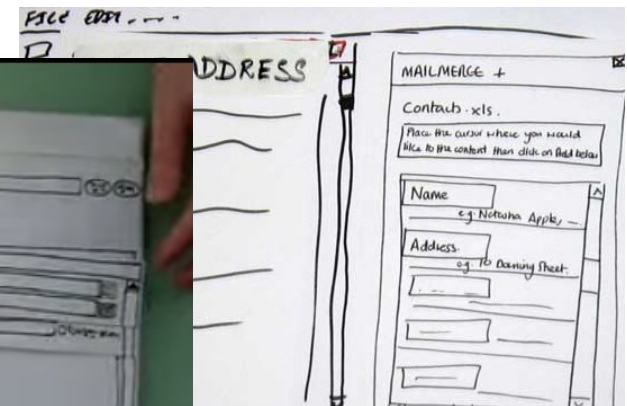
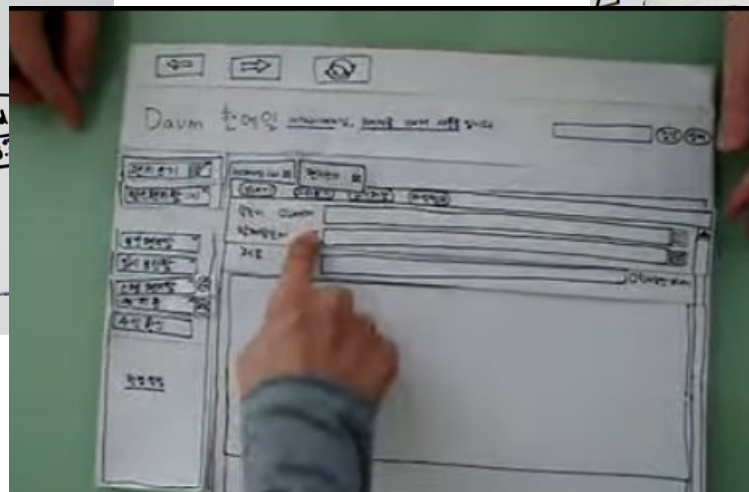
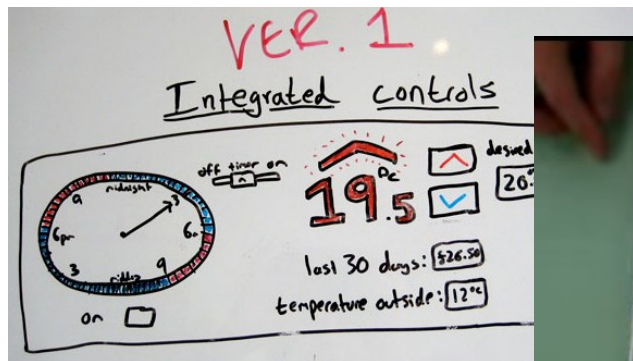




Low Fidelity Prototyping



Low fidelity prototypes

- Fast and inexpensive
- Elicit users feedback concerning general aspects
- Easy to modify even during user tests
- Valuable to test the UI conceptual model

- Specifically adequate to get feedback concerning:
 - Concepts and terminology
 - Navigation
 - Contents
 - Functionality

