

Lecture 07



University of Zanjan

Software Engineering

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Previous Lectures Overview

1. Internet & Web
2. Team Making
3. Introduction to Visual Studio & ASP.NET Core
4. Version Controls (Subversion & Git)
5. Reviewing Proposals
6. Reviewing Proposals

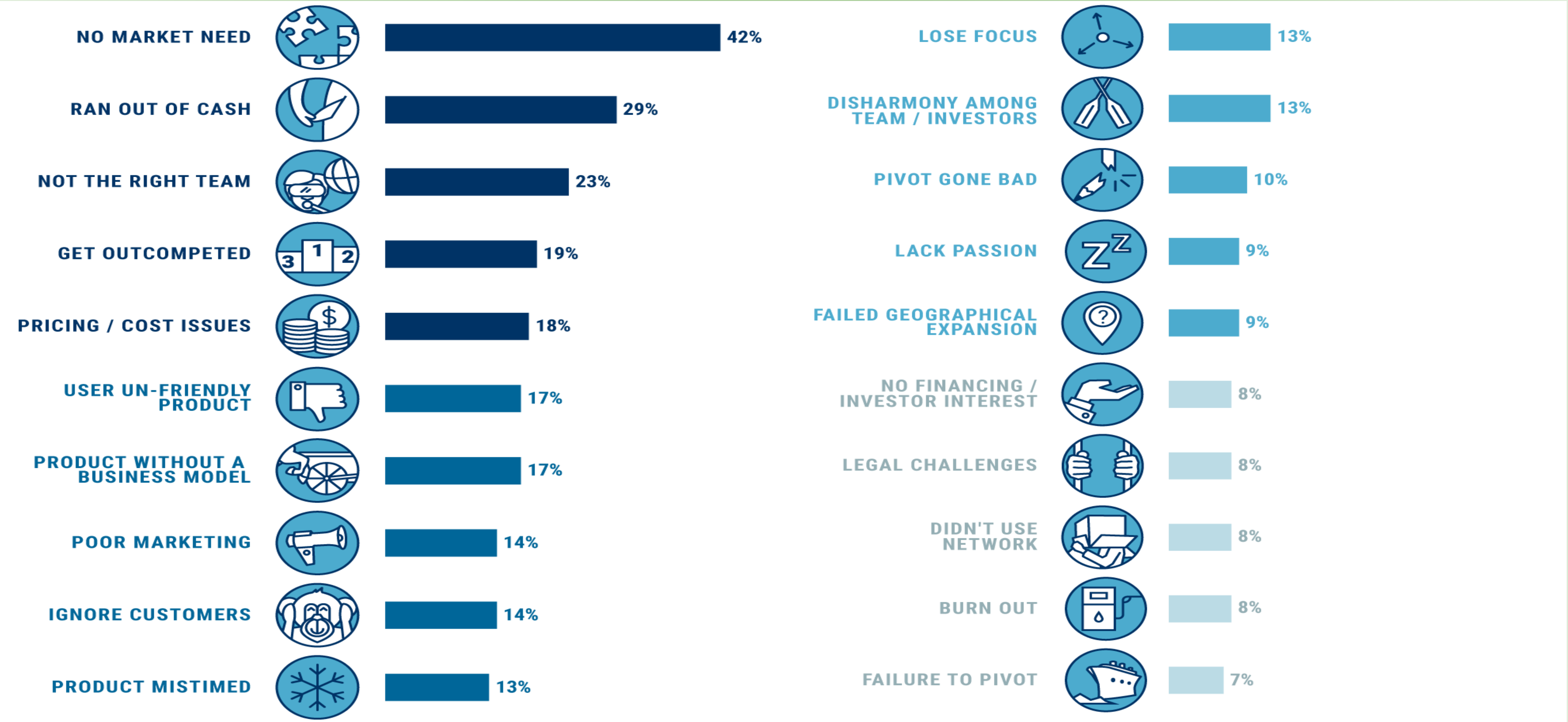
Reviewing Proposals

Opportunity to Access Collective Knowledge

- New Perspectives
- New Ideas
- Challenges and Issues
- Group Decision Making
- Improvement Team Work

 Reduce The Project Failure Rate

The Top 20 Reasons Startups Fail



20 Surprising Project Management Statistics

- 80% of project management executives don't know how their projects align with their company's business strategy.
- 33% of projects fail because of a lack of involvement from senior management.
- 75% of IT executives believe their projects are “doomed from the start.”
- Fewer than a third of all projects were successfully completed on time and on budget over the past year.
- 49% of organizations have a project management training program in place.
- ... <https://www.pm-logic.com/project-management-statistic/>

