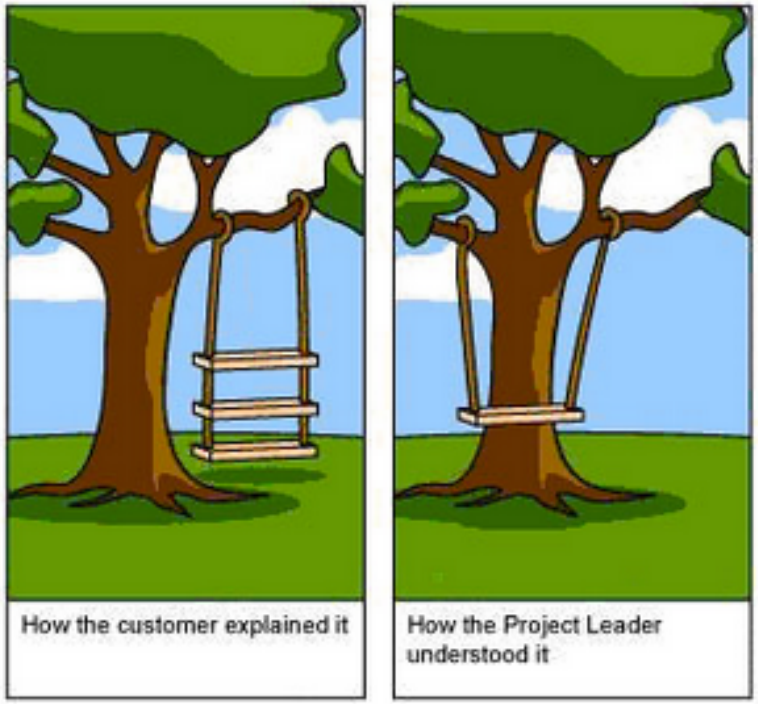
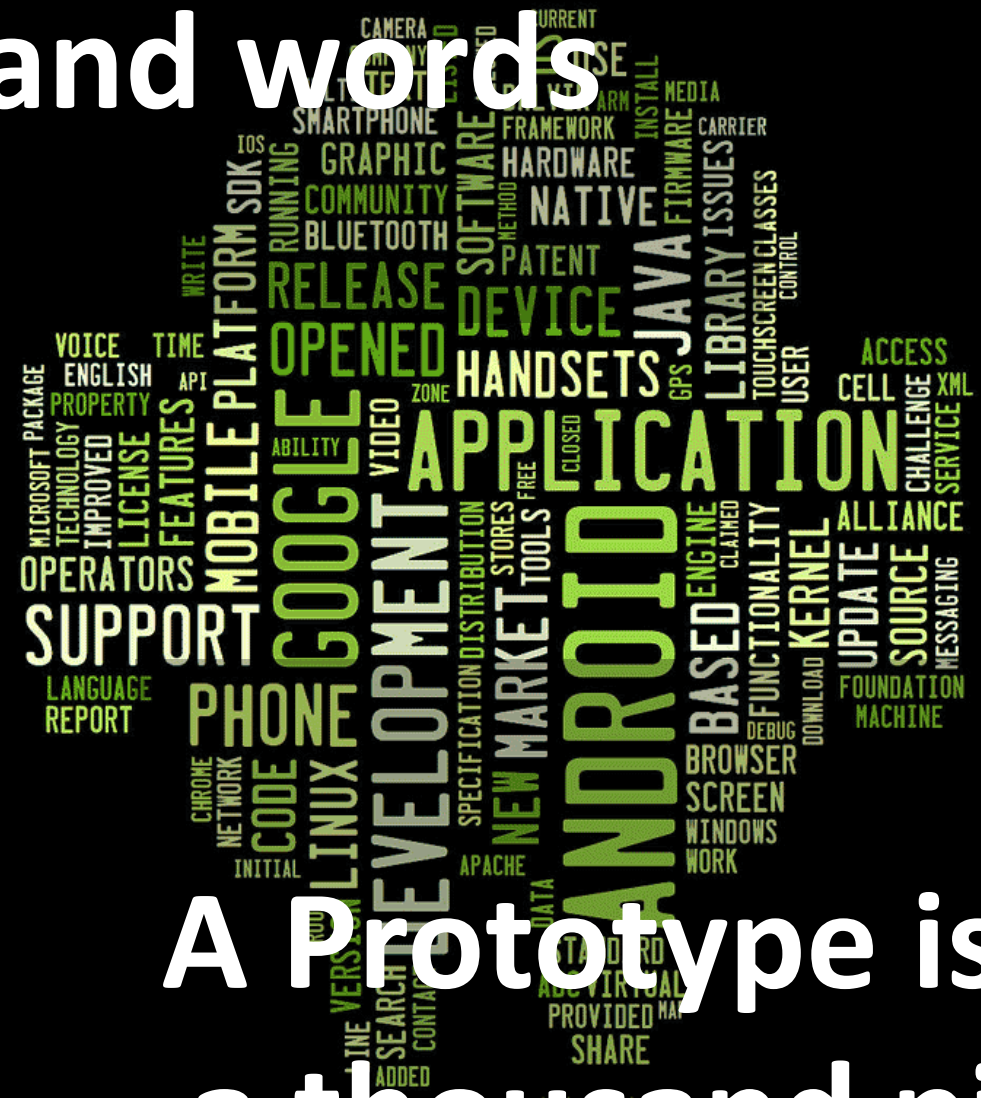
Design Prototyping:
Bringing Wireframes to Life

-Arindam Ghosh

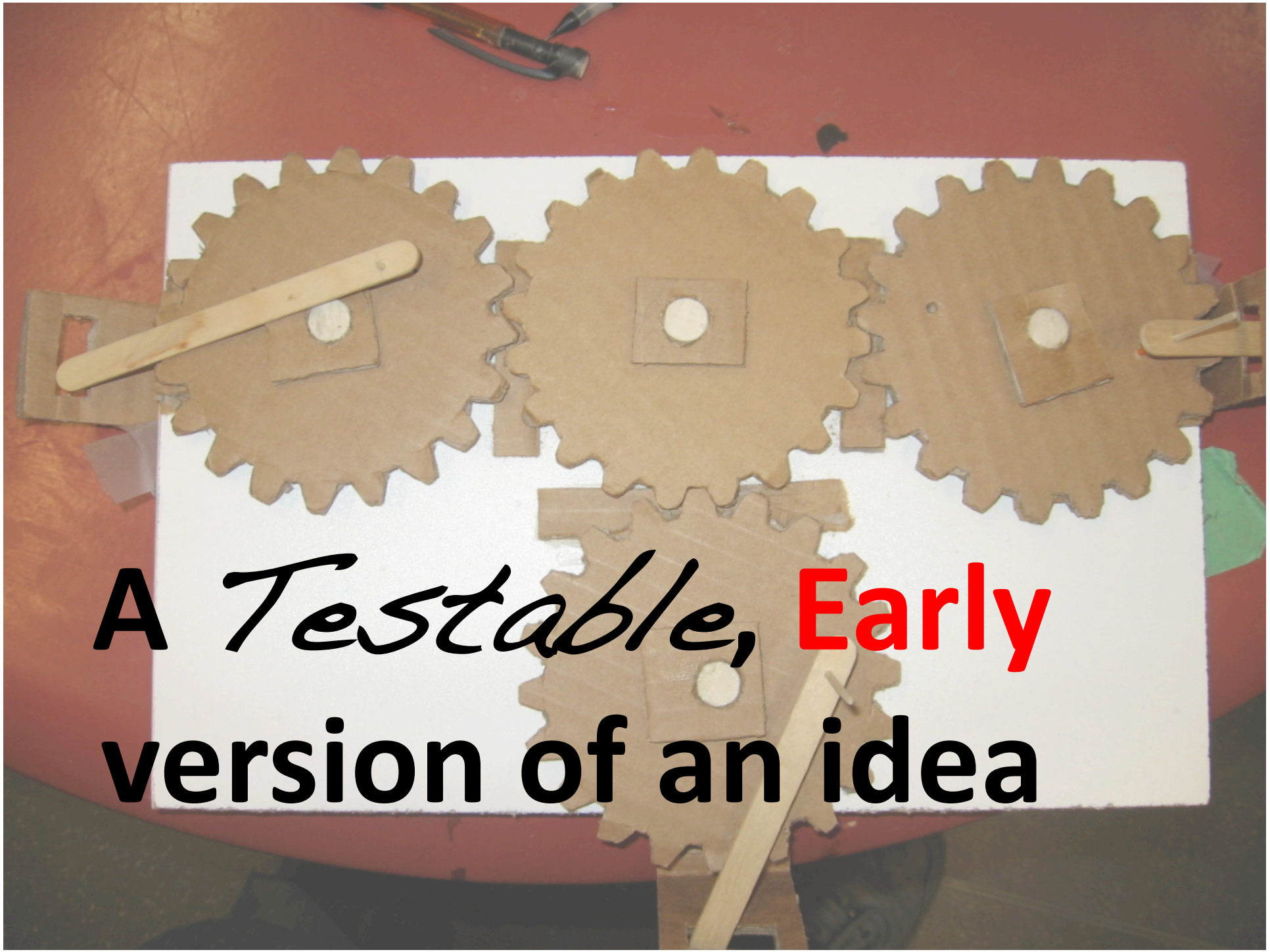

How the customer explained it
How the Project Leader understood it
How the project was documented
What operations installed

A Picture is worth a thousand words

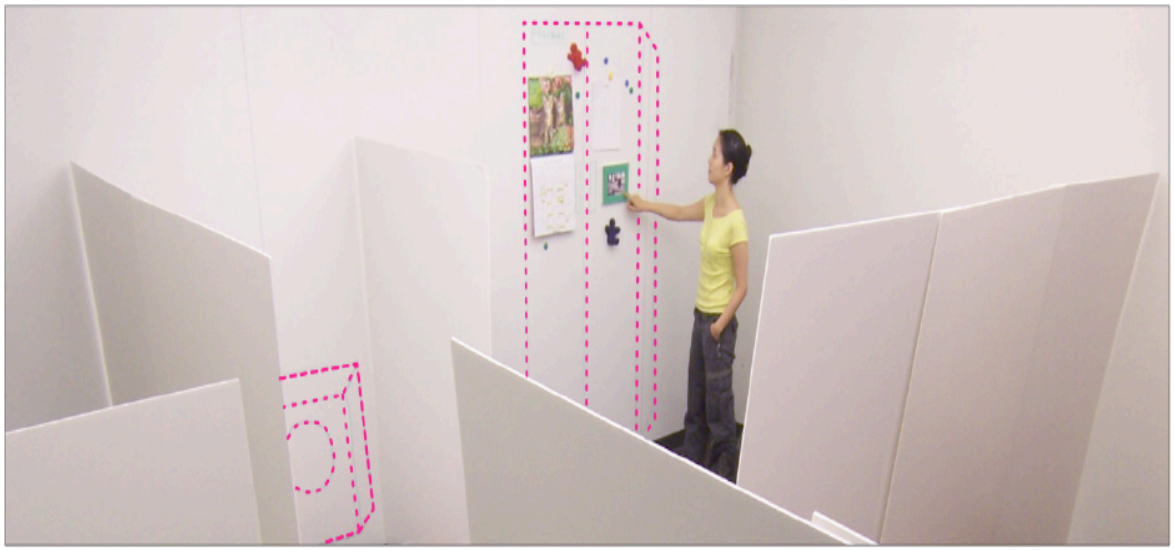


A Prototype is worth a thousand pictures

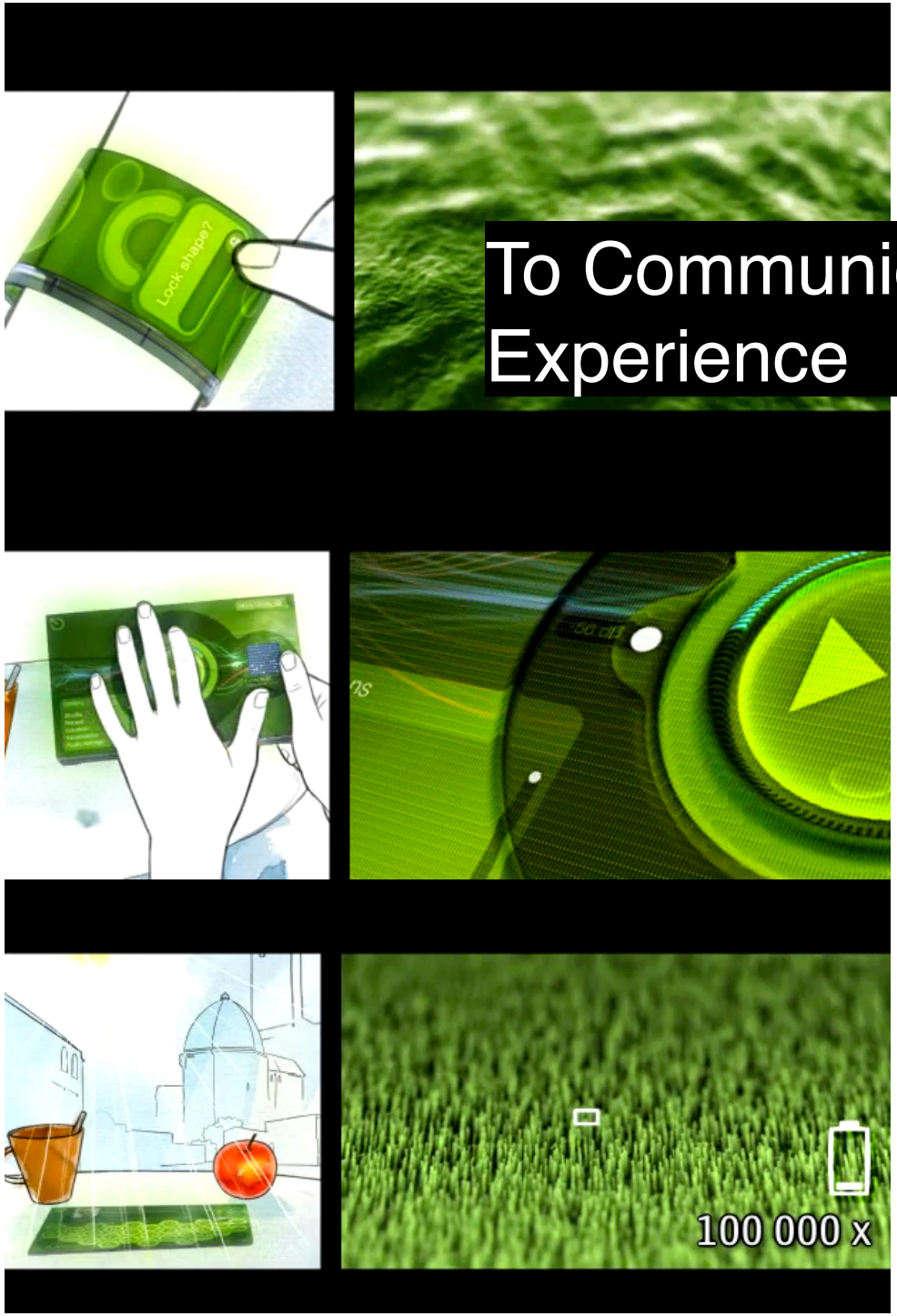
What is a Prototype?