How to prepare and use a paper prototype

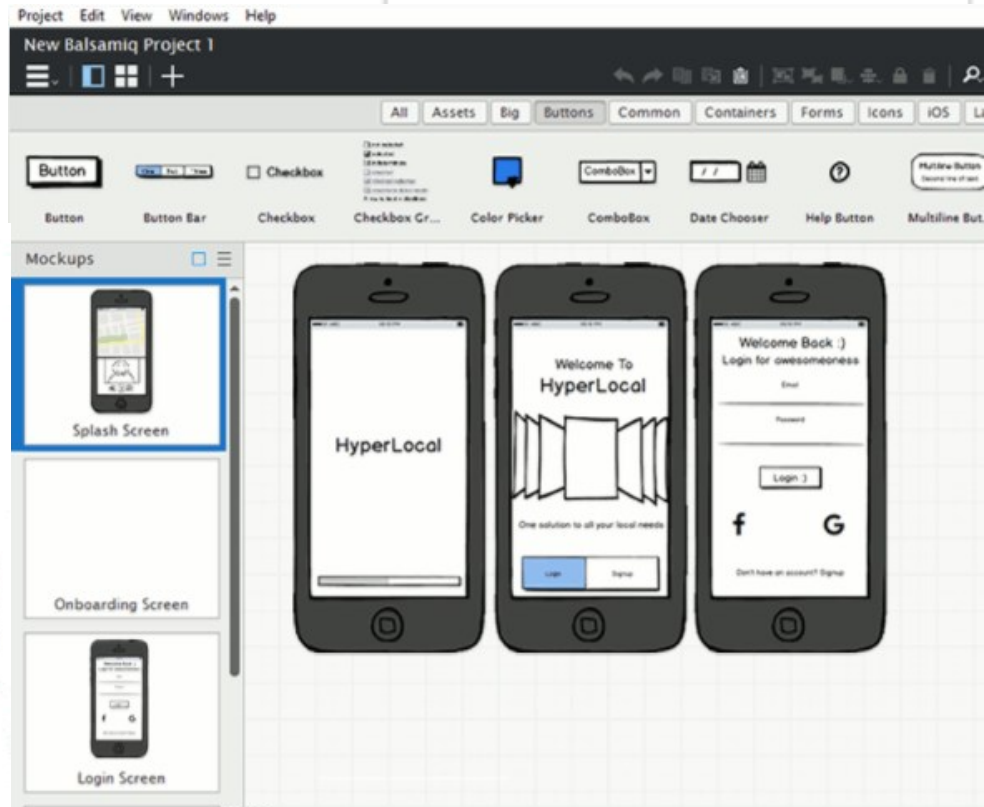
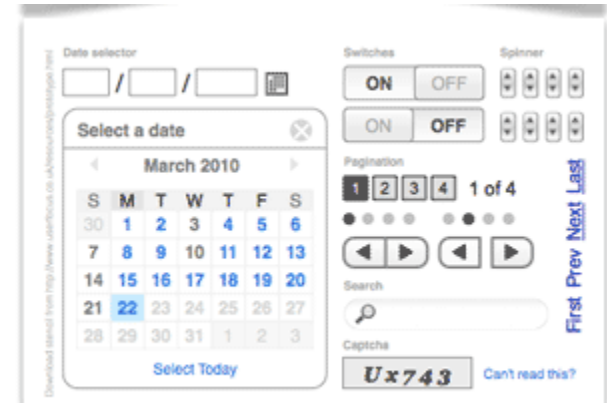
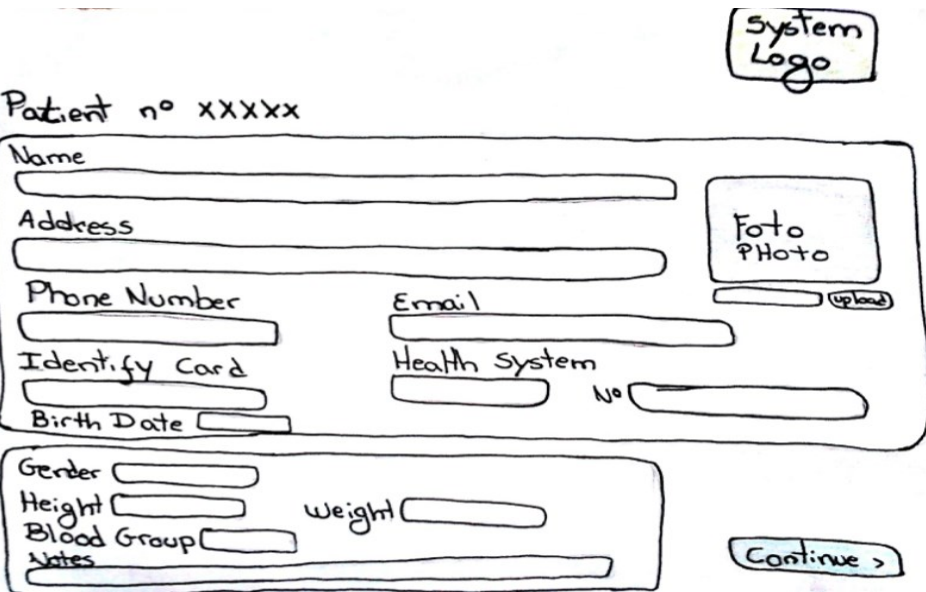
- After drafting the conceptual model
- Draw the screens, menus, dialog-boxes, messages etc. needed
- Prepare the test protocol
- Perform the user tests:
 - One experimenter conducts the test
 - Another observes
- When needed change the prototype



