Introduction to Web Design

From Internet Basics to Paper Prototyping

Introduction to Web Design

Part I
Foundations of Web Design – Paper Prototyping

Part II
From Paper Prototype to Web Design – A No-Code Approach

Agenda

1. Introduction to Web Design
2. Why Web Design Matters
3. How the Internet Works
4. Client-Server Model
5. DNS Explained
6. Frontend vs. Backend
7. User-Centered Design (UCD)
8. Responsive Design
9. Tools & Resources
10. Paper Prototyping

- Please be seated into groups of 4 students

1. Introduction – Key terms

- Internet
- Web
- Web page
- Website
- Web App
- URL
- Protocol

2. Why Web Design Matters?

- Stat: 75% of users judge a company's credibility based on its website (Stanford Research).

- Example:
  - **Bad design: C**luttered, outdated.
  - **Good design:** Clean, intuitive.

"Design affects trust—imagine applying for jobs with a messy resume versus a polished one!"

BAD

GOOD

6

3. Internet vs. World Wide Web

- **Internet** = "Highways" (cables, servers).
- **WWW** = "Cars" (websites that move data).
- **Example**:
  - Sending an email (Internet) vs. browsing Wikipedia (WWW).
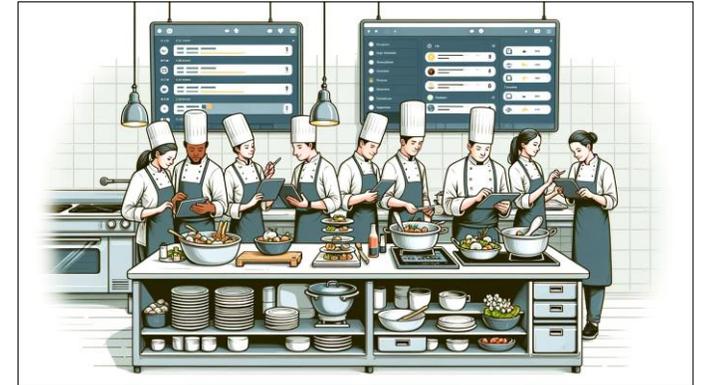 - Road analogy graphic (highway + cars).

Just as roads (the Internet) let cars (websites) drive, the web needs the Internet's infrastructure.

