Introduction to User Experience Design

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Who am I?

- Studied
  - Informatics at Sofia University
  - Media Informatics at RWTH Aachen
- User Experience Designer at:
  - SAP
  - BOSCH
  - VMware
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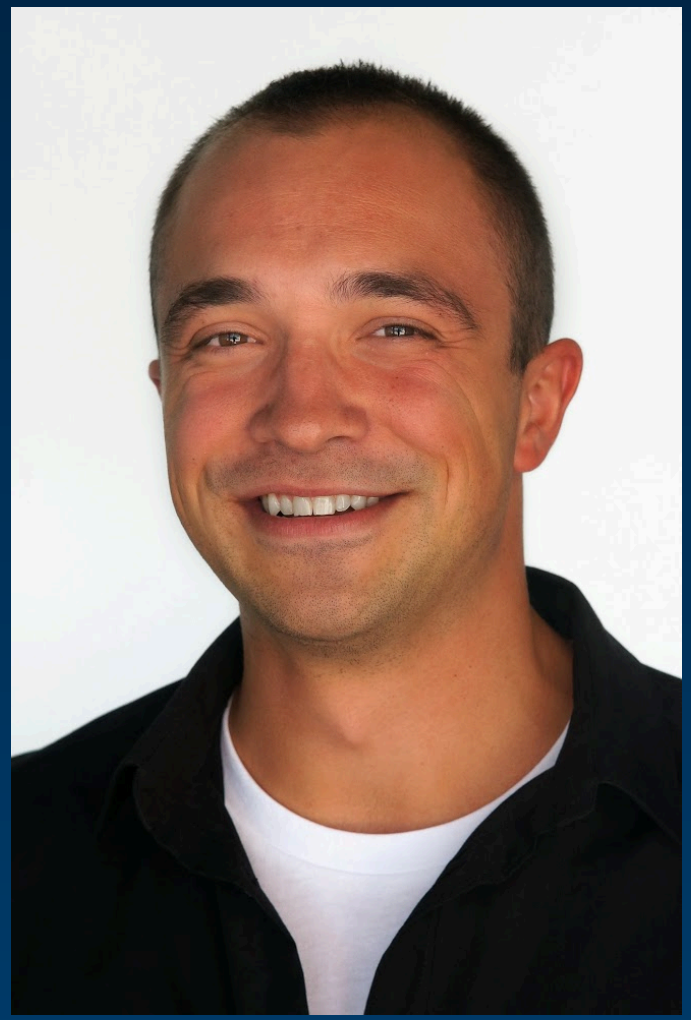

Are You Good at Drawing?

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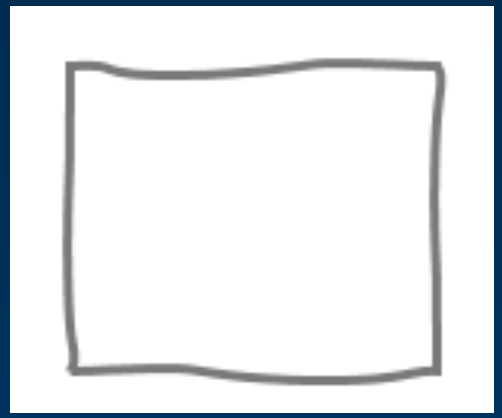
- Can you do this:

Are You Good at Drawing?

- Can you do this:

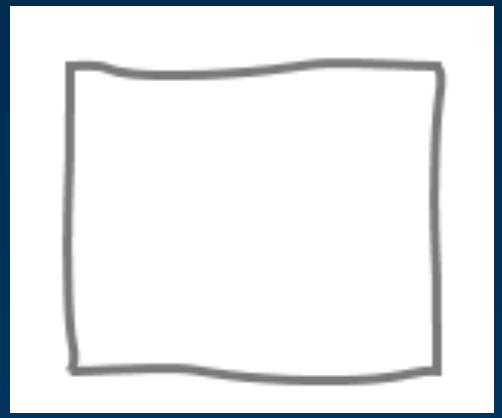
- And this:



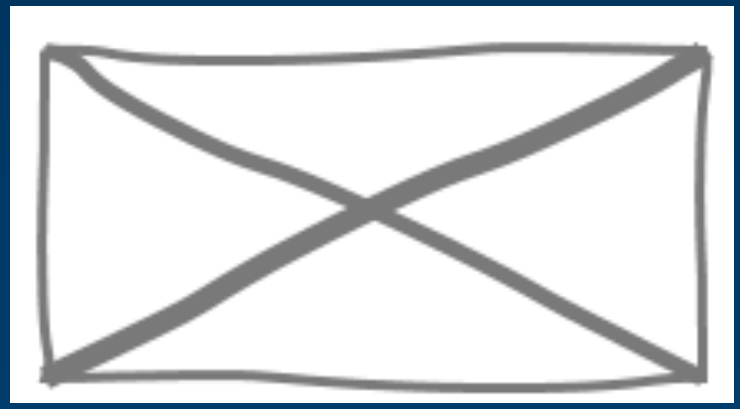
Are You Good at Drawing?

- Can you do this:

- And this:



- And how about that:



What Kind of OS Do You Use?

What Kind of OS Do You Use?

- Owning a MacBook does not make you a better designer

What Kind of OS Do You Use?

- Owning a MacBook does not make you a better designer

- Using Linux does not make you a worse one

You Had One Job!

Fac 0 0 | Order# 99004234 | New 99031927 | Report Selection (Prin Vie Fax EMai) | OCB | SSF View | Dupe Load | View Invent | Routing Sheet | Print Bill | Call Log | Cancelled

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Caller JOE | Quote 0
Phn [redacted] | Unknown Shipper:
Terms (•) Prepaid ( ) Collect ( ) 3rd Party | STD
Cust: Hi Fo Holdings, Ltd. | HIFO
Inv: Hi Fo Holdings, Ltd. | HIFO

PICK-UP
At: Hi Fo Holdings, Ltd. | HIFO
Add: 1125 [redacted] STREET SUITE 1200
CSPC VANCOUVER BC V6Z2K8
Ph: [redacted] Fax:
Cont: Est P/U:
Appointment: D: 06-10-02 F: T:

CONSIGNEE
Cons: CANADIAN HARDWARE & H
Add: [redacted] AVENUE SUITE 101
CSPC SCARBOROUGH ON M1B5M4
Ph: [redacted] x Fax: (41[redacted]2
Cont: VM:
Appointment: D: F: T:

COD $0.00 | Driver Collect
Fee $0.00 | Fee Collect

Mode: Air | From SC: ADT | To SC: ADT
Tariff: CAXR9-00-01
Service: 2D D 194
From: YVR
To: YYZ
Deliver By: 06-12-02 17:00
Clock Stop

