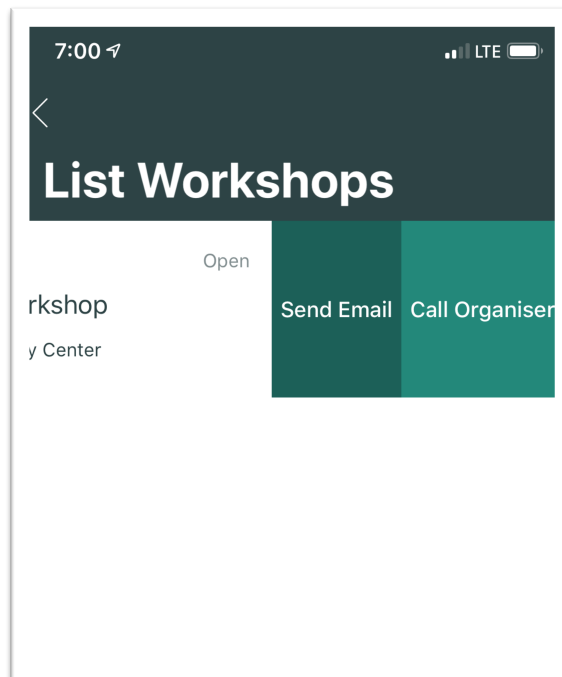
| Field | Value | Notes |
|------------|-----------------------------|-------|
| Label | Call Organizer | |
| Function | Smart Button> Contact Phone | |
| Swipe Left | true | |

7. Repeat this for another swipe left function called “Send Email” for sending an email. Finally add a final swipe **RIGHT** function called “Visit Website” and link it to our website smart button. Your applet should look like this:

Swipe Functions
Please add functions of "Global" or "Record" context into swipe.

| Label | Swipe Direction | Function | Function Type | |
|----------------|-----------------|---------------|---------------|--|
| Call Organiser | Left | Contact Phone | Smart Button | |
| Visit Website | Right | Website | Smart Button | |
| Send Email | Left | Contact Email | Smart Button | |

8. Go look at your mobile agent app and refresh the app and get out your new swipe left and right functions.



9. This demonstrates the reuse of functions you have built, but in reality we would use these functions probably to Register for a workshop or check in etc.

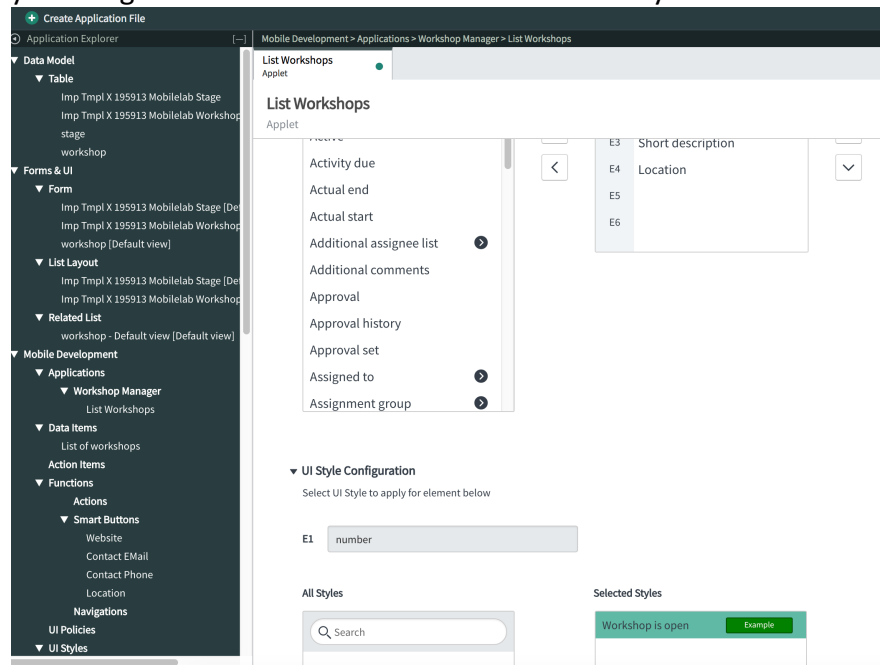
Stage 4 – Using UI Styles and List Templates

In this section, we examine how to enhance the experience using UI style and different list filters to change the look of the mobile experience.