A Testable, Early
version of an idea

Top Stories



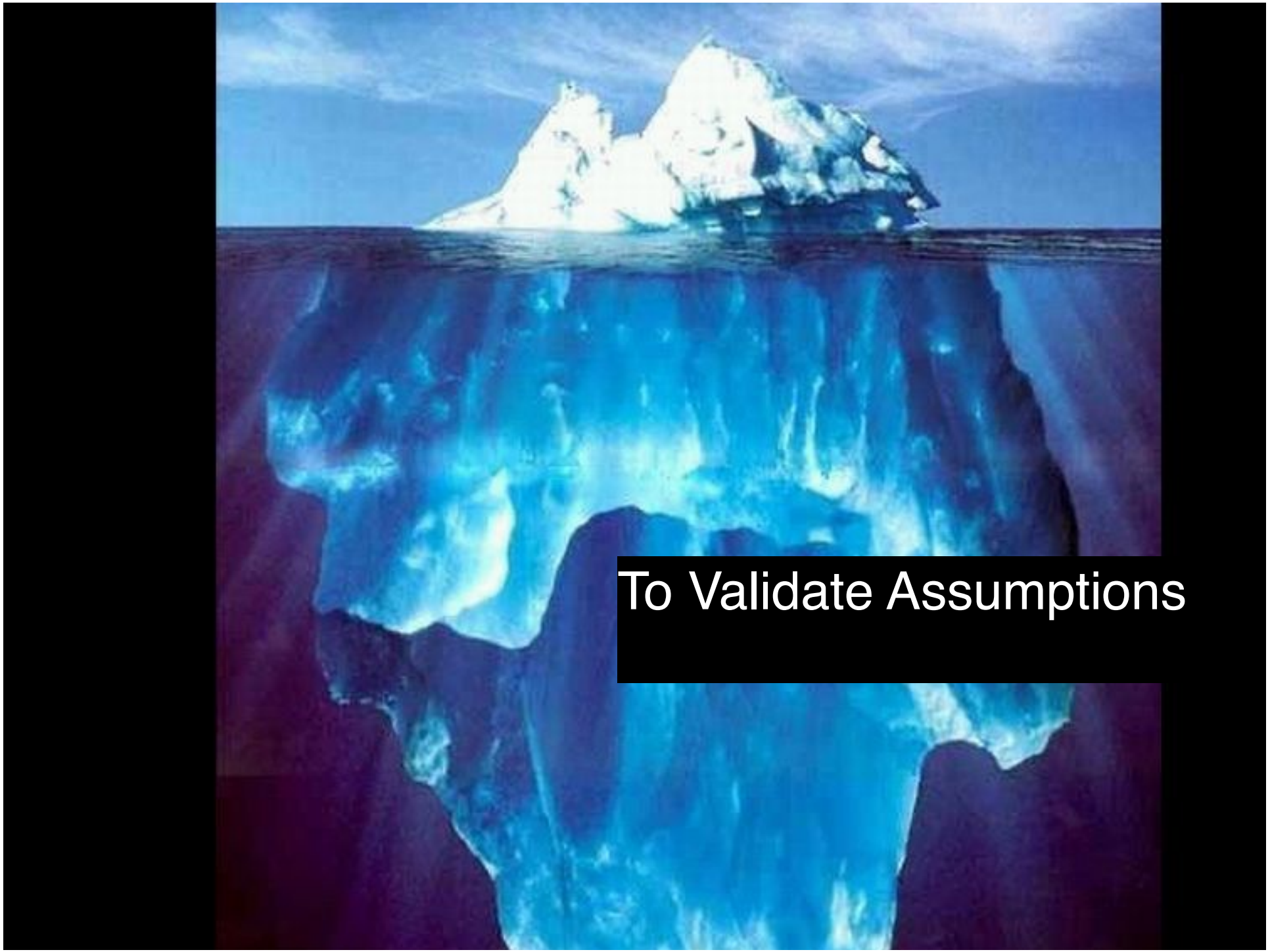
Why Prototype?



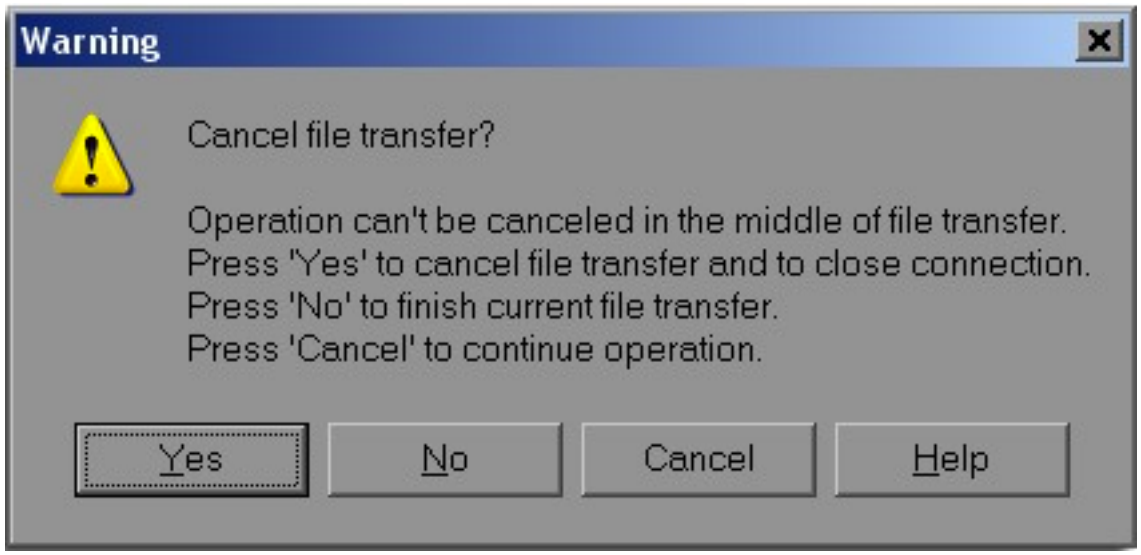
To Communicate an Idea or Experience

We want to build the next cool gadget…

But …. What do people think about it?
Lets show them a video


To Validate Assumptions

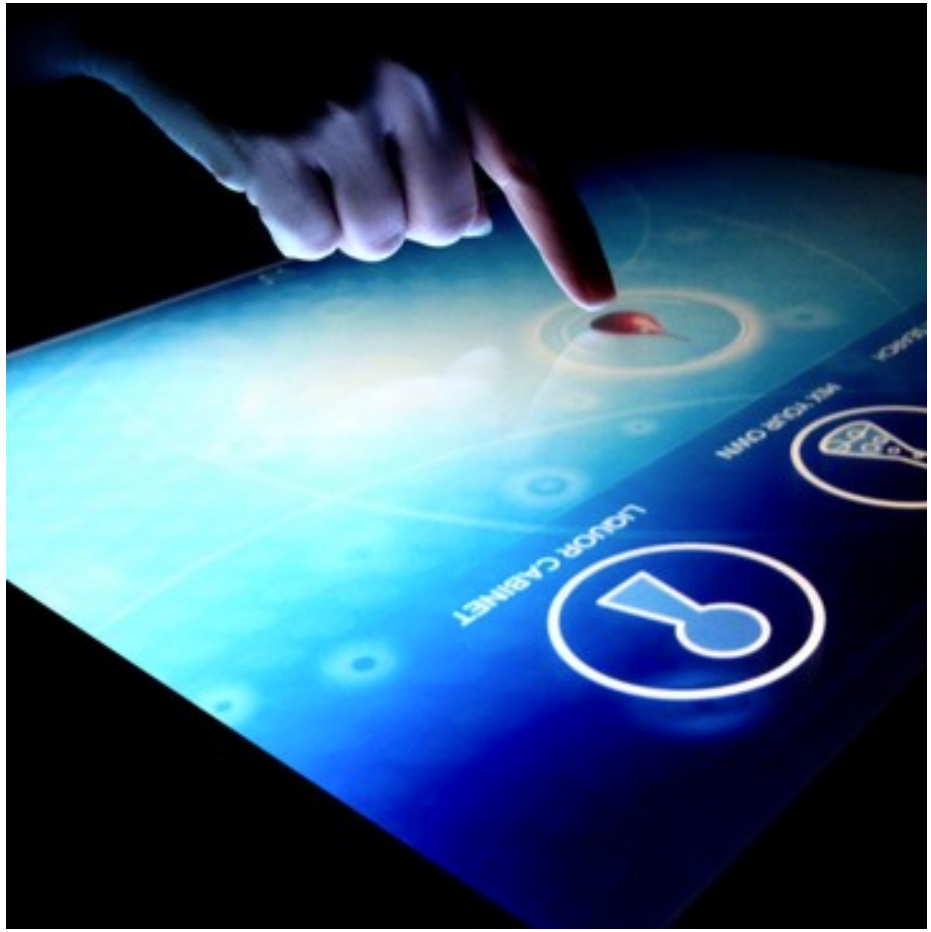
Does the User Understand you?

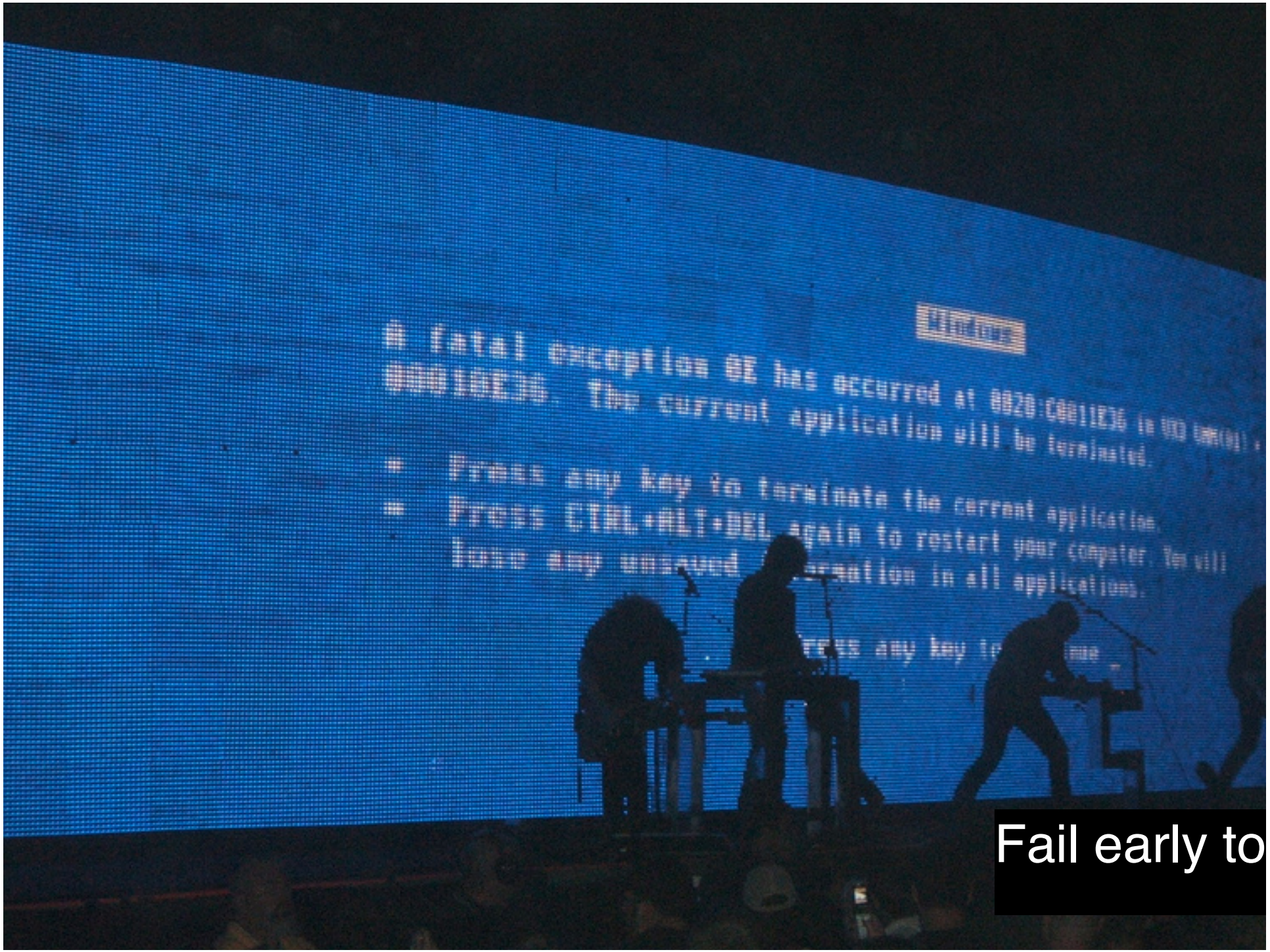


Press *Yes* to Cancel" – "Press *Cancel* to Continue ????