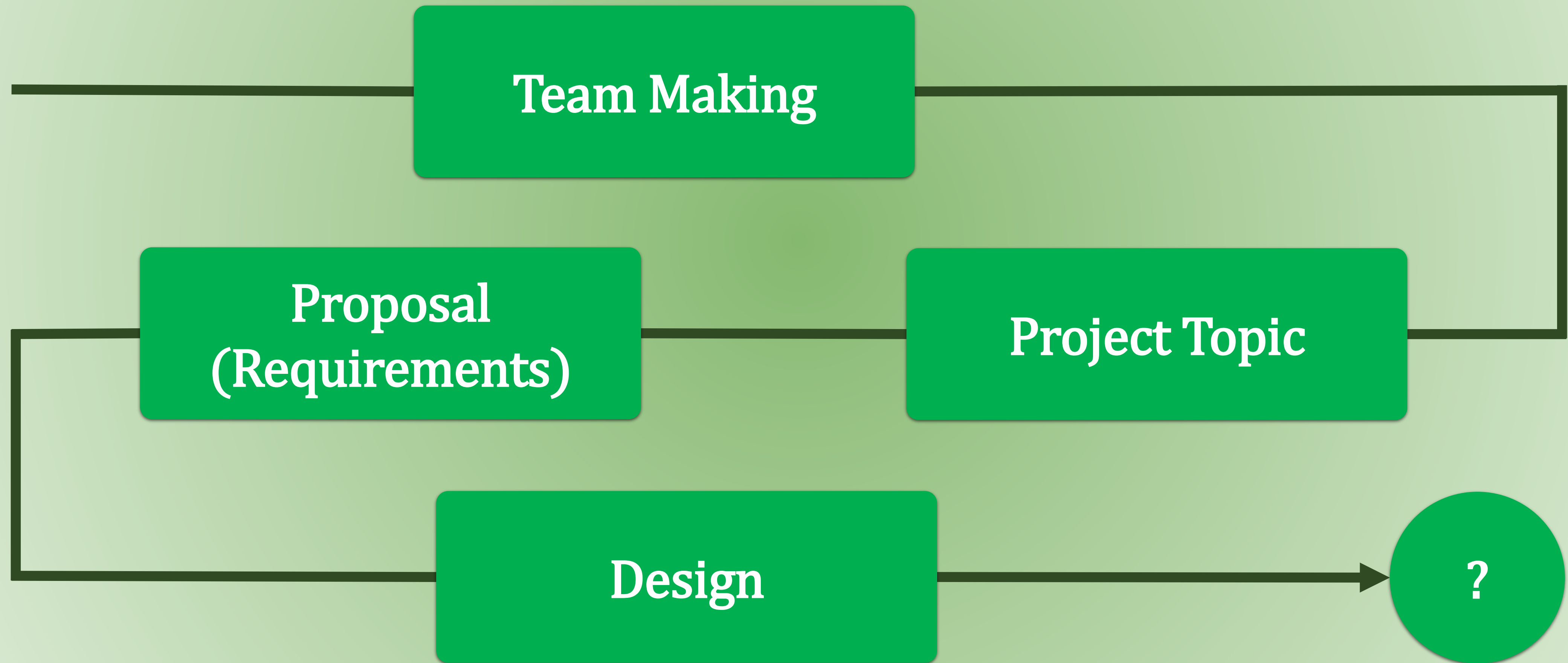
Project Process Comparison (Iran vs. Japan)

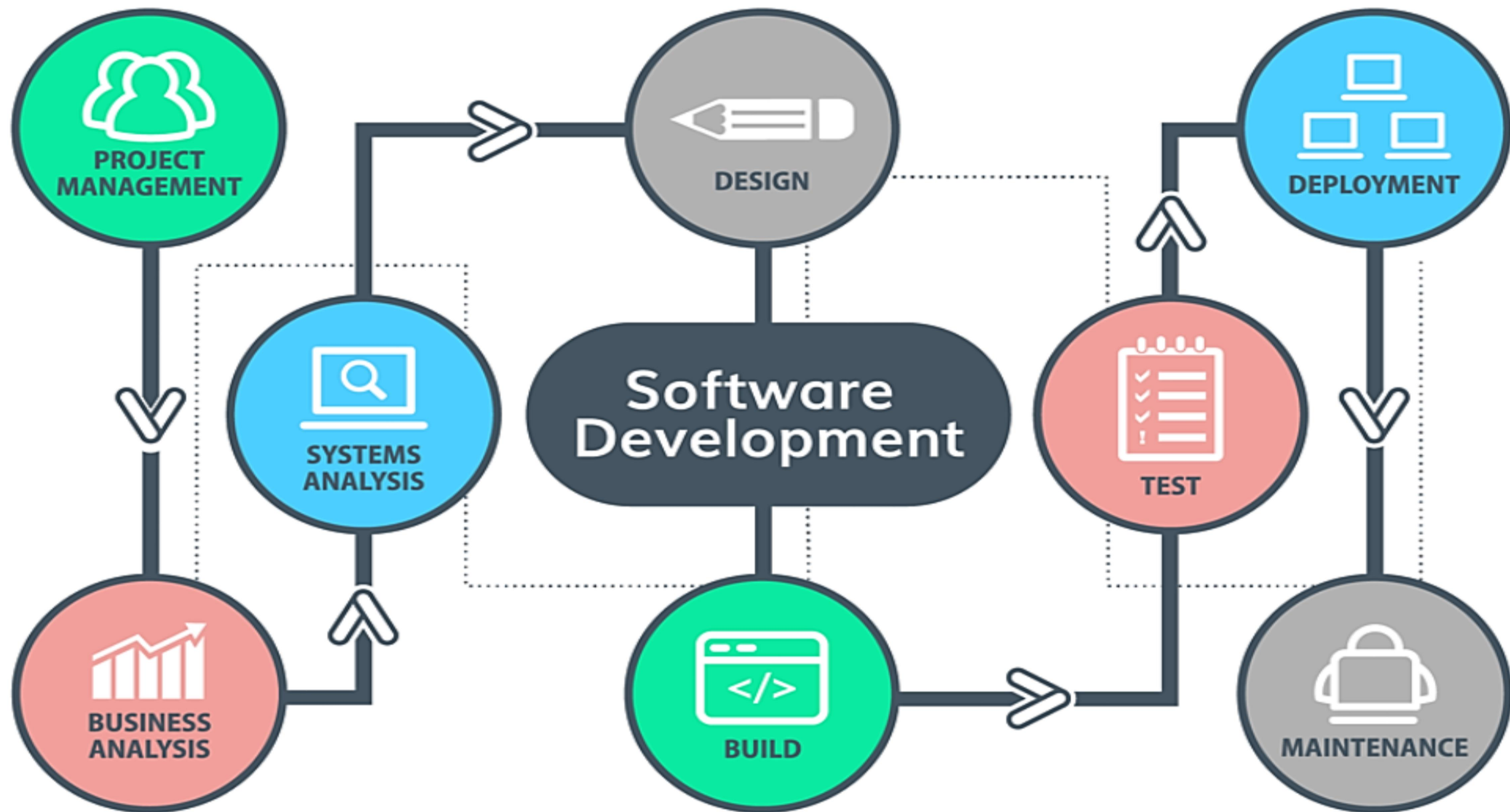




Questions?
Suggestions!

