

# Designing for the Web

**Information Architecture and Visual Design**

Luigi De Russis

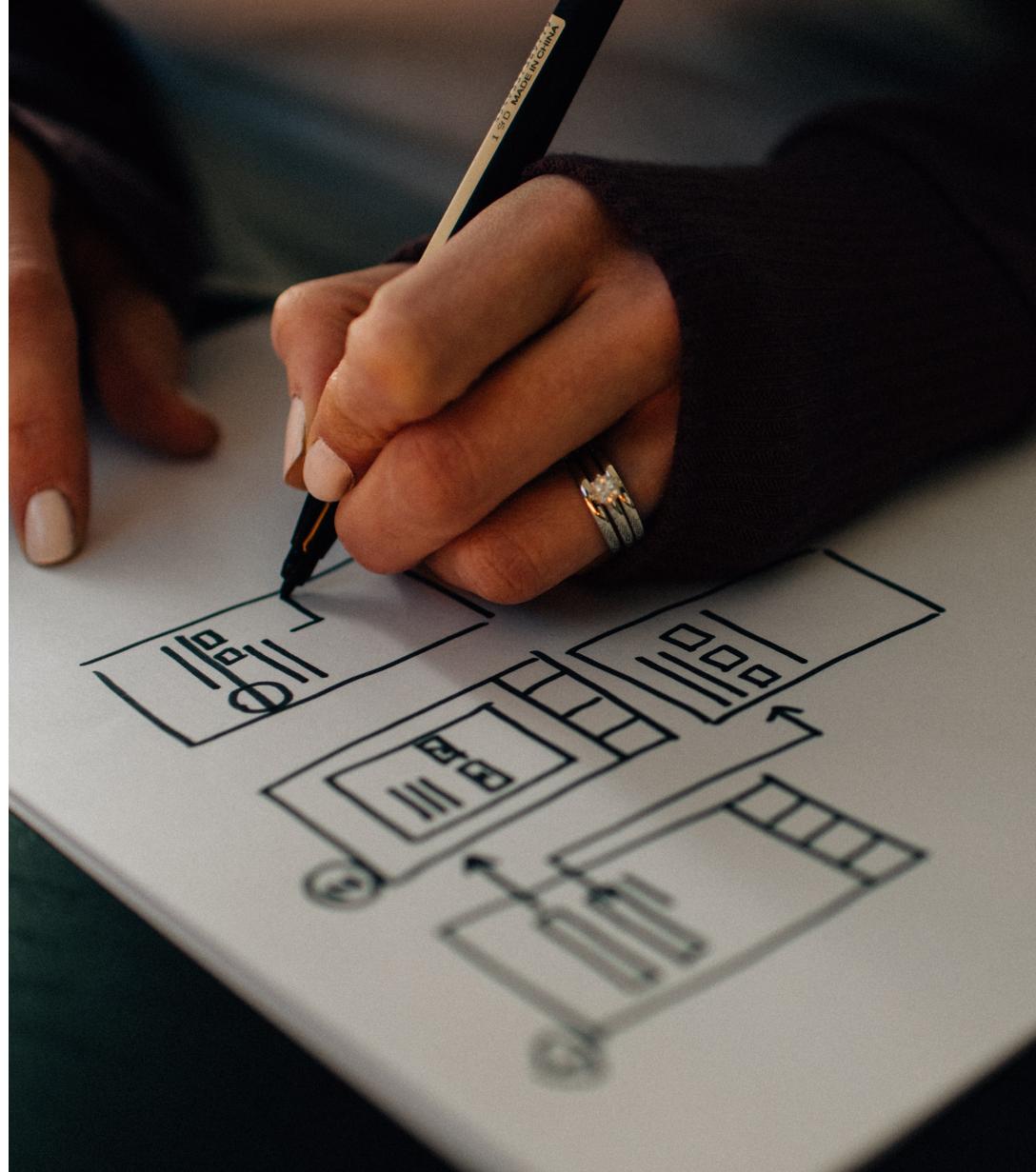


Photo by [Kelly Sikkema](#) on [Unsplash](#)



# Goal

- To introduce the main concept behind
  - Information Architecture
  - Visual Design
- To design effective web applications

# INFORMATION ARCHITECTURE

03/11/23

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# Information Architecture

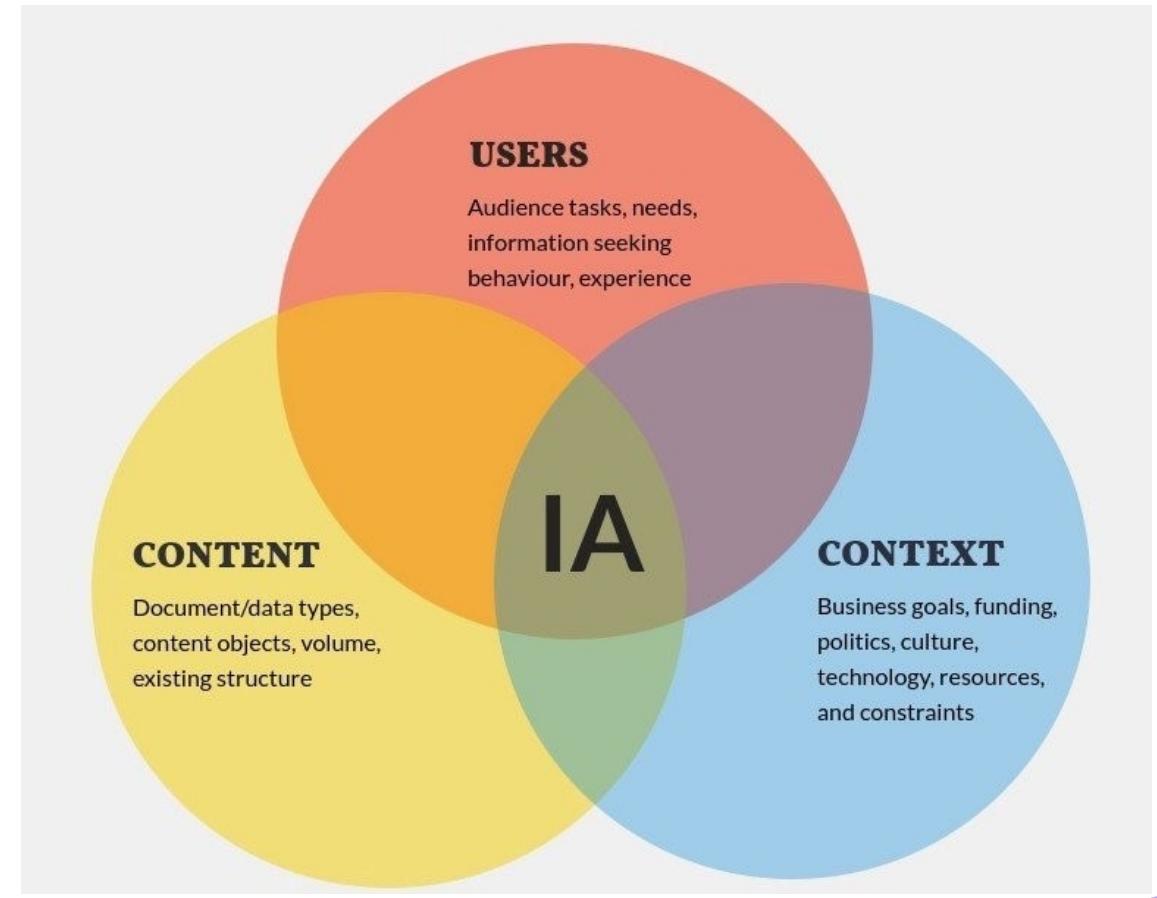
- “*The structural design of shared information environments*”
- The combination of organisation, labelling, search, and navigation systems within web sites and applications
- A discipline focused on making information **findable** and **understandable**