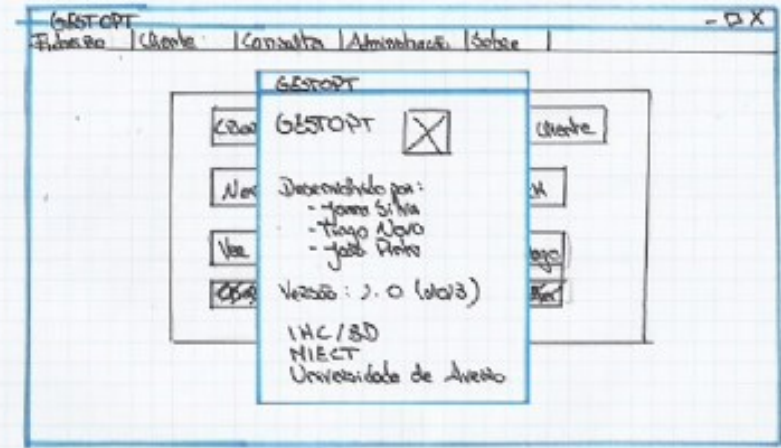
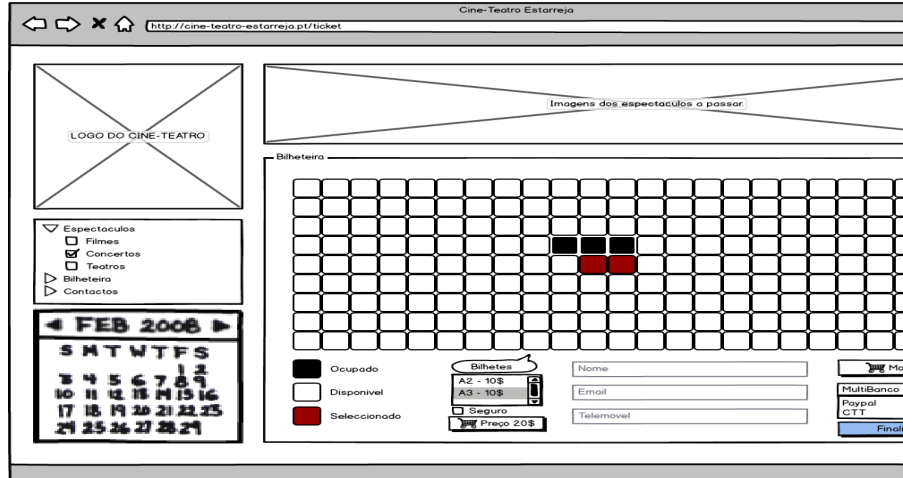
- It does not need to have much detail, nor to be very realistic, e.g.:
 - Text may be replaced by some lines
 - Images may be replaced by words
 - In general no colour is needed
 - Sizes of windows, fonts, etc. don't need to be final

What can be used to make it?

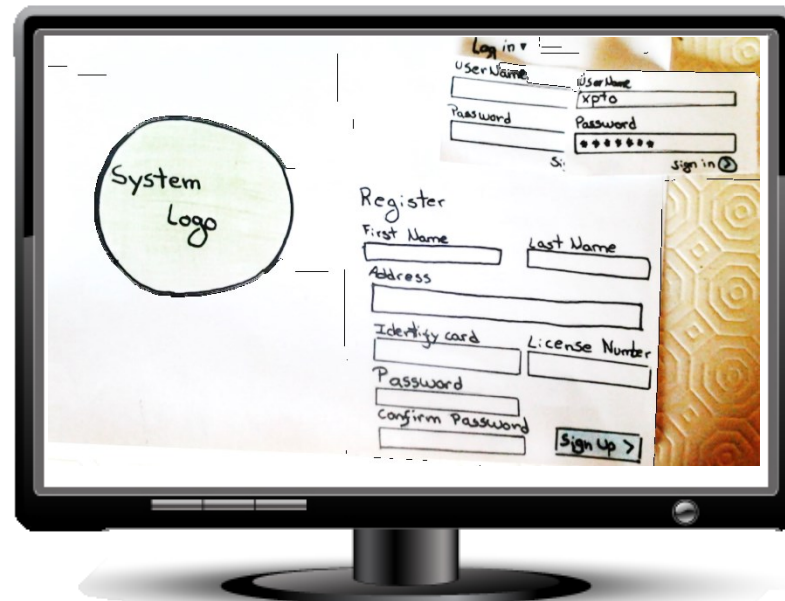
- Paper, pens, markers, ...
- Applications such as:
 - Balsamiq
 - Pencil
 - ...