Our Software Development Process





Software Design

Process of Conceptualizing the
Software Requirements into
Software Implementation.



GUI Design Concepts

- User Interface (UI)
- User Experience (UX)
- Wireframe
- Prototype
- Color Theory
- Responsive Design
- Flat Design
- Material Design
- DX, UCD, ...



GUI Design Tools

Graphical User Interface Design Tools

GUI Design Tools

1. Wireframe Tools

The Simple Wireframe Consists Lines, Boxes, and Grayscale Colors

2. Prototype Tools

Prototype is Dynamic and Interactive Design that Provides a Complete User Experience

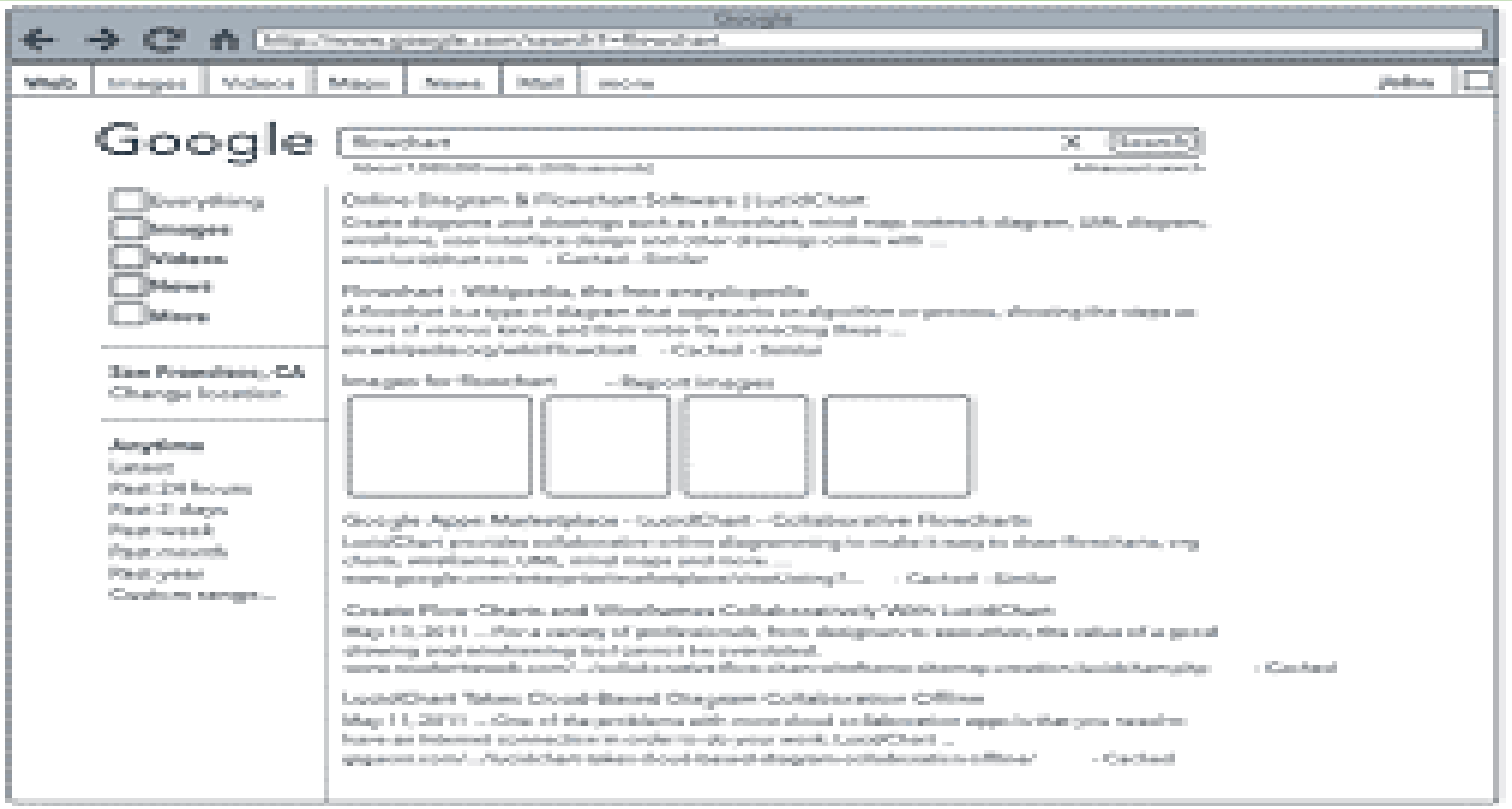
Wireframe Design Tools

- Adobe Xd
- MockFlow
- Balsamiq
- Pencil Project
- Wireframe CC
- JustInMind
- ...