# Information

- Information architecture is not data and knowledge management
- Data is facts and figures
  - Relational databases are highly structured and produce specific answers to specific questions
- Knowledge is the “stuff in people’s heads”
  - Knowledge managers develop tools, processes, and incentives to encourage people to share that stuff
- Information is in the *middle*
  - With information systems, there is often no single “right” answer to a given question
  - Information can be of all shapes and sizes: websites, documents, software applications, images, and more
  - Metadata: terms used to describe and represent content objects such as documents, people, processes, and organizations

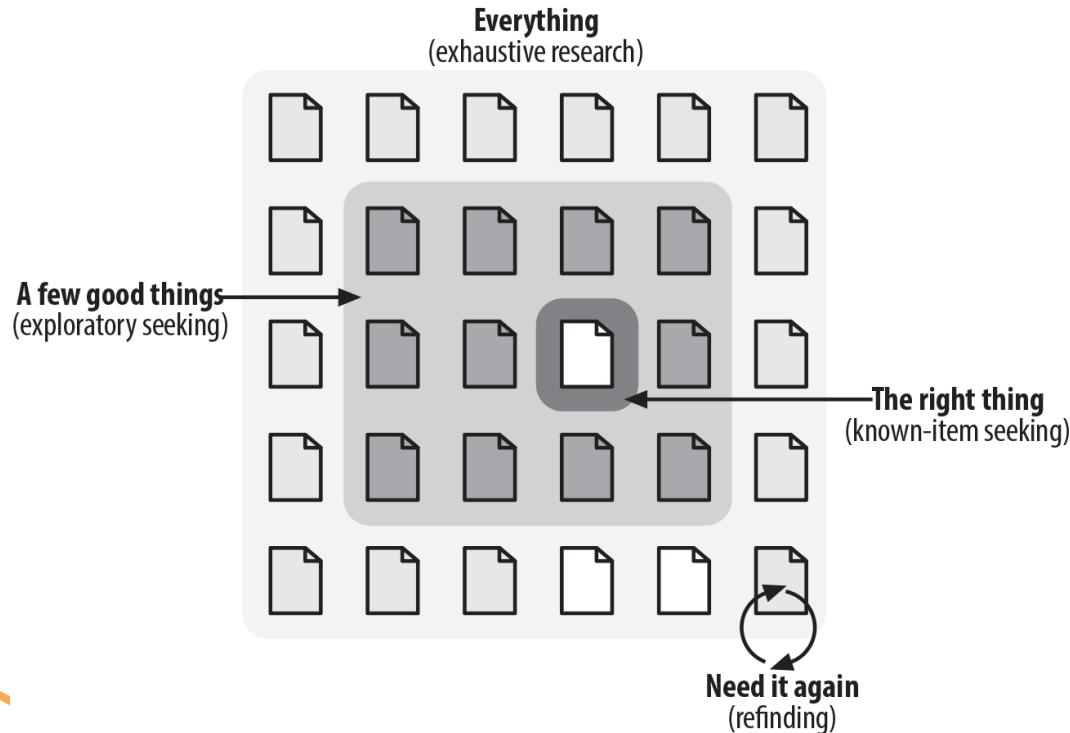
# Users, Context, and Content

- Users
  - Do you know who is using your system? Do you know how they are using it? Do you know what information they look for on your system?
- Content
  - The documents, links, media, ... that people need to use or find in the system
- Context
  - All digital system exist within a particular business or organizational context



# Finding and Understanding

Information architecture is focused on making information **findable** and **understandable**



We only *understand* things in relationship to something else

- e.g., most bank/university/... buildings are similar; their websites are similar as well



# DON'T MAKE ME THINK

Revisited

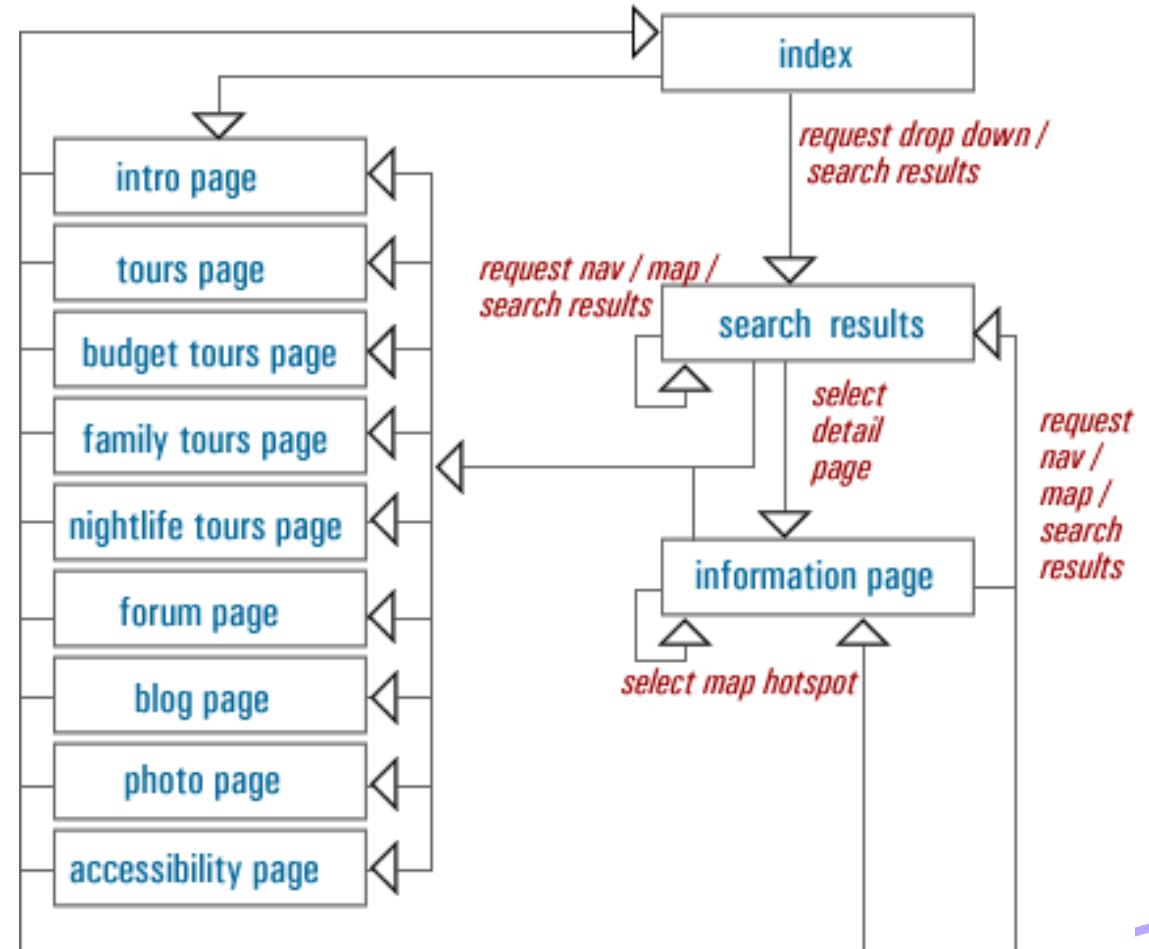
and Mobile  
A Common Sense Approach to Web Usability