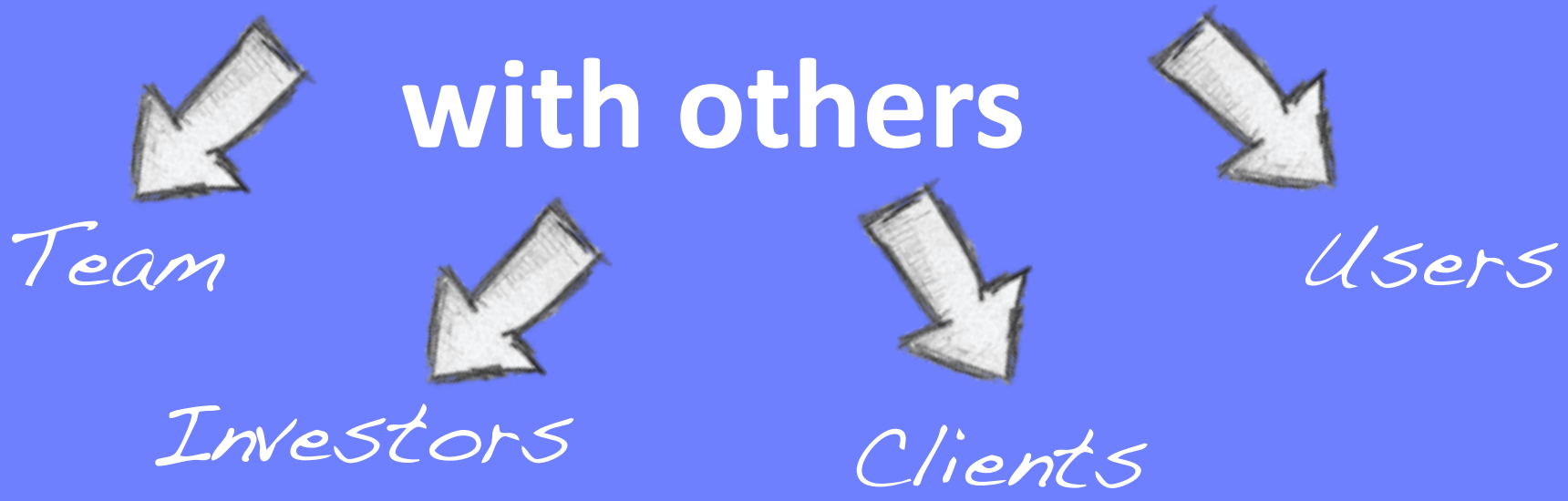
To compare alternatives

Stylus or Touch Screen ?




Windows
A fatal exception 0E has occurred at 0028:C0011E36 in VXD VMM(01) +
00010E36. The current application will be terminated.
• Press any key to terminate the current application.
• Press CTRL+ALT+DEL again to restart your computer. You will
lose any unsaved information in all applications.
Press any key to continue
Fail early to

To Visualize your ideas And share them with others



A Pitch with a demo is better than one without

"I definitely love the software!" - C. Mooney

"Great demo. Impressive." - A. Longo "Awesome!" - A. Zakharenkov

"Thank you. This was great." - D. Seibel "Thanks, great demo!" - A. Arora

"Lots of info in less than an hour!" - M. Hays

"Excellent demo, thank you!" - B. Howe "Perfect - thanks!" - D. Schlittler

"Great demo, good looking product" - D. Swisher

"Thank you very much, great product." - M. Macgari

"Very impressive" - J. Wright

"Excellent overview - thank you."

- C. Hilson "Thanks a lot - great demo"

- G. Zobel "A most informative session" - E. Roux

Get Feedback Early

- Design the concept before you build it.
- Get Feedback.
- Redesign.
- Keep it fast and simple.
- Review Early.

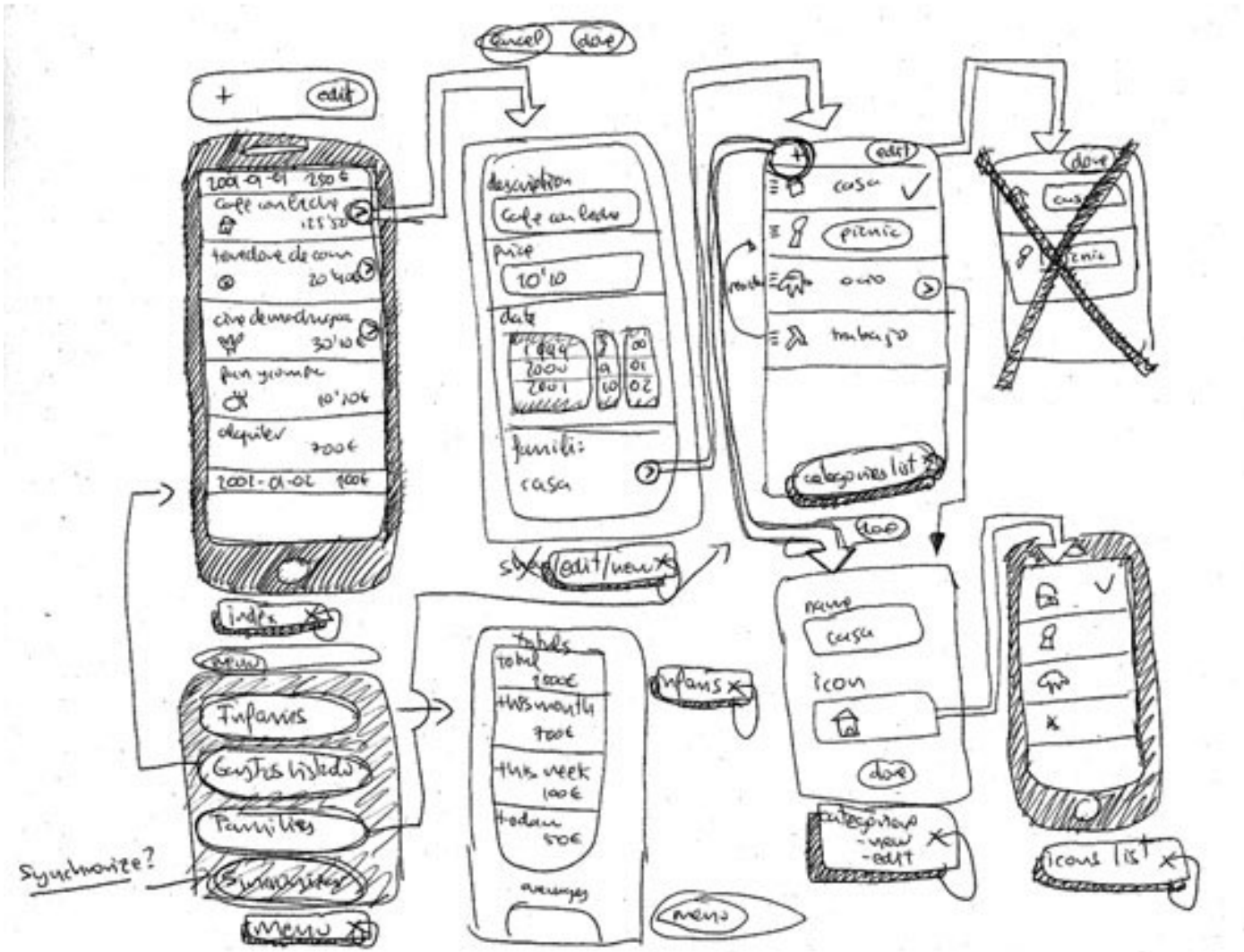
Common techniques

- Paper prototyping
- Wireframes and page schematics
- HTML wireframes
- Interactive prototypes

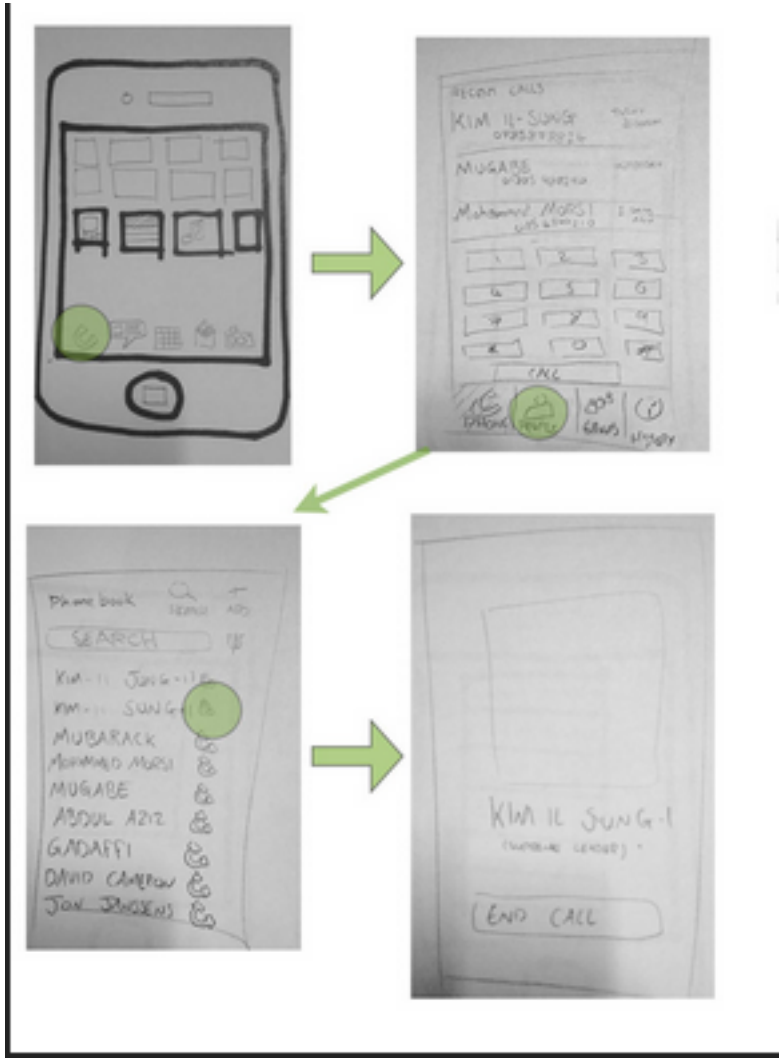
What is Paper Prototyping?

- Paper: materials of paper-and-pencil alike.
- Prototyping: The design and evaluation of the concept.
- Low-fidelity visual representation
- Test Usability.
- Representative users perform real tasks by interacting with a paper version of the interface.

Example Paper Prototypes



Example Paper Prototypes



Advantages

- Quick to build/refine, thus enabling rapid design interactions.
- Requires minimal resources and materials.

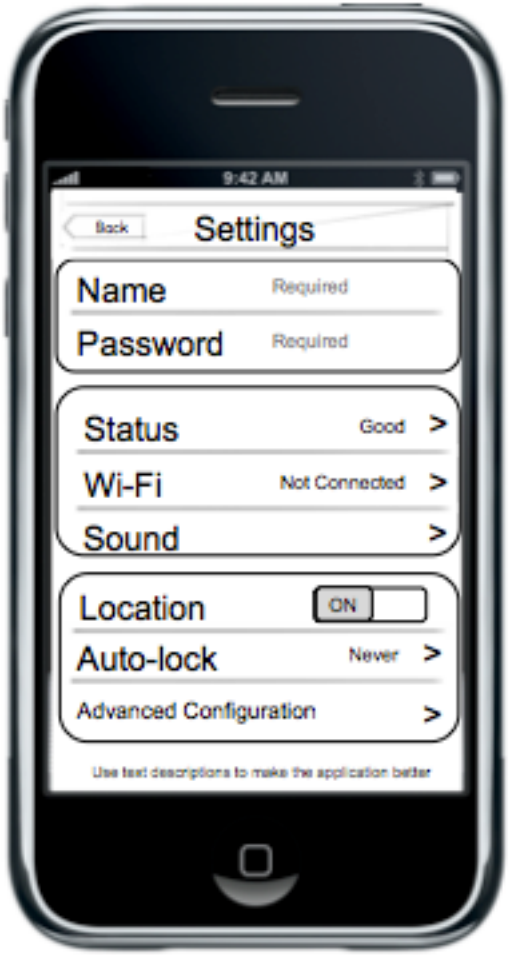
Disadvantages

- Its paper not a real app/webpage

Wireframes

- **Wireframes** – *basic illustrations* of the *structure and components* of a web page or Mobile Application
  - Real Proportions
  - Includes basic page/screen layout
  - Includes navigation
  - May include:
    - headers, footers, content areas, sidebars
    - dynamic widgets, search box, graphics, links

Wireframing examples



HTML Wireframes

Advantages

- Better than paper prototypes
  - Feels real
  - Things happen when you click

Disadvantages

- Just a skeleton
  - Not really how the real interfaces looks
  - Not really how the real interface behaves

Interactive Prototyping

Importance of transitions and movements

How did this?

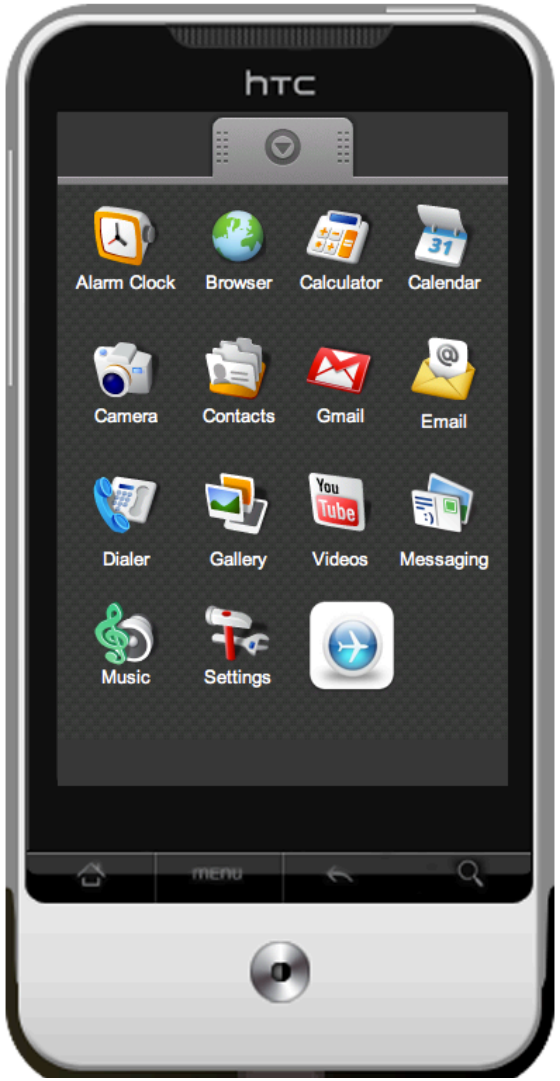
…become this?

How did this?