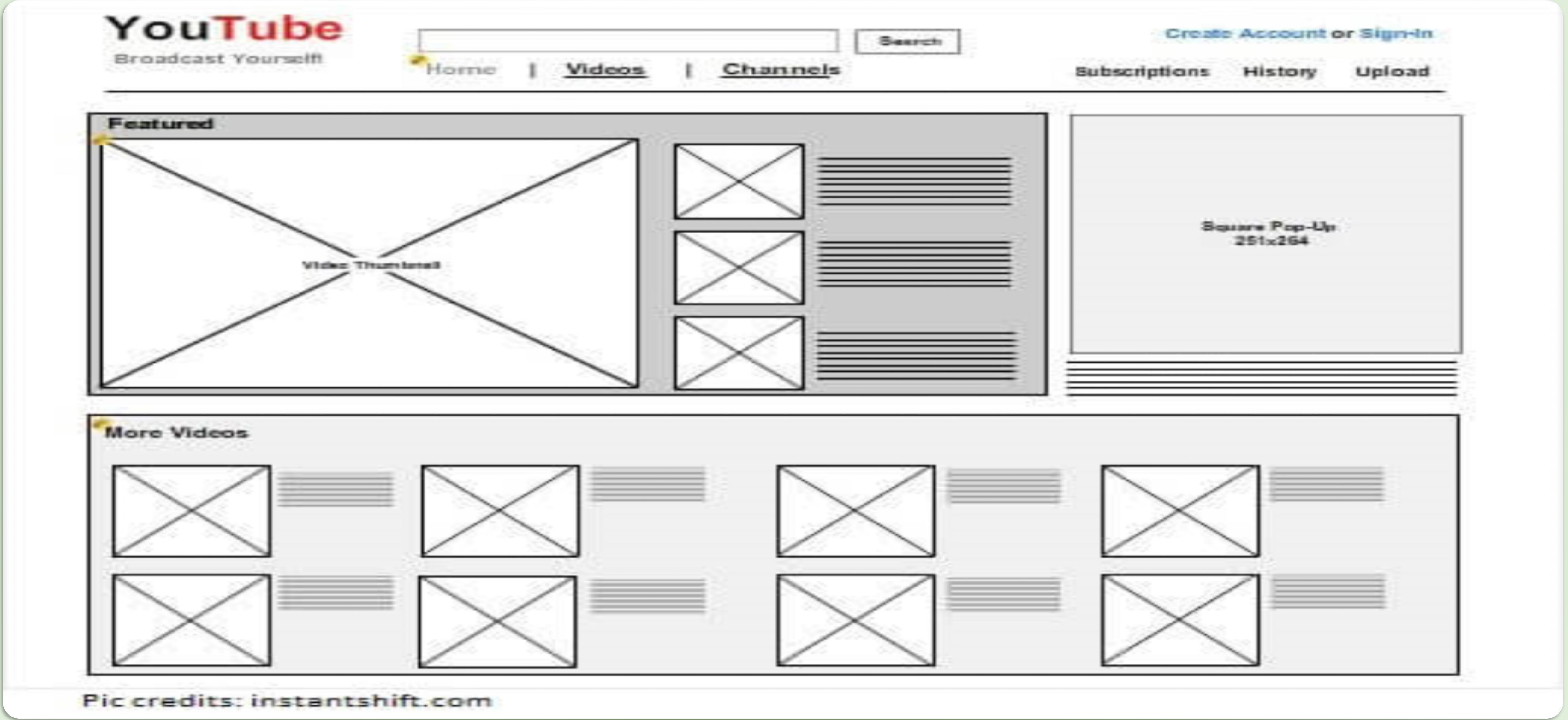
Wireframe Design Examples



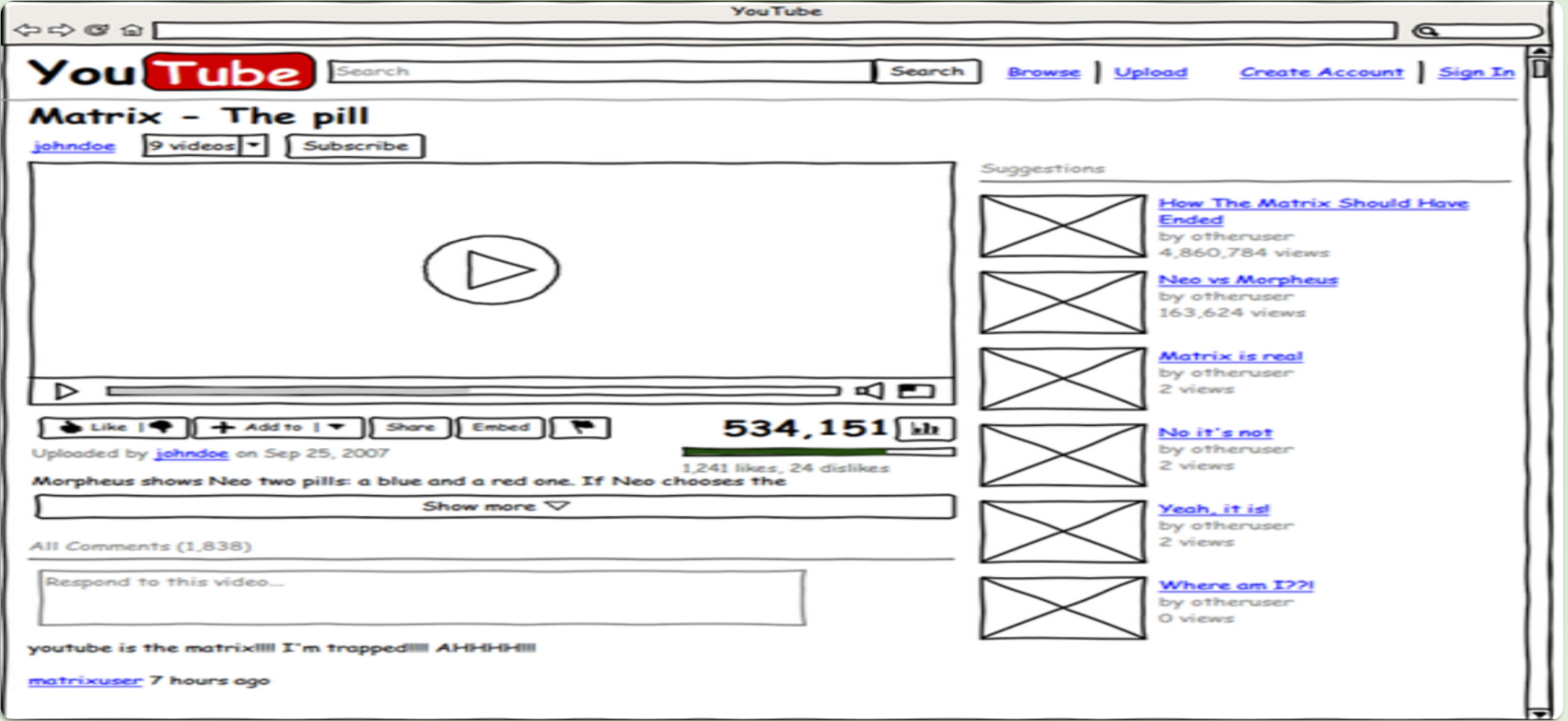
Wireframe Design Examples



Wireframe Design Examples



Wireframe Design Examples



Prototype Design Tools

- Sketch
- GIMP
- Adobe Photoshop & Adobe Illustrator
- Affinity Designer (& Affinity Photo)
- Figma
- InVision Studio, Zeplin, Framer, ...

Prototype Design Examples

Difference between Wireframe and Prototype

- Wireframe is a Kind of Prototype
- Wireframe is Suitable for Static Display