The diagram shows a screenshot of the XYZnet.com website from April 25, 1999. A central navigation bar at the top includes links for 'HOME', 'STOCK NEWS', 'TECH STOCKS', 'FUND/TAXES', 'COMMENTARY', 'INTERNATIONAL', 'BASICS', 'COMMUNITY', 'TOOLS/QUOTES', and 'PORTFOLIO'. Below this, the main content area features several news articles. To the left of the page, four stylized human heads are shown with red arrows pointing to different parts of the interface, each accompanied by a question:

- Hmm. Pretty busy. Where should I start?
- Hmm. Why did they call it that?
- Can I click on that?
- Is that the navigation? Or is that it over there?
- Why did they put that there?
- Those two links seem like they're the same thing. Are they really?

# Sitemaps

- Show the relationships between information elements
- Can be used to portray organization, navigation, and labeling systems



# VISUAL DESIGN

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# Visual Design

- **Guiding:** conveying structure, relative importance, relationships
- **Pacing:** drawing people into your app, orienting them, and showing where to go, providing hooks to dive deeper
- **Messaging:** expressing meaning and style, breathing life into your content
- Both at the conscious and sub-conscious levels
- And also...
  - Making everything look aesthetically beautiful (but this is not the goal)

# Visual Design vs. Art and Artistic Skills

- A.k.a. «Help, I'm not an artist!»
- Artistic skills help a bit but are neither necessary nor sufficient
- Art does not need to be practical; design does
- Real design skills take years to master
- Widely-accepted heuristics are a good and easy start



# The Basic of VisualDesign

Basic visual design involves text, layout, and colors. First let's start with text. Gracefully using whitespace helps separate out logical chunks of content. Next, font size and style differences convey hierarchy. Finally, alignment is crucial for helping readers scan quickly.

# Whitespace

Basic visual design involves text, layout, and colors. First let's start with text.

Gracefully using whitespace helps separate out logical chunks of content.

Next, font size and style differences convey hierarchy.

Finally, alignment is crucial for helping readers scan quickly.

# Hierarchy

Basic visual design involves ...

## **Text**

Gracefully using whitespace helps separate out logical chunks of content.

Next, font size and style differences convey hierarchy.

Finally, alignment is crucial for helping readers scan quickly.

## **Layout**

## **Colors**

# Alignment

BASIC VISUAL DESIGN

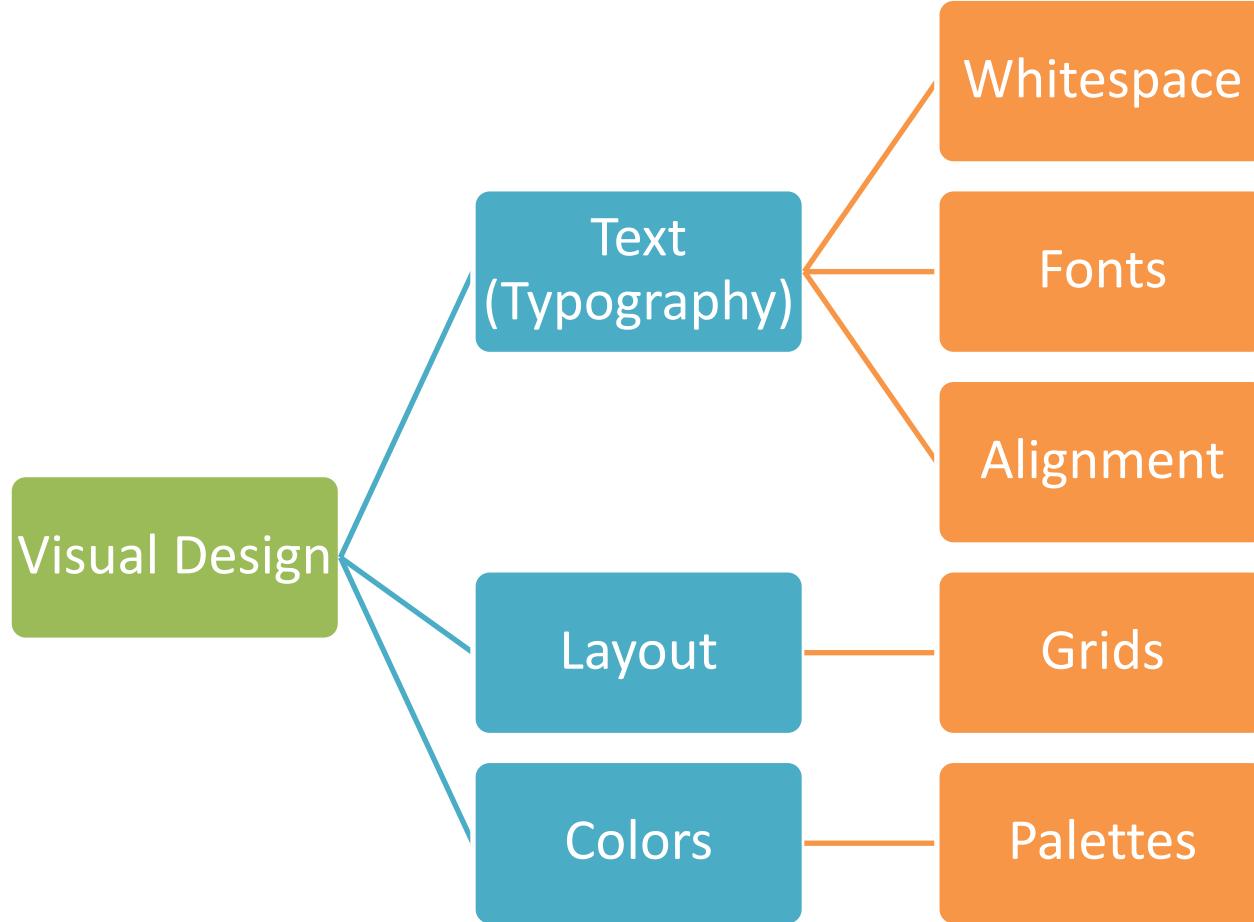
## Text

- **Whitespace**: helps separate out logical chunks of content
- **Font**: size and style differences convey hierarchy
- **Alignment**: crucial for helping readers scan quickly