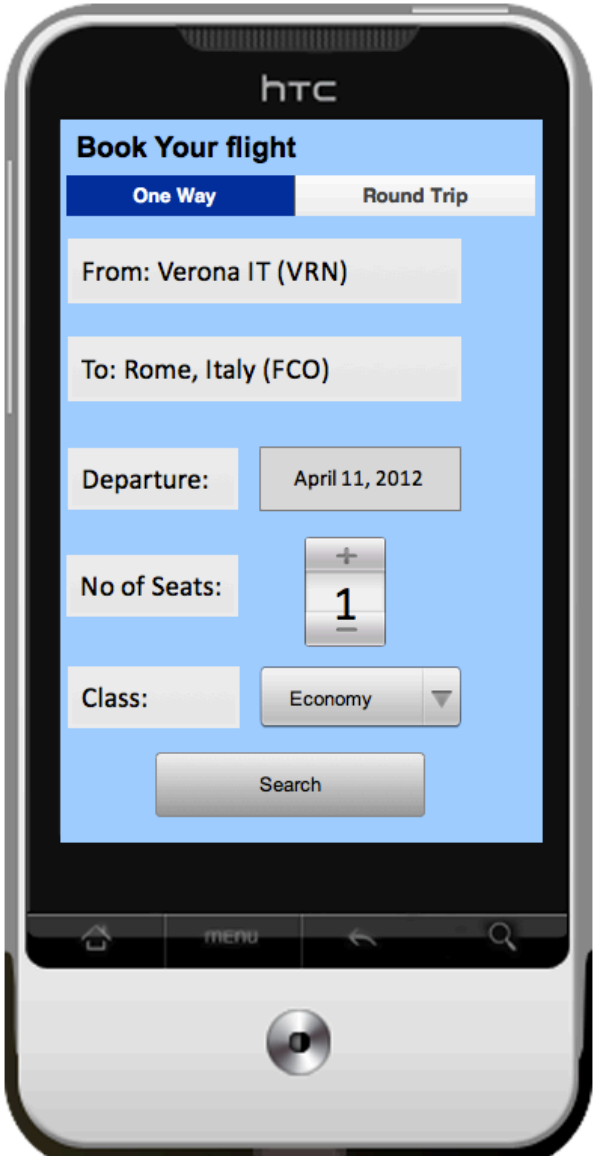
…become this?

Optimus Prime

How did you go from this?



...to this?


htc
Book Your flight
One Way
Round Trip
From: Verona IT (VRN)
To: Rome, Italy (FCO)
Departure:
April 11, 2012
No of Seats:
1
Class:
Economy
Search
menu

Interactive Prototyping tools

Works both as a Firefox plugin and standalone installation on windows, mac, and Linux

http://pencil.evolus.vn/Downloads.html

Works both as an Eclipse plugin and Standalone installation on windows, mac, and Linux

http://wireframesketcher.com/download.html

Standalone
installation on windows, and mac

http://www.justinmind.com/prototyper/download

Justinmind Prototyper Free

Justinmind Prototyper free

Download and Install the Justinmind Prototype

Prototyper

Free edition

Create a new prototype

Select the type of prototype you are going to build.

iOS:

iPhone 4

iPhone 5

iPad

Android:

Android 320 px

Android 360px

Android tablet

Other:

Web

From image files

Portrait | Landscape

Android 360px

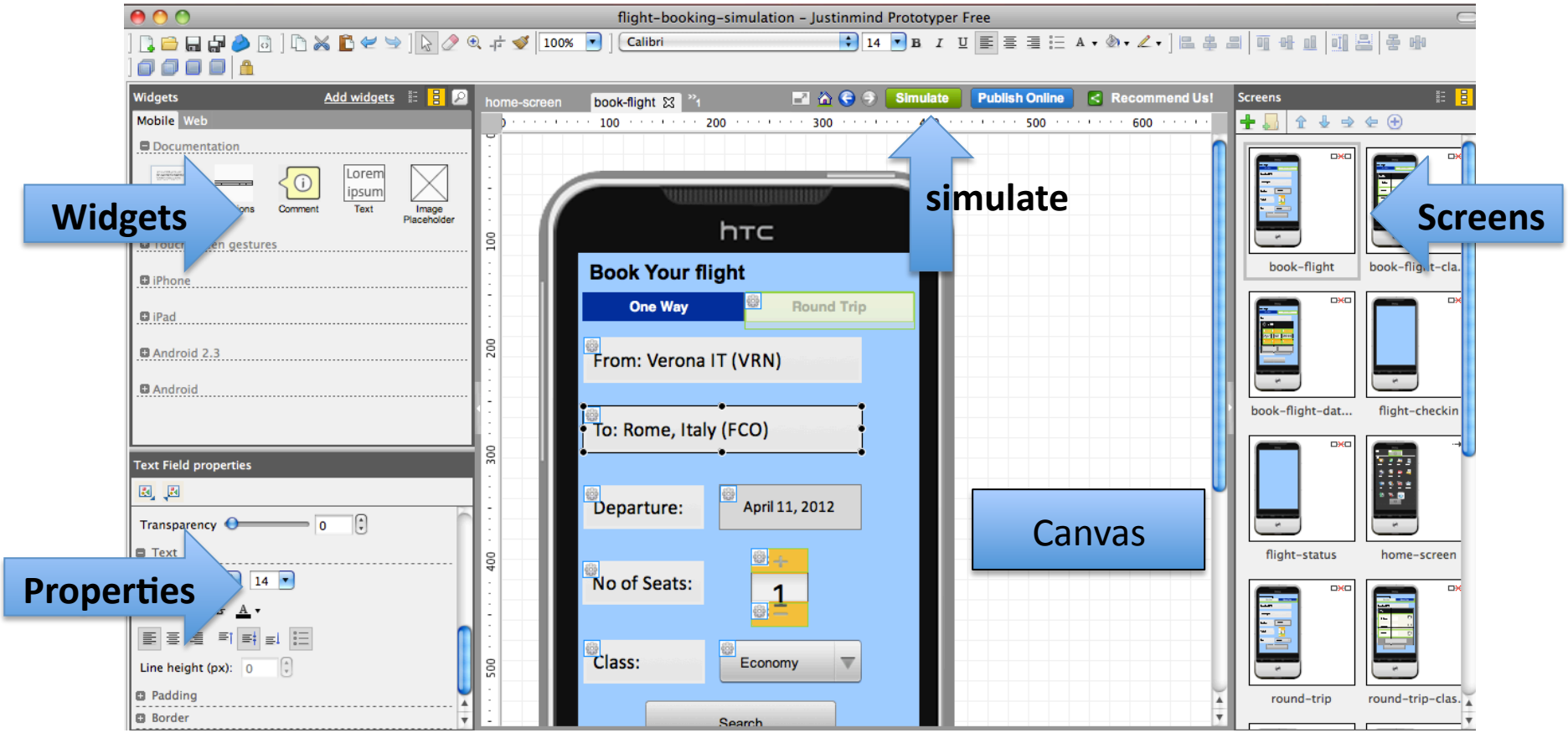
Create a prototype of an Android app using a 360px width phone case. Build your prototype adding Android 4.0 (Ice Cream Sandwich) UI elements from the 'Mobile -> Android 4.0' widgets libraries.

Create | Cancel

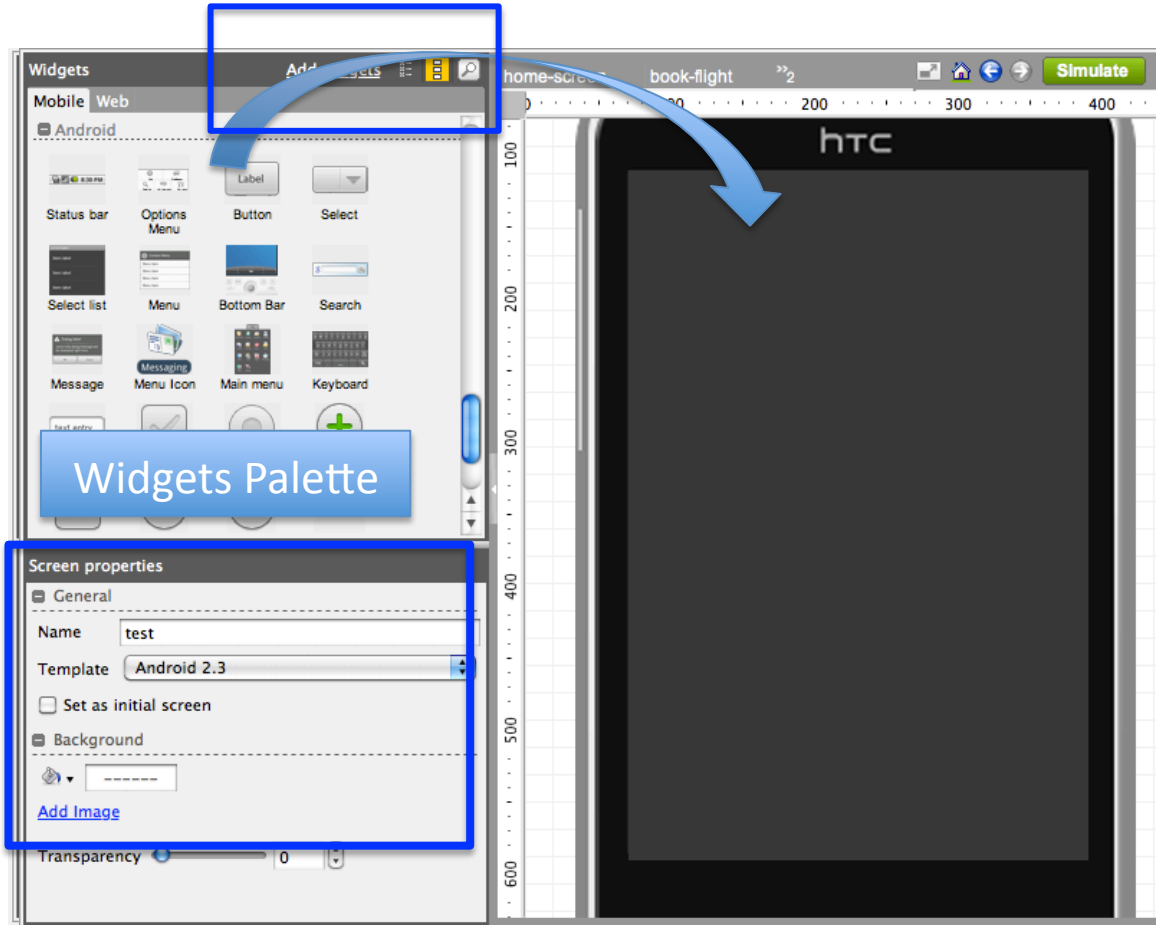
Features

- **No programming required.** Justinmind Prototyper is an intuitive tool. Just drag the components or interactions that you need from the palettes to the work area.
- **Instant Simulations.** See your application's prototype in action by simply clicking the Simulate button. No waiting required.
- **Exportable to HTML.** Export to HTML effortlessly, so that your clients or users can see it work online and give you their opinion.

The Tool


flight-booking-simulation - Justinmind Prototyper Free
Widgets
Add widgets
Mobile
Web
Documentation
Comment
Text
Image Placeholder
iPhone
iPad
Android 2.3
Android
Text Field properties
Transparency
Text
Line height (px):
Padding
Border
home-screen
book-flight
Simulate
Publish Online
Recommend Us!
htc
Book Your flight
One Way
Round Trip
From: Verona IT (VRN)
To: Rome, Italy (FCO)
Departure:
April 11, 2012
No of Seats:
1
Class:
Economy
Search
Screens
book-flight
book-flight-dat...
flight-checkin
flight-status
home-screen
round-trip
round-trip-clas.
Widgets
Properties
simulate
Canvas
Screens

Prototyping



1) The Widgets Palette contains the main widgets for mobile and web prototyping.

2) Once you add the Android Widgets from the website, you should get various Android Controls.

3) Drag and drop them to the Canvas.

4) Change the Properties to adjust the look and feel.

Add Screens

Click on the + symbol under the Screens Palette to add a new screen

Enter the name of the new Screen

Add Controls to the new Screen

Add Transitions

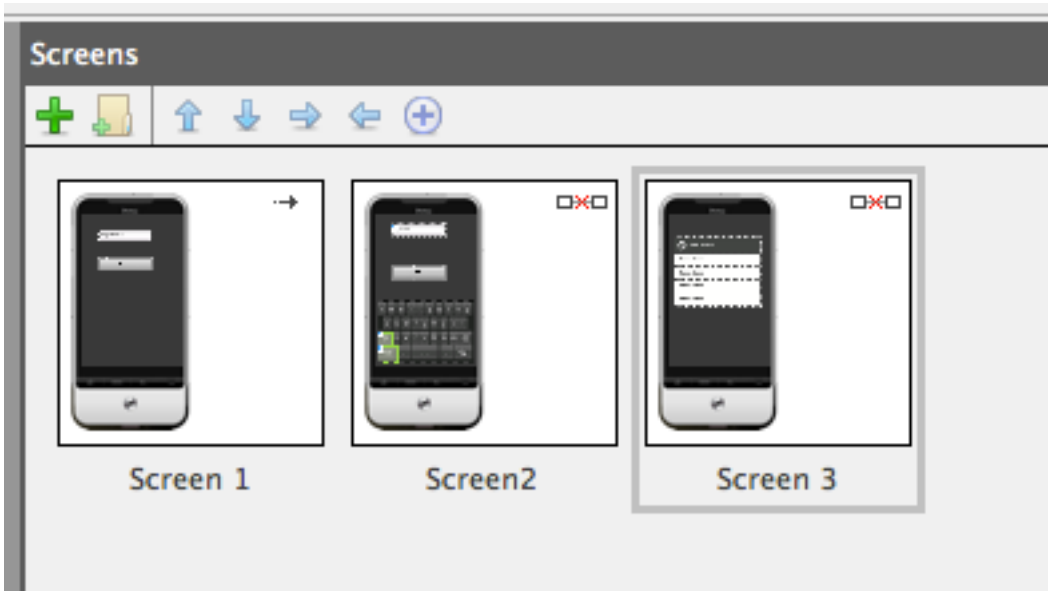
Requirements:

a) On Clicking on the input box you should pop up the keyboard

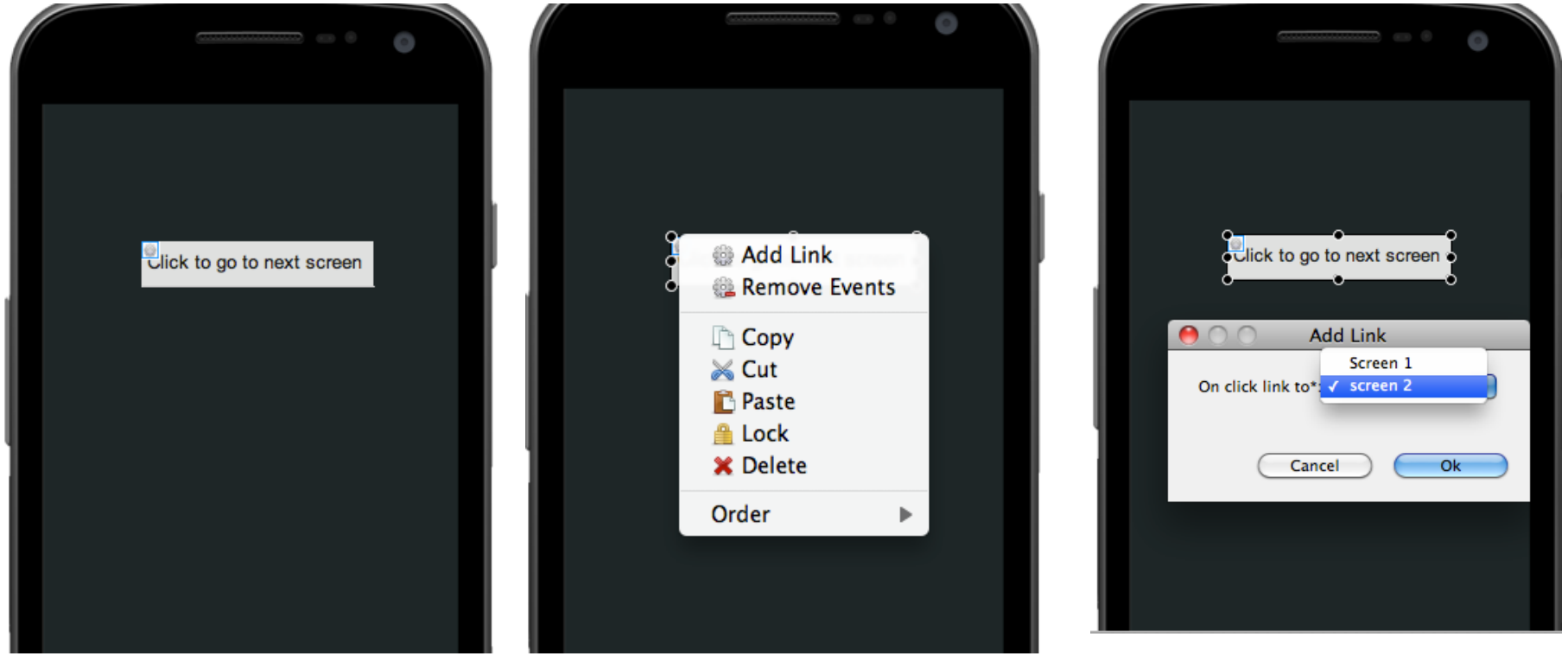
b) On Clicking the button open a new page with a Menu

