FIIX CASE STUDY

PROBLEM

Fiix is cloud-based CMMS software for maintenance and asset management that organizes, tracks, and schedules your maintenance activities. There were 2 main issues that needed to be solved:

1. TECHNOLOGY: Existing app was built as a hybrid mobile app. This needed to be created from scratch as a native app. This was a great opporunity to leverage native functionality.
2. USABILITY: It's unclear what the user should do once they open the app. Navigation was also not intutive.

COLLABORATORS

LEAD FE DEV	CSM REP	SUPPORT	PRODUCT OWNER

TIME FRAME

PHASE 1   **ESTABLISH STARTING POINT**
Outline the current workflow of Fiix users with the mobile application as it is.

PHASE 2   **RESEARCH**
Create journey map outlining current workflow. Highlight user frustrations and opportunities for improvement.
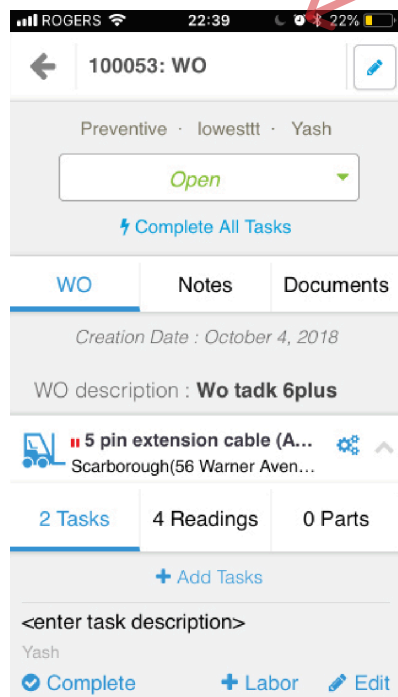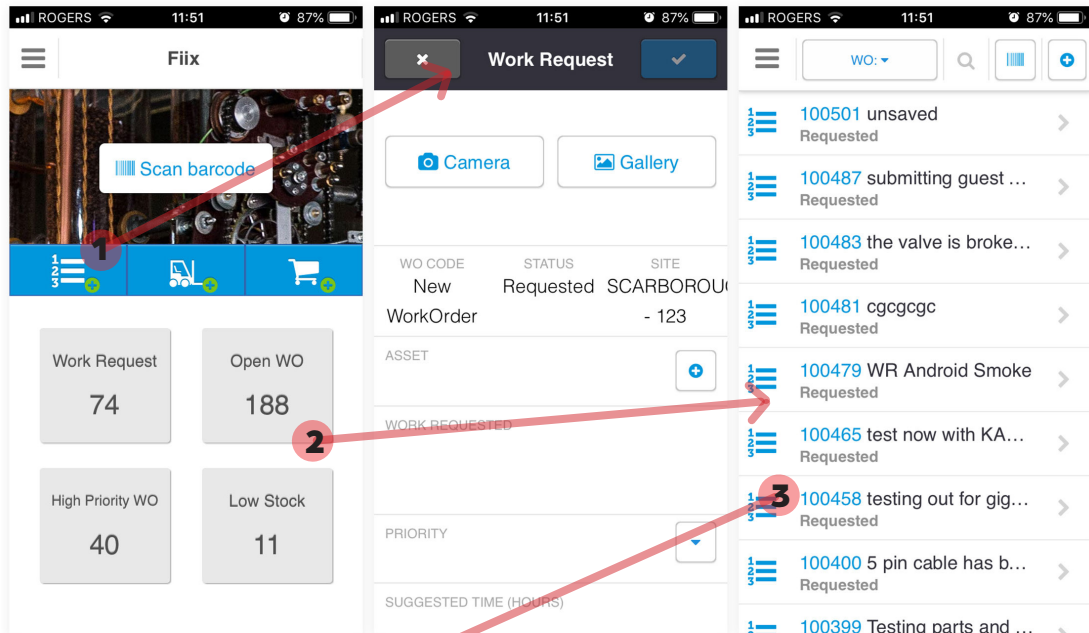
PHASE 3   **BRAINSTORM & PROTOTYPE**
Create wireframes based on brainstorming sessions. Turn wireframes into high fidelity prototypes.