## Layout

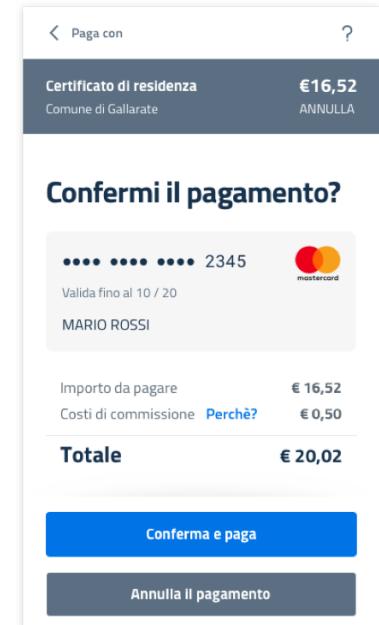
## Colors

# Key Ingredients



# Text

- Font size, color and spacing define a hierarchy of visibility and attention
- The visual hierarchy should match the relative importance of the information content



# Text and Layout Convey Meaning

Building Type:	Detached House
Year Of Construction:	2012
Listing Price:	\$750,000
Address:	742 Evergreen Terrace
Bedrooms:	3
Bathrooms:	2
Real Estate Agent:	Tiffany Heffner
Contact:	(555) 555-4321

DETACHED HOUSE • 5Y OLD  
\$750,000  
742 Evergreen Terrace

3 Bedrooms      2 Bathrooms

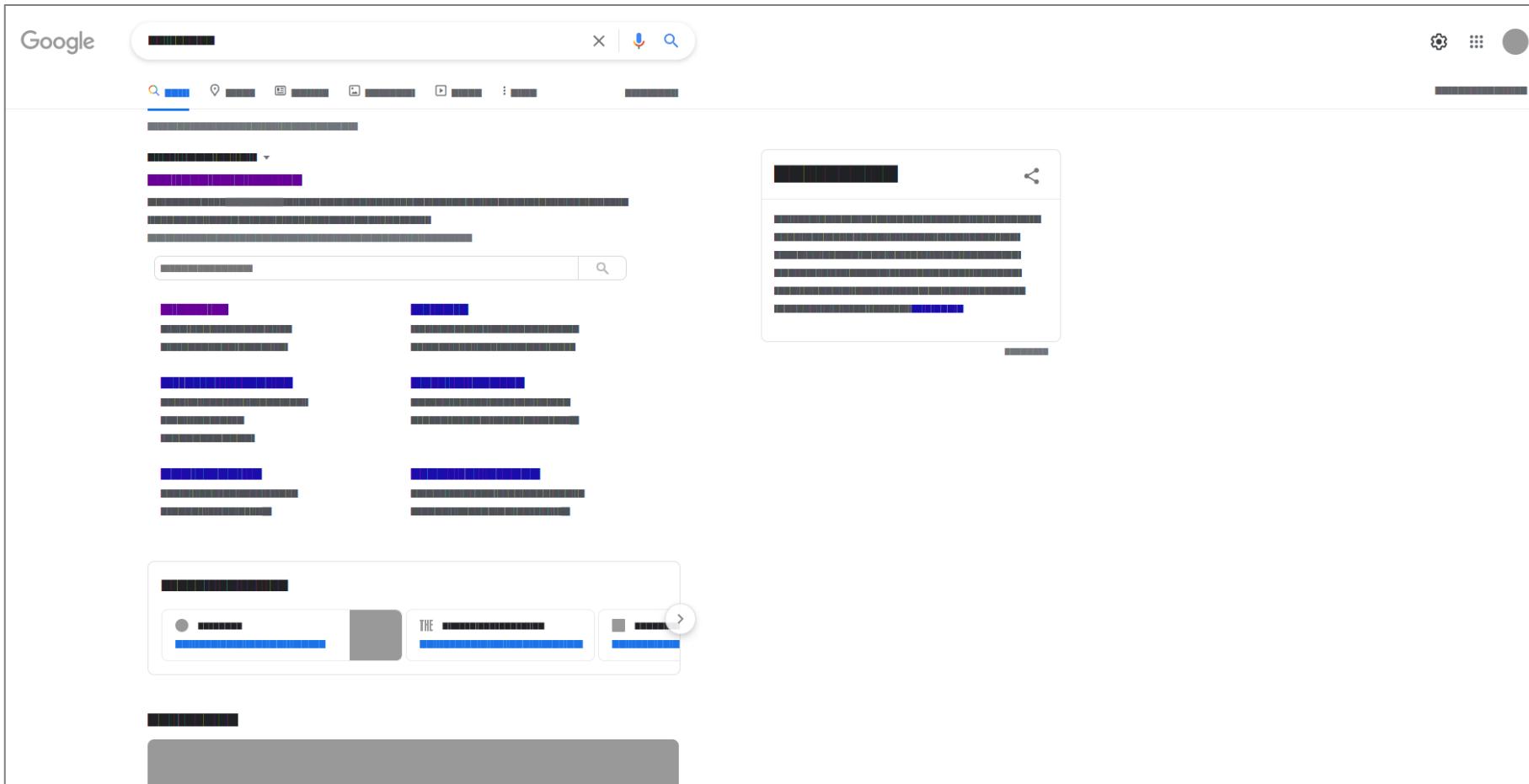
REALTOR  
Tiffany Heffner  
(555) 555-4321

Present data in a more useful way

Emphasize the most important content

Combine labels and values into human-readable phrases

# Recognizable Page Structure



# Recognizable Page Structure

The screenshot shows a Google search results page for the query "politecnico". The search bar at the top contains the query. Below it, there are several search filters: "Tutti" (selected), "Maps", "Notizie", "Immagini", "Video", and "Altro". The search results indicate "Circa 33.000.000 risultati (0,71 secondi)". The first result is a link to the Politecnico di Torino website (<https://www.polito.it>). The snippet for this result describes the institution as one of the most prestigious public universities in Italy and abroad, mentioning its history from 160 years and various departments like Didattica, Orienta, Corsi di Laurea, and Scoprire l'Ateneo. To the right of the snippet is a detailed sidebar with the title "Politecnico" and a description explaining the term's usage in Italy and other countries. Below the sidebar is a "Feedback" button. At the bottom of the search results, there is a "Trova risultati su" section with links to social media and other platforms.