4. Client-Server Model

- **Example**: Ordering food:
  - You (Client) = Browser (Chrome/Safari).
  - Restaurant (Server) = Stores website files.
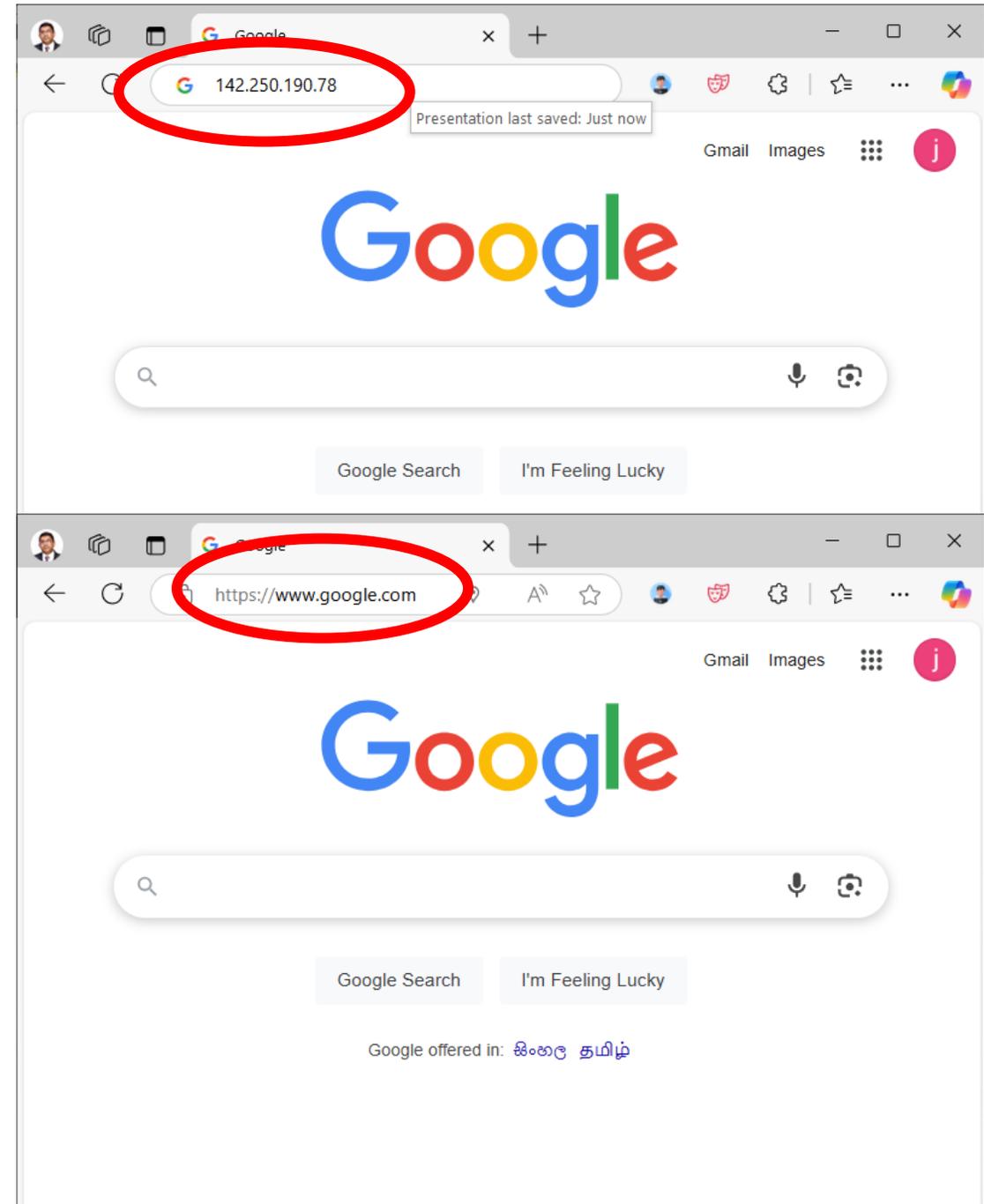 - Waiter (HTTP) = Delivers your request.

"When you click 'Login,' your browser 'orders' data from the server, which 'serves' the webpage."
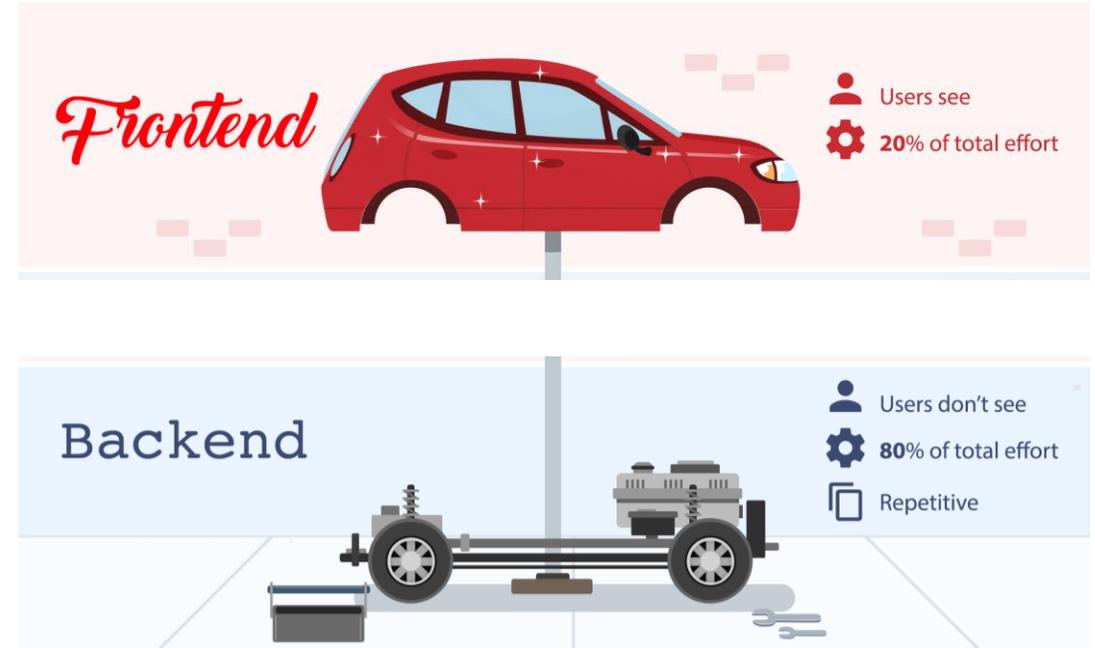
5. DNS Explained