Miles	P/U Miles	Del Miles
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Broker / Customs Agent
Broker:
Value: 0.00 In: USD
Notified:

Verbal Pod
Notify on POD
Hazmat:

Find CAX#
CAX#: 100670861
Shpr Ref:
B/L:
PO#:
GBL Num:
Cons Ref:
Billing Ref:
Ref 5:
MasterID: 0
MAWB:
Statement: 0
Hold P/U:

Non-Freight:
Manifest Hold: ☑
Print Hold ☑
Rate

SAVED

Charges:	761.50
Discount:	0%
SubTotal:	761.50
Accessorial:	40.00
DV: 0	0.00
FSC: CAX 2.50%	38.08
Total:	839.58
Balance:	839.58

Addend
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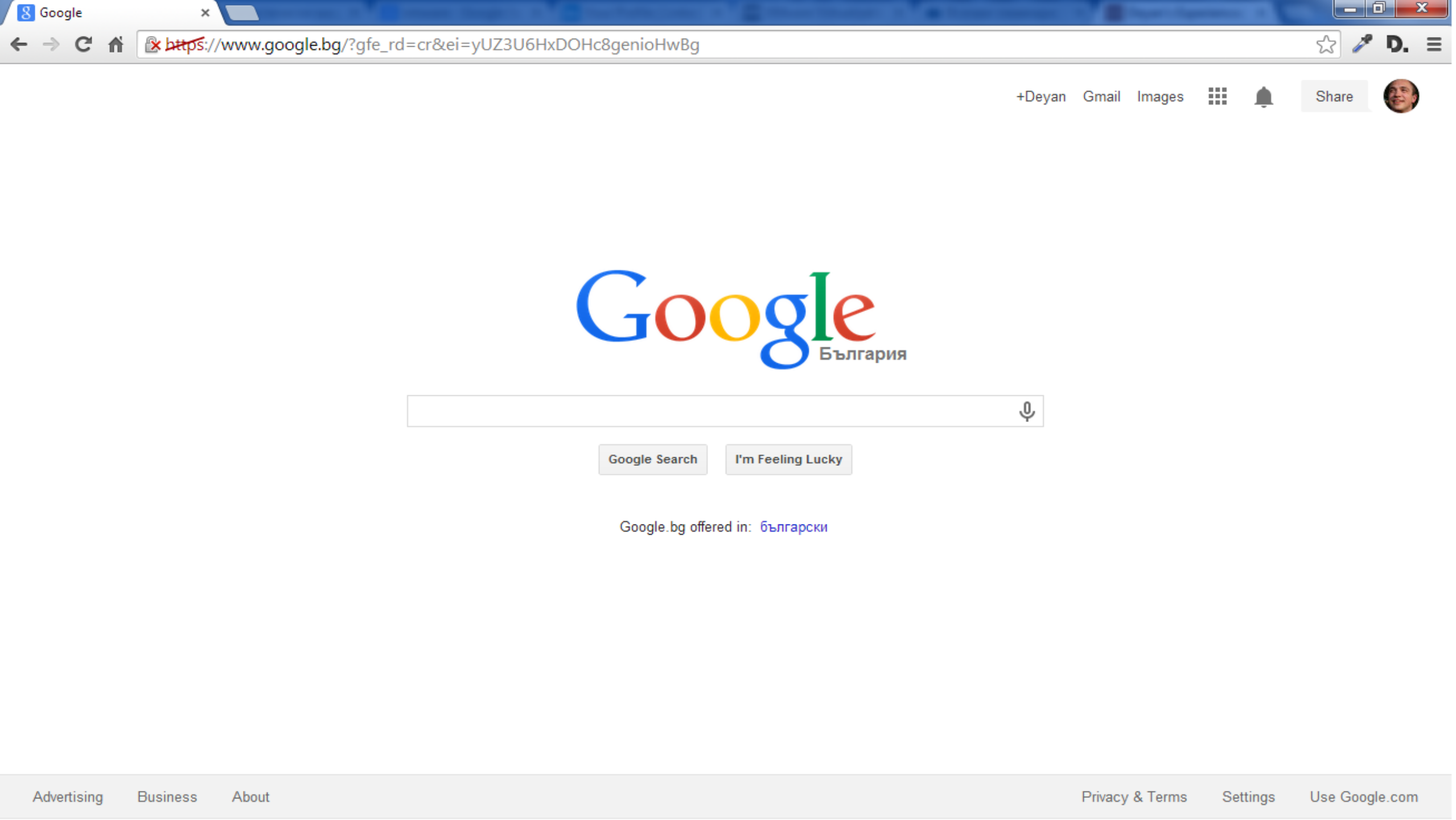
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User Experience Matters