Google

politecnico

Tutti Maps Notizie Immagini Video Altro Strumenti

Circa 33.000.000 risultati (0,71 secondi)

<https://www.polito.it> ▾

**Politecnico di Torino**

Da 160 anni, il **Politecnico** di Torino è una delle istituzioni pubbliche più prestigiose a livello italiano ed internazionale nella formazione, ricerca, ...  
Hai visitato questa pagina molte volte. Ultima visita: 16/09/21

Risultati di polito.it

**Didattica**  
C.L.A.. Centro Linguistico  
d'Ateneo. [Apply@polito.it](mailto:Apply@polito.it)

**Offerta formativa**  
Corsi di Laurea - Piano degli studi -  
Percorso INTRAPRENDENTI

**Apply@polito**  
Login - Lauree magistrali - Studenti  
stranieri - ...

**Orienta**  
Iscrizione al primo anno - Come  
orientarsi al Polito - Open Days

**Corsi di Laurea**  
Computer Engineering - Video  
presentazione - Architettura - ...

**Scoprire l'Ateneo**  
La nostra organizzazione - Sedi e  
mappe - Mappa dei Servizi - ...

Trova risultati su

Facebook Politecnico di Torino - Home

Timeshighereducation Politecnico di Milano | World...

Topuniv Politecnico di

Politecnico

Albertville Bourg-Saint-Maurice Biella Ceva Biella Novara Milano Monza A43 A23 E62 A9 A38 Parc national

# Recognizable Page Structure



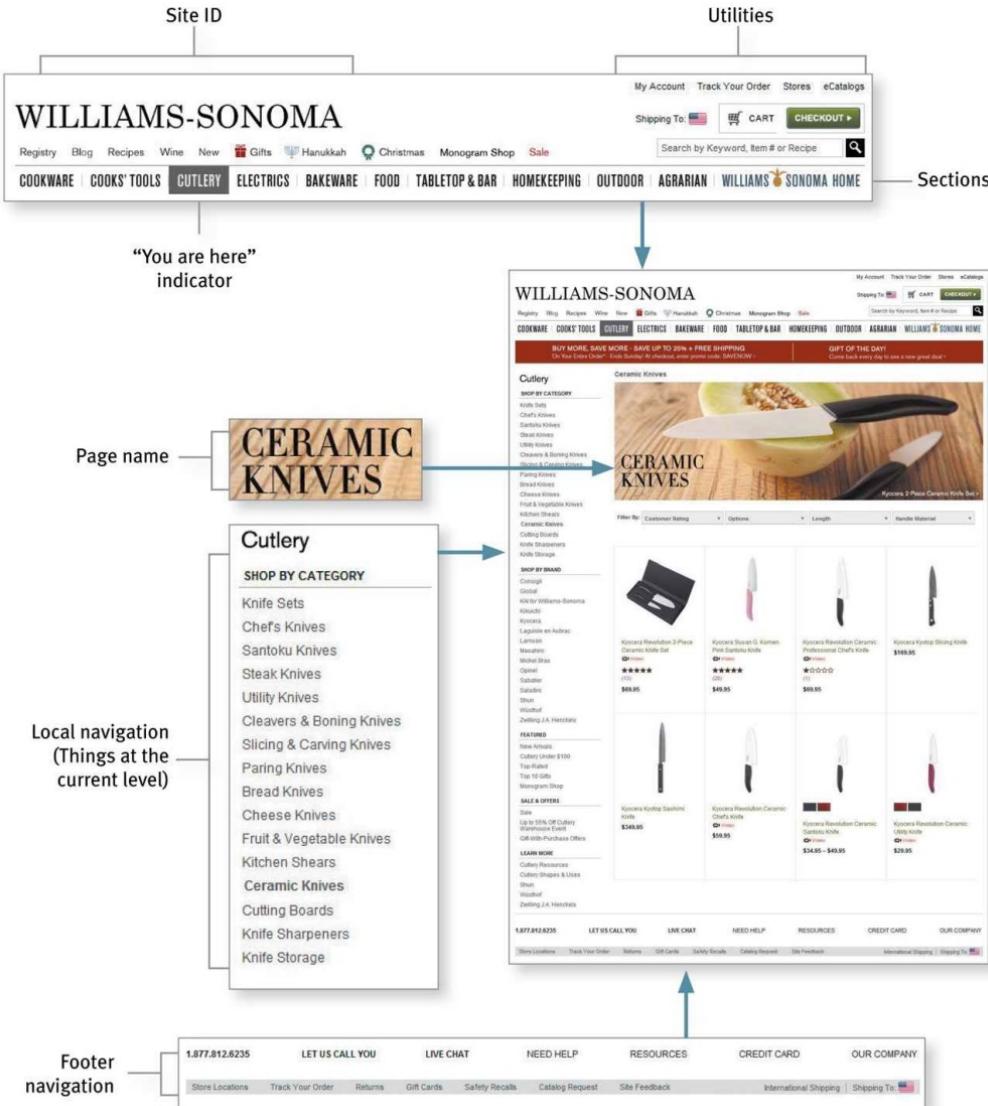
# Recognizable Page Structure

The screenshot shows the homepage of Stack Overflow. At the top, there is a navigation bar with links for "About", "Products", "For Teams", a search bar, and buttons for "Log in" and "Sign up". The main content area is titled "All Questions" and displays 21,855,928 questions. The first few questions listed are:

- tasks.json In VS Code**  
I am trying to debug a C program in VS Code. When I run my program from the command line it works because I can add `pthread` to the args by typing: `gcc -pthread -o Draft1 Draft1.c`. However, when I try ...  
0 votes, 0 answers, 2 views, asked 57 secs ago by RAINGUARD
- Android: Push notification and ServerKey**  
So i was watching few tutorials on whatsapp or chating apps clone, and all of them are using ServerKey to implement Push notification Serverkey is used inside the app code itself. So i wanted to knew ...  
0 votes, 0 answers, 2 views, asked 1 min ago by Mini
- Max profit of Woodcutters**  
I've got the following problem and couldn't solve it. Maybe someone could help me to find a solution. Daily woodcutters cut trees in the mountains. Every tree trunk is precise 1, 2, 3, etc blocks in ...  
0 votes, 0 answers, 2 views, asked 1 min ago by John Jonathan
- Remove "randomized" and "input" values from a procedural list**  
first of all sorry if i make mistakes, english is not my mother tongue. I recently played the Werewolf game with some friends, in order to ease the Game Master work i wanted to create a simple Python ...  
0 votes, 0 answers, 3 views, asked 1 min ago by Kuai
- How to merge data into azure sql database from delta lake (delta tables in data lake)?**  
I have a delta table in azure data lake. The table has a business key. I want to write data from this delta table to an external sql server (that is not hosted in a synapse sql dedicated pool). What ...  
0 votes, 0 answers, 3 views, asked 1 min ago by Crow59

On the left sidebar, there are links for "Home", "PUBLIC", "Questions", "Tags", "Users", "COLLECTIVES", "Explore Collectives", "FIND A JOB", "Jobs", "Companies", and "TEAMS". The "TEAMS" section includes a "Stack Overflow for Teams" section and a "Create a free Team" button. On the right sidebar, there are sections for "The Overflow Blog", "Featured on Meta", "Collectives", and "Related Tags".

