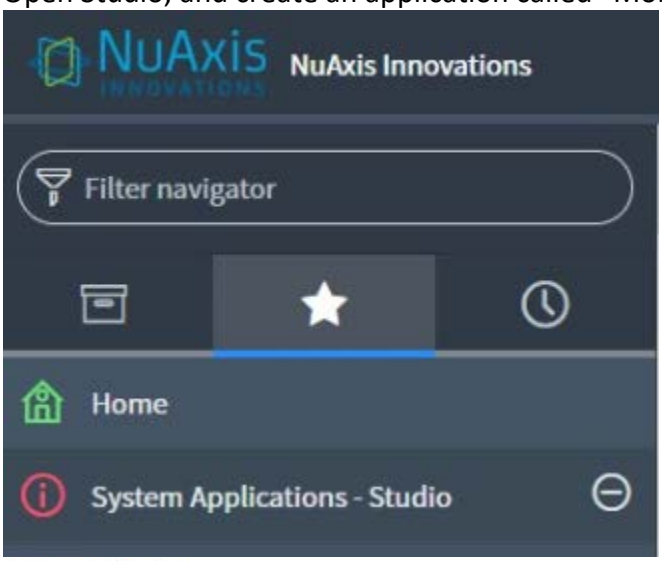
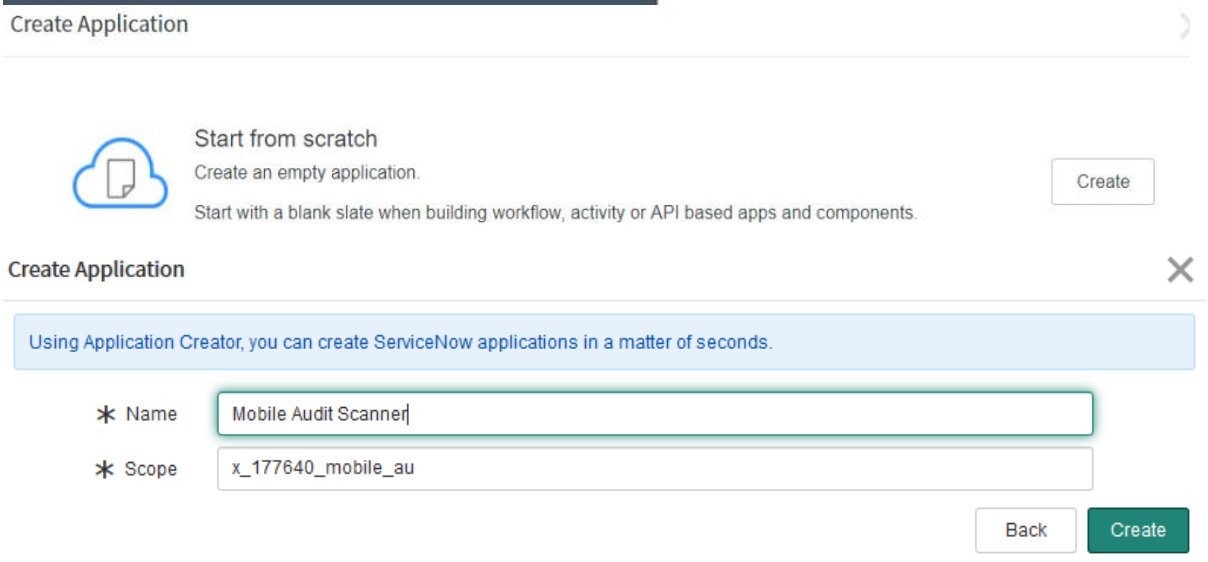
This application is from the ServiceNow Knowledge19 CreatorCon Session CCB0678: Mobile inventory scanner: Building a no-code phone application

Developing a mobile phone application for your company's yearly physical inventory can turn a nightmare of spreadsheets into a dream. Enter the mobile inventory scanner. In this session, you'll discover how — using the power of Madrid's new Mobile Studio and Flow Designer — any level of admin or developer can build a barcode-scanning and GPS-tagging powerhouse of automation.

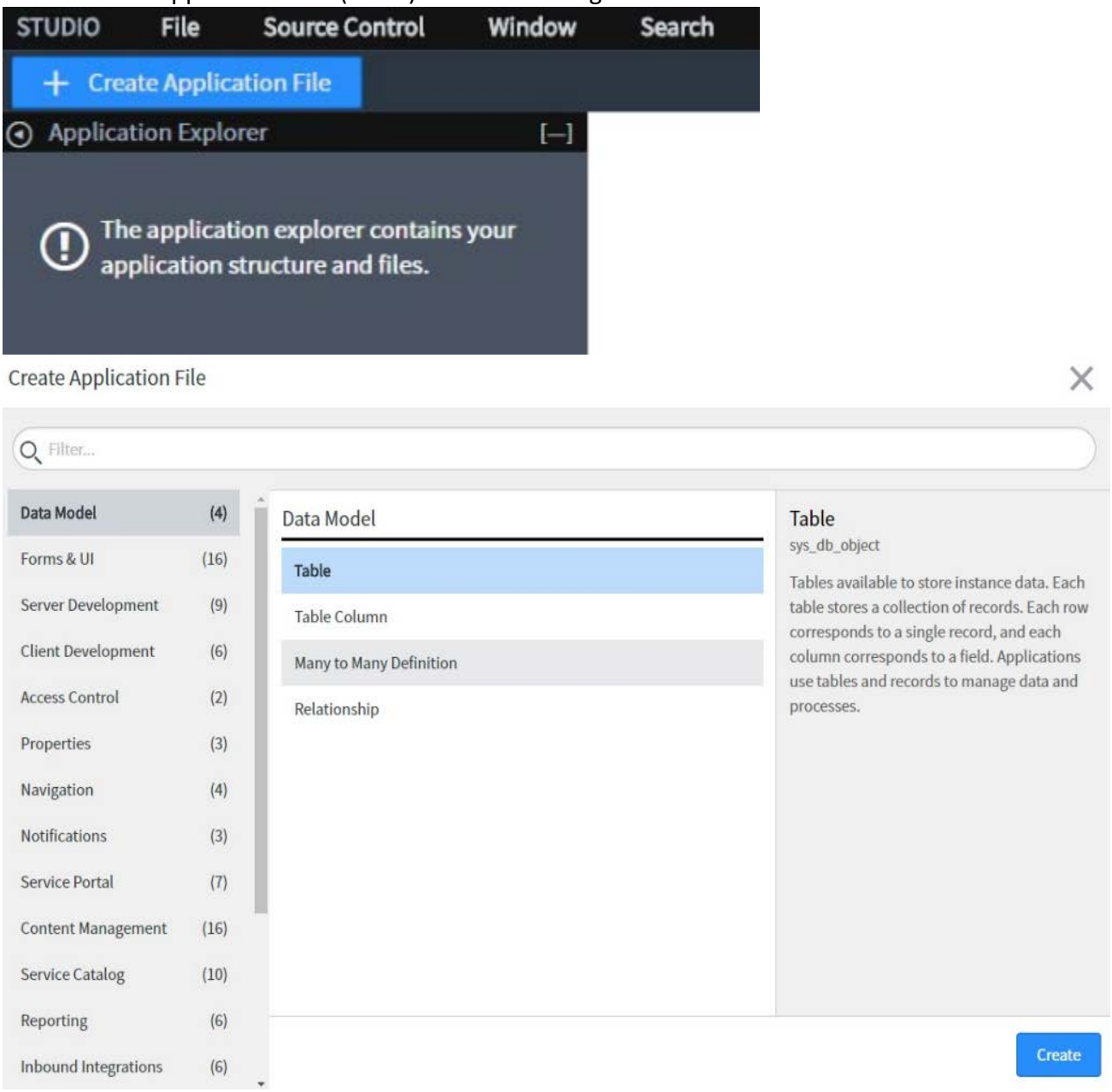
Below you will find the steps (with screenshots) required to build the framework of this scoped application. If wish to see every step in more detail please watch the video linked at the end of the document. But I recommend you use this document as a framework to build the application you need instead of cloning mine.

