



# Creating offline mobile apps with Mendix

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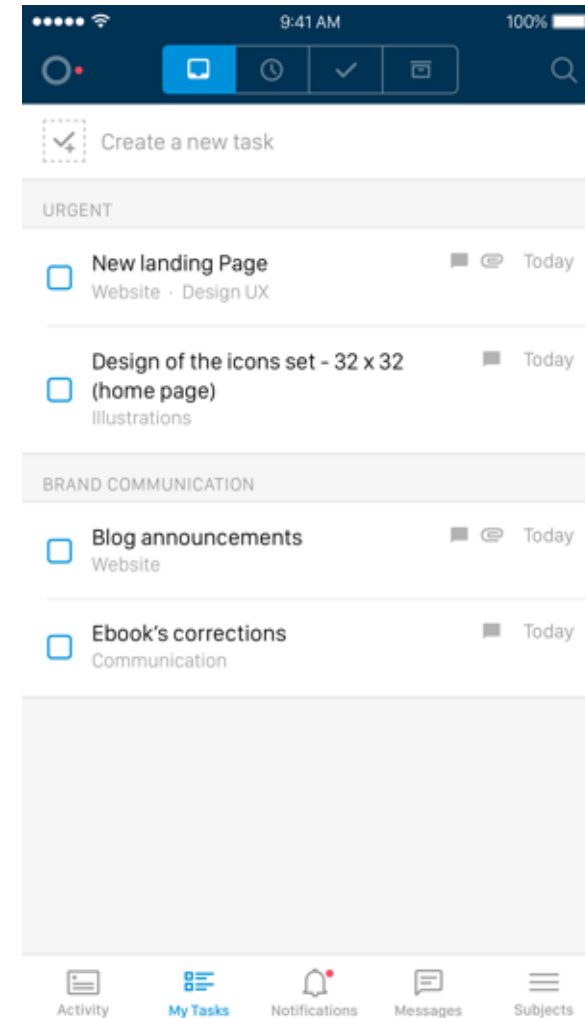
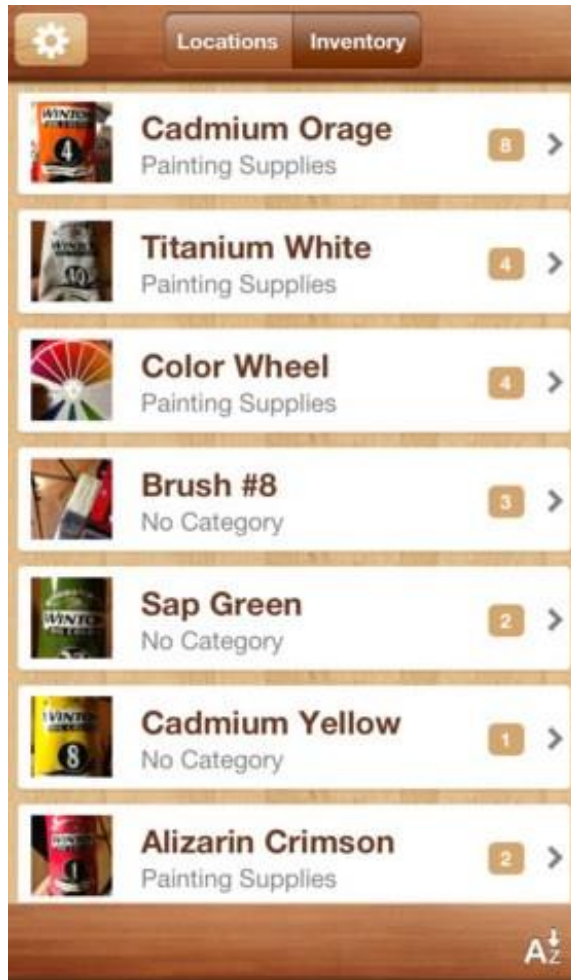
# Contents