- **Example**: Typing "google.com" → DNS finds its "number" (IP: 142.250.190.78).

- **Analogy**: Contacts app (names → phone numbers).

"Without DNS, you'd need to memorize numbers like 142.250.190.78 to visit Google!"

6. Frontend vs. Backend

Frontend — Users see — 20% of total effort

Backend — Users don't see — 80% of total effort — Repetitive

- Frontend (Example):
  - What you see: Buttons, colors, animations (e.g., Netflix's red "Play" button).

- Backend (Example):
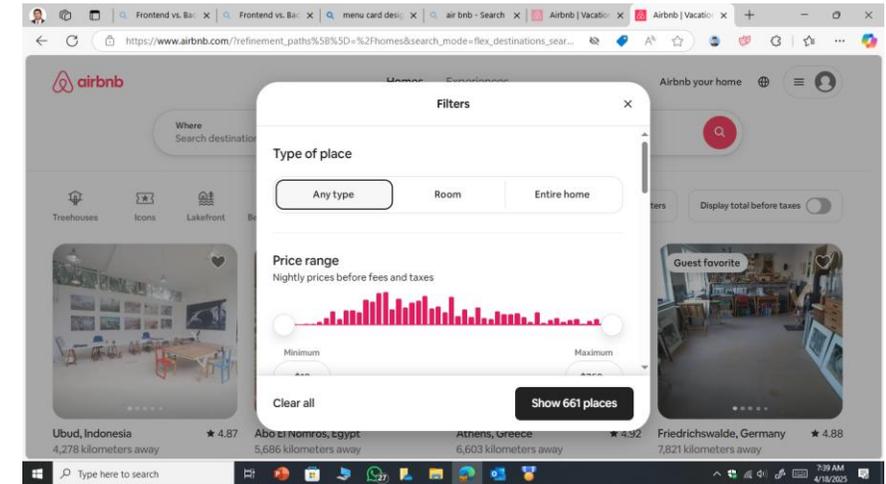 - What you don't see: User logins, databases (e.g., Netflix recommending shows).

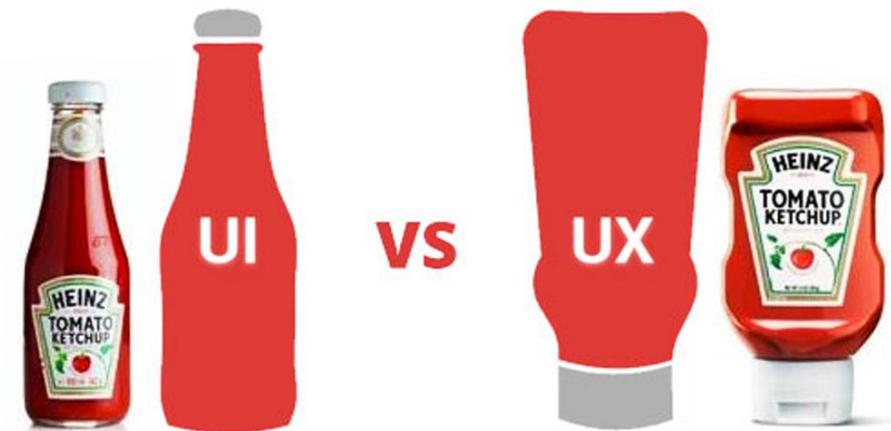"Frontend is like a restaurant's menu; backend is the kitchen cooking your order."