1. Open Studio, and create an application called “Mobile Audit Scanner”.





2. Create a new Application File. (Table) called “Scan Log”.



3. While creating the table.
    a. Uncheck the Create Module Box
    b. Check all boxes under the Application Access Tab
    c. Check the Auto Number Box under the Controls Tab
    d. Use the Prefix of LOG for the Auto Number Field
    e. Change the role under the checked box for create ACL’s to ITIL

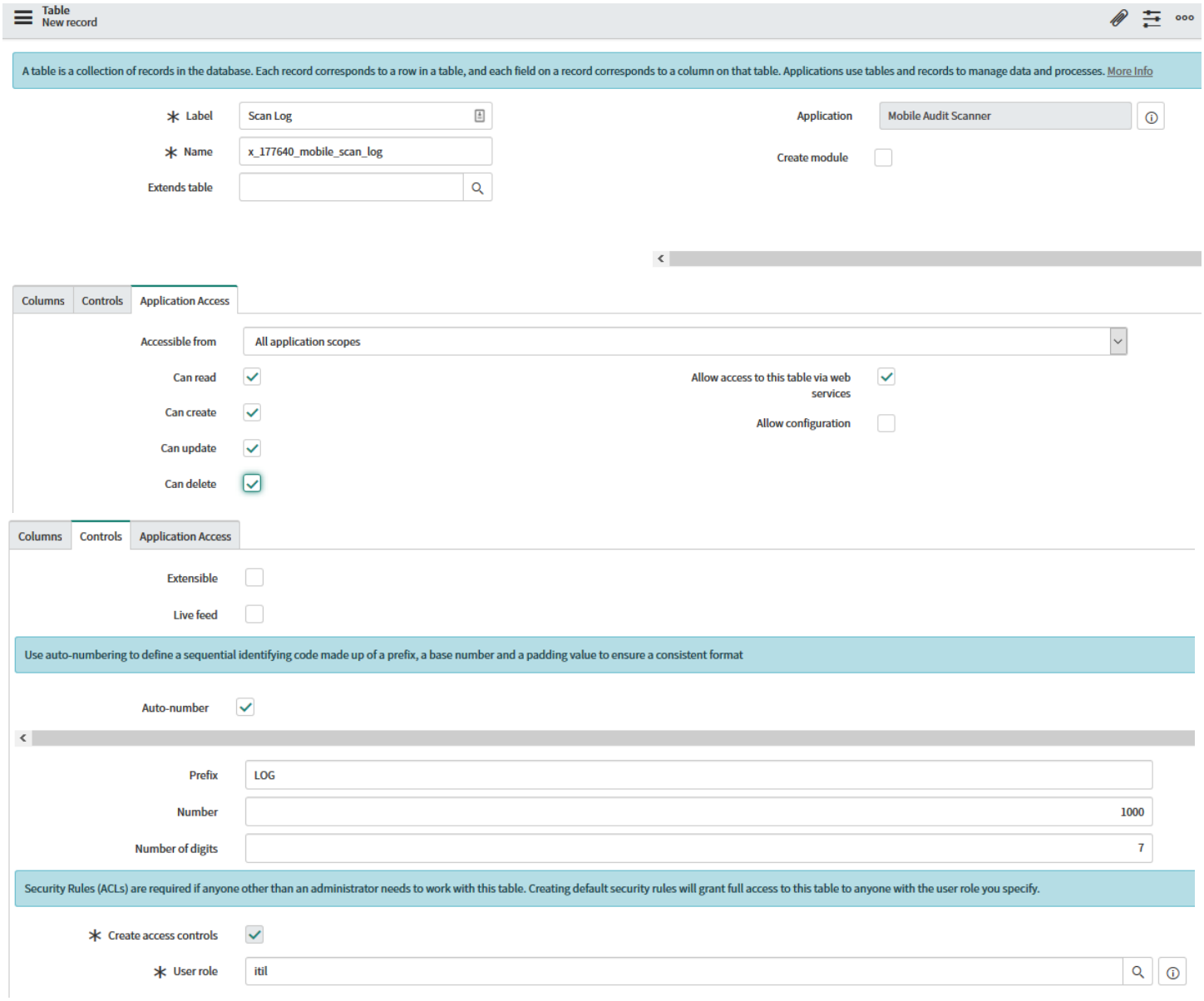
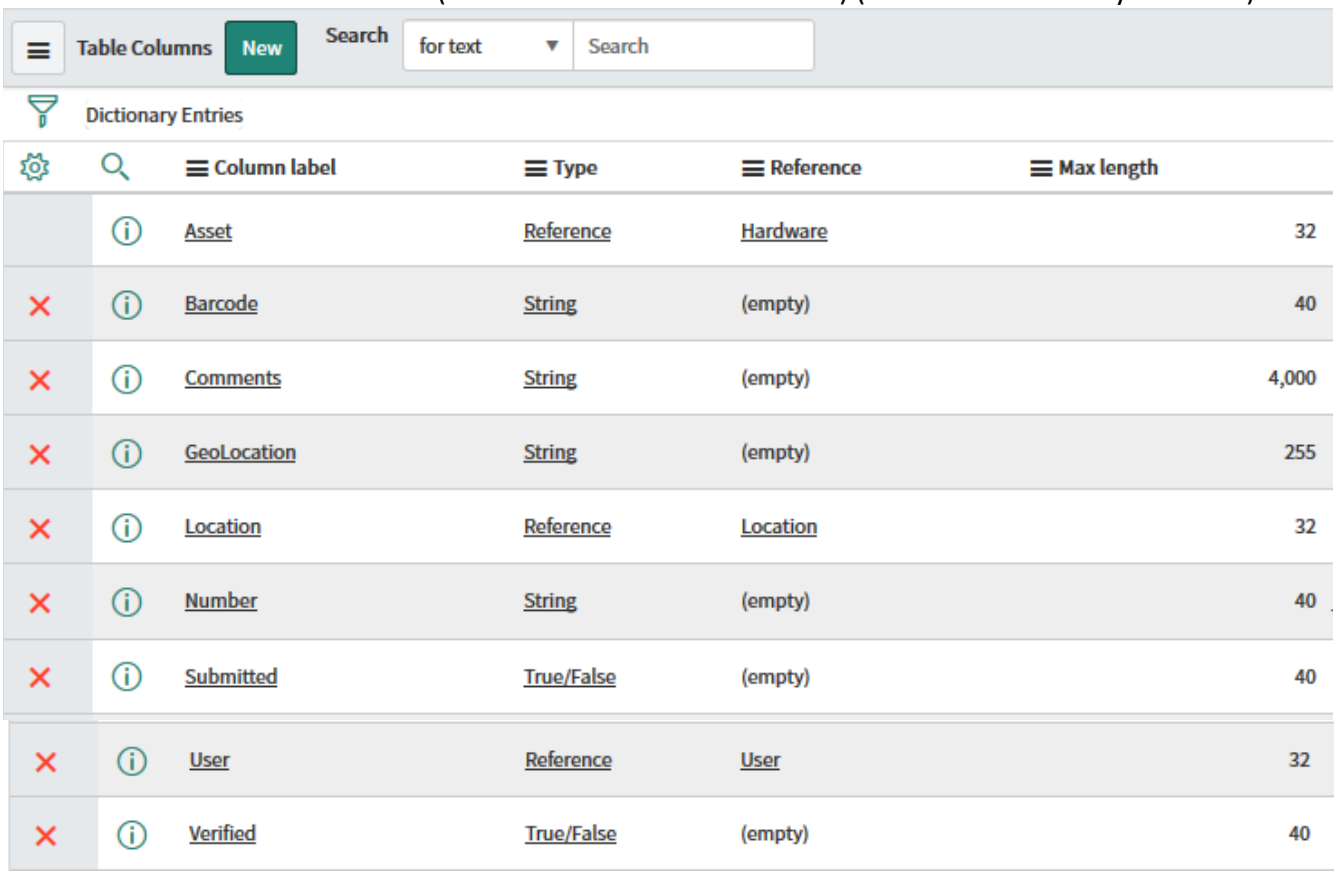