- ▶ Offline apps
- ▶ Use cases
- ▶ Tips and tricks
- ▶ Roadmap





# Use cases



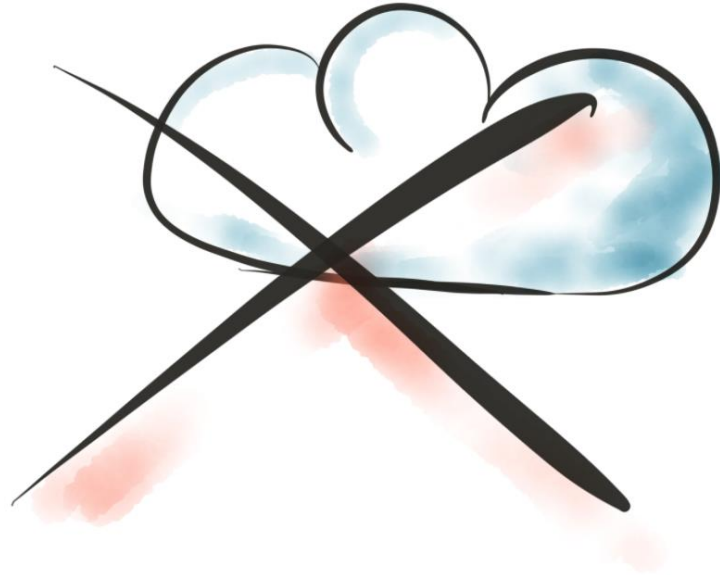
**Great!**  
**How does it work?**

**Offline apps *always* work**





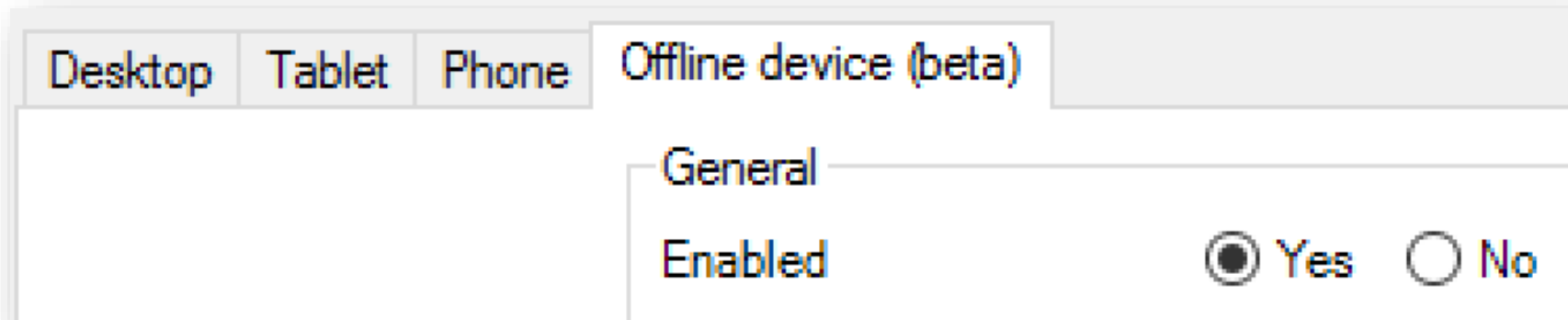




# Limitations

- ▶ No Microflows
- ▶ No Xpath
- ▶ Create data only

# How do you turn it on?

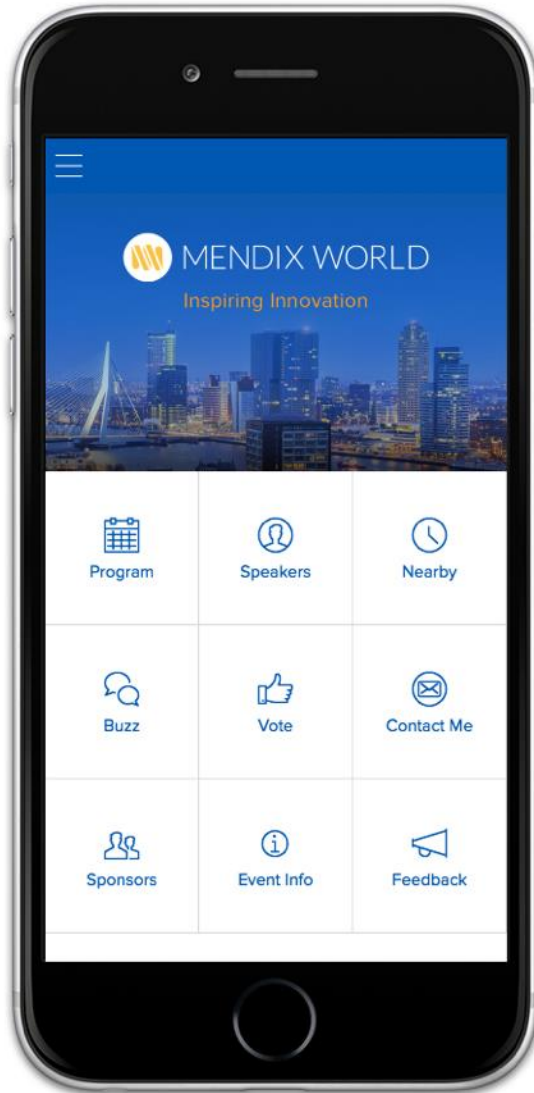


The screenshot shows a settings window with four tabs: Desktop, Tablet, Phone, and Offline device (beta). The 'Offline device (beta)' tab is selected. Under the 'General' section, there is a toggle labeled 'Enabled' which is currently set to 'Yes' (indicated by a filled radio button).