# Conventions Help Recognizing Structure



# 'GESTALT' PRINCIPLES

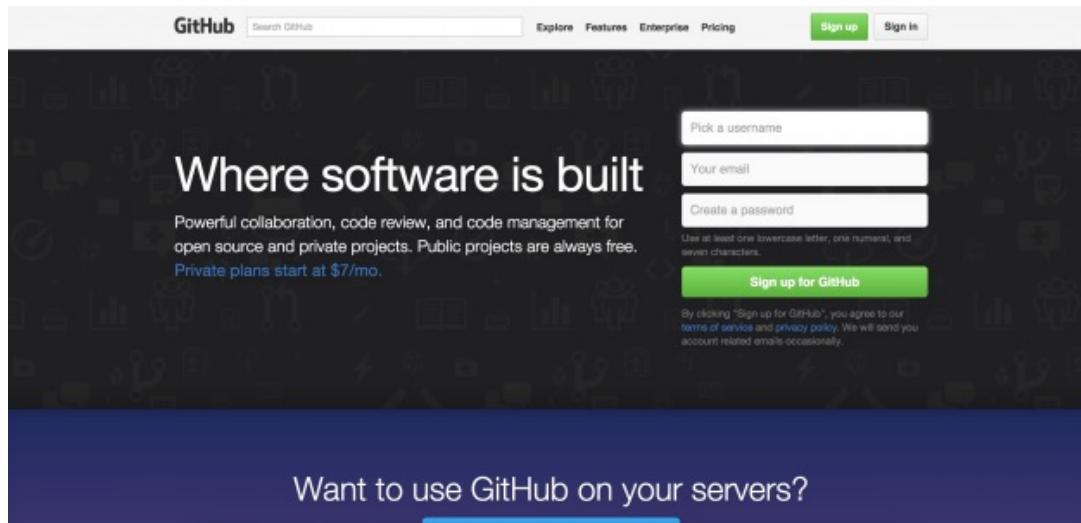
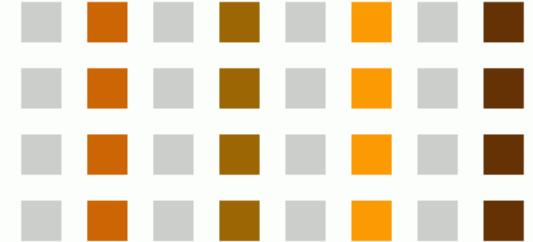
# ‘Gestalt’ principles

- Laws from 1920s’ psychology: how humans typically see objects by grouping similar elements, recognizing patterns and simplifying complex images
- Designers use these to engage users via powerful -yet natural- “tricks” of perspective and best practice design standards

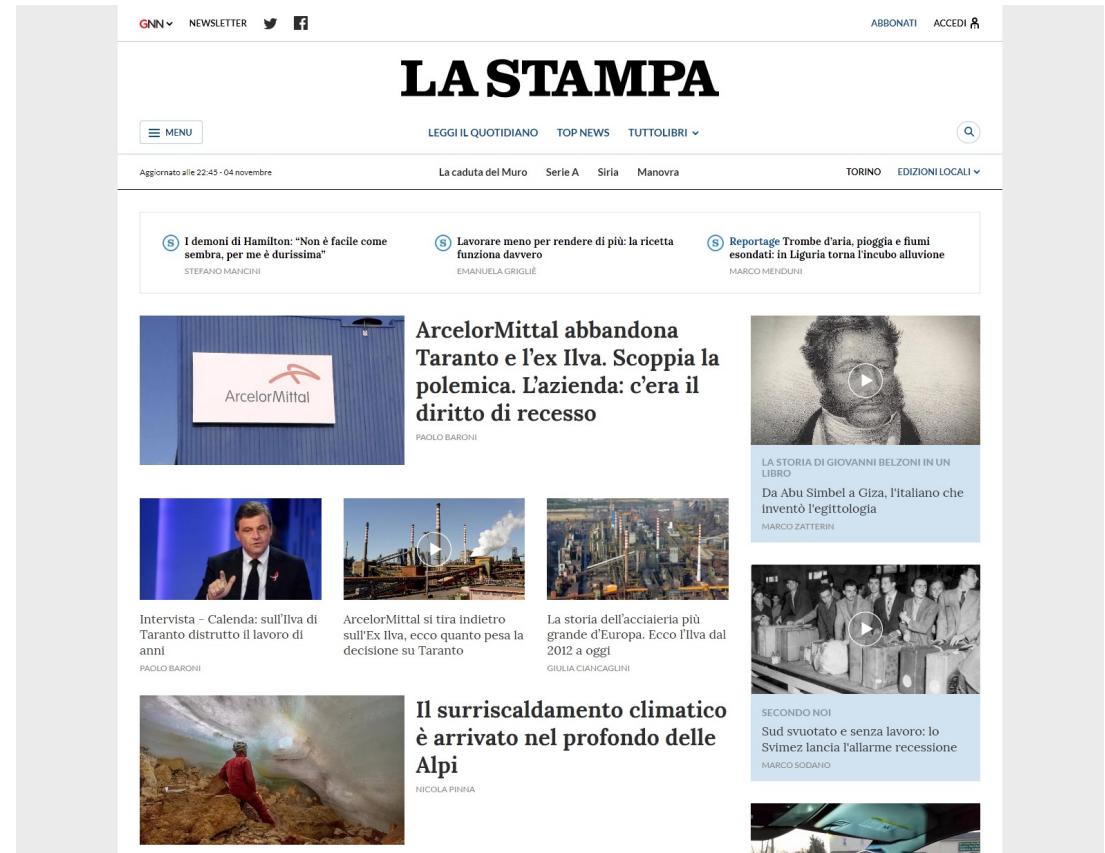
# Some Gestalt Principles

- **Figure/Ground:** Disliking uncertainty, we look for solid, stable items. Foreground catches the eye first
- **Closure:** Preferring complete shapes, we automatically fill in gaps to perceive a complete image; we see the whole first
- **Common Region:** We group elements that are in the same closed region
- **Element Connectedness:** We group elements linked by other elements
- **Continuation:** We follow and “flow with” lines
- **Proximity (Emergence):** We group closer-together elements, separating them from those farther apart.
- **Good Form:** We differentiate elements that are similar in color, form, pattern, etc. and cluster them together
- **Meaningfulness (Familiarity):** We group elements if they form a meaningful or personally relevant image.
- **Prägnanz:** We perceive complex images as simple ones.
- **Convexity:** We perceive convex shapes ahead of concave ones
- **Regularity:** Sorting items, we tend to group some into larger shapes, and connect elements that form a pattern.
- **Similarity (Invariance):** We seek differences and similarities in an image and link similar elements.
- **Symmetry:** We seek balance and order in designs, struggling to do so if they aren’t readily apparent.
- **Common Fate:** We group elements that move in the same direction
- **Synchrony:** We group static visual elements that appear at the same time.