Create all three Screens

- Create the Screens Separately

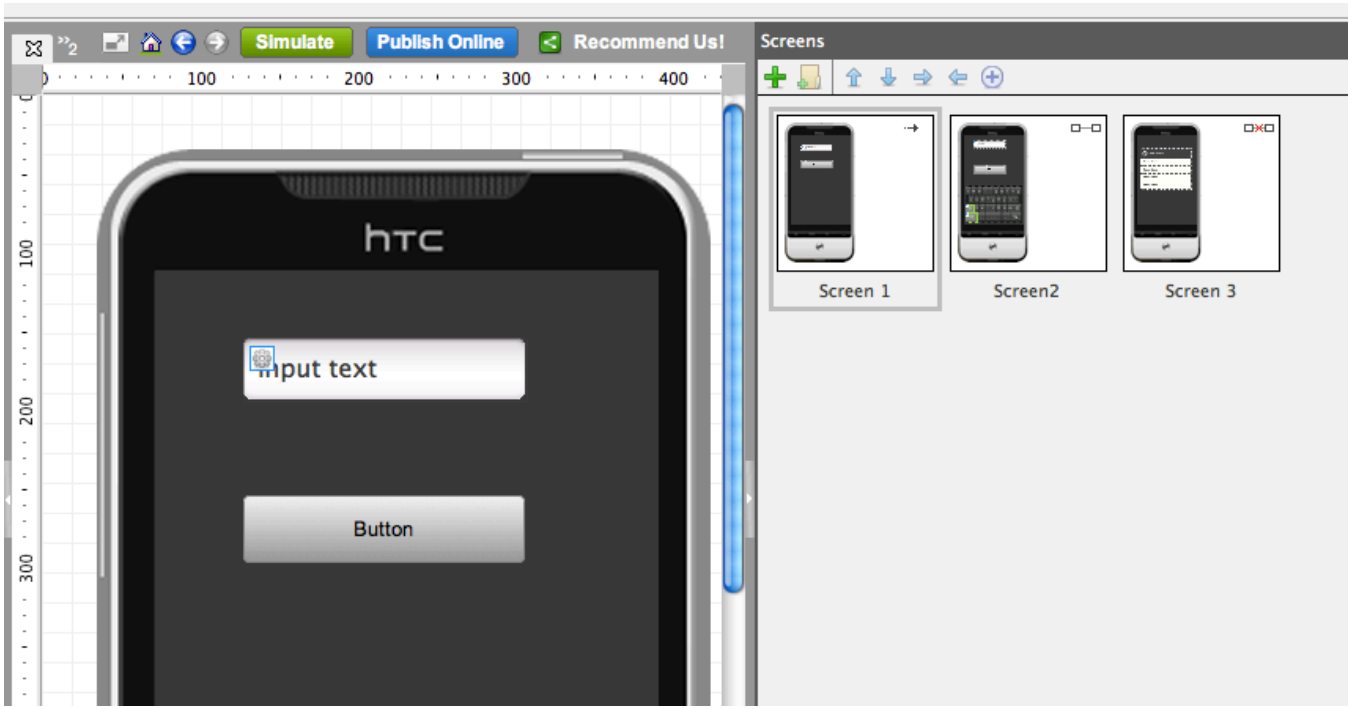


Transition example



Transitions

Requirement 1: On Clicking on the input box you should pop up the keyboard

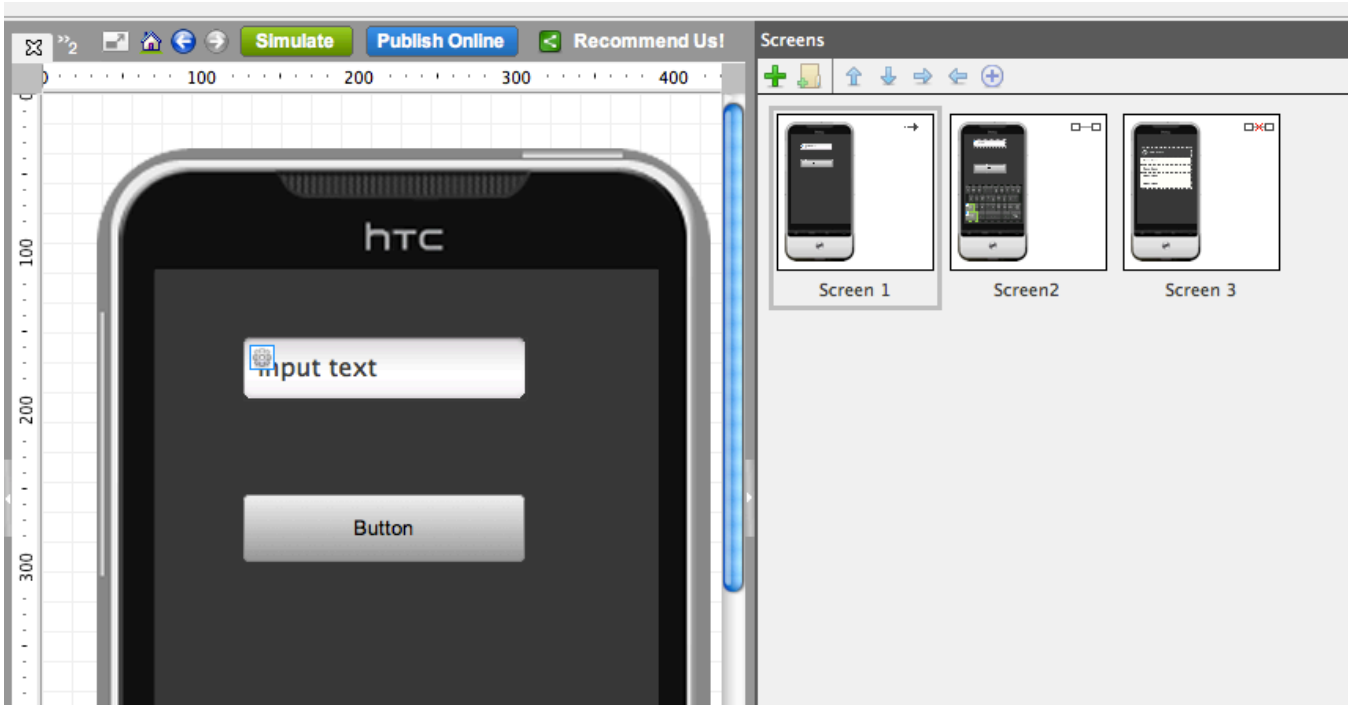


How to:

a) Click on the Input box in Screen 1
b) Drag and Drop it to the Screen 2 icon under Screens

Transitions

Requirement 2: On Clicking the button open a new page with a Menu

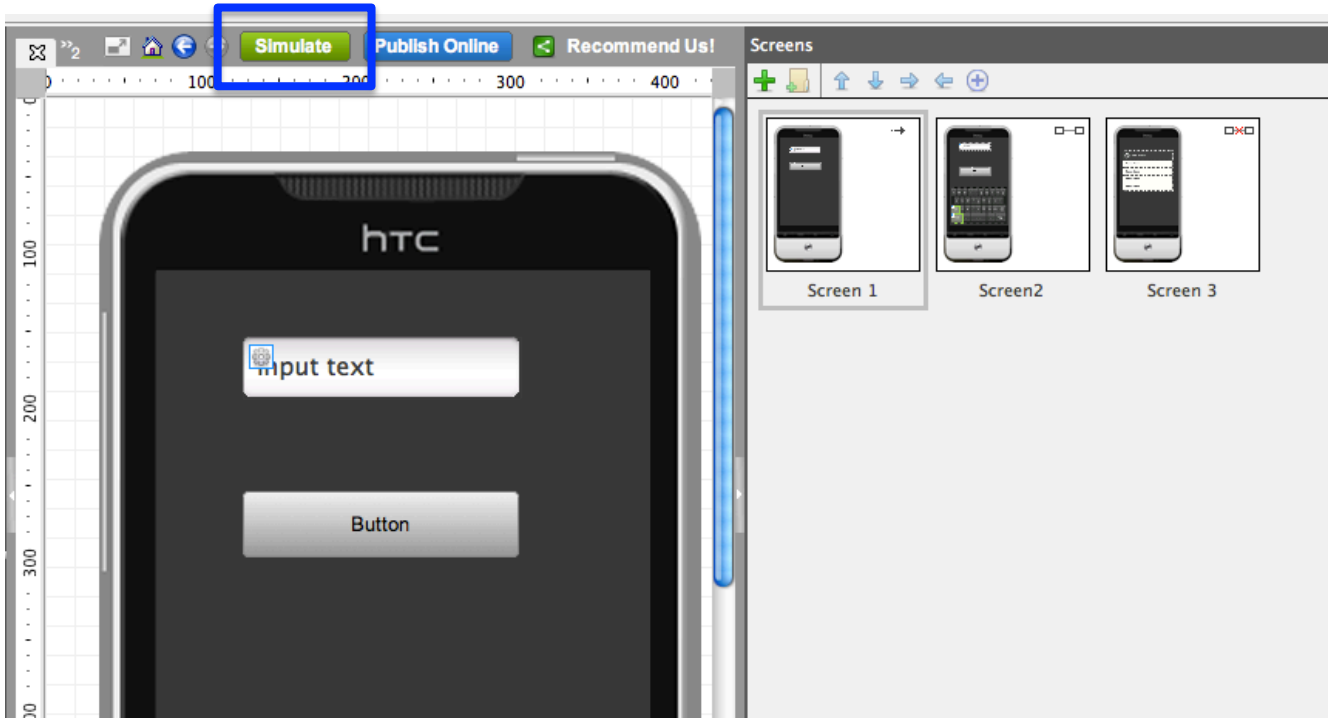


How to:

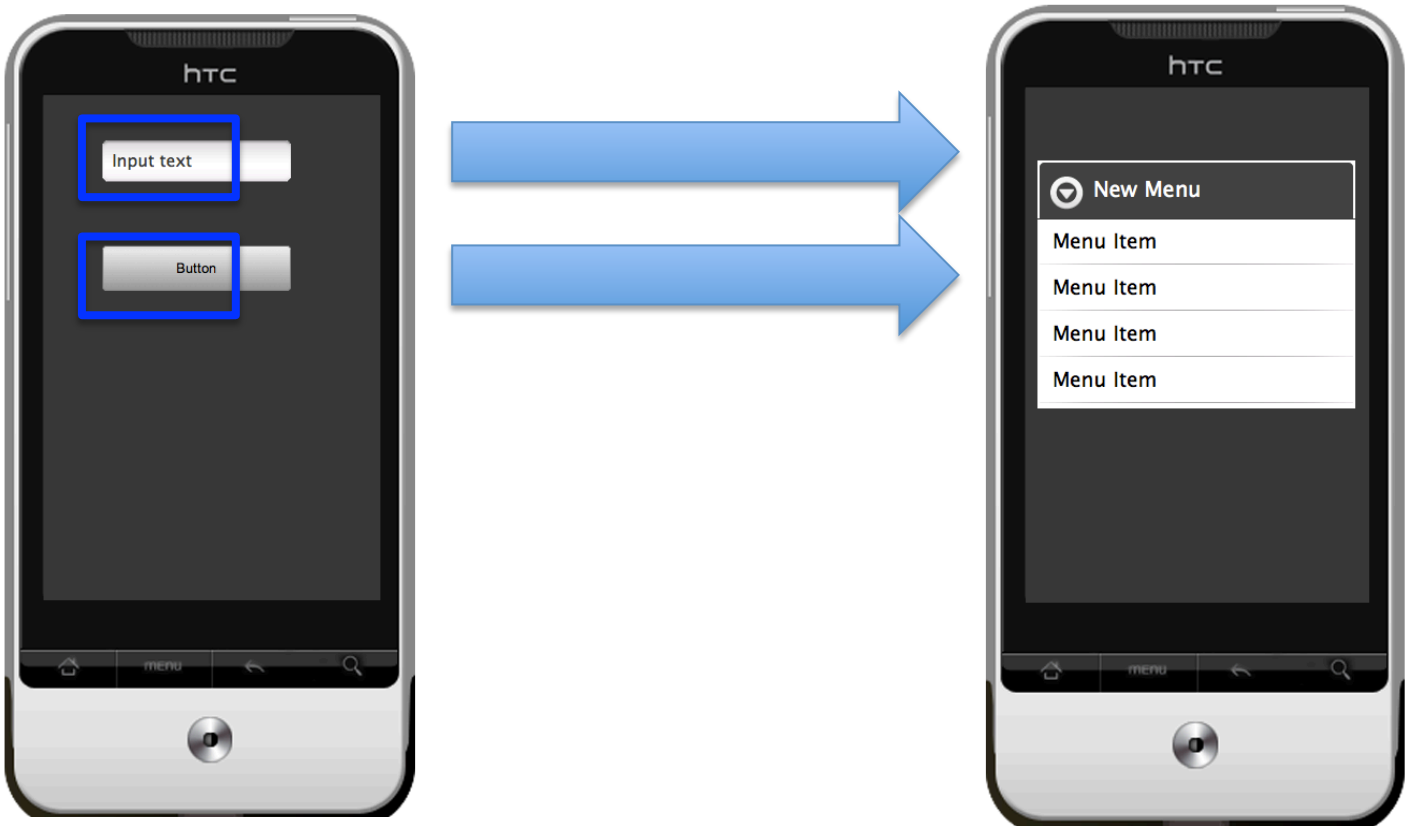
a) Click on the Button Screen 1
b) Drag and Drop it to the Screen 3 icon under Screens