7. User-Centered Design (UCD)

- UCD is a design approach that prioritizes users' needs, behaviors, and limitations at every stage of the process.

- **Poor UX:** Hidden navigation (e.g., old Amazon menu).

- **Good UX:** Airbnb's clear search filters.

"Good design solves problems—like how Heinz helps you."

8. Responsive Design

- Responsive design ensures websites adapt seamlessly to any screen size (desktop, tablet, mobile).

- Mobile: Stacked sections (e.g., CNN on phone vs. desktop).

- Mobile-First design

"Ever notice how menus turn
into 'hamburger icons' (☰)
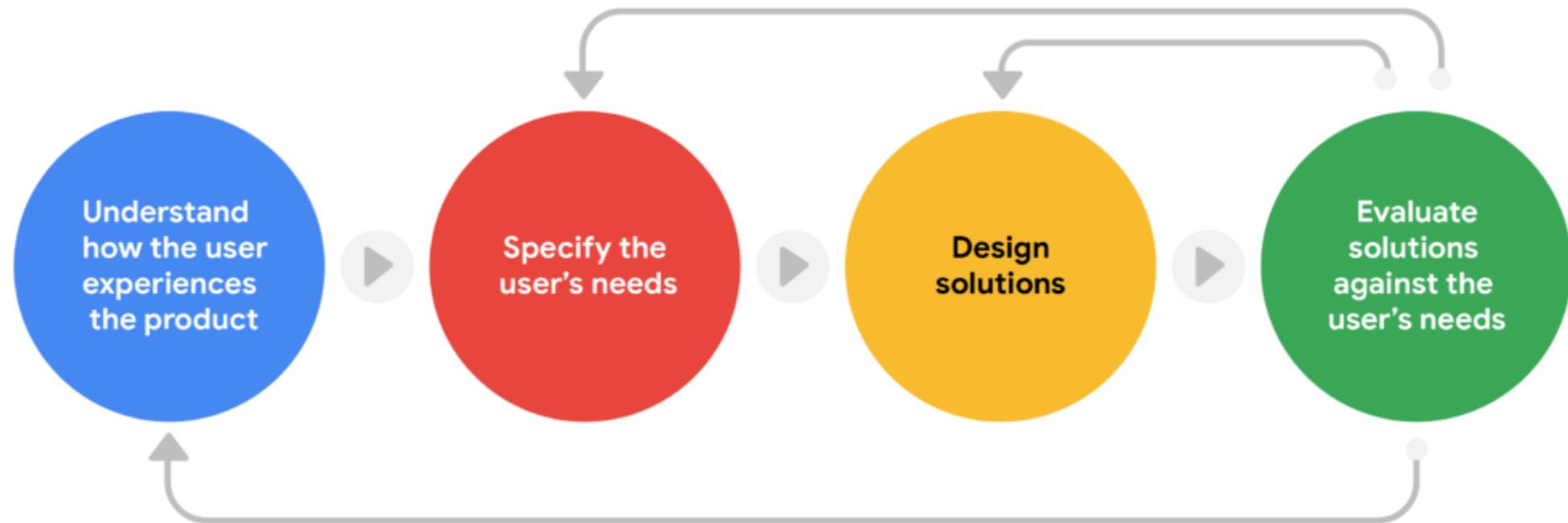on mobile? That's responsive
design!"

Desktop/Laptop

Mobile

9. Tools & Resources

- Free Tools:

  - Figma (prototyping) → Example tutorial.

  - Coolors.co (color palettes).

  - Learning: freeCodeCamp's "Responsive Web Design" course.