May be more or less “sophisticated”:



→ O botão 'Criação de novo utilizador' só está disponível se o login for feito por um administrador



Shopping List

[Recent lists](#)

Insert list by category

Insert list by notebook

- Insert the list above while we are adding products

Example: “on-line shop”

		Logotype		logIn Register	
Tuit Products About Us Contact Us	Product 1 Price		Product 2 Price	Product 3 Price	My Account Cart (0 Items) Search... Support (Number)
			Product 4 Price	Product 5 Price	

		Registration		logIn Register	
Tuit Products About Us Contact Us	First Name: <input type="text"/> Last Name: <input type="text"/> Birth Day: <input type="text"/> / <input type="text"/> / <input type="text"/> Address: <input type="text"/> Code Zip: <input type="text"/> Country: <input type="text"/> ▼ City: <input type="text"/> E-mail: <input type="text"/> Telephone: <input type="text"/> User Name: <input type="text"/> Password: <input type="text"/> Confirm Password: <input type="text"/> <input type="button" value="Submit"/> <input type="button" value="Cancel"/>		My Account Cart (0 Items) Search... Support (Number)		

Example: “store managment application”

Log In

GESTOPT

Ficheiro

Cliente

Consulta

Administracao

Sobre

-

OK

Login:

Senha:

OK

BRUFEN 200 mg

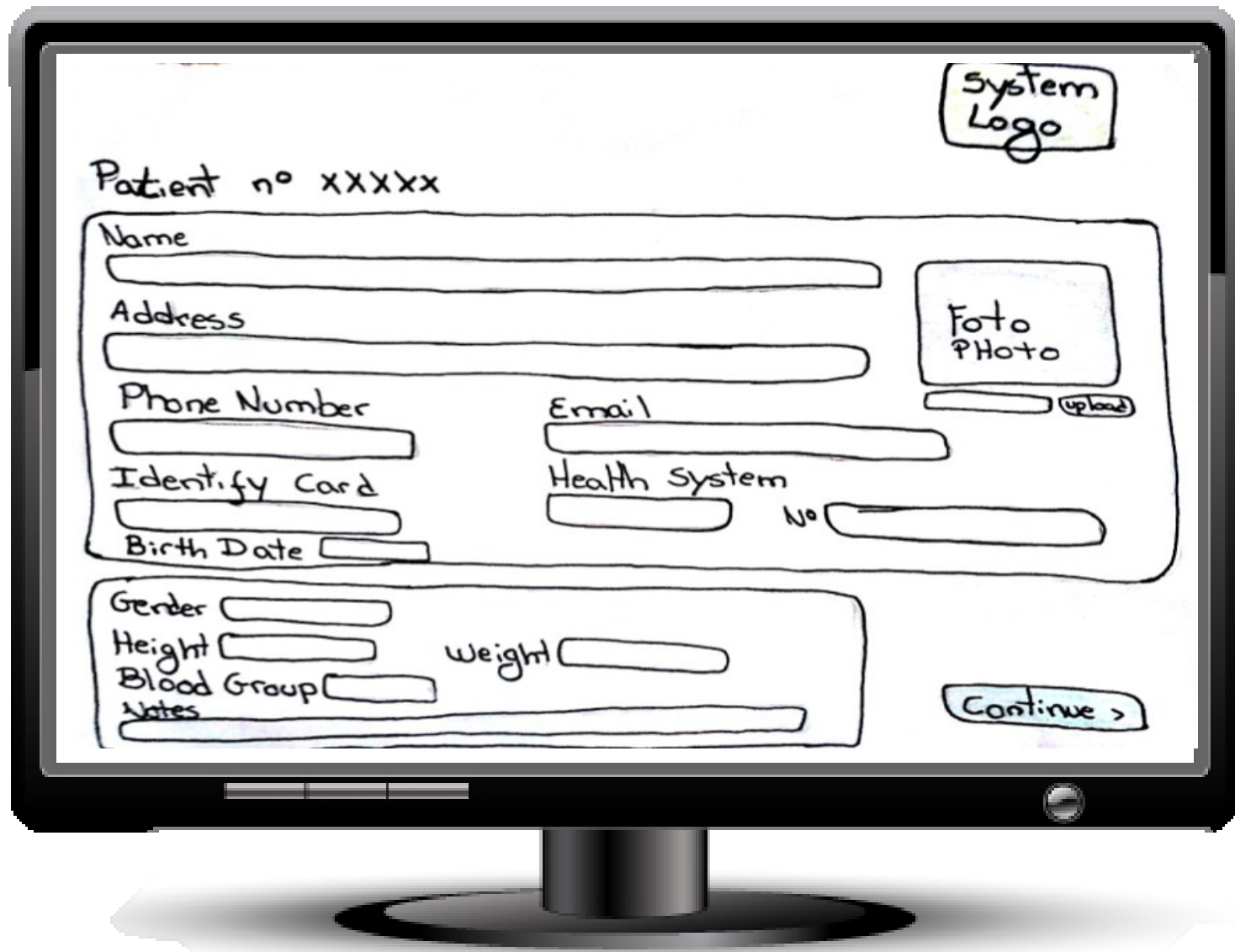
BRUFEN 400 mg

BRUFEN 600 mg

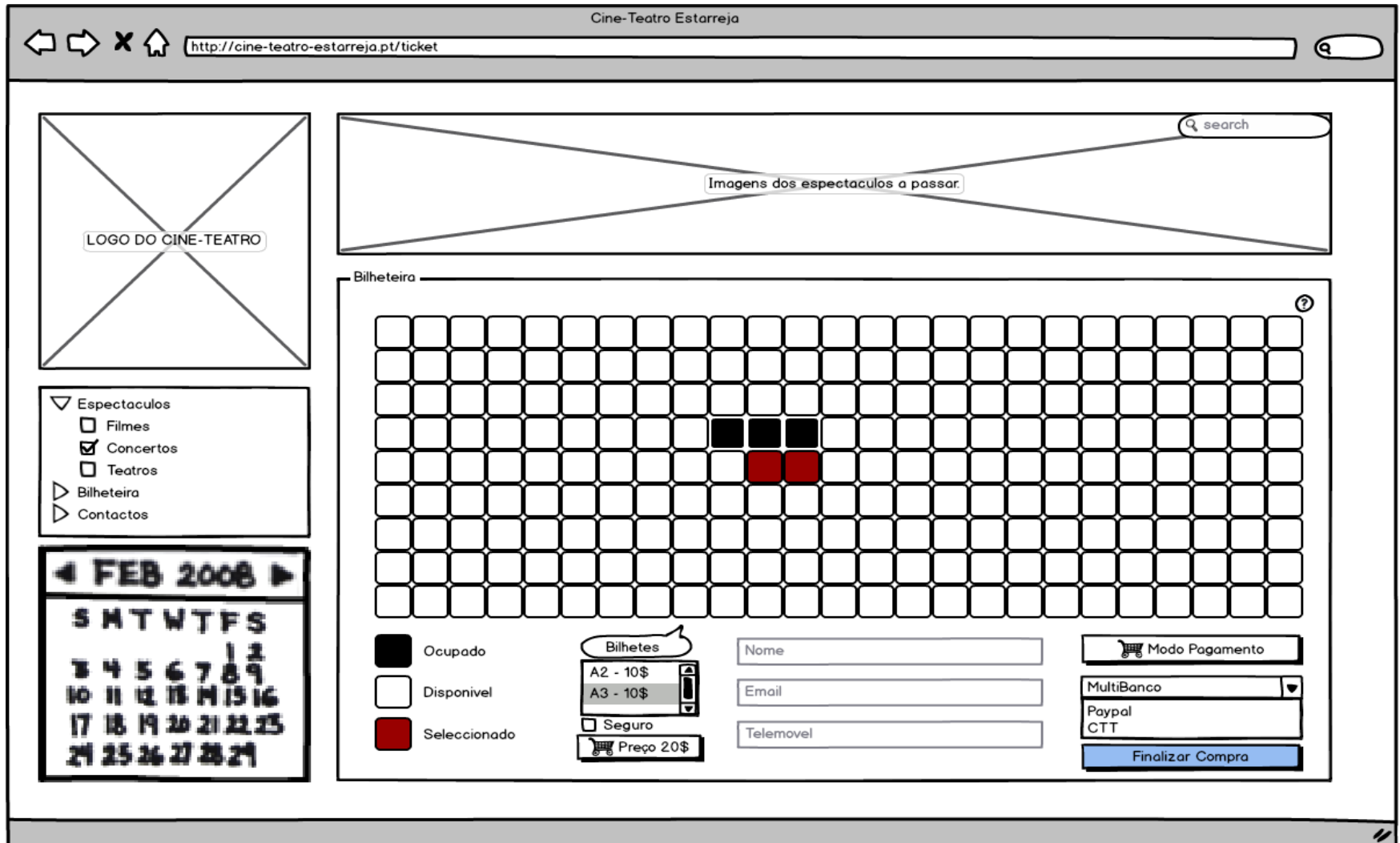
BRUFEN Suspensão

Example: "E-Doctor"