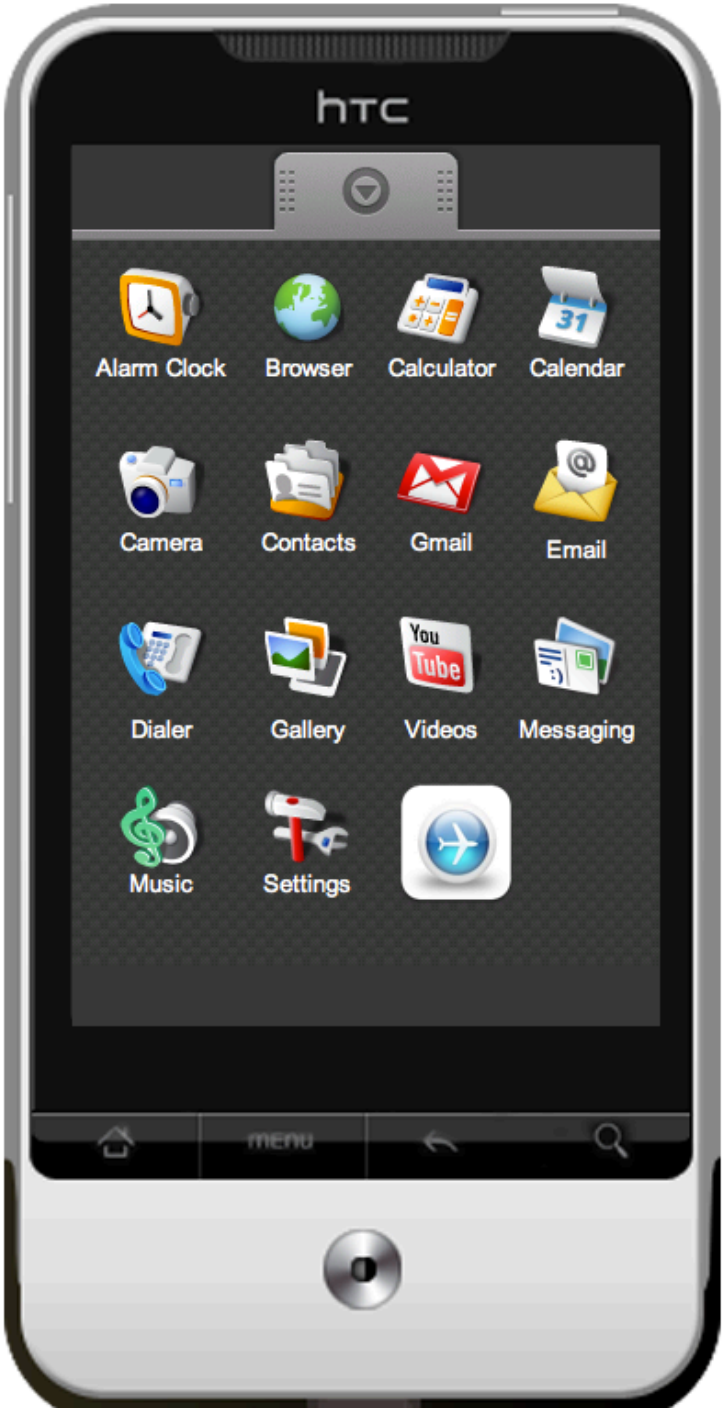
Test

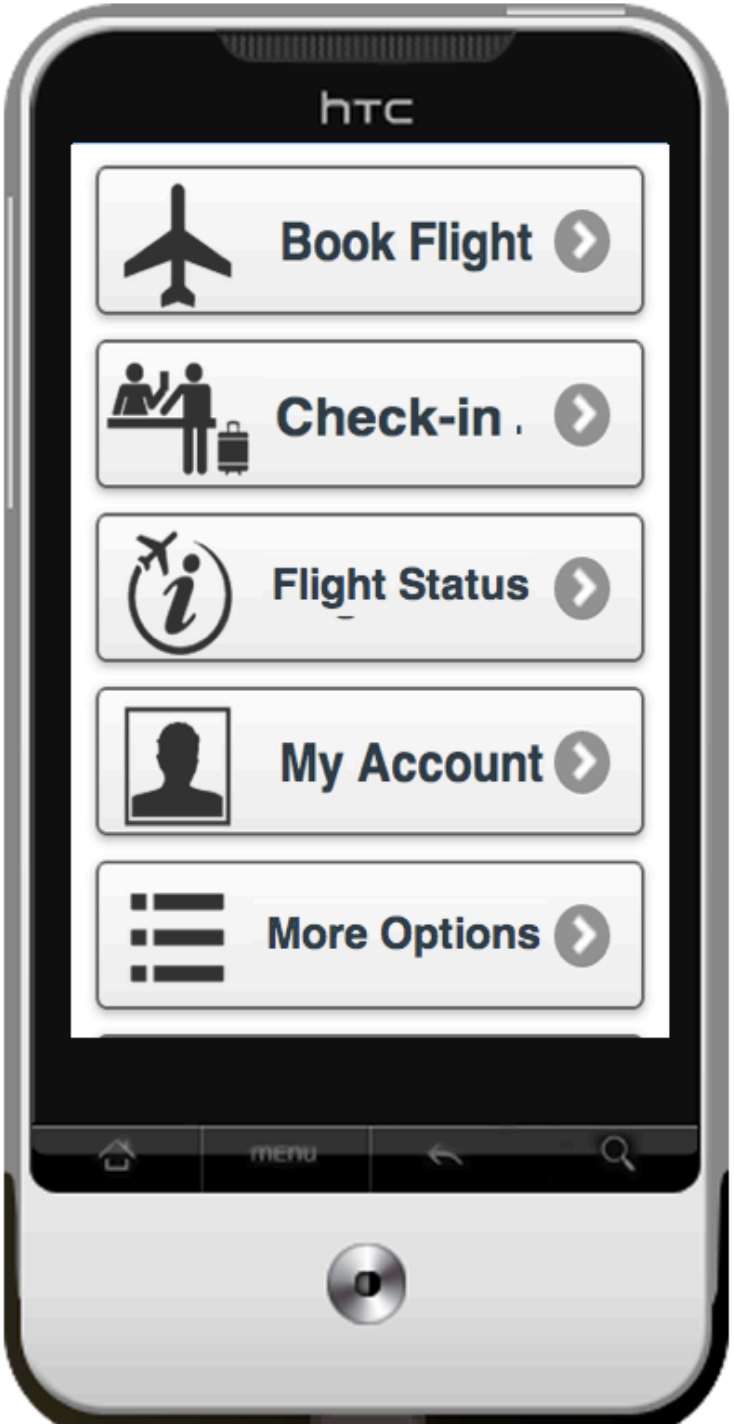
- Click on the simulate Button

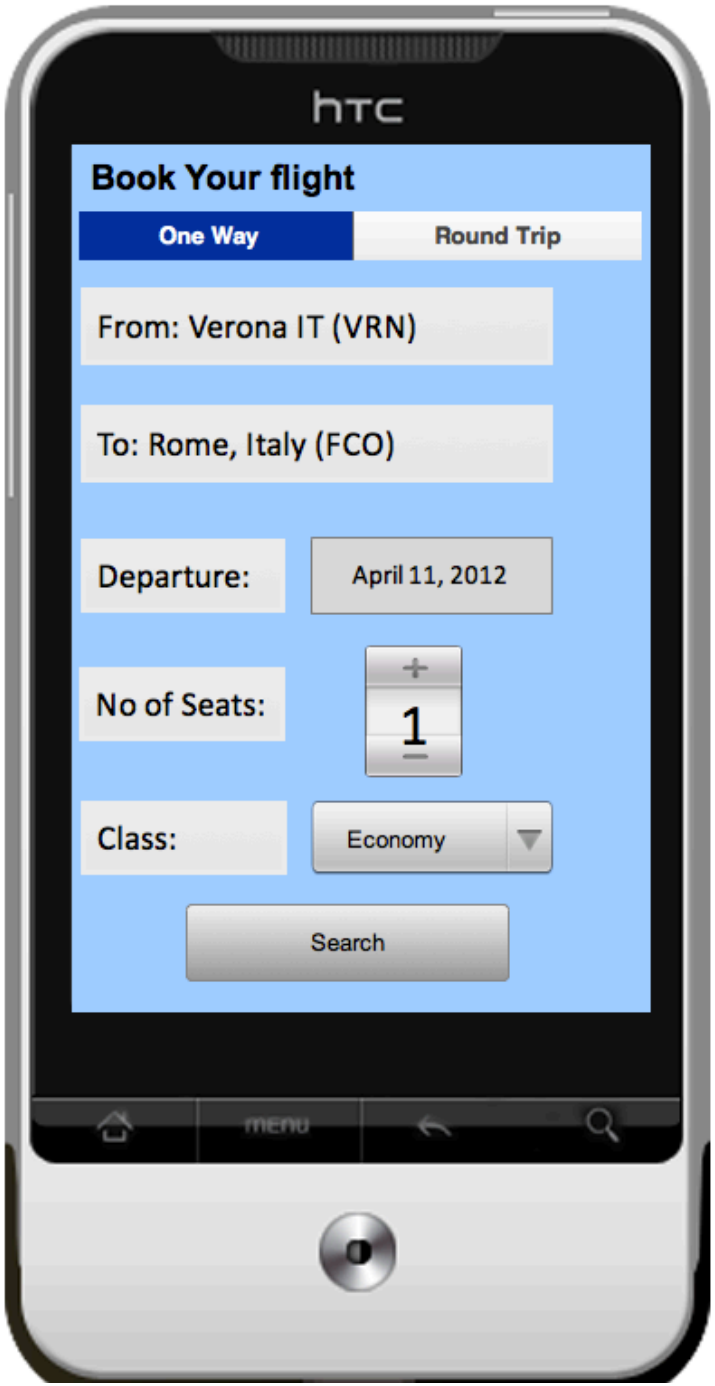


Test


htc
Input text
Button
menu
htc
New Menu
Menu Item
Menu Item
Menu Item
Menu Item
menu


htc
Alarm Clock
Browser
Calculator
Calendar
Camera
Contacts
Gmail
Email
Dialer
Gallery
Videos
Messaging
Music
Settings
menu


htc
Book Flight
Check-in
Flight Status
My Account
More Options
menu


htc
Book Your flight
One Way
Round Trip
From: Verona IT (VRN)
To: Rome, Italy (FCO)
Departure:
April 11, 2012
No of Seats:
1
Class:
Economy
Search
menu

htc
Book Your flight
One Way
Round Trip
From:
April 12, 2011
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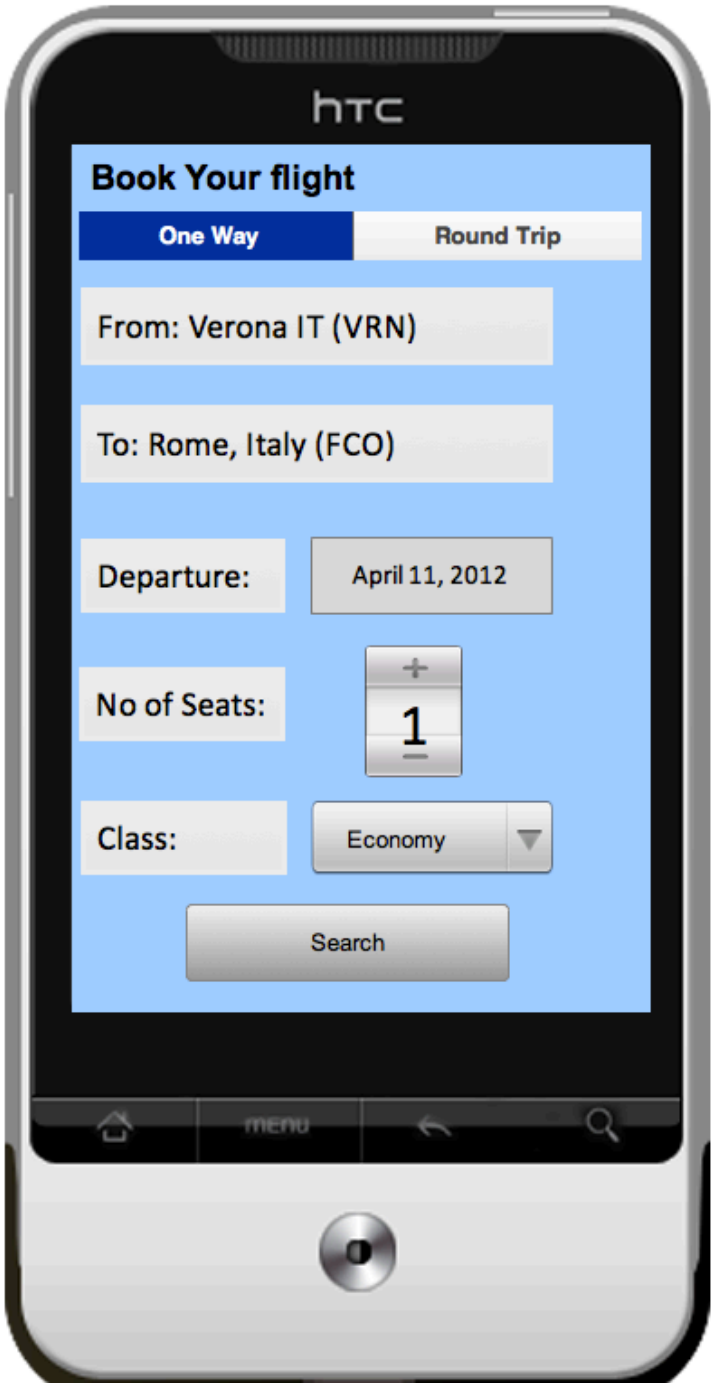
12
2011
Set
Cancel
Search
menu