10. User-Centered Design (UCD) - Activity

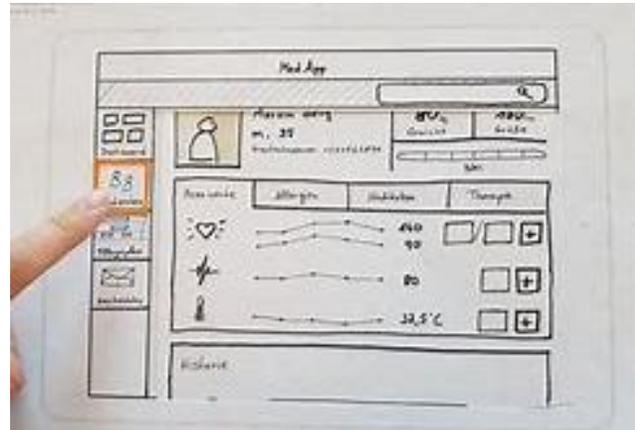# Scenario: "Sweet Delight" – Online Sweet House Website

- **Target Users:**
  - Sweet lovers of all ages
  - Busy professionals looking for quick delivery
  - Parents ordering sweets for their kids' parties
  - Elderly users looking for traditional sweets

User Goals:

• Quickly browse available sweets.

• Find special birthday packages.

• Place an order easily, even with limited time.
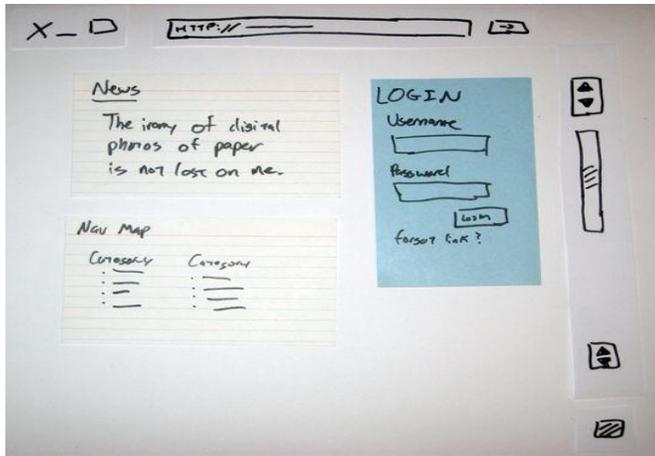
Design - Stand on the shoulders of giants

- Kavili.lk - Sri Lankan Sweets Shop

- Sri Lanka Sweets – Fresh & delicious sri lankan sweets   srilankansweets.lk

- Buy Authentic Sri Lankan Sweets Online – Kavum Kokis   kavumkokis.com

- Desserts & Sweets - Wishque | Sri Lanka's Premium Online Shop! Send Gifts to Sri Lanka – wishuqe.com chocolates and sweets (google this)

- Sweets and Snacks Sri Lanka Delivery - Serendib Online – lanka.co sweets and snacks (google this)

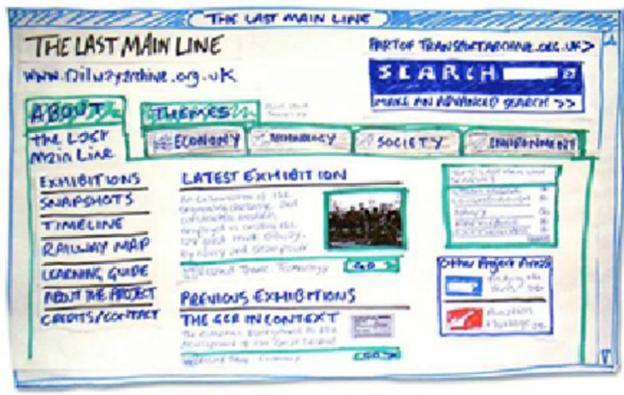- Cakes Chocolates Sweet gifts online delivery -   Sweets.lk

Paper Prototyping - Activity

- A low-fidelity design technique where interfaces are sketched on paper to:
  - Quickly test ideas
  - Gather feedback early
  - Save time/costs before coding