Example: a “ticketline” prototype





LOGO DO CINE-TEATRO

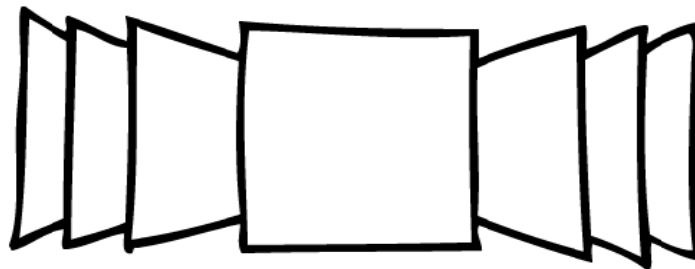
Q search

Imagens dos espectaculos a passar.

- ▼ Espectaculos
 - ☐ Filmes
 - ☒ Concertos
 - ☐ Teatros
- ▷ Bilheteira
- ▷ Contactos

◀ FEB 2008 ▶						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	

Concertos



Artista/Espectaculo/Filme



Descrição do Espectaculo

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam hendrerit, nisl eu pretium consectetur, diam magna convallis nisi, quis placerat nisl magna in magna. Cras convallis condimentum volutpat. In non orci non ipsum bibendum placerat. In hac habitasse platea dictumst. Nam vulputate pretium leo eget gravida. Aenean porttitor pretium augue, egestas facilisis arcu vestibulum a. Morbi posuere enim arcu, nec mollis metus.

Etiam mauris quam, tincidunt vel egestas eget, condimentum a tellus. Sed vel sapien non diam consectetur tempor vulputate sed neque. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Vivamus ut augue at sapien interdum rutrum sit amet quis lacus. Integer vulputate

◀ FEB 2008 ▶						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	

Comprar

Example: “email client”

Gmail CLIENT

GMAIL CLIENT

← → ✕ 🏠 🔍





ENTER YOUR GMAIL CREDENTIALS

GMAIL ID :

PASSWORD :

E-mail application





← → ✕ 🏠 🔍

 MAILBOX  WRITE MAIL  CONTACTS  QUIT

#	FROM	TOPIC	DATE
4	xxx@gmail.com	Topic4	01.01.2013 12:00
3	xxx@gmail.com	Topic3	01.01.2013 12:00
2	xxx@gmail.com	Topic2	01.01.2013 12:00
1	xxx@gmail.com	Topic1	01.01.2013 12:00

E-mail application

← → ✕ 🏠 🔍

 MAILBOX  WRITE MAIL  CONTACTS  QUIT

DATE:

FROM:

TOPIC:

Content of the e-mail.

xxx

Example: “My shop” app



- Participant #1
 - Insert “Previous” and “Next” buttons
- Participant #2
 - Scroll and swap options
 - Prev and Next should be arrows

Search Localization

New localization

- Change name “Mark” to “Supermarket Name”
- Change order of “City” and “Supermarket”