Desktop	Tablet	Phone	Offline device (beta)
			<p>General</p> <p>Enabled <input checked="" type="radio"/> Yes <input type="radio"/> No</p>

# Tips & tricks for Offline Mobile

# MxWorld App 2016



# Lessons learned

- ▶ Design for offline
- ▶ It can be more difficult
- ▶ Simple model
- ▶ Better performance
- ▶ Synchronization





# Use case: Inspection app

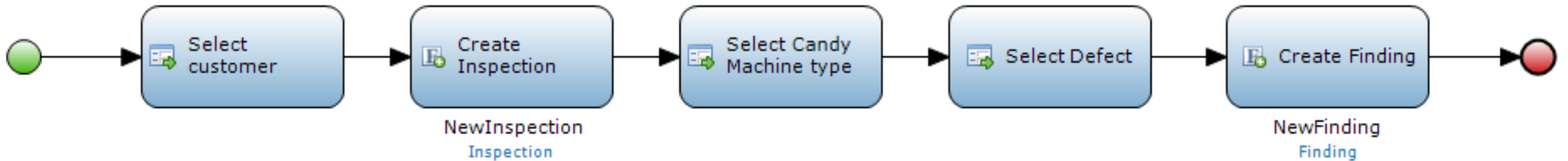
# Candix

- ▶ A candy machine lease company
- ▶ Inspector inspects the leased machines onsite for:
  - Defects
  - Restocking