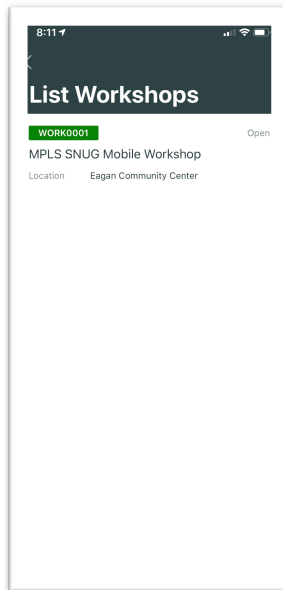
1. To create a UI style, simply click on the UI style navigator
2. Once there click **NEW** and fill in the following fields:

| Field | Value | Notes |
|-----------|----------------------------|---------------|
| Name | Workshop Status | |
| Table | workshop | |
| Condition | State is open | |
| Field | State | |
| Style | Background_color = #008000 | This is green |
| | Font_color = #FFFFFF | This is white |

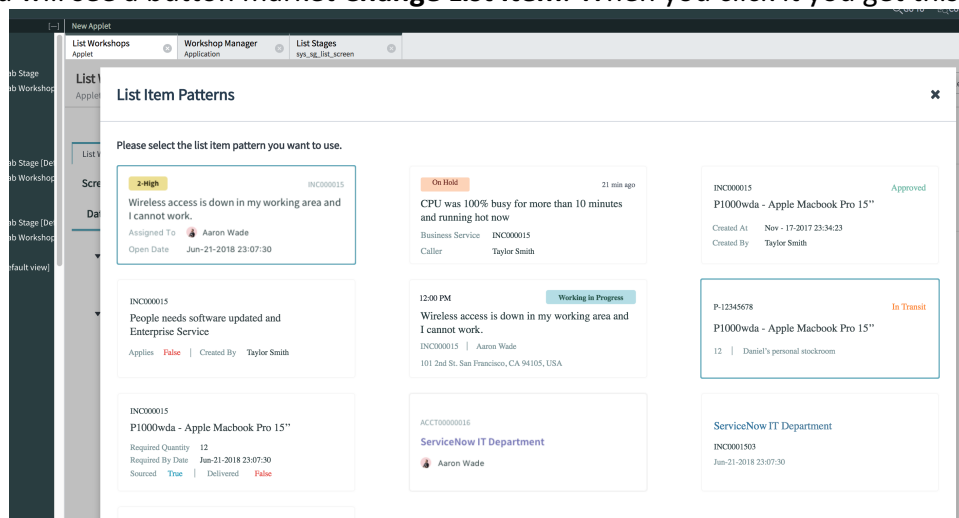
3. Once saved, navigate back to the List Workshop Applet page and scroll down and select the UI Style configuration and move it into the Selected Styles.



4. Now you can see the change to the number field in the mobile app as shown below. I.e when State is open show number with green background and white text.



5. Ok now lets look at how we can customize the layout of the list views. Again, go to the List workshops applet. This time lets look at the primary screen definition we created TO the far left you will see a button market **Change List Item**. When you click it you get this screen:



6. Here you can see the selected list layout we are currently using, but there are several more OOTB templates for your lists, each with different layouts, numbers of fields and base colors/fonts etc. Change it to another option and see what happens?
7. Firstly, you will be warned that changing the template will blank your header and force you to add in the fields you want again. So, try a cpl of different templates and see which one works best for you.

Stage 5 – Create a list applet for Stages

So no help on this one... take what you have learnt and create a new applet (maybe in its own folder) to show you the contents of the stage table we created and populated. You should be able to create a cool looking list, with a detail screen and activity screen. Feel free to select templates, add ui styling etc.

We will give you 15 mins for this one. Let us know if you finish early.

Stage 6 – Link /applets.

In this section, we will quickly create a link app to navigate to a survey for this lab.

1. Create a new applet call it survey and instead of the list type, lets use URL.
2. Give it a description
3. Enter the URL : <https://surveyhero.com/c/d60ee5d6> and submit the applet.
4. Go check it out on your mobile agent app.
5. Fill in the survey.. please 😊?

If we have time...

Ask me about:

- Functions - swipe right/left
- Map views
- Calendar views