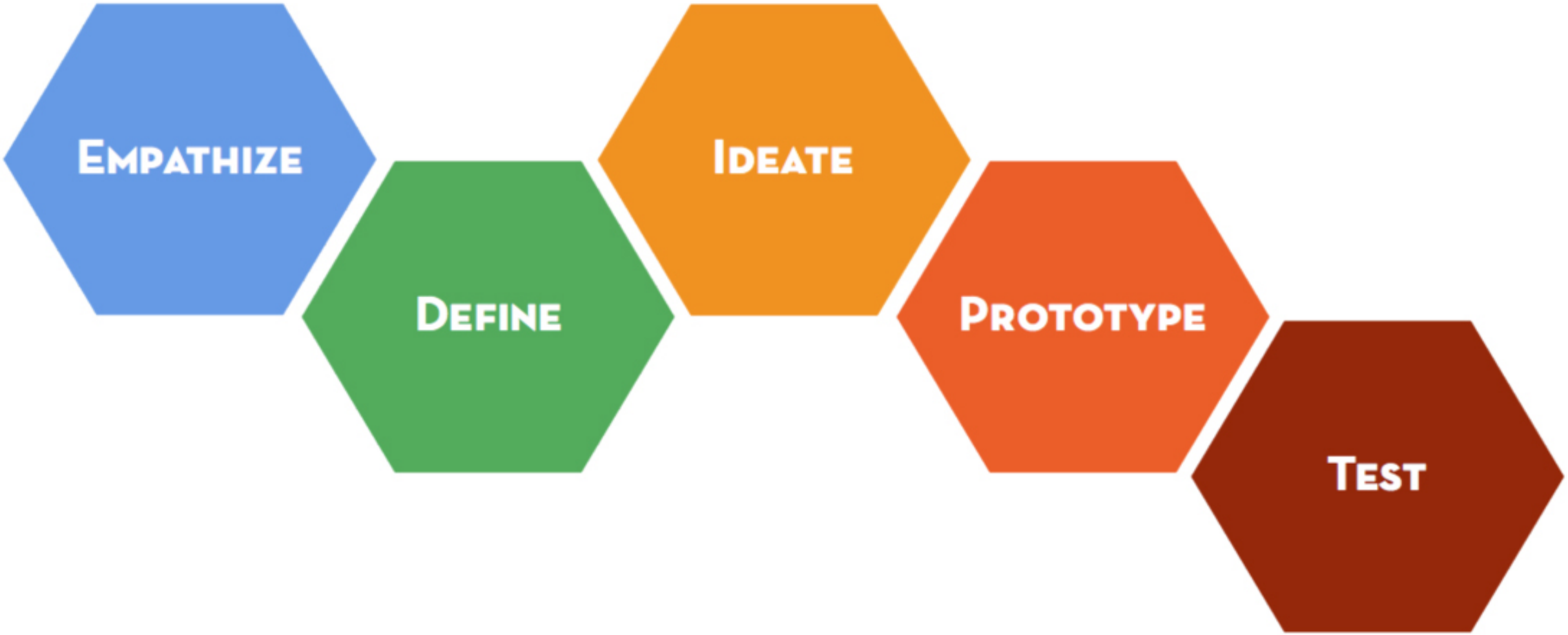
What is User Experience

A person‘s perceptions and responses that result from the use or anticipated use of a product, system, or service

User Experience Disciplines

- User Researcher
- Interaction Designer
- Visual Designer

The Process



Research Phase

- Provide qualitative data about the users:
  - Goals
  - Motivations
  - Behaviors and attitudes
  - Use of existing products
  - Vocabulary
- Provide data about competition and market

Who to Research

- User interviews (Ethnographic interviews)
  - Interviewing
  - Observing
- Other people to interview:
  - Stakeholders
  - Subject matter experts
  - Customers

Research Phase Output - Persona

- Demographics
  - Deyan, 26 years old
  - Lives in Sofia
  - Not married
- Goals, motivations, preferences
  - Wants something for dinner
  - Can cook a few things
  - Doesn’t mind doing the dishes.
- Stories
  - Turns on the stereo loud in the other room, so he can hear it in the kitchen

Research Phase Output - Models

- Models
  - Implementation
  - Designer
  - User

Research Phase Output - Models

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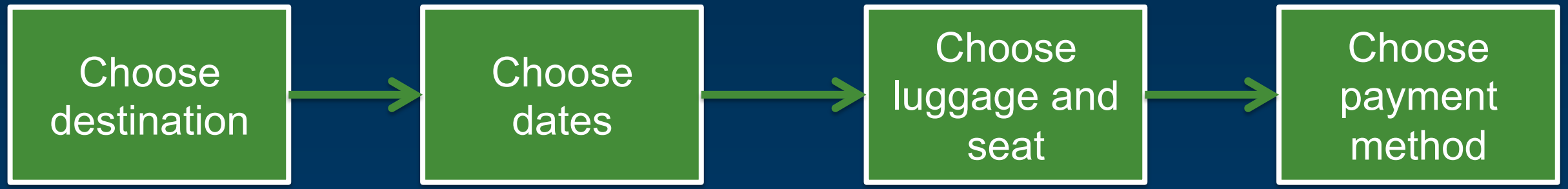
- Example – Thermostat
  - if you quickly want to heat up the oven to 200 degrees, how high will you put it in the beginning?

Prototyping

- Why prototype?
  - Immediately test a rough idea
  - Cheaper than development
  - Easier to tweak
- Types/Phases
  - Task flows
  - Paper prototype
  - High fidelity prototypes