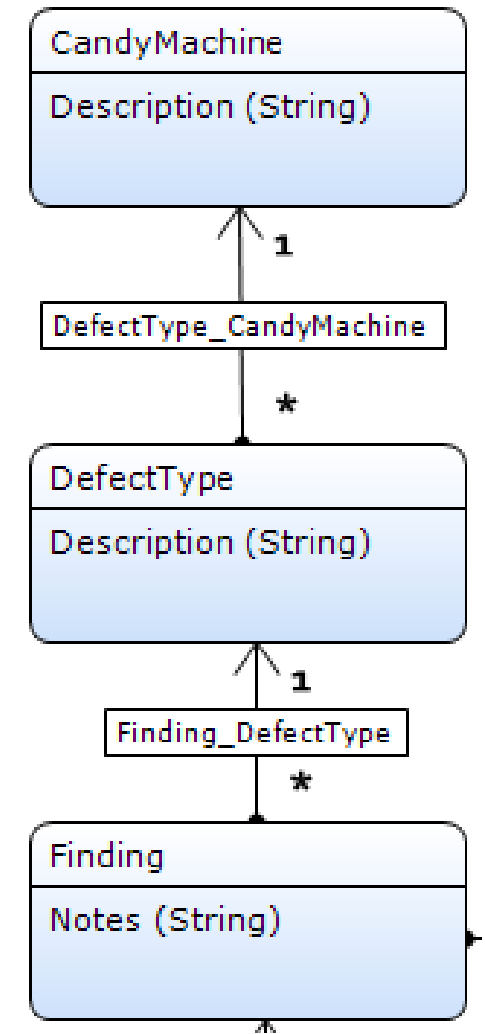
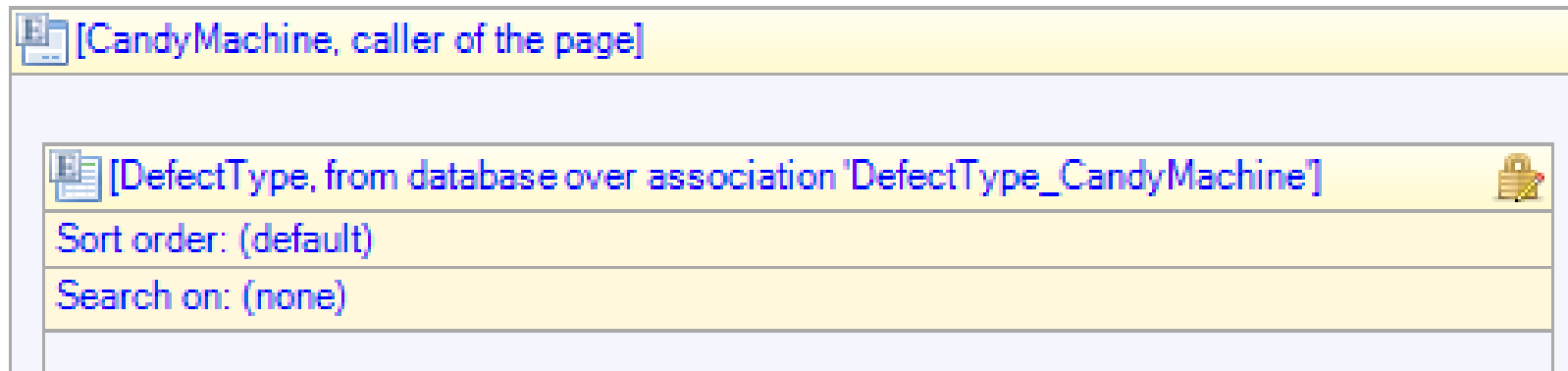
# Candix Inspection App