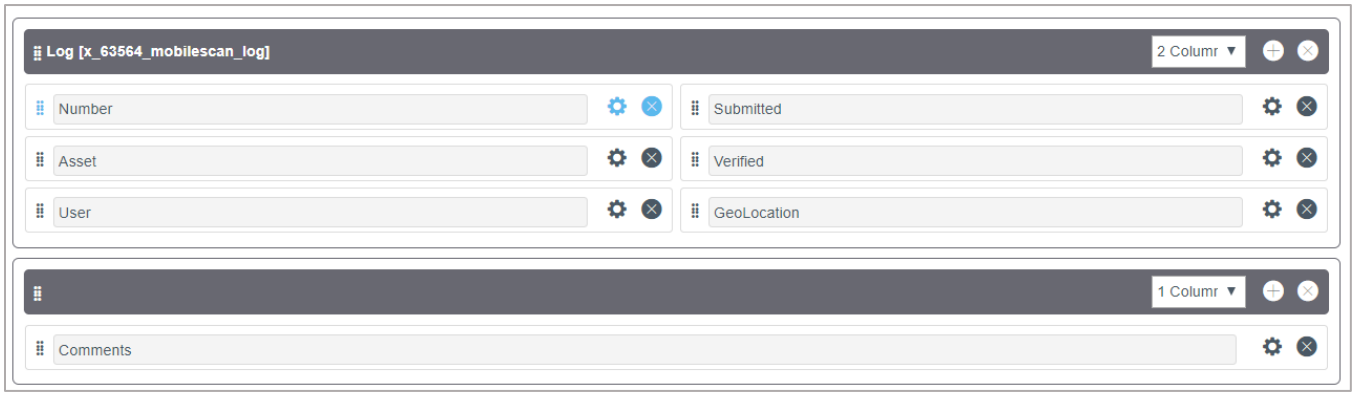
Table
New record
A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. More Info
Label
Scan Log
Name
x_177640_mobile_scan_log
Extends table
Application
Mobile Audit Scanner
Create module
Columns
Controls
Application Access
Accessible from
All application scopes
Can read
Can create
Can update
Can delete
Allow access to this table via web services
Allow configuration
Columns
Controls
Application Access
Extensible
Live feed
Use auto-numbering to define a sequential identifying code made up of a prefix, a base number and a padding value to ensure a consistent format
Auto-number
Prefix
LOG
Number
1000
Number of digits
7
Security Rules (ACLs) are required if anyone other than an administrator needs to work with this table. Creating default security rules will grant full access to this table to anyone with the user role you specify.
Create access controls
User role
itil

4. Create 8 new fields on this table. (Found under the Columns Tab) (Number will already be there).

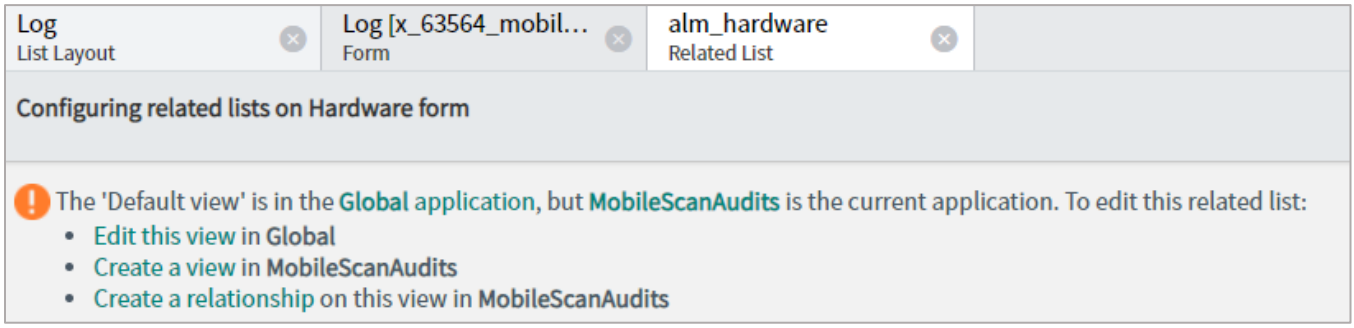


a. **Asset** (Reference to the **alm_hardware** table)
b. **Barcode** (String 40 Characters Long)
c. **Comments** (String 4000 Characters Long)
d. **GeoLocation** (String 255 Characters Long)
e. **Location** (Reference to the **cmn_location** table)
f. **Submitted** (True/False)
g. **User** (Reference to the **sys_user** table)
h. **Verified** (True/False)