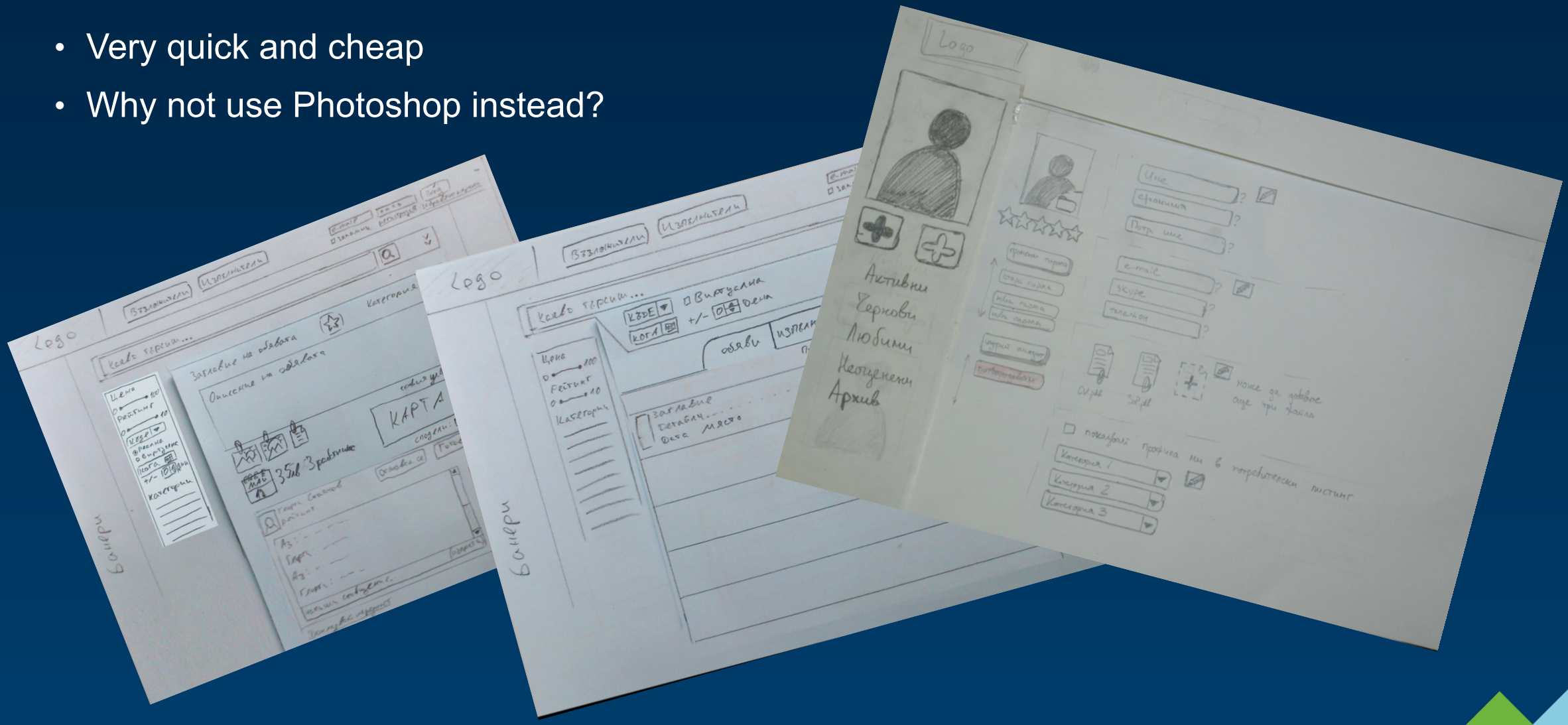
Task Flows

- Steps needed to achieve the goal
- Think about screens later



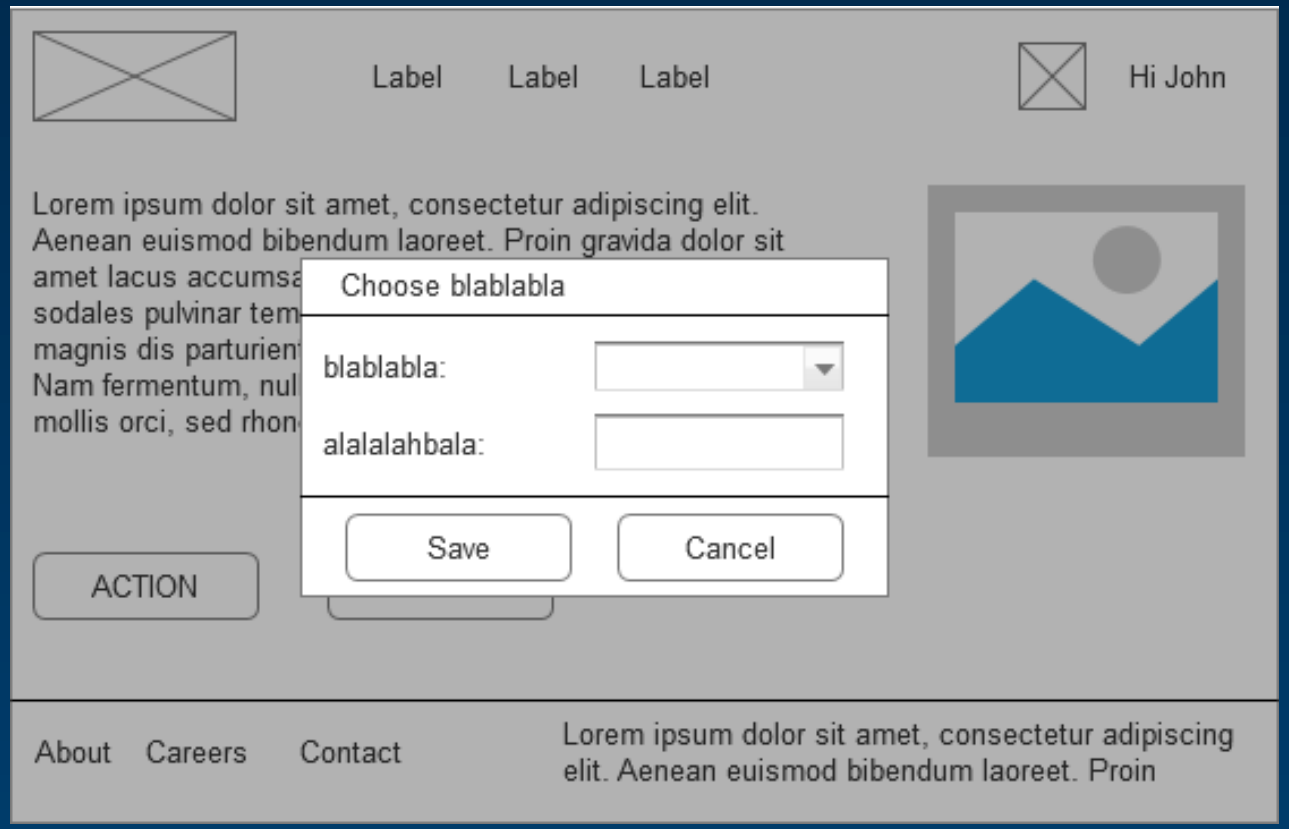
Paper Prototype

- Very quick and cheap
- Why not use Photoshop instead?



High Fidelity Prototypes

- Put the details to the test
- Clickable mockups (Axure RP, Omnigraffle)