Recent localizations

Localization by GPS

Shopping List

Recent lists

Insert list by category

Insert list by notebook

- Insert the list above while we are adding products

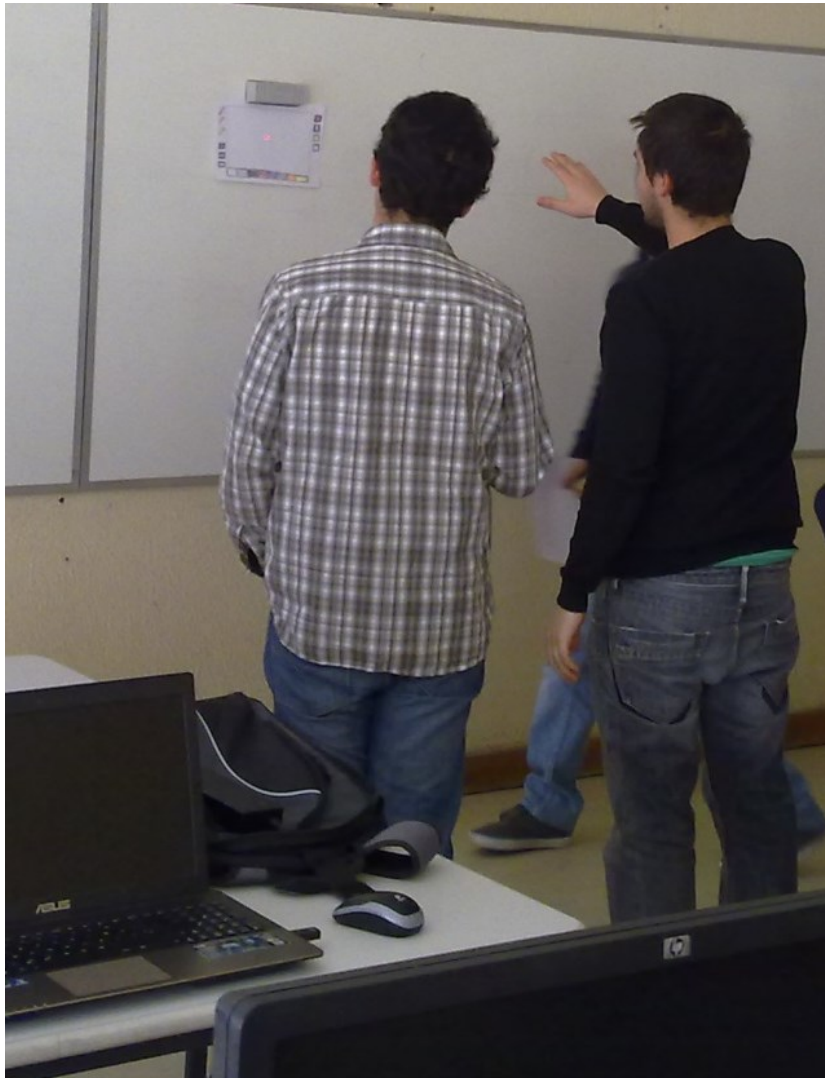
Shopping Map

Interact with map

- Insert button “Next product”

Modify list

Even for less conventional applications



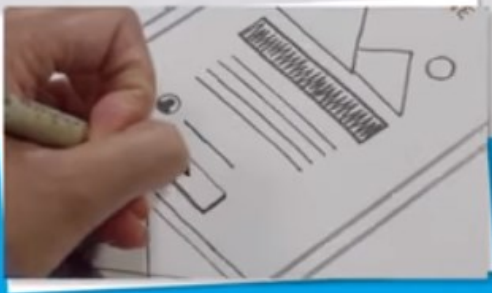
Example: Wizard of Oz for gesture controlled “Pac-Man”



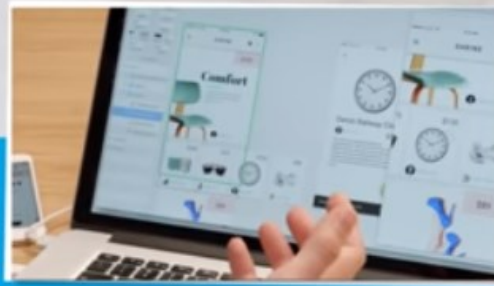


What is Paper Prototyping? – Interaction Design Foundation

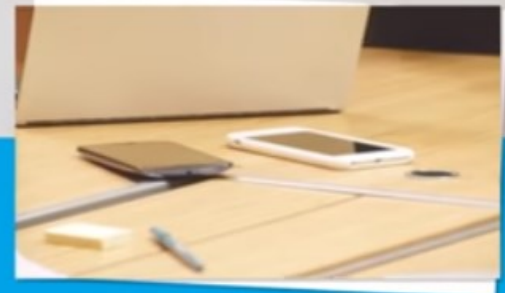
<https://www.youtube.com/watch?v=4ZRzJTczMCE>