Offline capable app for inspecting the leased candy machines



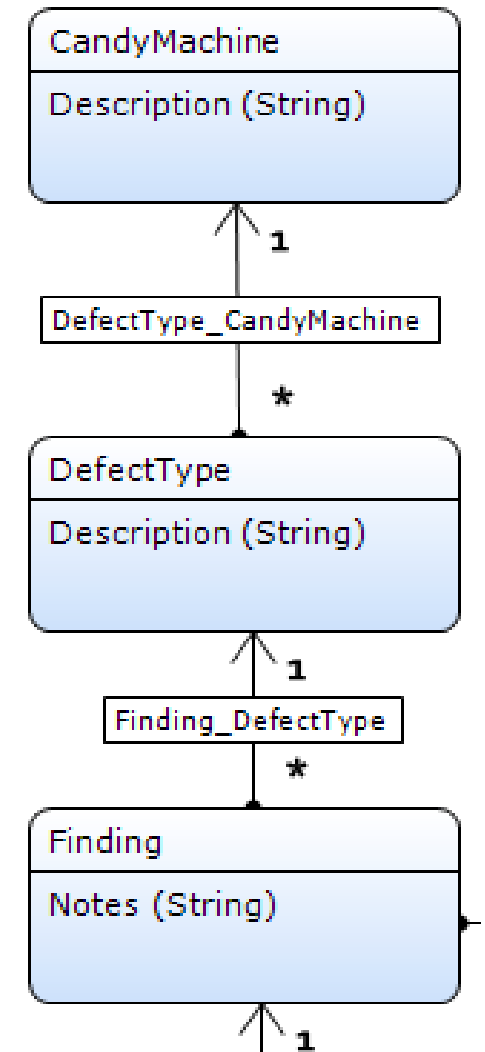
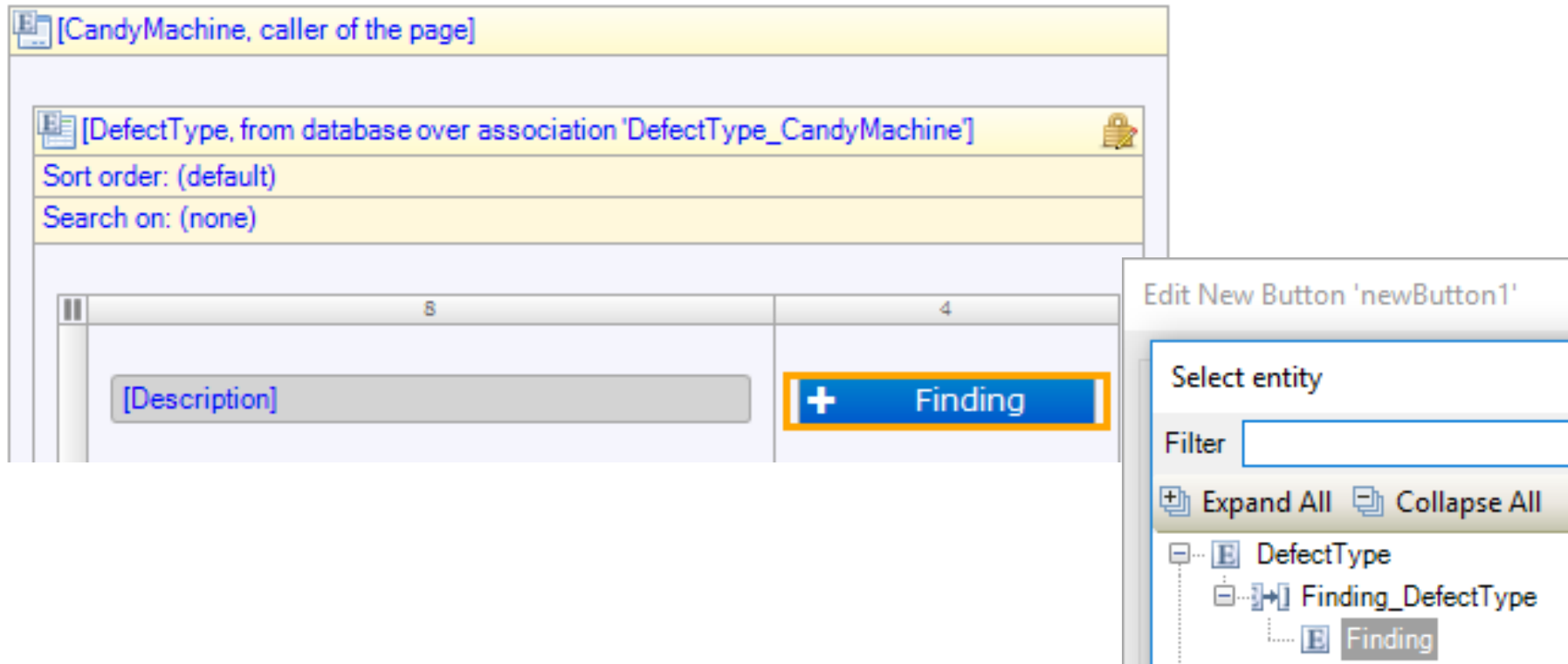
**As an inspector I only want to see the possible type of defects for the current Candy machine**

# Navigate via associations



**As an inspector I want to create a finding related to a defect type and Candy machine**

# Set associations via New buttons



Since 6.3 a New button sets the association to the current object  
This reduces the need for microflows