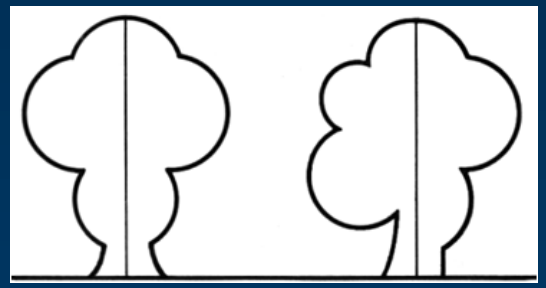


Gestalt Laws of Perception

- Proximity

- Similarity

- Symmetry



- Continuity

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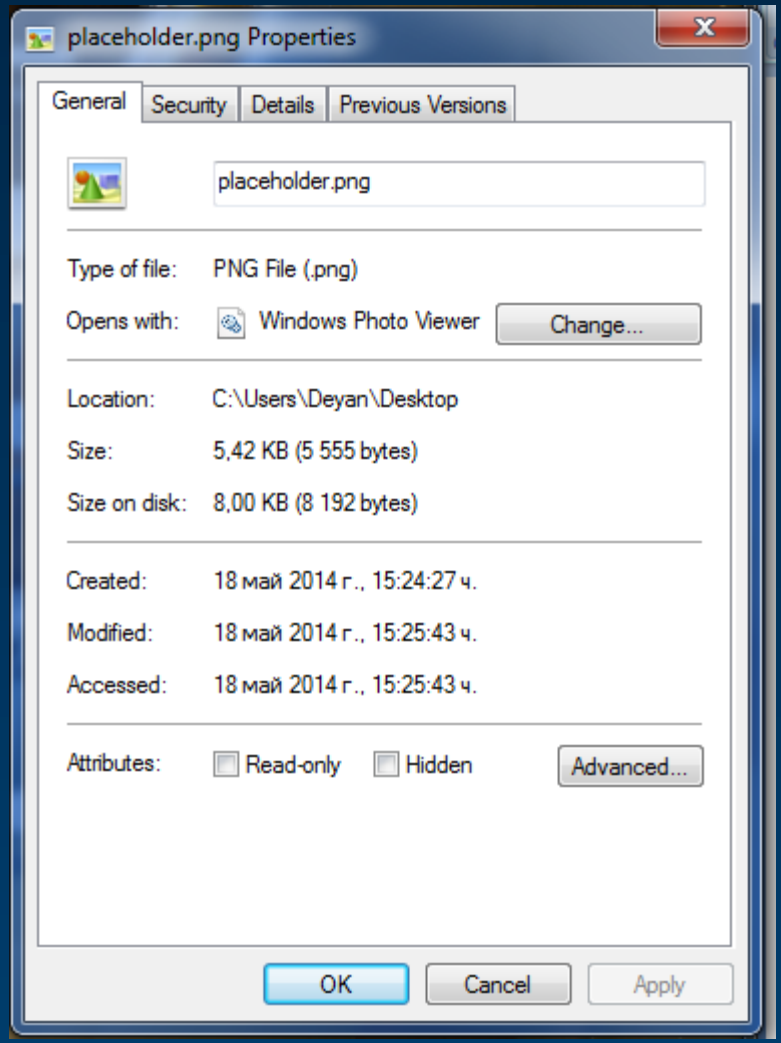
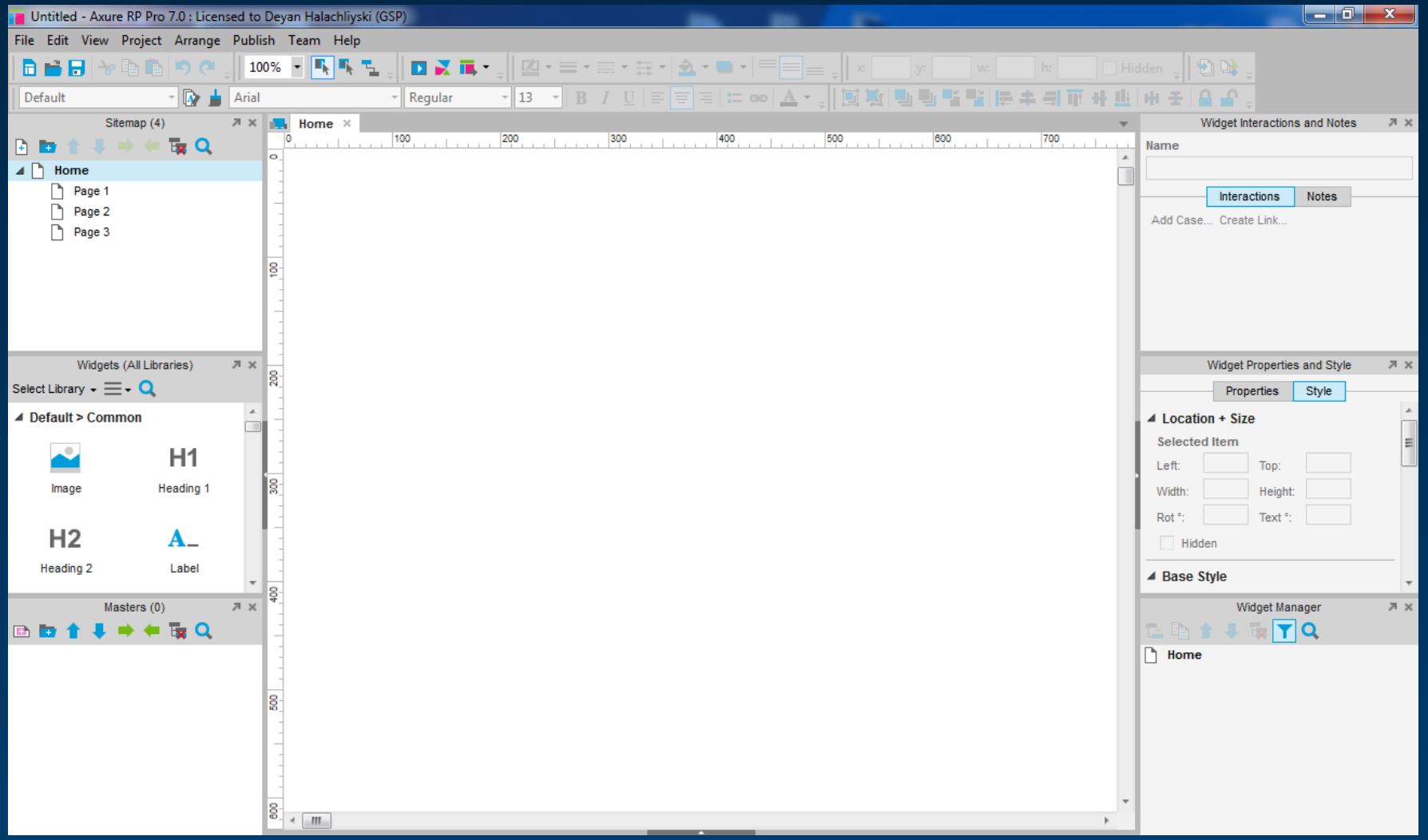
Gestalt Law of Proximity

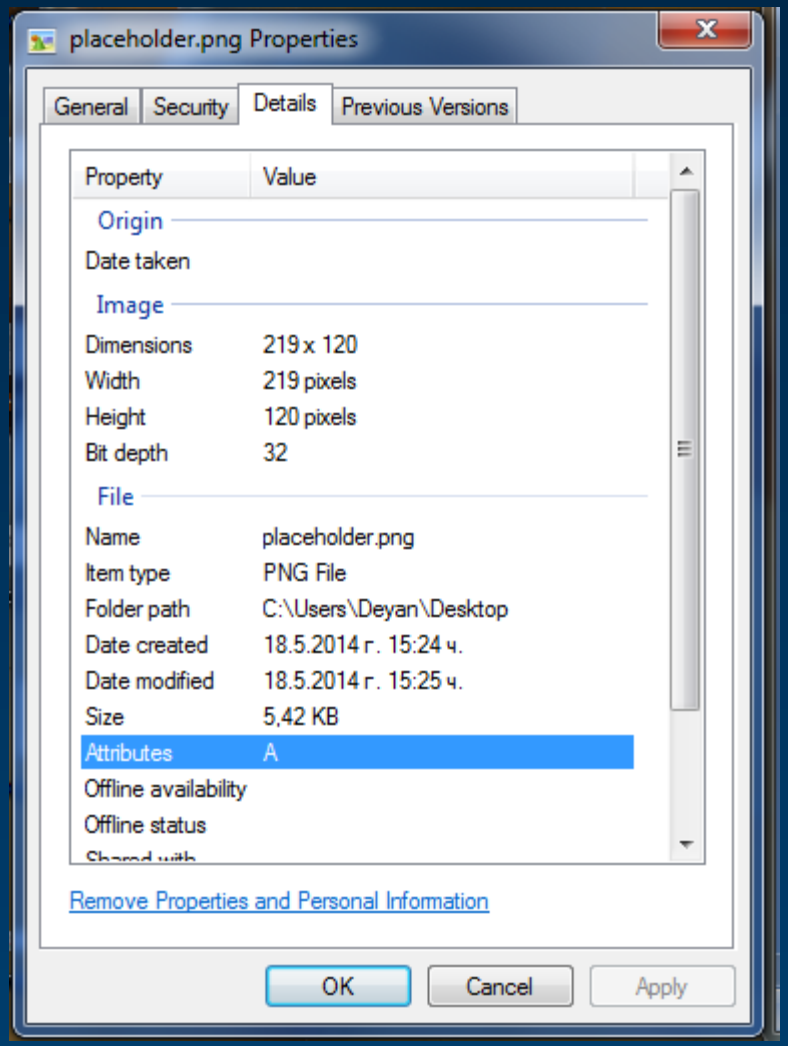


Gestalt Law of Similarity

Gestalt Law of Symmetry



Gestalt Law of Continuity



Usability Testing

- Does the system actually satisfy the user's needs
- Methods:
  - Silent observation
  - Think aloud
  - Heuristic evaluation