htc
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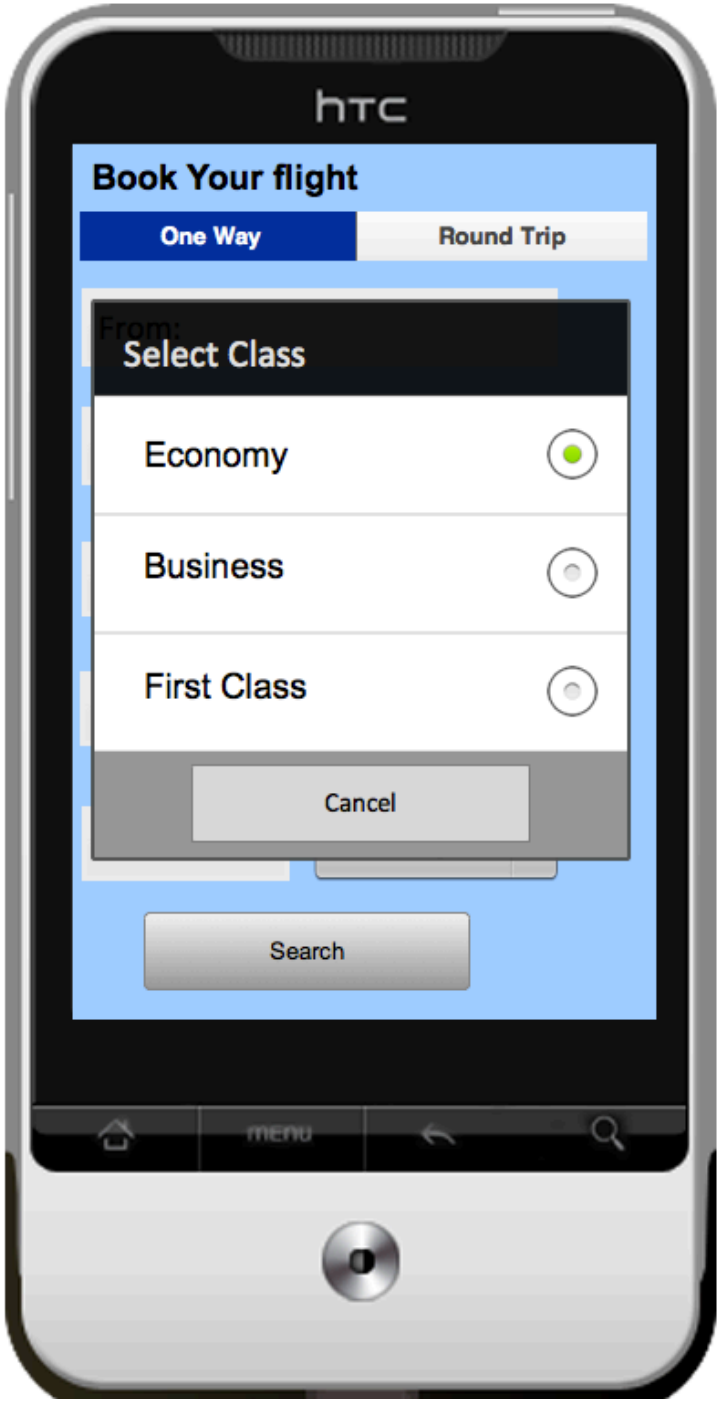
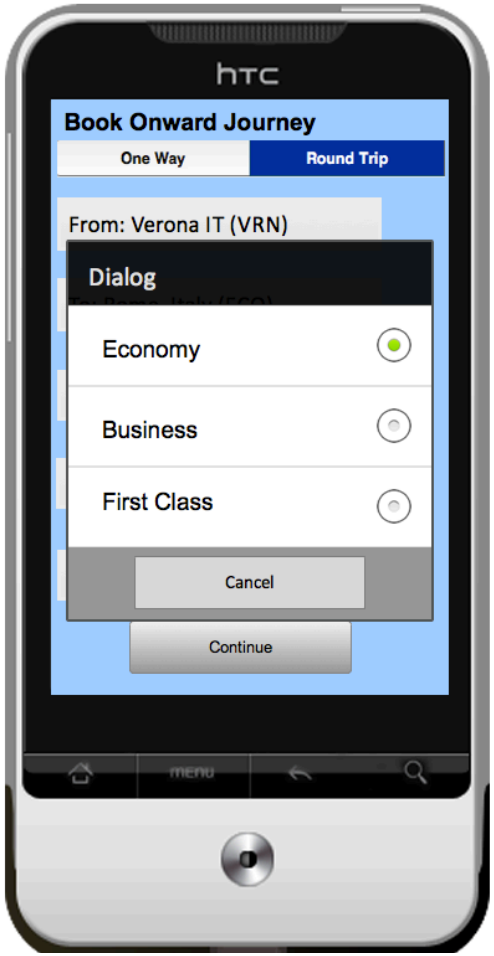
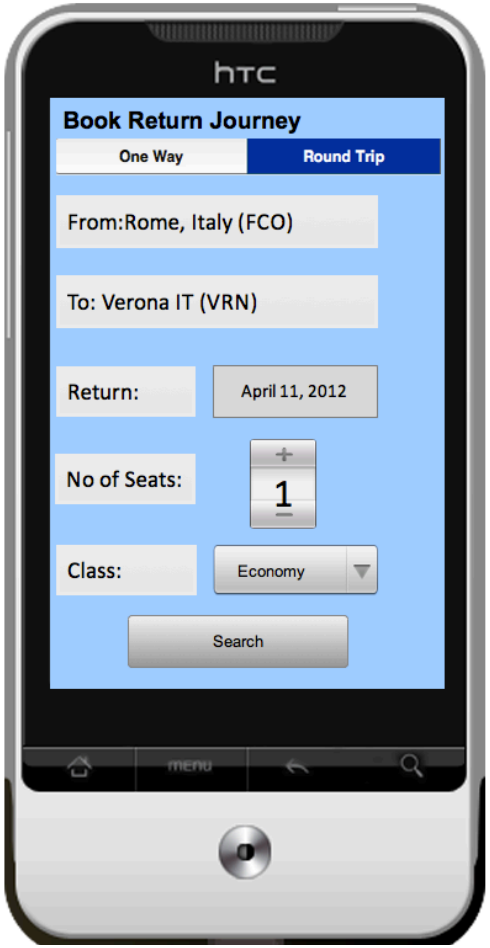
April 11, 2012
No of Seats:
1
Class:
Economy
Search
menu


htc
Book Your flight
One Way
Round Trip
From:
Select Class
Economy
Business
First Class
Cancel
Search
menu