**As an inspector I want verify that  
the to be refilled candy is  
available**

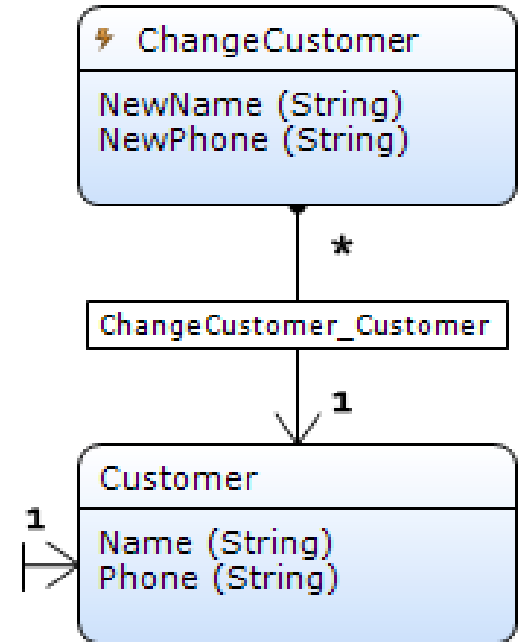
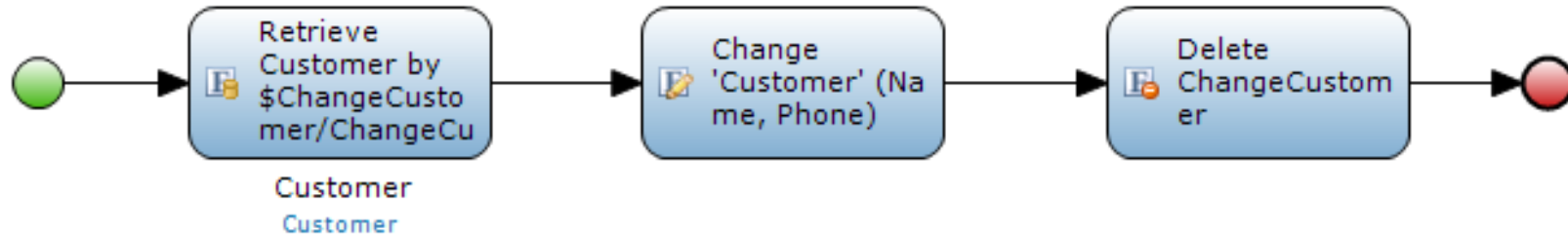
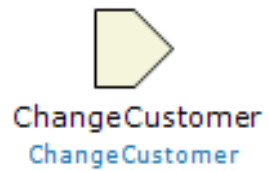


# After commit microflows

- ▶ When data is synchronized After commit event handlers are triggered
- ▶ Validation
- ▶ Other logic
- ▶ Handle synchronization issues

**As an inspector I want to change  
the phone number of the  
customer**

# Change Objects



**As an inspector I want to  
synchronize my data**

# Synchronizing

- ▶ Save on sync
  - Synchronize after clicking the save button
- ▶ At startup
- ▶ Sync button

Offline

Sync automatically

Yes  No

When inside the offline profile, automatically synchronize objects after save.

**As a developer I want to create a valid model that is offline capable**

# Model validation & Home page

Desktop	Tablet	Phone	Offline device (beta)
<b>General</b>			
Enabled		<input checked="" type="radio"/> Yes <input type="radio"/> No	
If a device type is disabled, it will not be used to determine the home page when users visit the application.			
Application title		Mendix	
<b>Home pages</b>			
Default home page		CandyMachine.Phone_Home	

**As a developer I want to create a widget that is offline capable**



# Offline capable widgets

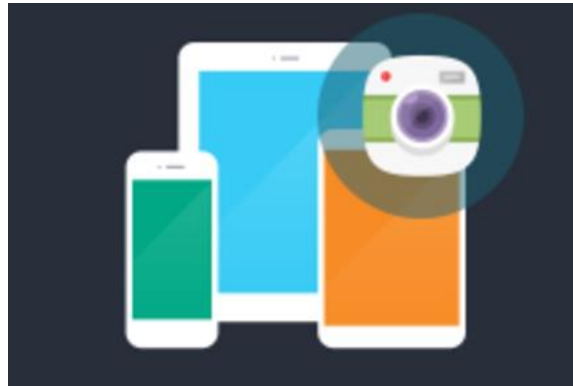
CalendarWidgetForPhoneGap.xml

```
1 <?xml version="1.0" encoding="utf-8" ?>  
2 <widget id="CalendarWidgetForPhoneGap.widget.CalendarWidgetForPhoneGap" needsEntityContext="true" offlineCapable="true"
```