Sketching &
Paper
Prototyping



Digital
Prototyping



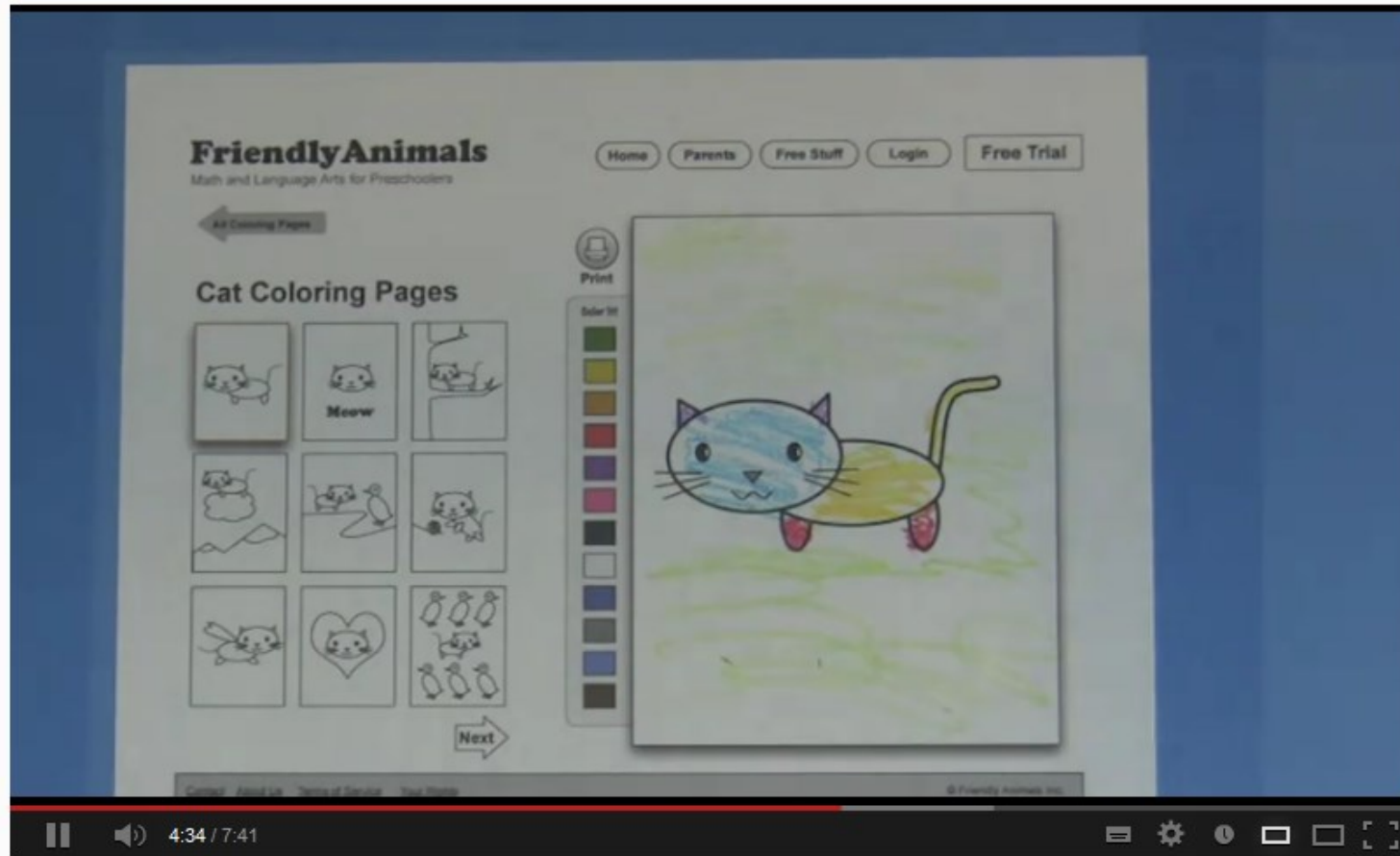
Native
Prototyping

Rapid Prototyping: Sketching | Google for Startups

<https://www.youtube.com/watch?v=JMjozqJS44M>

<https://www.youtube.com/watch?v=KWGBGTGryFk>

<https://www.youtube.com/watch?v=lusOgox4xMI>



“Performing a usability test early in your website planning process can have huge returns - a paper prototype allows you to do this with a minimal time investment”

<http://www.youtube.com/watch?v=9wQkLthhHKA>

Bibliography and links

Carolyn Snyder, *Paper Prototyping: The Fast and Easy Way to Design and Refine User Interfaces*, Morgan Kaufmann, 2003

https://books.google.pt/books/about/Paper_Prototyping.html?id=YgBojJsVLGMC&printsec=frontcover&source=kp_read_button&redir_esc=y#v=onepage&q&f=false

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<https://www.nngroup.com/articles/paper-prototyping/>

<https://balsamiq.com/>

<https://prottapp.com/>

Acknowledgment

To all students who have used paper prototyping in previous editions of the Human-Computer interaction course and colleagues who advised them