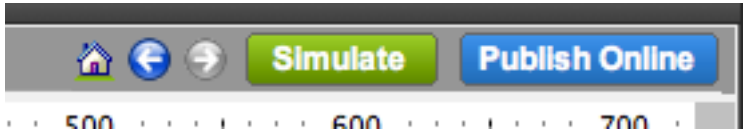
Screenshots



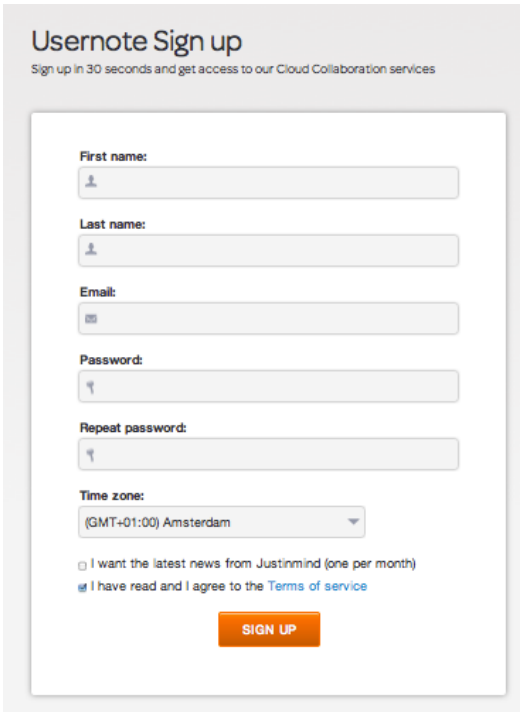


Share

- Click on Publish Online

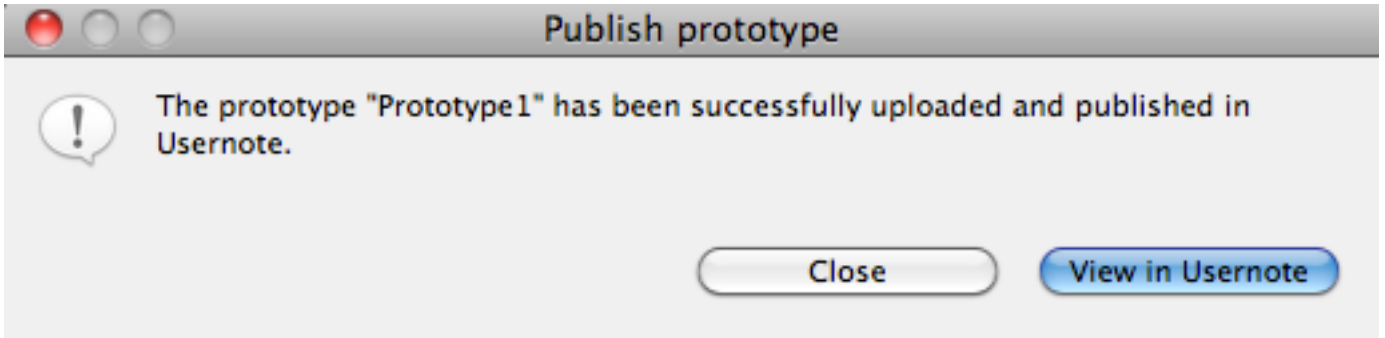


- Sign in with your justinmind id and password

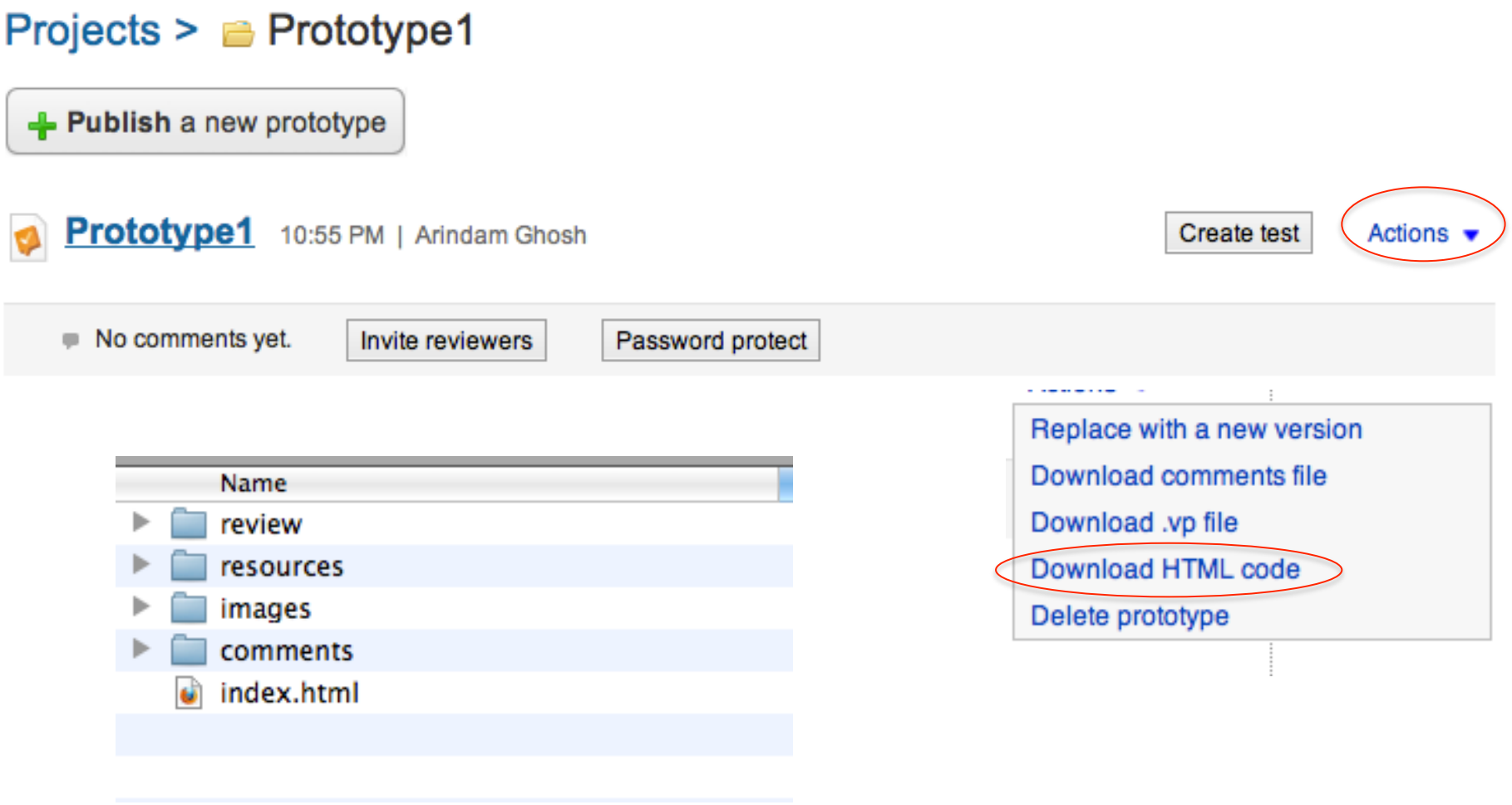


Publish Prototype

Try to Publish prototype again



Download The Prototype



Pencil Open source Tool

- Download from http://pencil.evolus.vn/

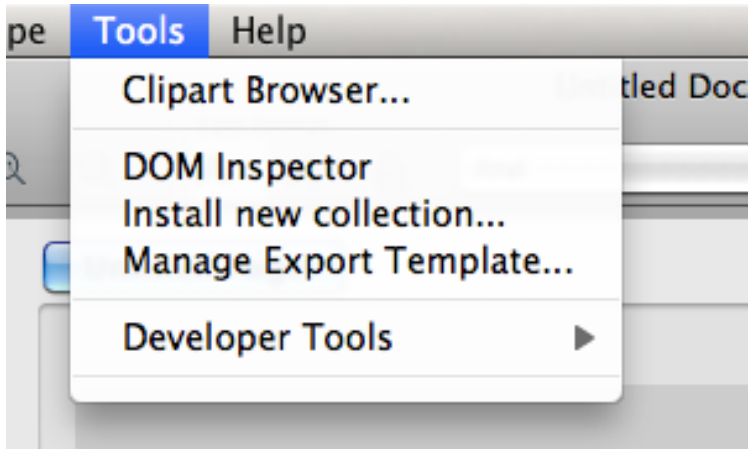
- Download Android 4.0 Stencils from

on the Pencil webpage

http://pencil.evolus.vn/Stencils-Templates.html

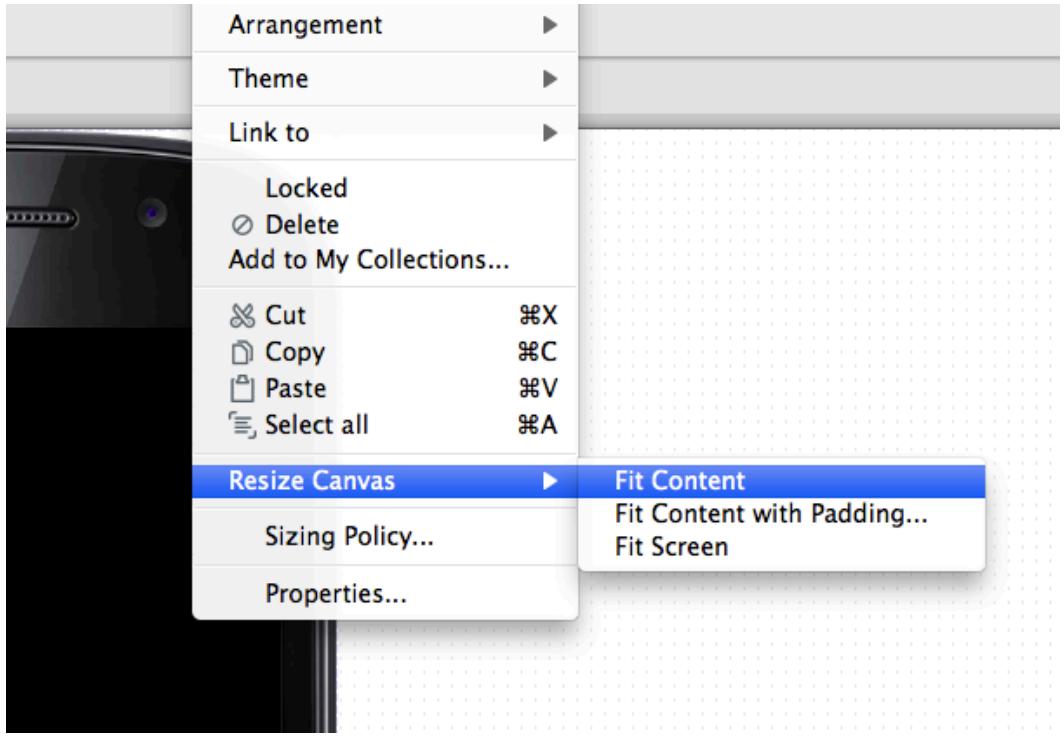
Install Pencil in Firefox

- Drag the Pencil-2.0-3-fx.xpi into firefox
- Install as Plugin
- Install the Android Stencils

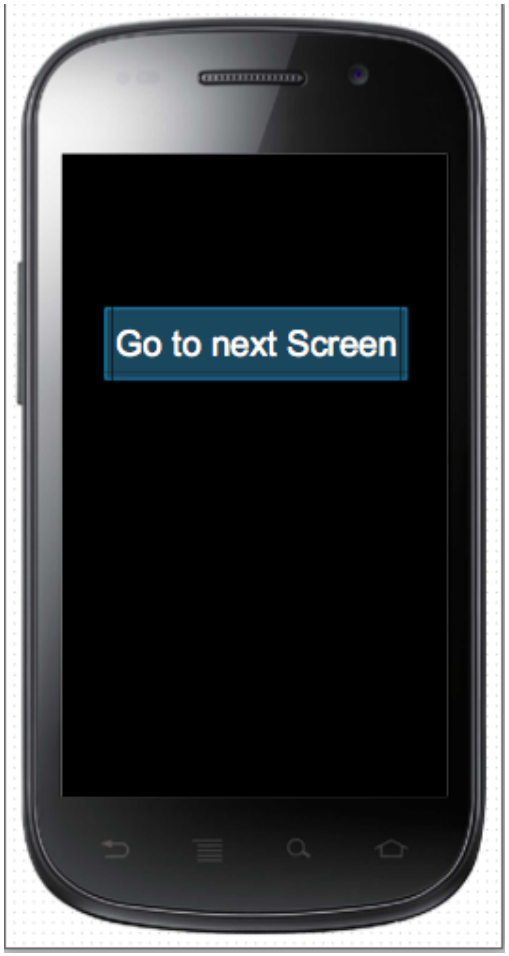


- Install the Android.GUI_v2.zip just downloaded

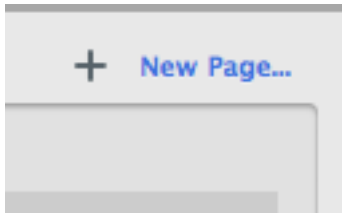
- If Device to too big:



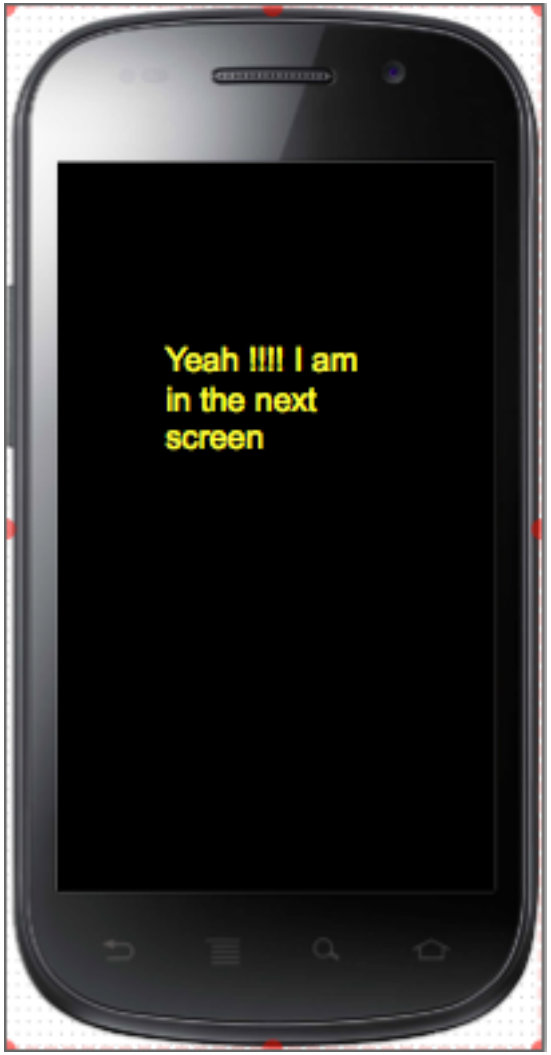
Create a screen with a button



Click New Page at the Top Right
to create a new screen

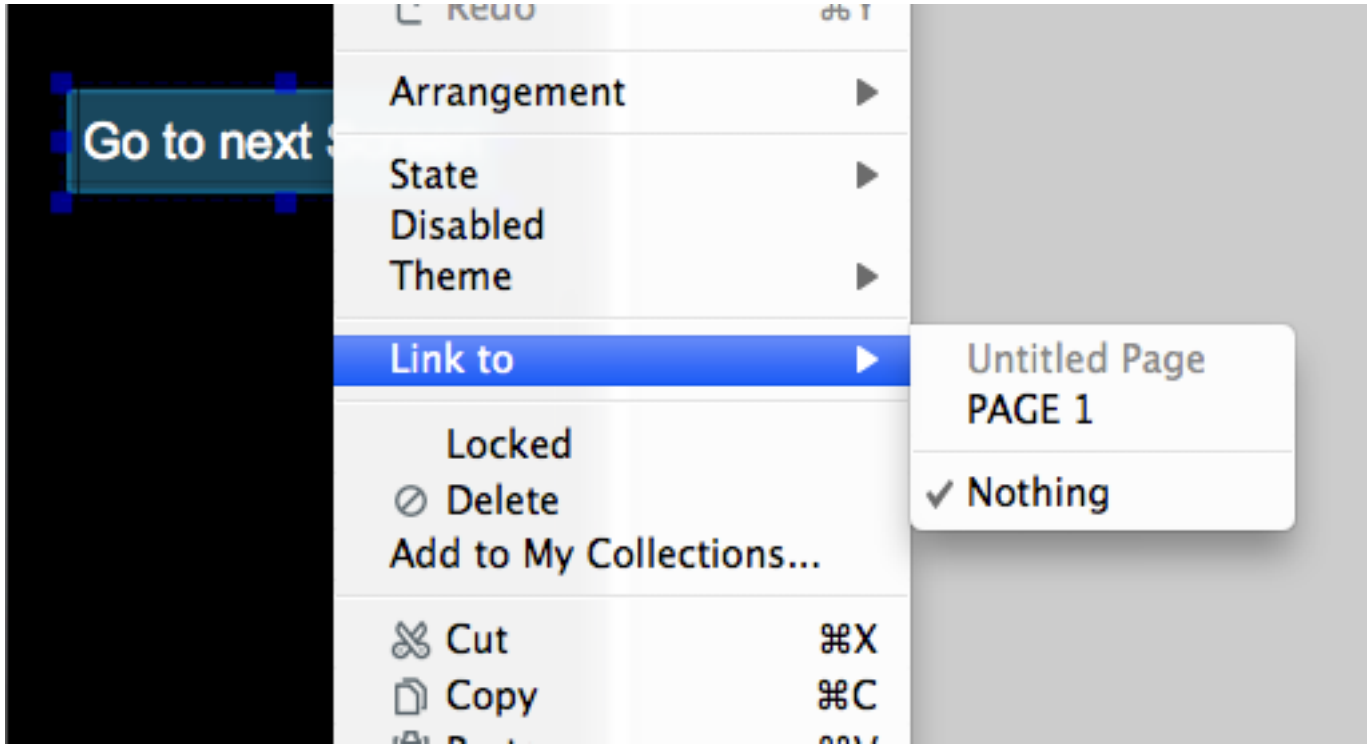


Create another Screen



Link the two screens

- Go to the first screen
- Right Click on the Button
- Select **Link to**
- Select the Next Screen**(PAGE 1** in this case**)**



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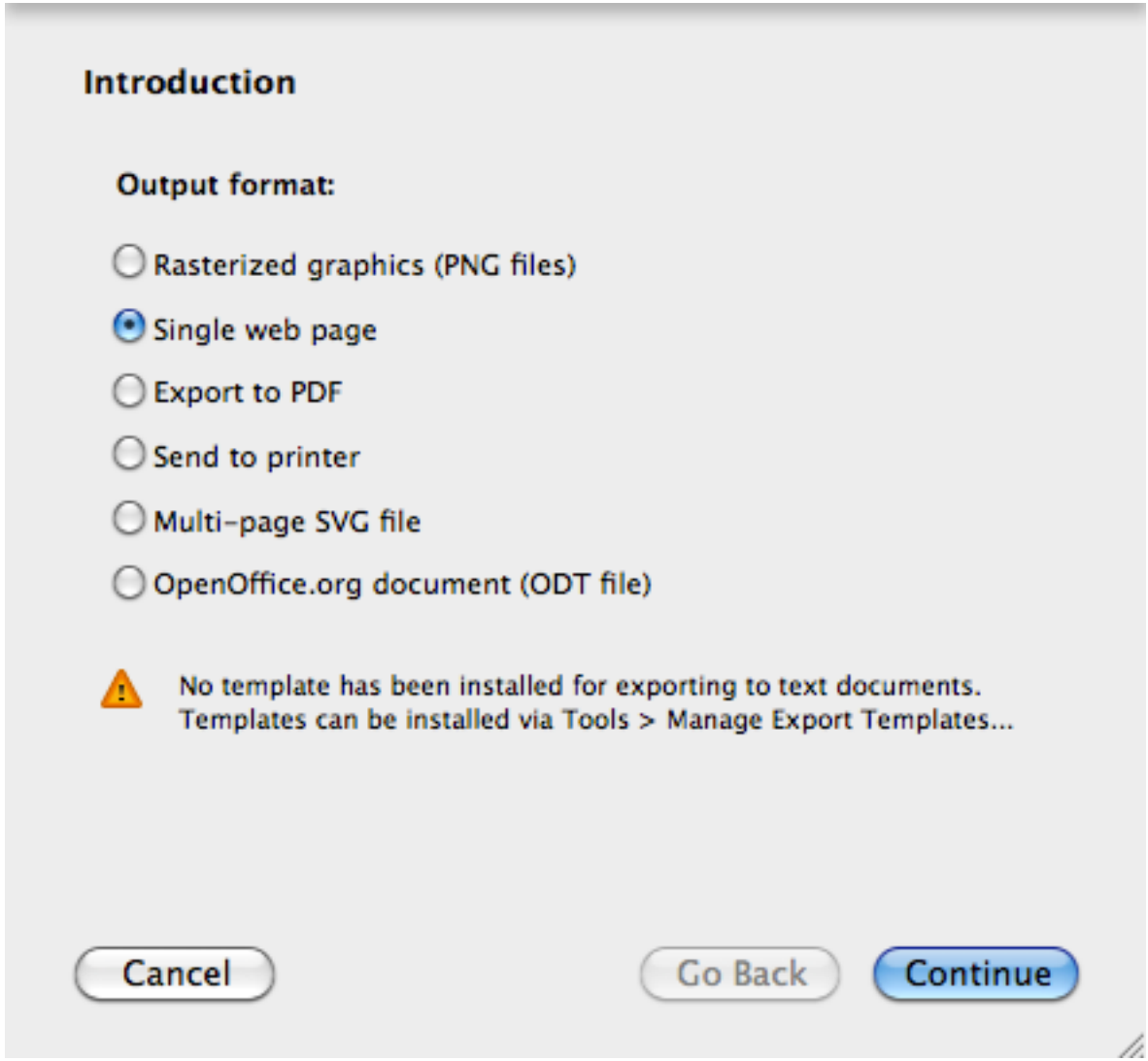
Introduction
Output format:
Rasterized graphics (PNG files)
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OpenOffice.org document (ODT file)
No template has been installed for exporting to text documents.
Templates can be installed via Tools > Manage Export Templates...
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Homework

- Next class we will *sketch* an app
- Bring your own idea
- Or Choose top 2 or 3 apps you like from Android or IOS Market
- Lets *Sketch* it