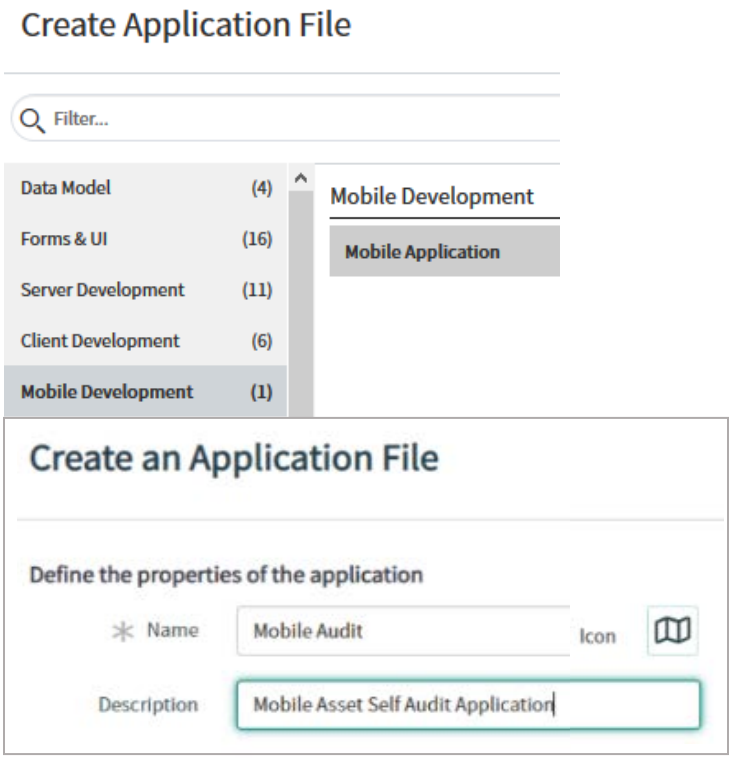
5. Create a cleaner form layout for the Scan Log Table.



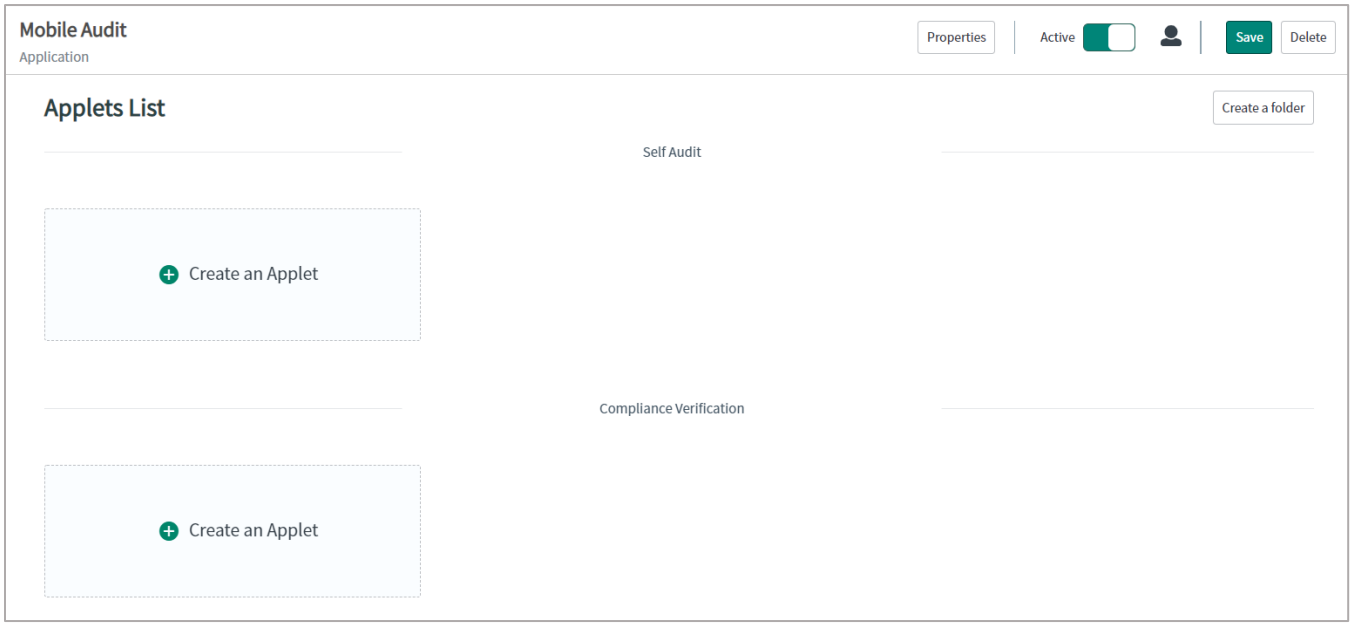
6. Create a Related List in a new View "Mobile Audit" for the alm_hardware form.



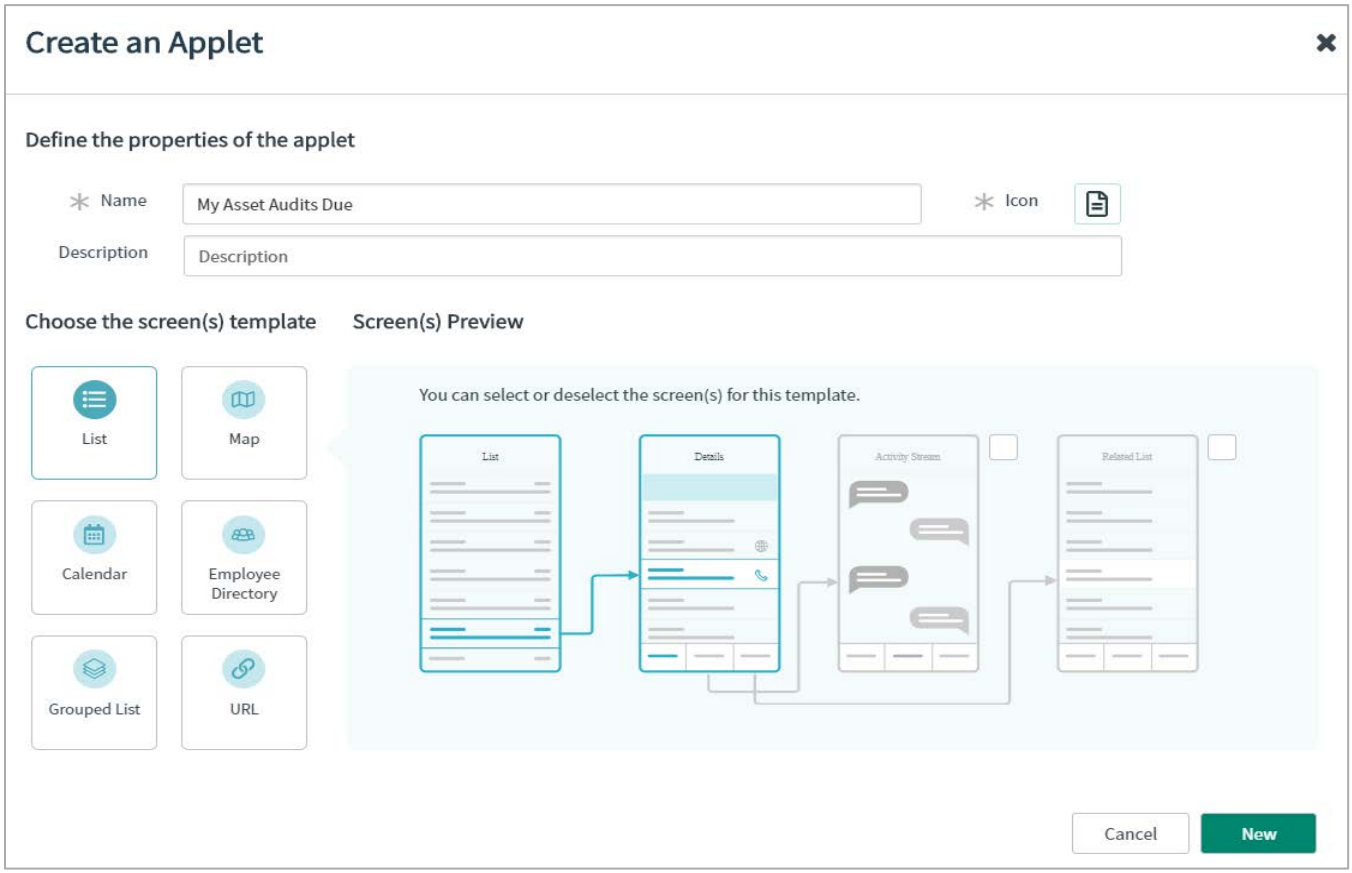
7. Create a Mobile Application in Studio.