- Prototype is more Dynamic Interactive Display
- Wireframes are often Used in the Early Stages of the Project, Showing layouts and Functions for Discussion and Feedback
- Prototype Represents the Final Product
- ...



Our Design

Movies Website

Parts of a Classic Website

- Master Page
- Header
- Navigation Menu
- Sidebar
- Call to Action
- Footer

Our Design

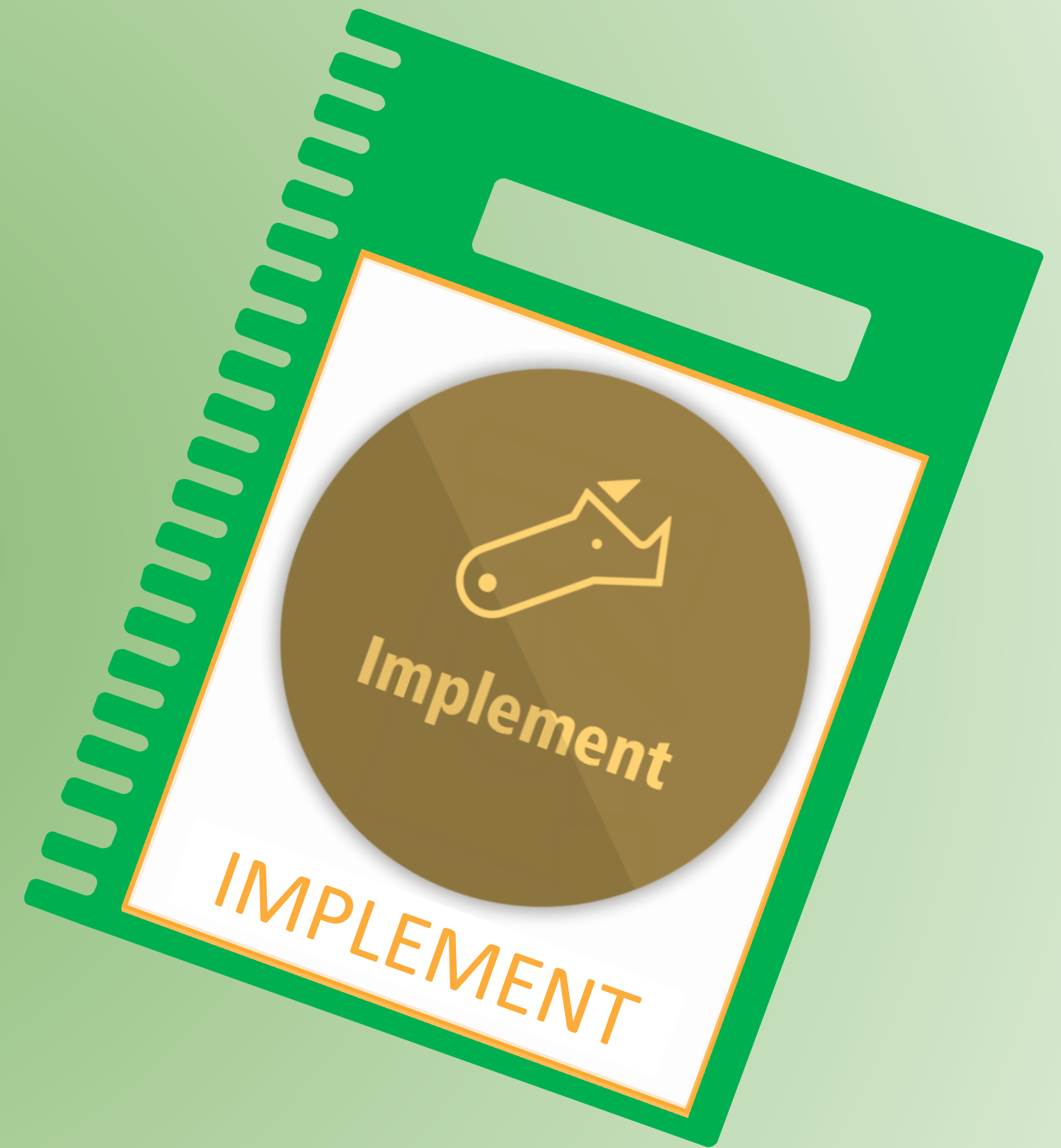
- **Slider (Carousel) → Photo Galleries**
- **Advanced Search**
- **Search**
- **Category**
- **Top 10**
- **Your Suggestions???**