Heuristics

- Visibility of system status
- Match between the system and the real world
- User control and freedom
- Consistency and standards
- Error prevention
- Recognition rather than recall
- Flexibility and efficiency of use
- Aesthetics and minimalist design
- Help users recognize, diagnose, and recover from errors
- Help and documentation

Visibility of System Status

- The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

Match Between the System and the Real World

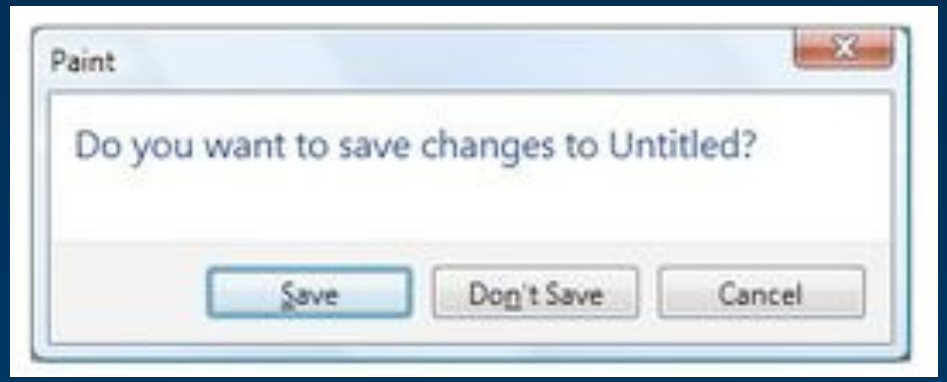
- The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

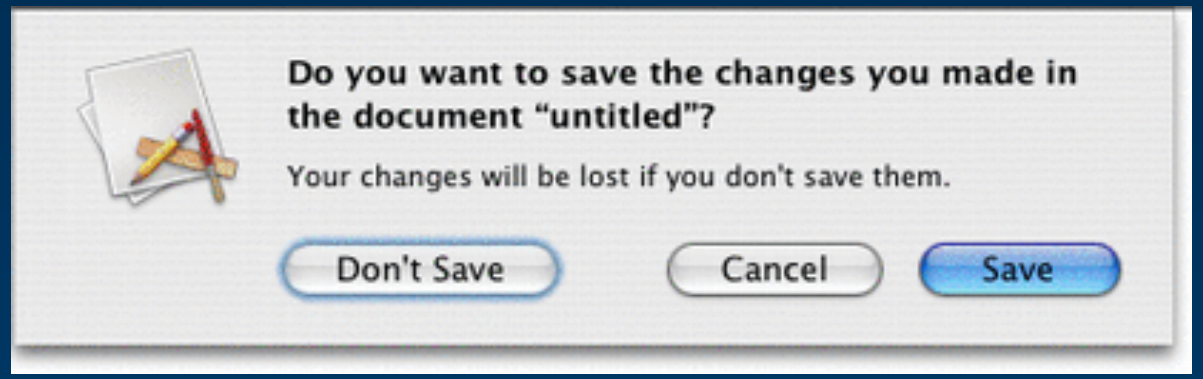
User Control and Freedom

- Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

Consistency and Standards

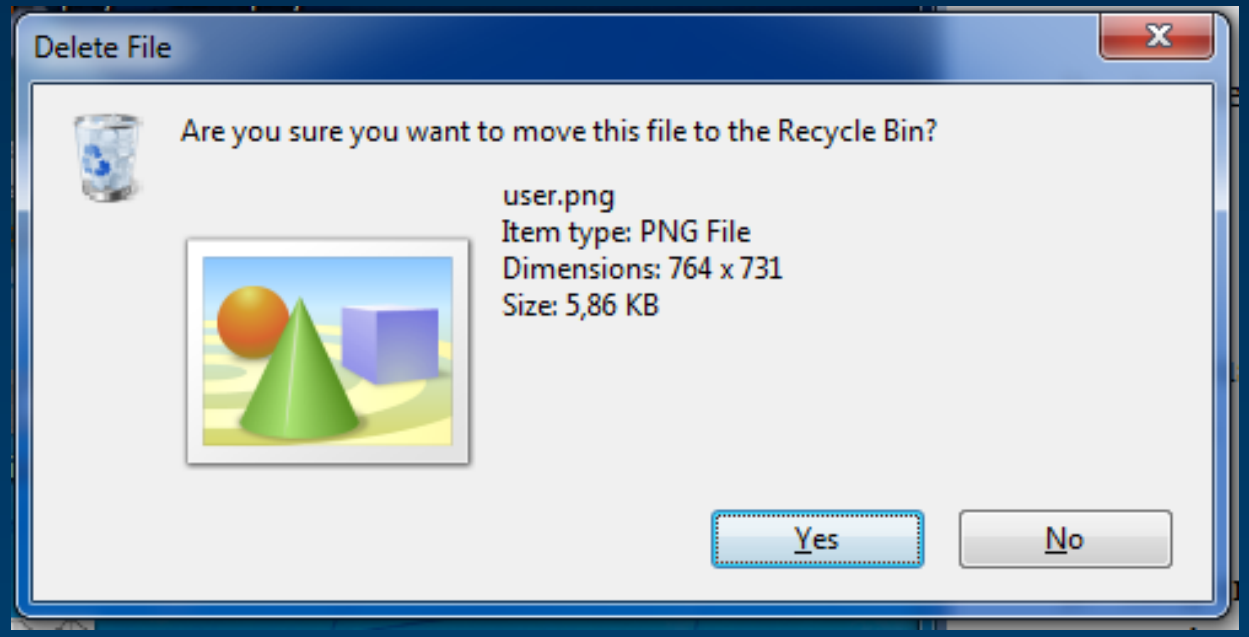
- Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.