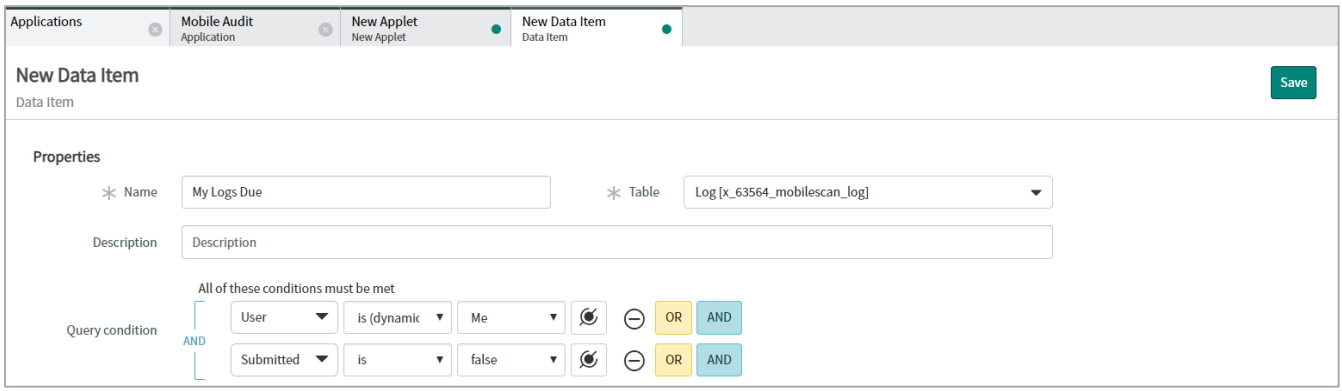
8. Create Folders/Sections for Applets.



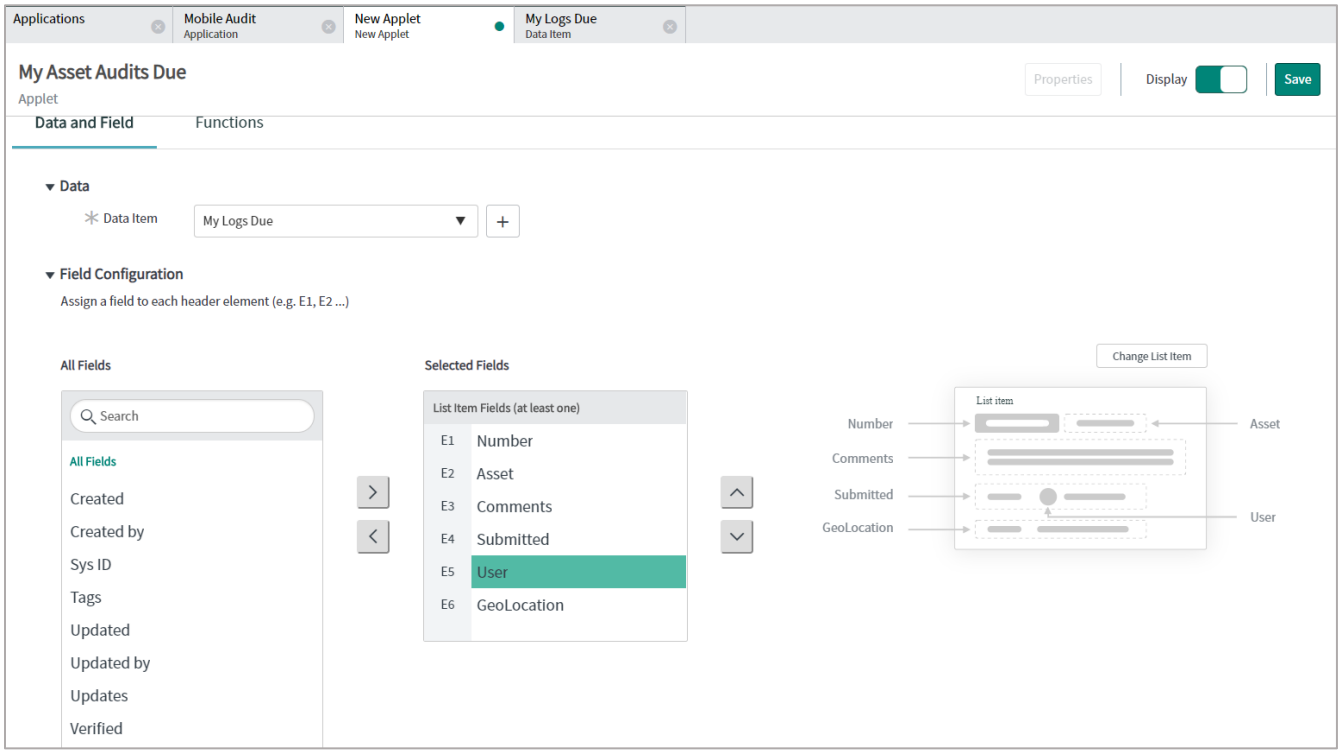
9. Create an Applet "My Asset Audits Due" List Type (Repeat this step for all new applets needed).



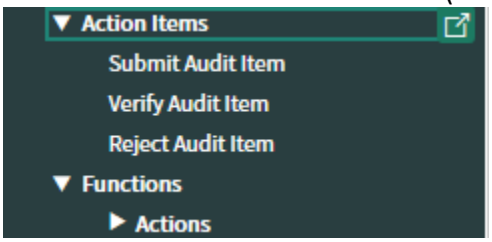
10. Create a Data Item – Clicking the + Sign inside of the applet.
    Set the Query for the new data item. (User is Dynamic Me & Submitted is False).