- Create a paper prototype (home page) for the proposed "**Sweet Delight**" using the given A4 sheet
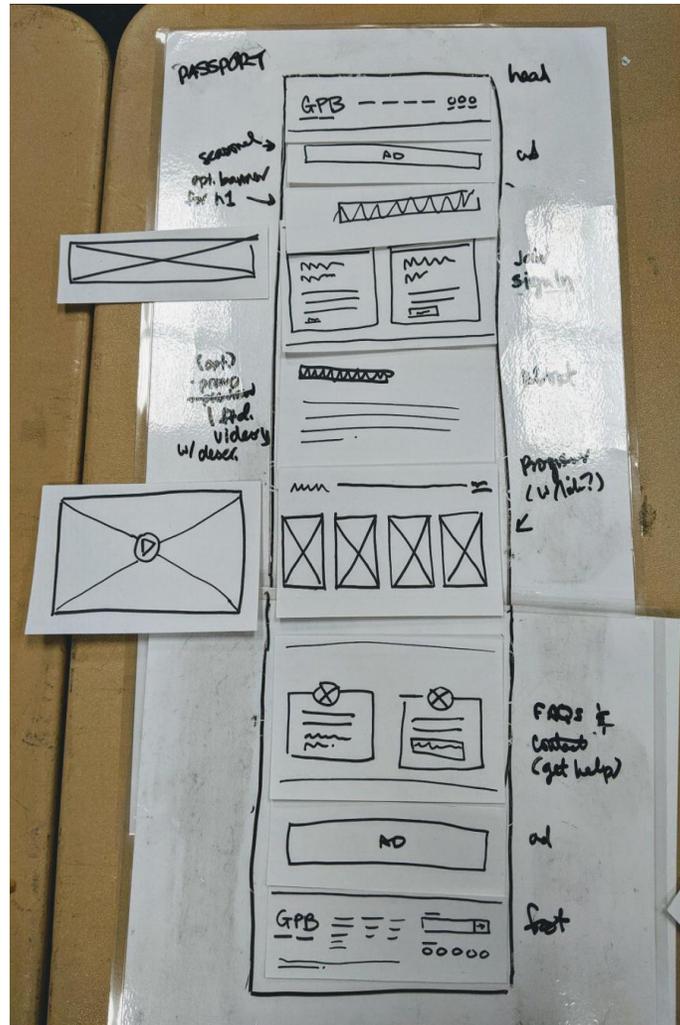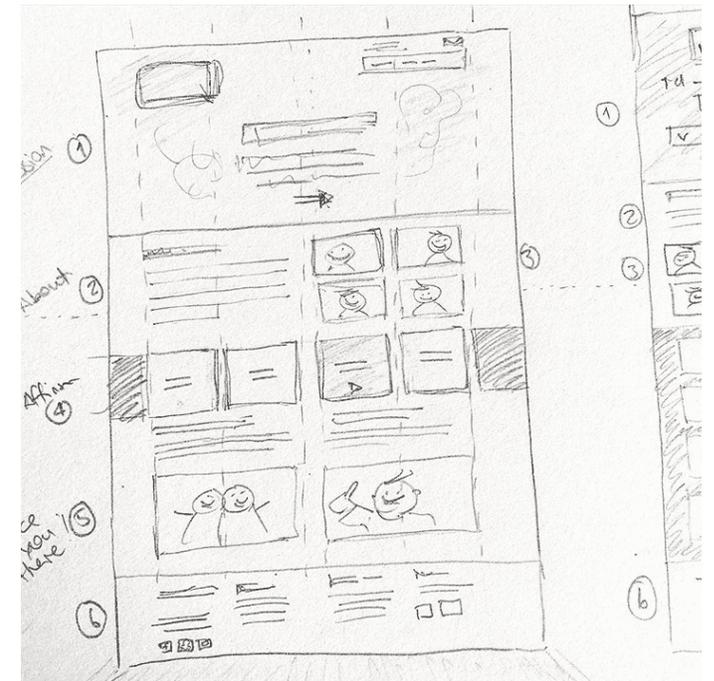
Sketch

Mockup

Wireframe

Prototype

Key takeaways

1. Introduction to Web Design
2. Why Web Design Matters
3. How the Internet Works
4. Client-Server Model
5. DNS Explained
6. Frontend vs. Backend
7. User-Centered Design (UCD)
8. Responsive Design
9. Tools & Resources
10. Paper Prototyping

THANK YOU