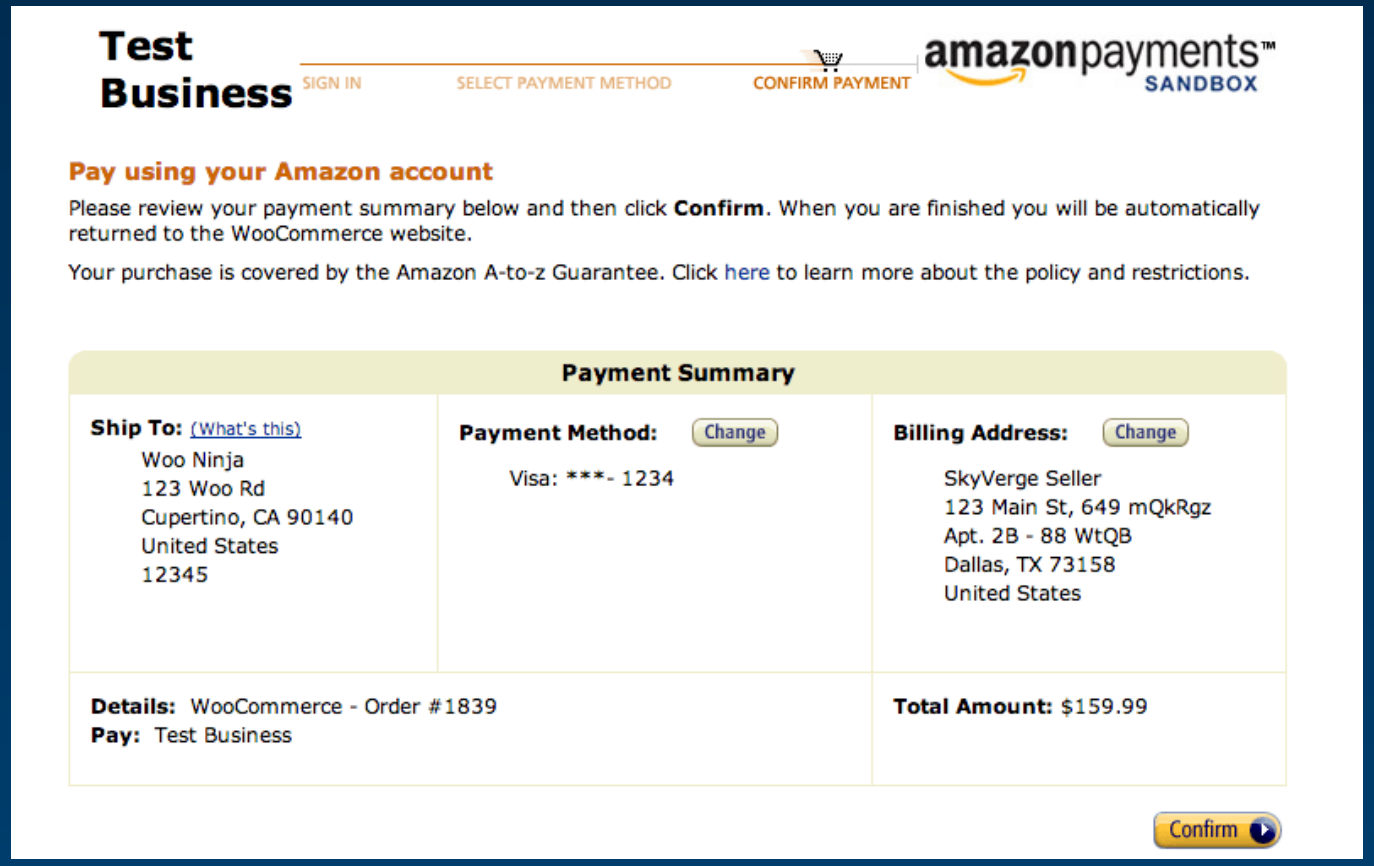
Error Prevention

- Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.



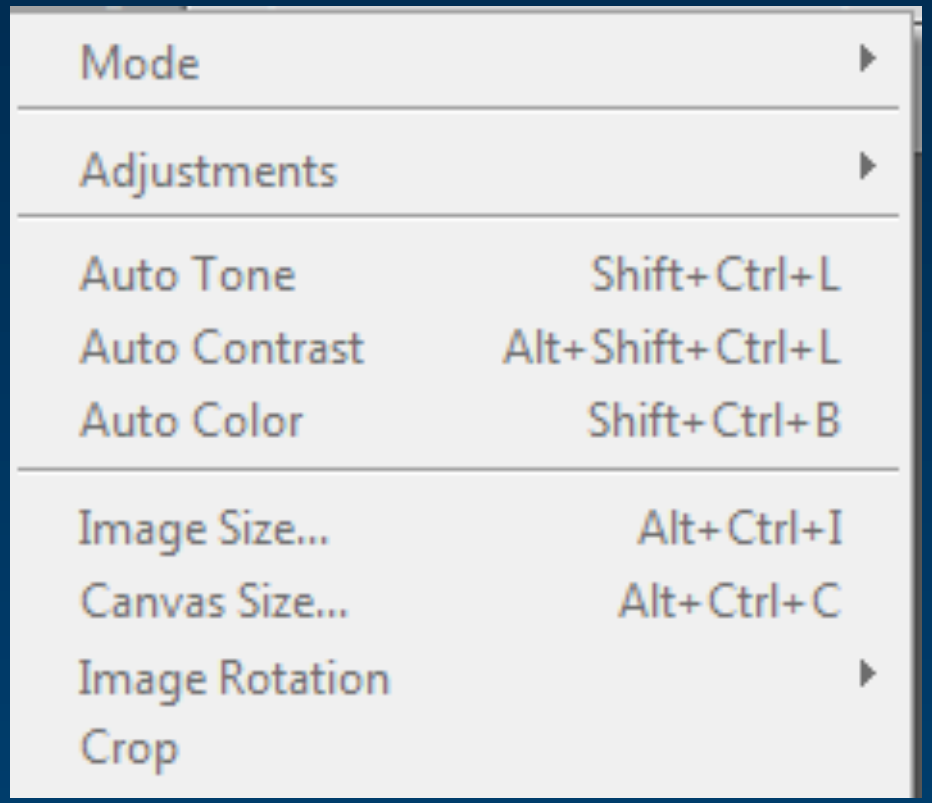
Recognition Rather Than Recall

- Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.