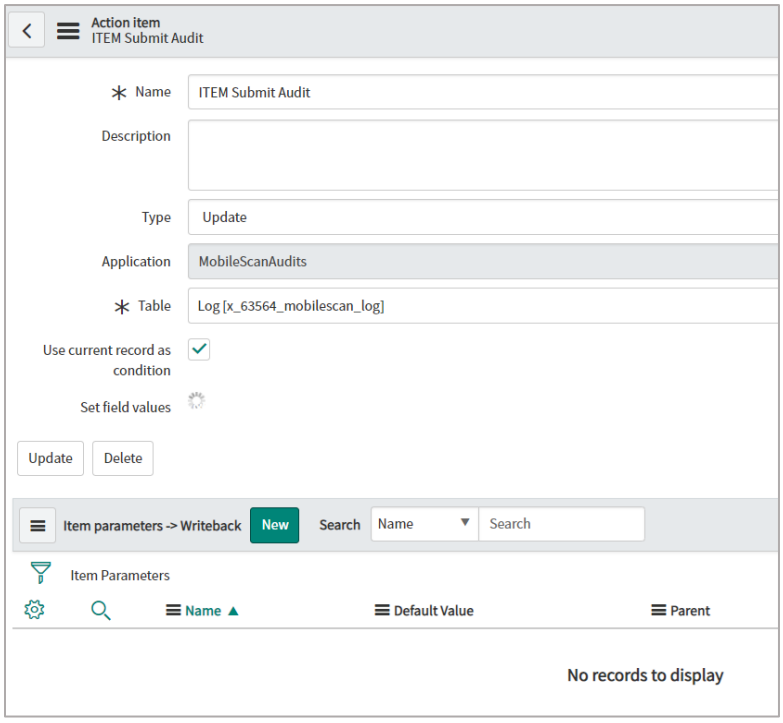
11. Configure the Data View Screens. (Data and Field & Functions Tabs).
    Use the Duplicate Fields button on the Function and Data Screen Tabs.
    You can dot-walk to additional fields, move dot-walked fields first.



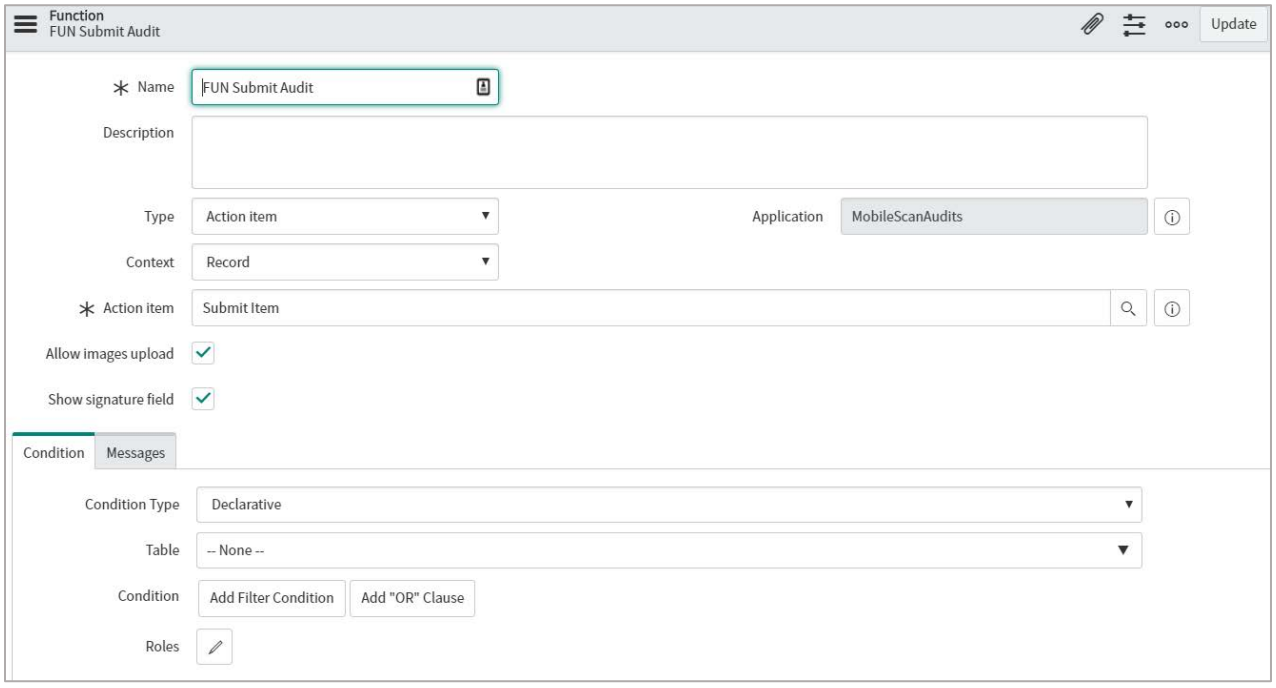
12. Create Function and Action Items (Within Studio you will need to hover over the menu to pop-out).



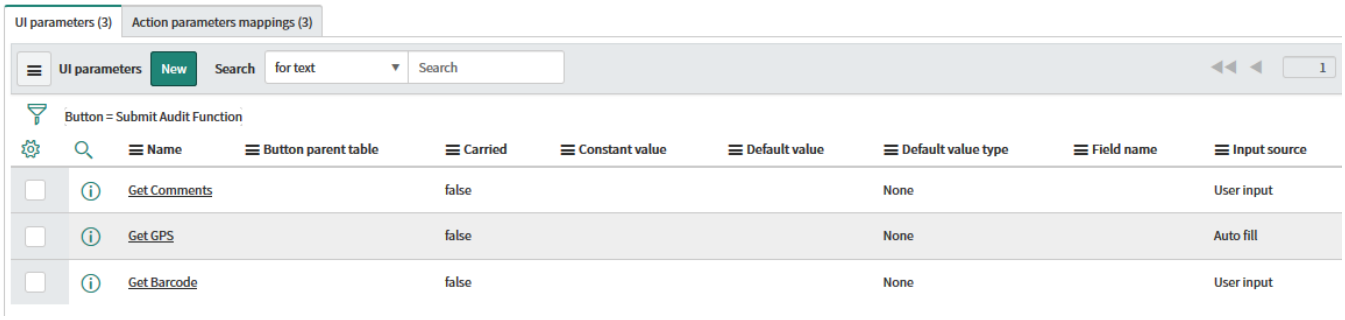
13. Create the Action Item First, Just set the (Use current record as condition, and select the Log Table.



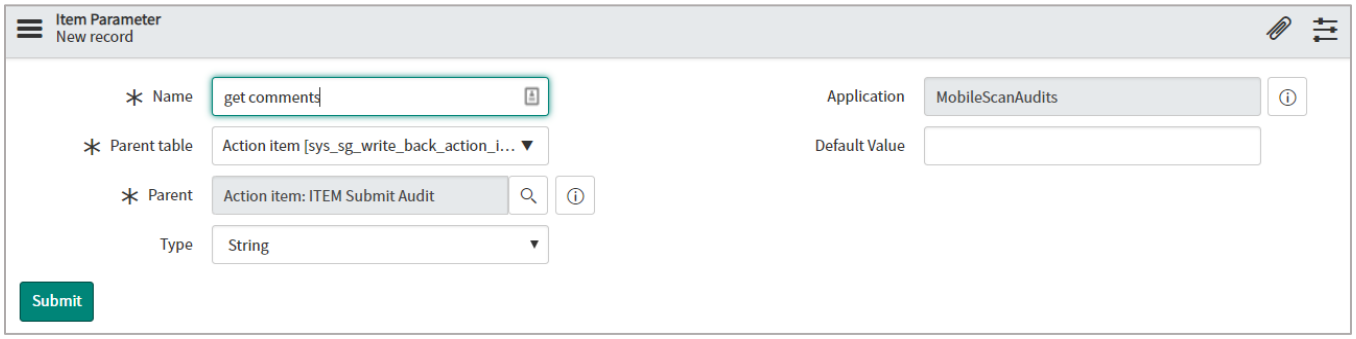
14. Create the Function Second, you will need to tie it to the Action Item just created.
    Name it and select the Allow Image Upload and Show Signature Checkboxes.