Our Design Tools

- Wireframe (Paint.net)
- Prototype (Figma)

Software Implement

Action that must Follow any
Preliminary Thinking in order for
Something to Actually Happen.

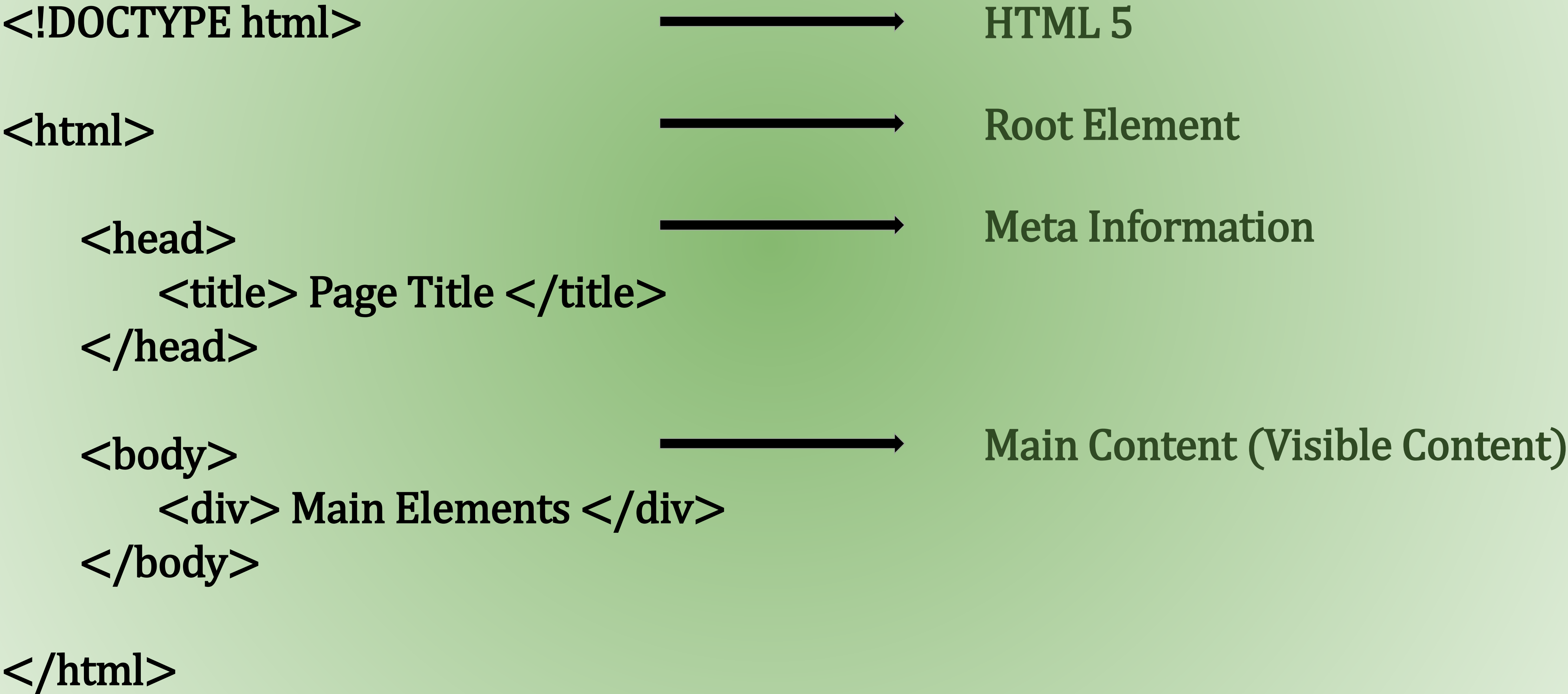




<HTML>

Hyper Text Markup Language

HTML Simple Page



HTML Concepts

- Markup Language (not Programming Language)
- Tags
- Semantic Tags
- Attributes
- Nesting & Hierarchy
- Non-Strict (Not Well-Formed)

HTML Style Guide (Coding Conventions)

- Use Correct Document Type
- Use Lower Case Element Names
- Close All HTML Elements
- Use Lower Case Attribute Names
- Quote Attribute Values
- Spaces and Equal Signs
- ...