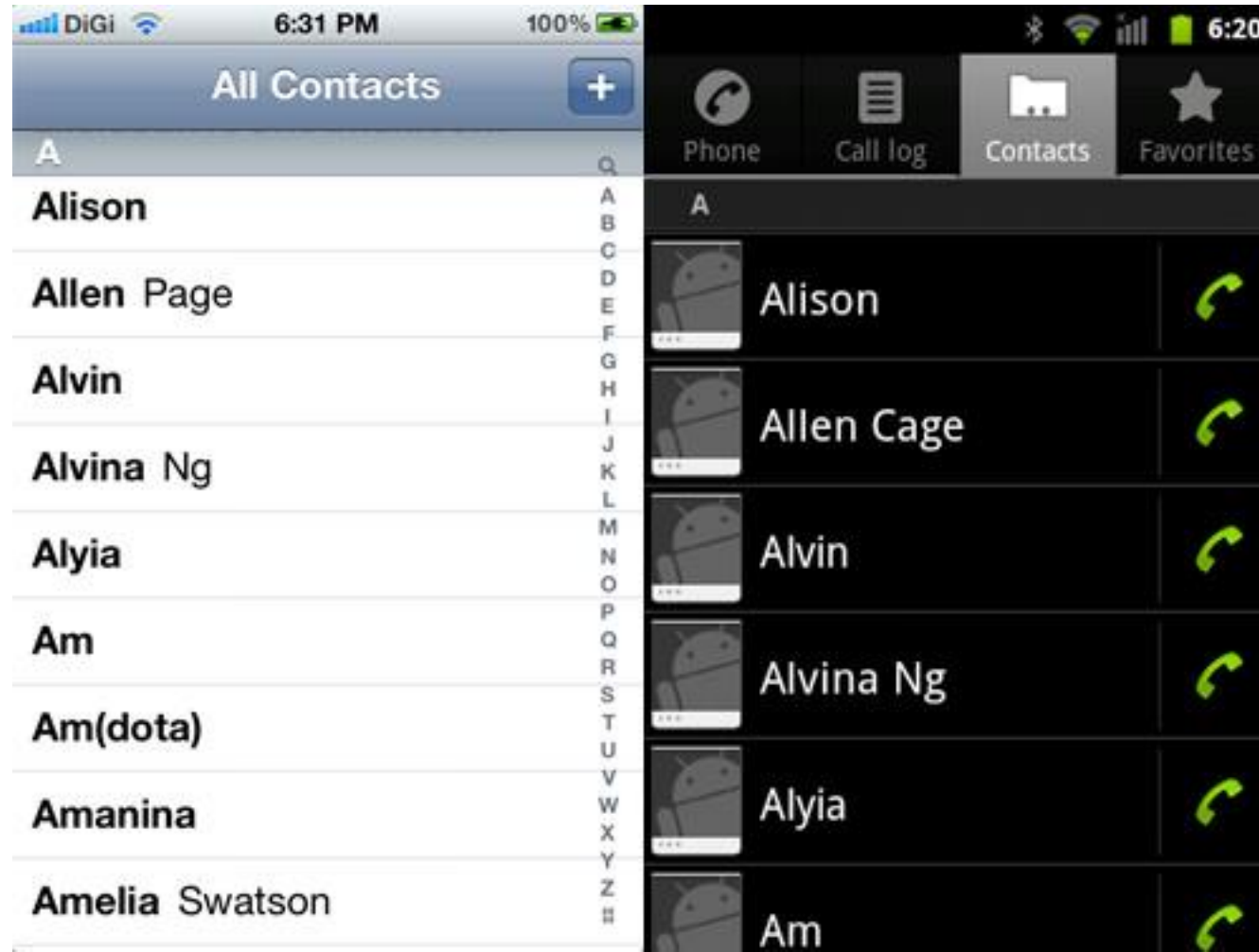
# Summary

- ▶ Navigation via associations
- ▶ New button to set associations
- ▶ After commit microflows
- ▶ Change objects
- ▶ Sync on save option
- ▶ Home page offline = home page online
- ▶ `offlineCapable=true` for widgets