15. Create a UI Parameters for Automatic and User Input. (On the Function)
    Get Comments – Manual Input (String the user enters)
    Get GPS – Auto Fill (Mobile device GPS signal)
    Get Barcode – Manual Input (Mobile Camera Scanner)



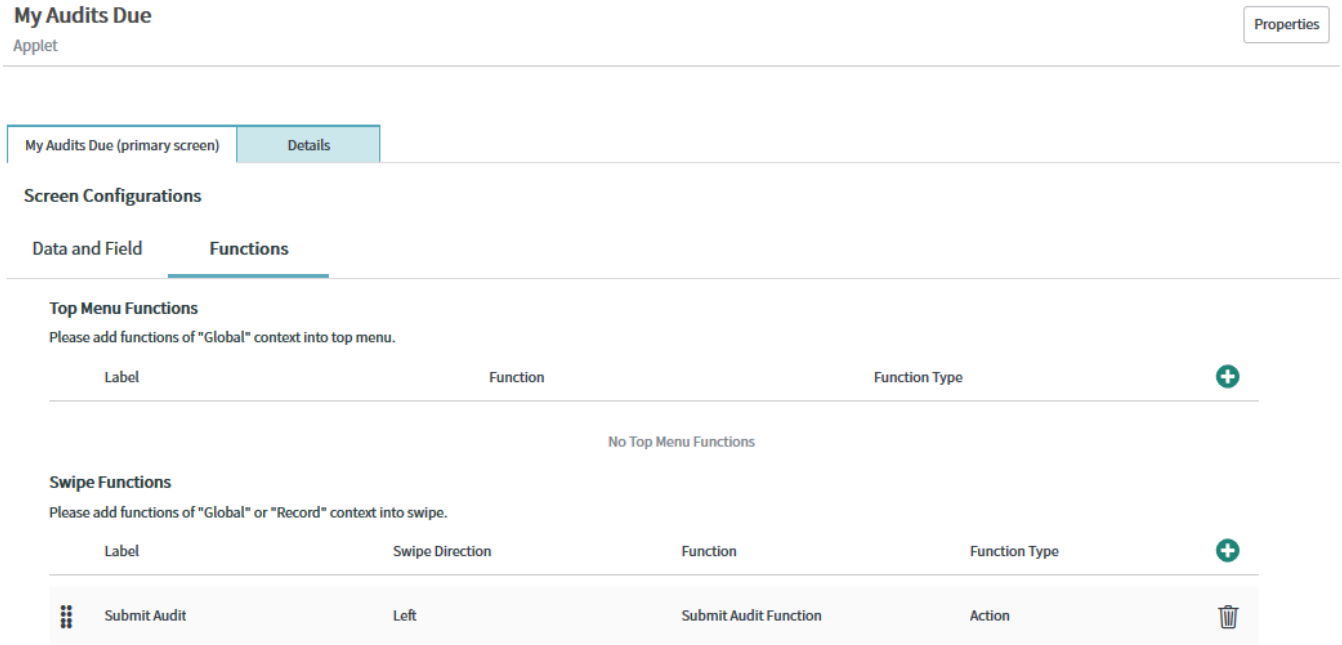
16. Create an Item Parameter per desired write-back (On Item) (Repeat per UI Parameter created).



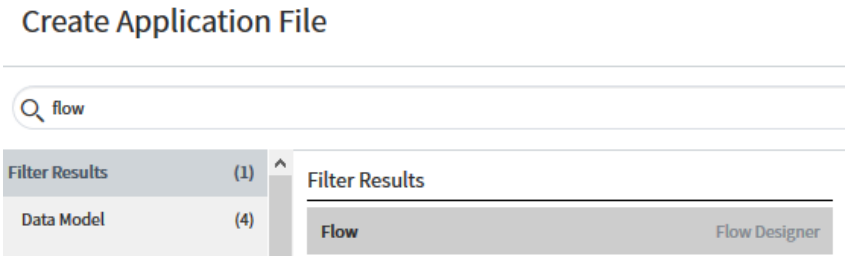
17. Create Action Parameter (Linkage between Item and Functions) (Repeat for each Item Parameter) .

18. On the Action Item, now that the linkage parameter are there you can fill in what (set field values).

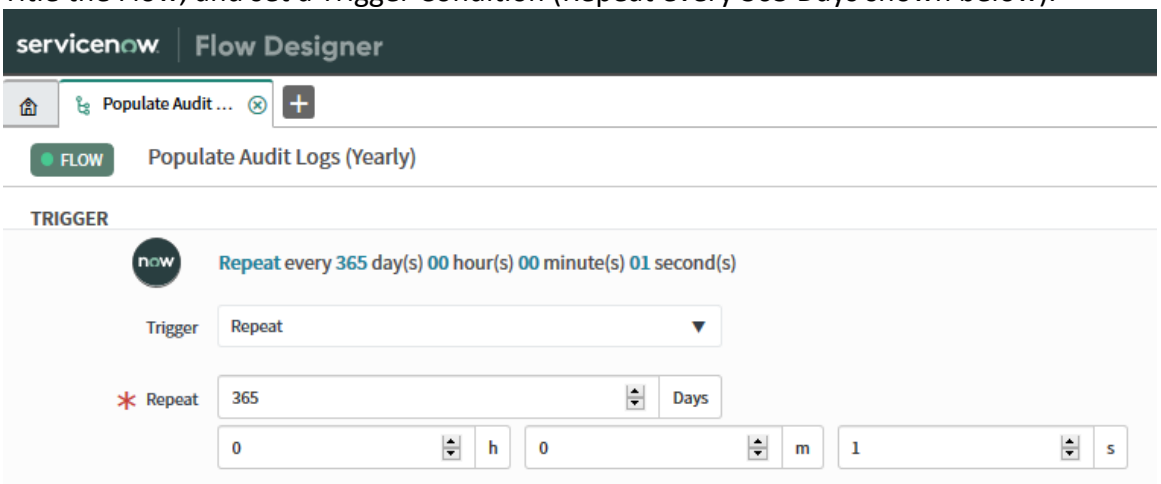
19. Now that the Actions and Functions are completely build Navigate back to the Applet screen. Set the function where you want it by clicking the + Icon.