<CSS>

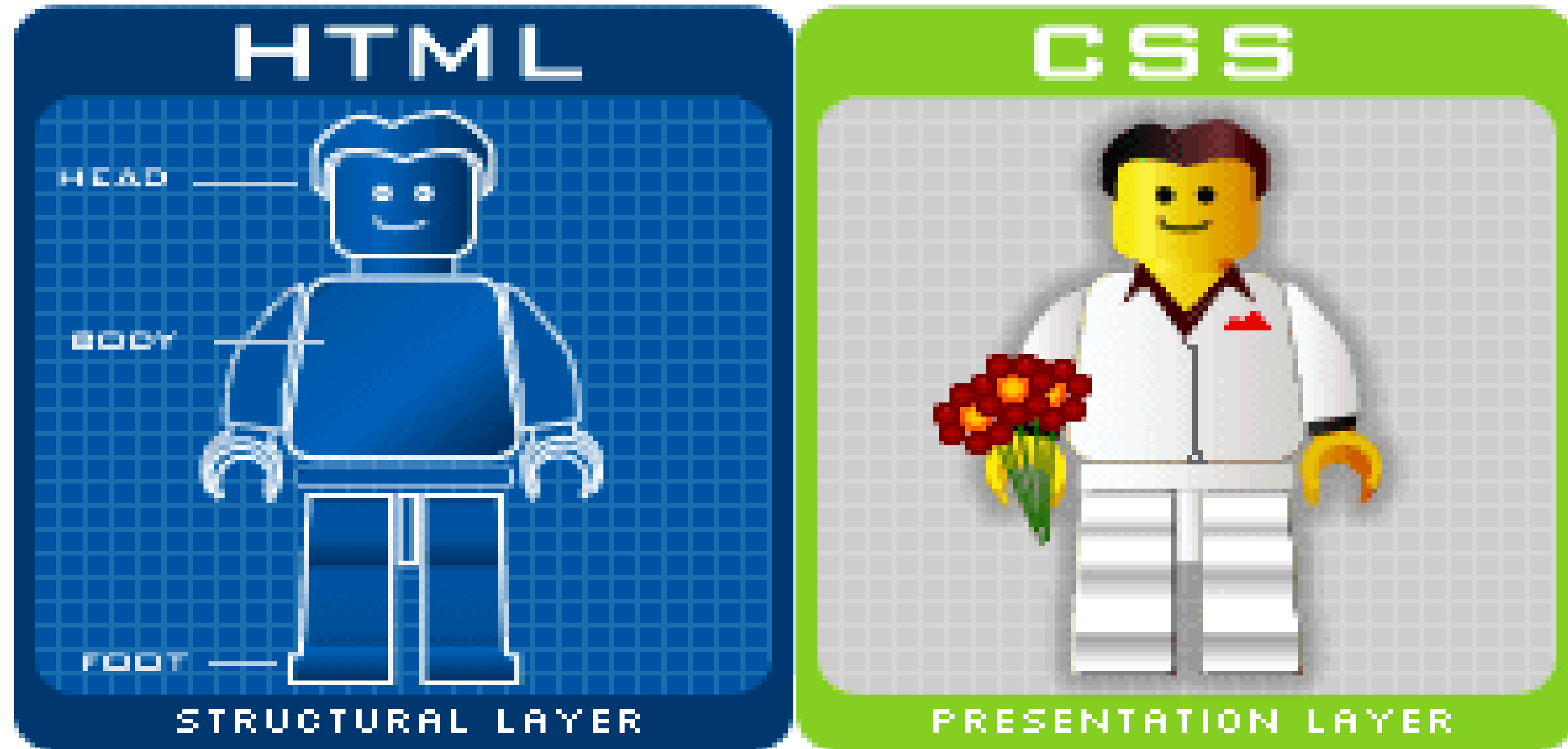
Cascade Style Sheets

CSS Concepts

A Style Sheet Language used for Describing the Presentation (Style) of a Document Written in a Markup Language Like HTML.

- **The cascade is how the browser determines what styles to apply to a particular element.**
- **CSS Selectors & CSS Properties**
- **!important Keyword (Overriding Styles)**
- **box-sizing: border-box**
- **Size Units**

HTML + CSS





Questions?
Suggestions!