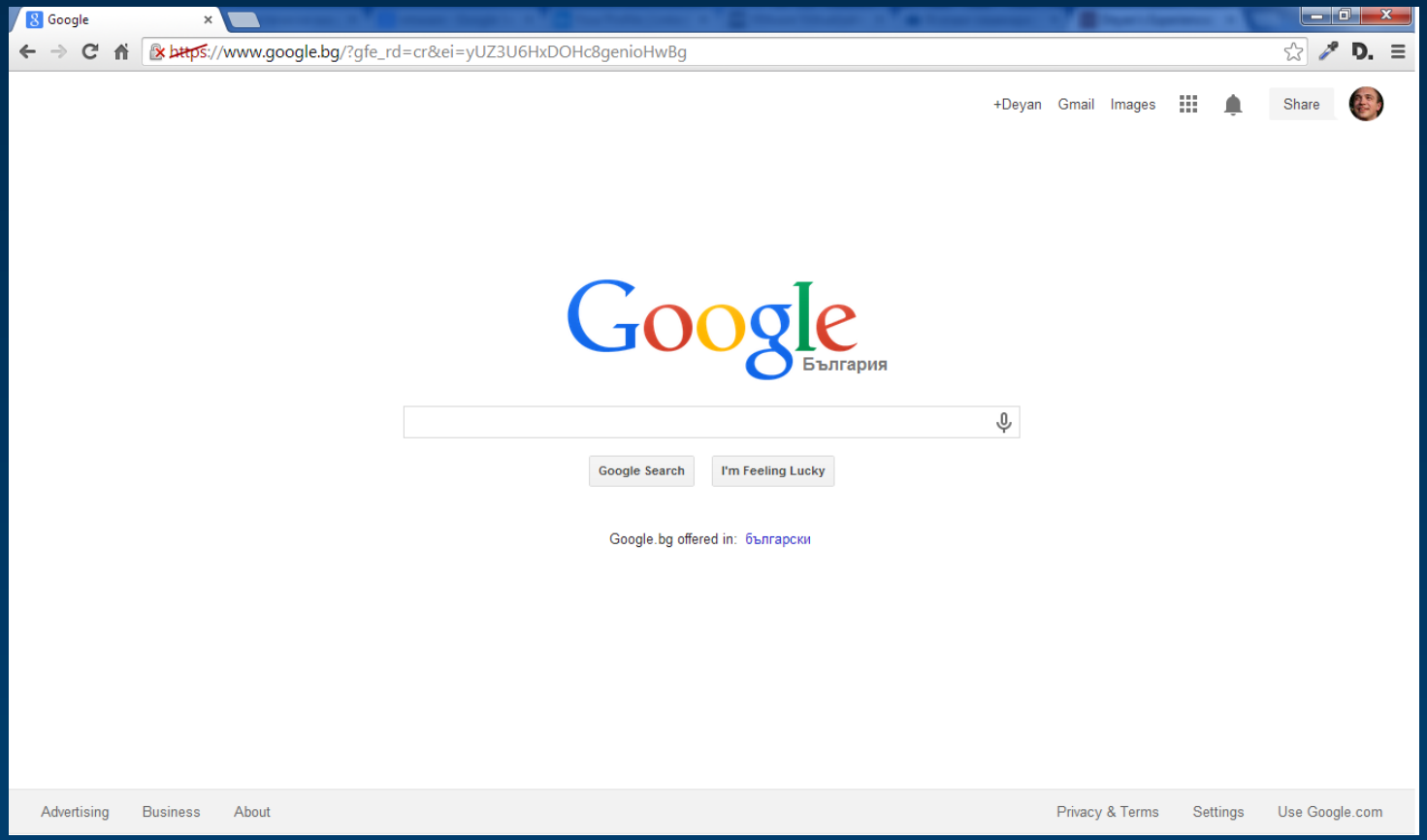
Flexibility and Efficiency of Use

- Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.



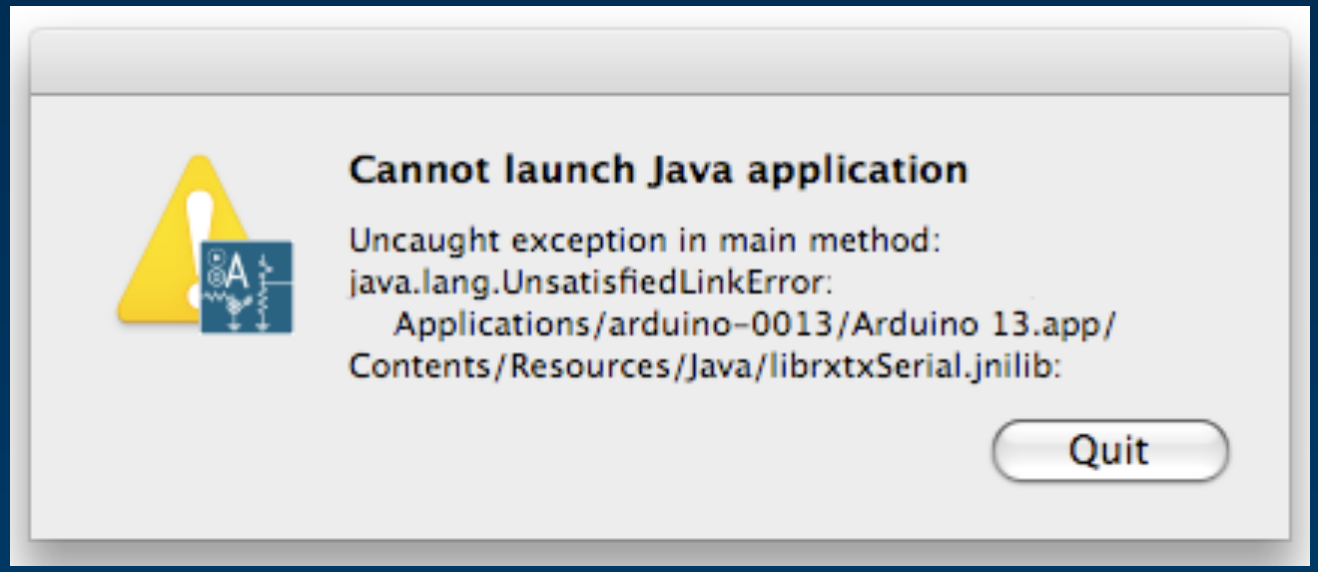
Aesthetics and Minimalist Design

- Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.



Help Users Recognize, Diagnose, and Recover from Errors

- Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.



Help and Documentation

- Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

Summary

- What is User Experience
- User Research
- Prototyping
- Usability Testing

References and Further Reading

- About Face 3: The Essentials of Interaction Design – Alan Cooper
- http://www.nngroup.com/articles/ten-usability-heuristics/ - Nielsen Norman group
- The Design of Everyday Things – Donald Norman
- Emotional Design: Why We Love (or Hate) Everyday Things – Donald Norman
- Don’t Make Me Think – Steve Krug
- Sketching User Experiences – Bill Buxton

Design Task

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- Fast food restaurant
- Kiosk
- Think about the complete workflow