PHASE 4   **VALIDATE**
Talk with stakeholders and test with users to validate designs.

ORIGINAL UI

These images are the ogirinal hybrid application designs. The experience starts at the top left where you have a 'dashboard' to view work requests, open work orders, high priority work orders and items that are low stock. You also have 4 buttons above that; scan, create work order, create asset, purchase asset. It looks like 'Scan Barcode' is the main action here however after research I found that the user's main goal when opening the app is to see what work they need to complete for the day.

The iconography isn't very intuitive either. The 3 main icons could mean many things to different people. The first icon that has the numbered list actually takes you to a work request, most would assume it would take you to the work list.

RESEARCH

	Work on machine	View/Add Parts	Log Details	Close WO	Connect w/ Supervisor
Actions	Safety lock out and tag out (physically locking machine), check tools out, report steps taken, assess damage, fix it, test funcionality, reference standard of procedure	Record parts used, consume parts, search for parts & inventory	Record notes, go to work station, recording an estimation of hrs to log on a task	Add final completion notes, mark wo as closed, log hours, labour tasks completed, problem cause action	Tell them it's done, pass on wo to supervisor to approve (sometimes)
Questions	What parts will I need, how long will this take, is this reocurring, where is the machine, how did it break, who has all this info, machine, history, what was done before, what do I do first, what's the SOP for this, how do I fix this	What parts fo I have, where are they, what do I need, why is this part called this, stock isn't correct, do we have what i need to fix this	Why can't this auto complete, who cares, what do others need to know	Why is my % down, what's next, did I fix it, which fields do I have to fill out, when is break,	Where is my work, next on list, is this everything I have to do today?
Happy Moment	Fixed it, detailed work description, enter notes quickly (no typing), useful machine history	Found parts easily, in stock, parts are narrowed down	Get credit/brag about an impressive fix, voice dictation to complete wo	List of wo's empty, no follow up, closed quickly & no computer time.	Kudos + Recognition, coffee break, I can go home
Frustrations	No idea who fixed this last, don't have time, took longer than expected, what was done before	Don't have parts, part isn't showing, where do I find it, not able to find part, can't identify correct parts	loggin accurate hours when working across multiple wos, custom fields tab not placed at right position, more hassle than it's worth, too much computer time, loose data, greasy and dirty hands, too many clicks, finger typing,	A lot to do in order to close wo, have to close all tasks, change status, check all details, lots of entry, takes time and I don't get rewarded, multiple windows, if all tasks aren't closed labour cost doesn't calculate properly, time	I did my work what more do you want, not clear where to go next, didn't get break, WO hard to find in the system,
Opportunities	Lock out/Tag out tracking, smart wo lookup to servve real time answers, history summar (smaller high level), large machine - can't view where it is (map)	Suggest parts based on similar past wo's, Inventory tracking, How does this part get installed, Auto BOM as you use,	Less clicks, suggest historical records similar wo's, log book (history of machine all in once place)	Simplify wo completion process, quick close, auto complete date/time & hours	Show a top 5 (a tag that can be added based on priority), easy sort for closed WO & auto notify for supervisors, view of all wo's in progress, tech efficiency metric
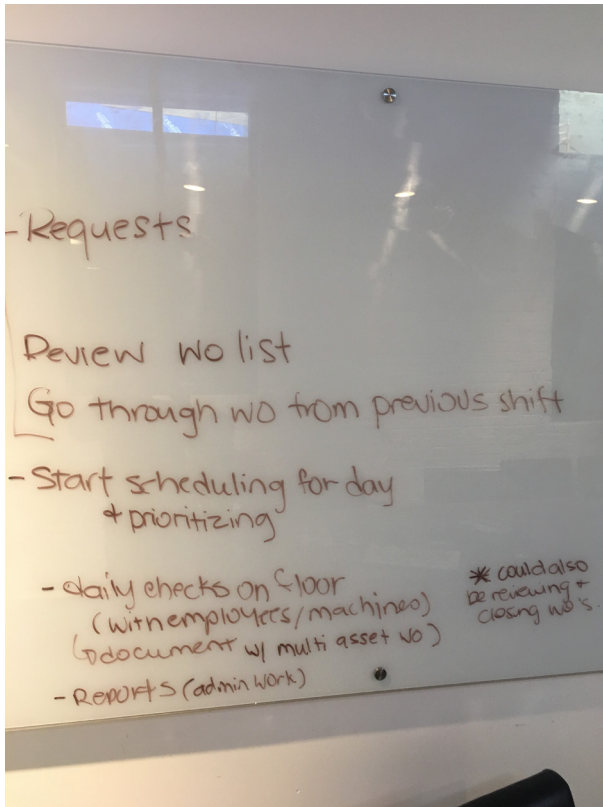
After several brainstorming sessions with internal stakeholders we came up with a Journey Map that made sense to every-one. This helped guide the user experi-ence on the mobile app.