Responsive Design

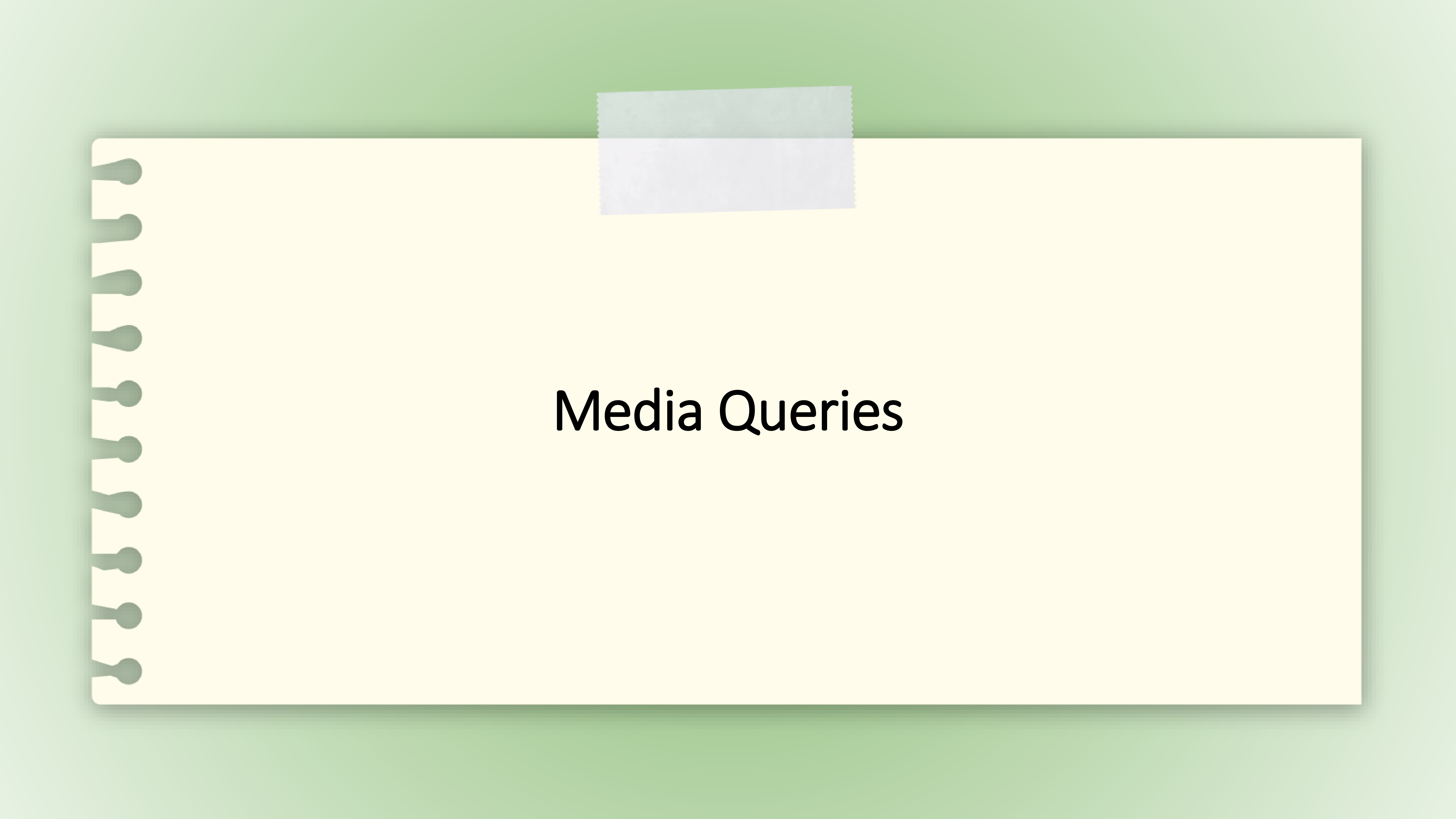
Responsive Design

Approach that Suggests that Design and Development should Respond to the :

- Platform
- Screen Size
- Orientation

—————→ CSS Media Queries

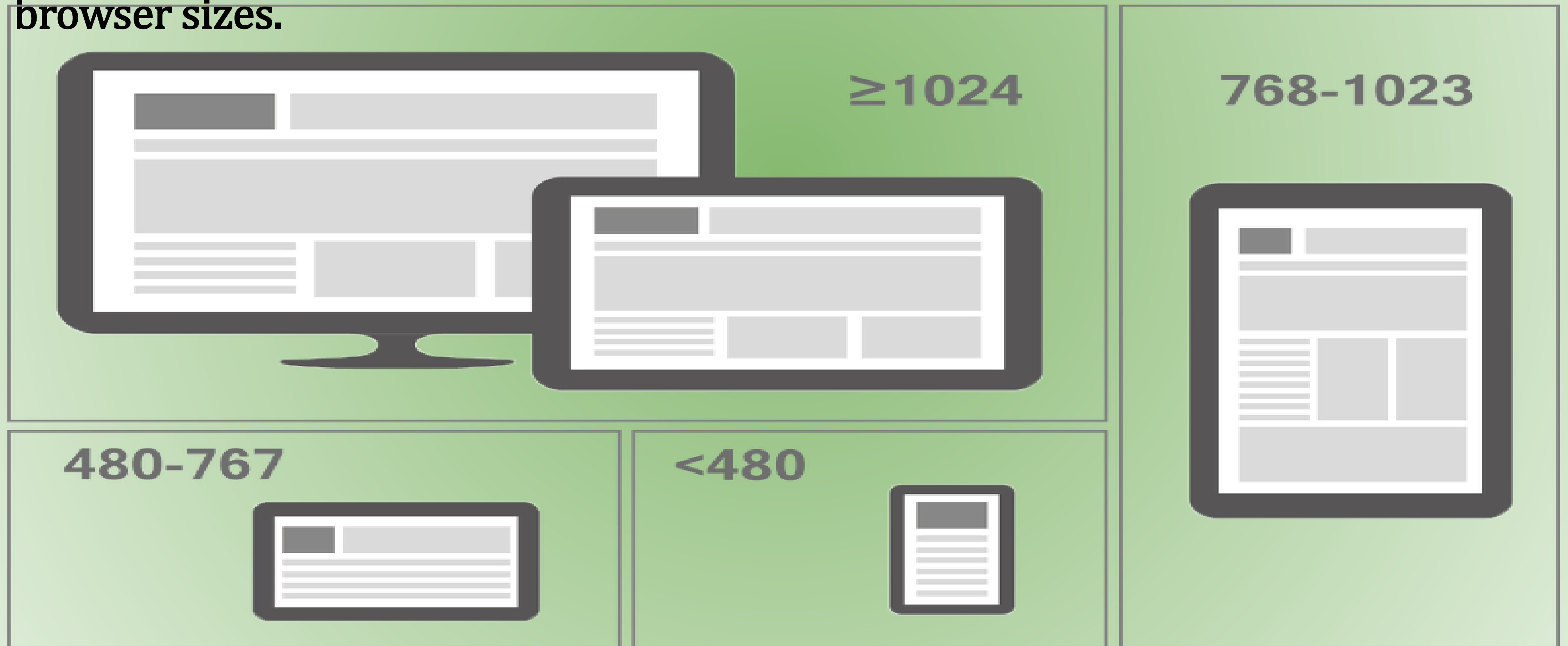




Media Queries

Media Queries

With media queries you can define completely different styles for different browser sizes.





Bootstrap

Bootstrap

Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

- Open Source Toolkit
- Developing with HTML, CSS, and JS
- Responsive Grid System
- Extensive Prebuilt Components
- Use SASS (Style Sheet Language)



THANK YOU...