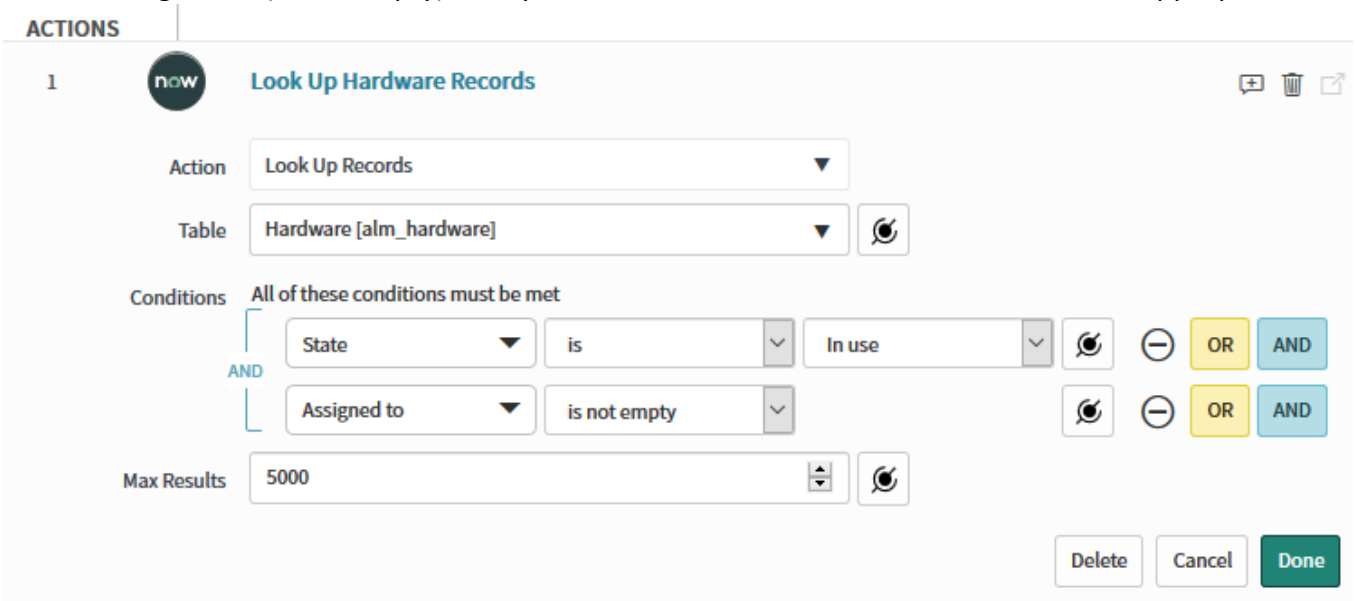
20. Create a FLOW in Flow Designer to populate the LOG Records Yearly - Titled (Populate Audit Logs).



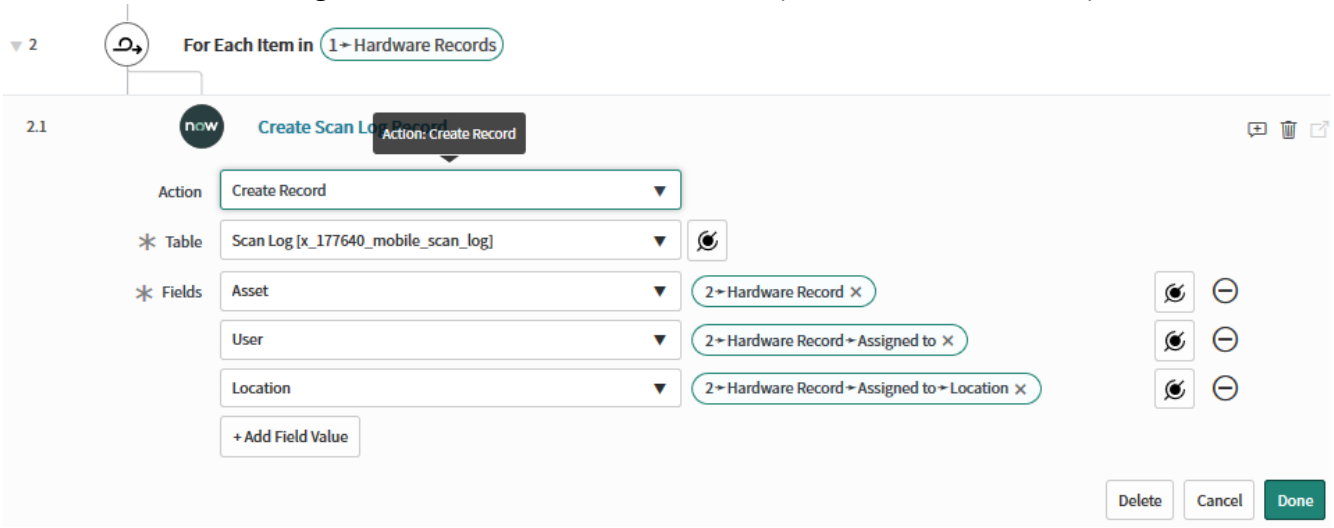
Title the Flow, and set a Trigger Condition (Repeat every 365 Days shown below).



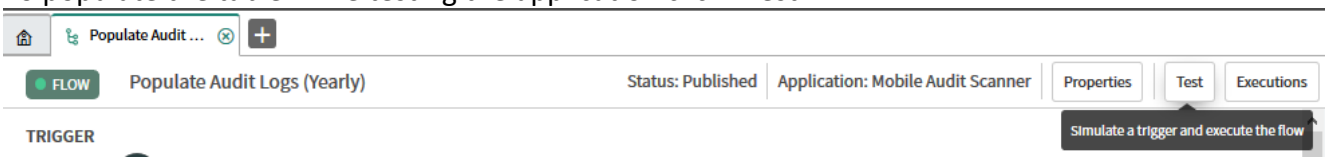
21. Setup an Action – That gathers all records on the “alm_hardware” table that are In-Use and the assigned to (is not empty), also you will want to increase the Max Results to be appropriate.



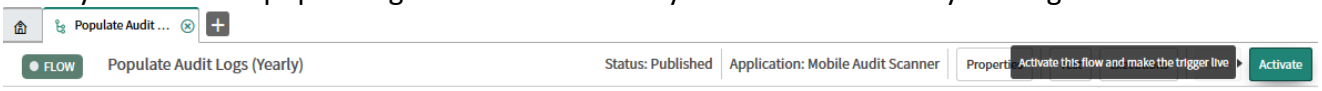
22. Then you will build a “For Each Loop” to create a new record on the “Scan Log”. You will set the following fields on that table shown below. (Asset, User, & Location)



23. To populate the table while testing the application click “Test”.



24. Once you know it is populating the records correctly activate the Flow. By clicking the Activate Button.



You have now seen all the steps to build out the framework of this application. You will need to repeat steps 09-18 to build out additional applets to see other lists and maps, and have functions and actions performed in those applets. This walkthrough was to show you how to build the application, knowing you will want to build it to your company's needs.

If you care to see the complete step by step build I have recorded a video of it in its entirety. Or you can install the application though GitHub to your PDI, or pre-production instance. But I do recommend you tailor this to your organization instead of using it straight from my repository.

Video Link: https://youtu.be/6VXZKtkpNGg

Git-Hub Link: https://github.com/NuAxis/ServiceNow-Mobile-Audit-Scanner (Repository to Fork)

Please contact casey.barela@nuaxis.com with any questions.