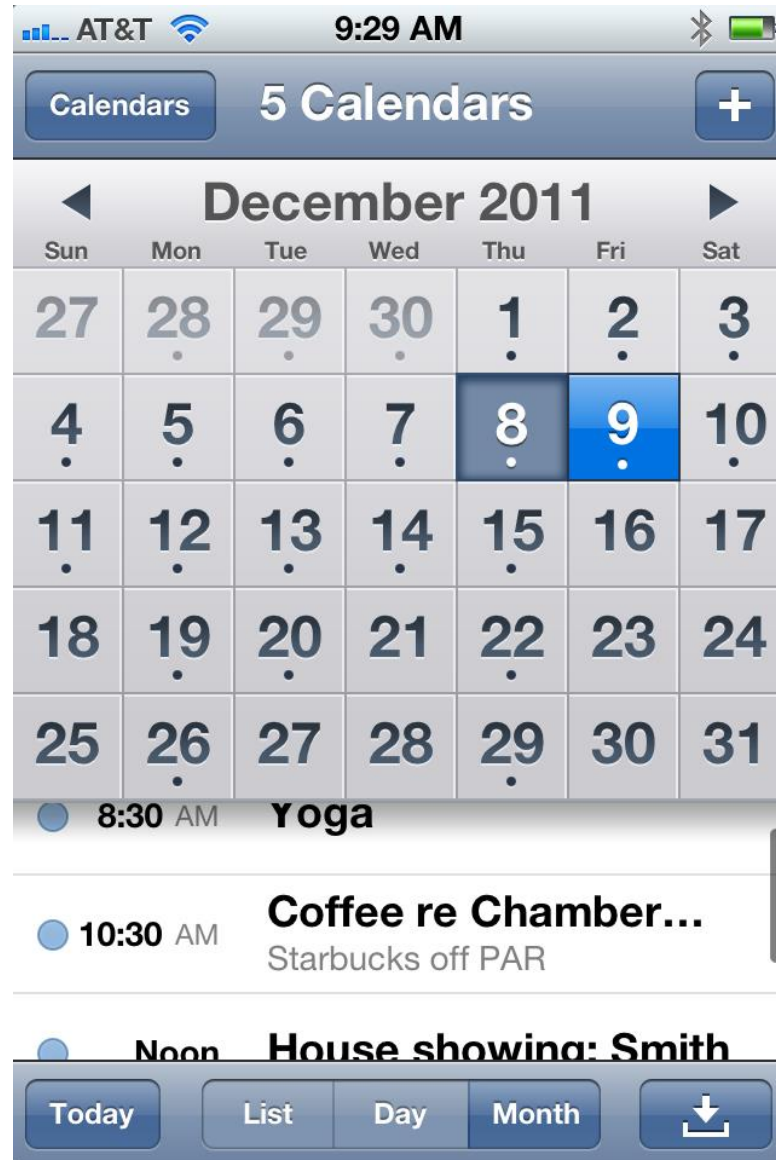
# Camera – offline!



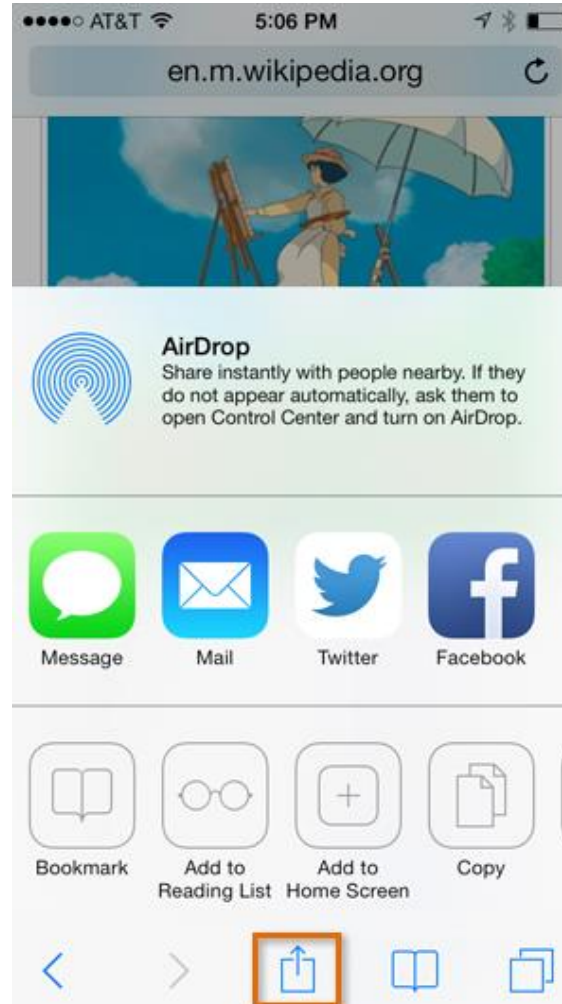
# Add to contacts



# Add to calendar (soon)



# Native share (soon)



# Navigate directly (soon)



- ▶ Hybrid online
- ▶ Improved conditional visibility





**Thank you!**

# Questions?

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