# Examples: Similarity

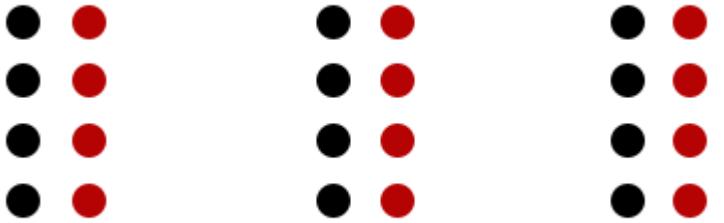


The GitHub sign-up page features a dark background with a grid of white icons related to software development. The main heading "Where software is built" is in large white font. Below it, a sub-headline reads: "Powerful collaboration, code review, and code management for open source and private projects. Public projects are always free." A "Private plans start at \$7/mo." link is also present. On the right, there's a sign-up form with fields for "Pick a username", "Your email", and "Create a password", followed by a green "Sign up for GitHub" button. A small note below the form states: "By clicking 'Sign up for GitHub', you agree to our terms of service and privacy policy. We will send you account related emails occasionally." At the bottom, a blue bar asks: "Want to use GitHub on your servers?"



The LA STAMPA news website homepage. The header includes the site name "LA STAMPA" in large letters, social media links (GNN, NEWSLETTER, Twitter, Facebook), and navigation options (MENU, LEGGI IL QUOTIDIANO, TOP NEWS, TUTTOLIBRI). The main content area shows several news articles with images and titles. One article features a video thumbnail of a man speaking. Another discusses ArcelorMittal's departure from Taranto. A third article is about climate change in the Alps. The footer contains a color calibration chart.

# Example: Proximity



Walmart

Hello, Sign In  
My Account

Save big in every department

Electronics

Home

Exercise & Fitness

Health

Clothing & Jewelry

Furniture

Cold Weather Prep

TurboTax

H&R BLOCK

Jackson Hewitt

Auto & Tires

Office Supplies

Home Improvement

Outdoor Sports

VICE

WATCH SECTIONS PHOTOS MAGAZINE TOPICS: CITY GUIDES ELECTION 2016 OPINION MORE

Feb 24, 2016 NEWS Manisha Krishnan Medical Marijuana Users in Canada Can Legally Grow Their Own Weed Now A Federal Court judge says former prime minister Stephen Harper's law restricting patients from growing is unconstitutional.

Feb 24, 2016 NEWS Joah Androsky The Women Who Love Ted Cruz There's one place Ted Cruz doesn't finish third: in these ladies' hearts.

Feb 24, 2016 NEWS Gracia Wyler How Donald Trump Won Nevada's Cliven Bundy Vote If Ted Cruz can't win Bunkerville, where can he win?

Feb 24, 2016 STUFF MOTHERBOARD

# Example: Continuity



Customers Who Bought This Item Also Bought

The screenshot shows a grid of book covers and their details. The books listed are:

- CROSSING THE CHASM, 3rd Edition: Marketing and Selling Disruptive Products by Geoffrey A. Moore
- THE LEAN STARTUP by ERIC RIES
- THE INNOVATOR'S DILEMMA by Eric Ries
- THE INNOVATOR'S SOLUTION by Clayton M. Christensen
- HOW WILL YOU MEASURE YOUR LIFE? by Clayton M. Christensen

Each book entry includes the title, author, description, rating (e.g., ★★★★☆ 72), format (e.g., Paperback), price (\$12.35 or \$16.66), and a Prime logo.

Page 1 of 20



## Step 1

Choose your meals, drinks and treats from our daily rotating menu.



## Step 2

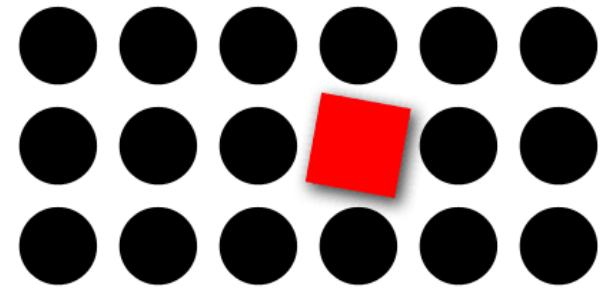
Our friendly servers organize your food for delivery - hot and ready to eat!



## Step 3

Your meal arrives in around 20 minutes - like a home-cooked meal without the effort!

# Example: Focal Point



The Twilio homepage features a dark background image of a busy street scene. At the top, the Twilio logo is on the left, followed by navigation links: PRODUCTS & PRICING, USE CASES, API & DOCS, NOT A DEVELOPER?, SIGN UP, and LOG IN. Below the navigation, the main headline reads "BUILD APPS THAT COMMUNICATE WITH EVERYONE IN THE WORLD". A sub-headline below it says "A Messaging, Voice, Video and Authentication API for every application". At the bottom, there are two buttons: "See Use Cases" and "Get a free API key".

The Instacart homepage features a dark background image of a person holding a grocery bag filled with vegetables. Overlaid on the image is a white rectangular form containing the Instacart logo and the text "Groceries delivered in 1 hour". It also includes a "Enter Zip Code" input field, a green "Find Stores >" button, and a link "Already have an account? Log In". At the bottom, there is a promotional message "FREE delivery on your first order\*".