By discovering the goals of the user and pointing out what things they are frus-trated with during the experience and questions they may be asking, I was able to design the best UI for our users.
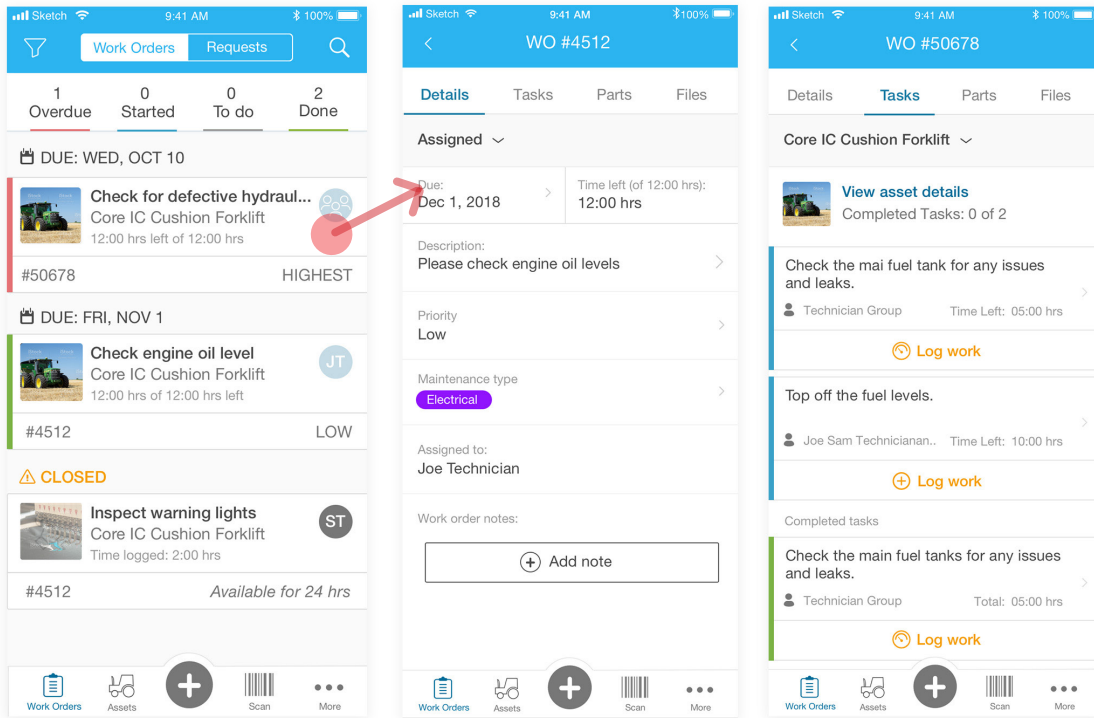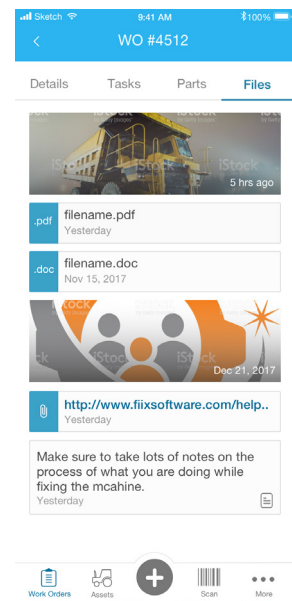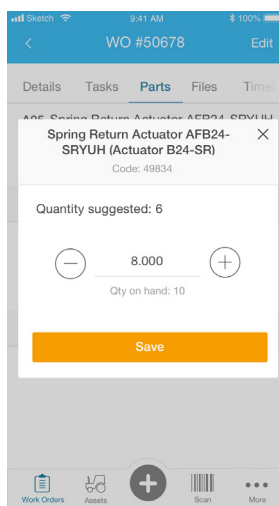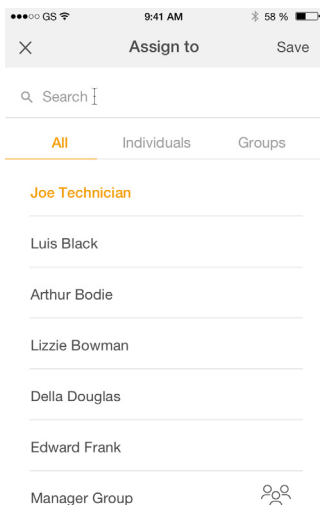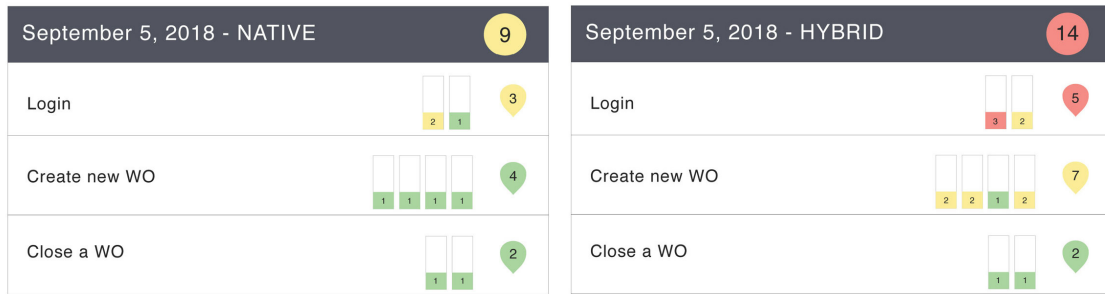
This new work flow demonstrates the most common use case which is either viewing a work order or completing work on a work order. The UI update shown above allows the technician to see their work orders immediately right when they open the app rather than navigating to the work order page.

You still see important information that was shown in the previous Dashboard in this new UI. Immediatley you are aware of how many work orders are open and overdue with the top bar.

After you tap into a Work Order you have the information organized in a way that's easier for the user to digest and navigate.

VALIDATION

September 5, 2018 - NATIVE		9
Login		3
	2 1	
Create new WO		4
	1 1 1 1	
Close a WO		2
	1 1	

September 5, 2018 - HYBRID		14
Login		5
	3 2	
Create new WO		7
	2 2 1 2	
Close a WO		2
	1 1	

I ran a usability test to measure the progress between the original (hybrid) design and my new (native) design. I tested the 3 main work flows.

The test I used was called 'Pure'. PURE is a usability-evaluation method in which usability experts assign one or more quantitative ratings to a design based on a set of criteria and then combine all these ratings into a final score and easy-to-understand visual representation.

You ask the user to complete the same task in each UI, they provide a rating on the difficulty of that task. Ratings are associated with a colour.

As you can see the uasbility was very much improved from the old designs. The reason I chose to use this test is because time was limited so I didn't have the ability to run usability testing sessions.