# GRID AND ALIGNMENT

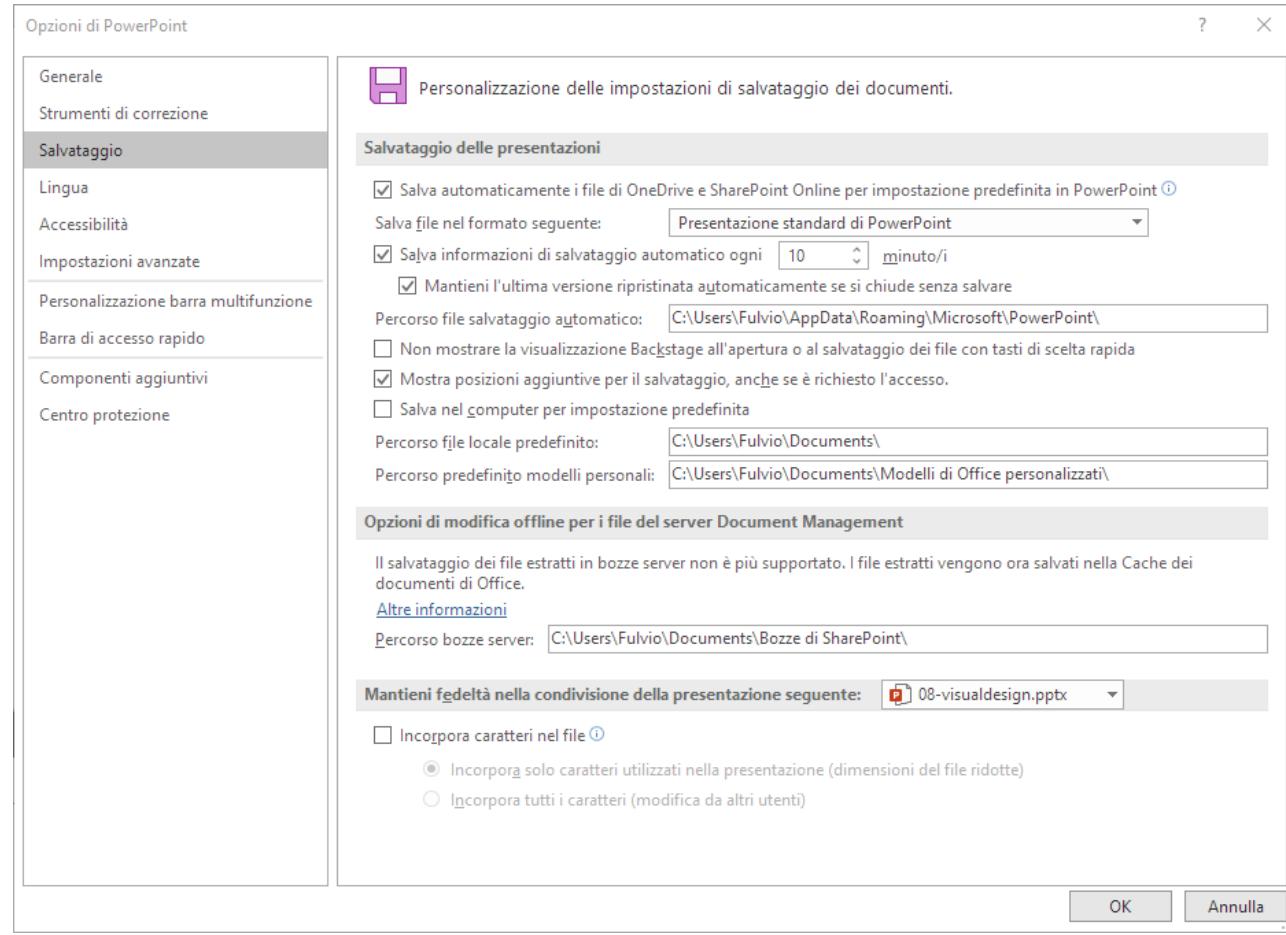
03/11/23

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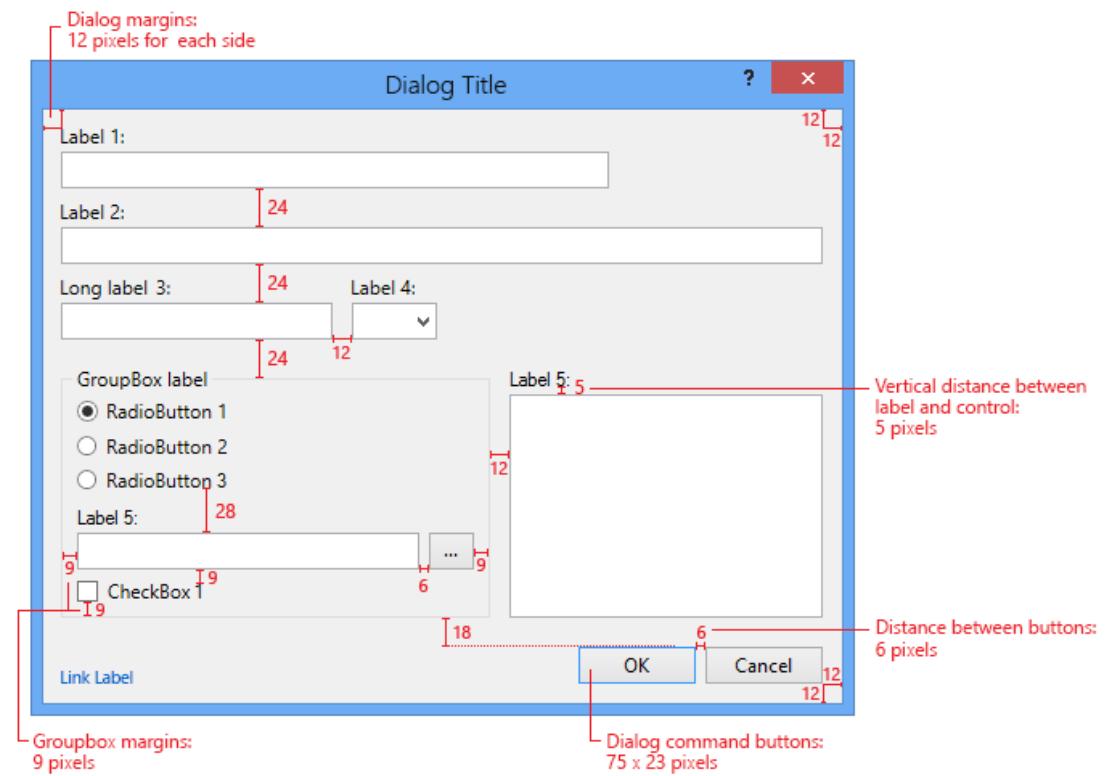
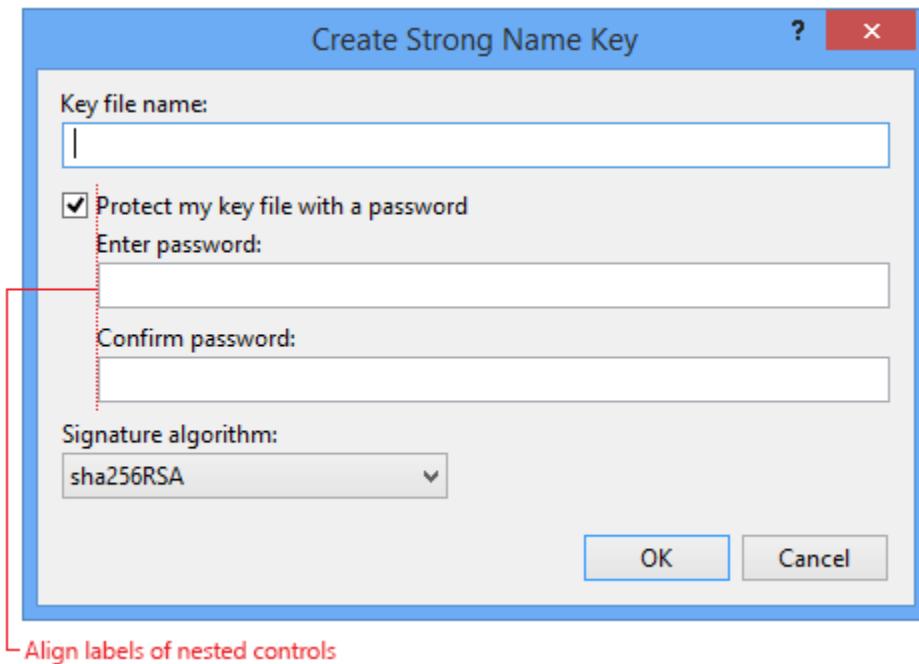
# Alignment

- Invisible lines that run through the interface and “attract” the left- or right-edge of a widget control
  - Vertical
  - Horizontal

# Example



# Example



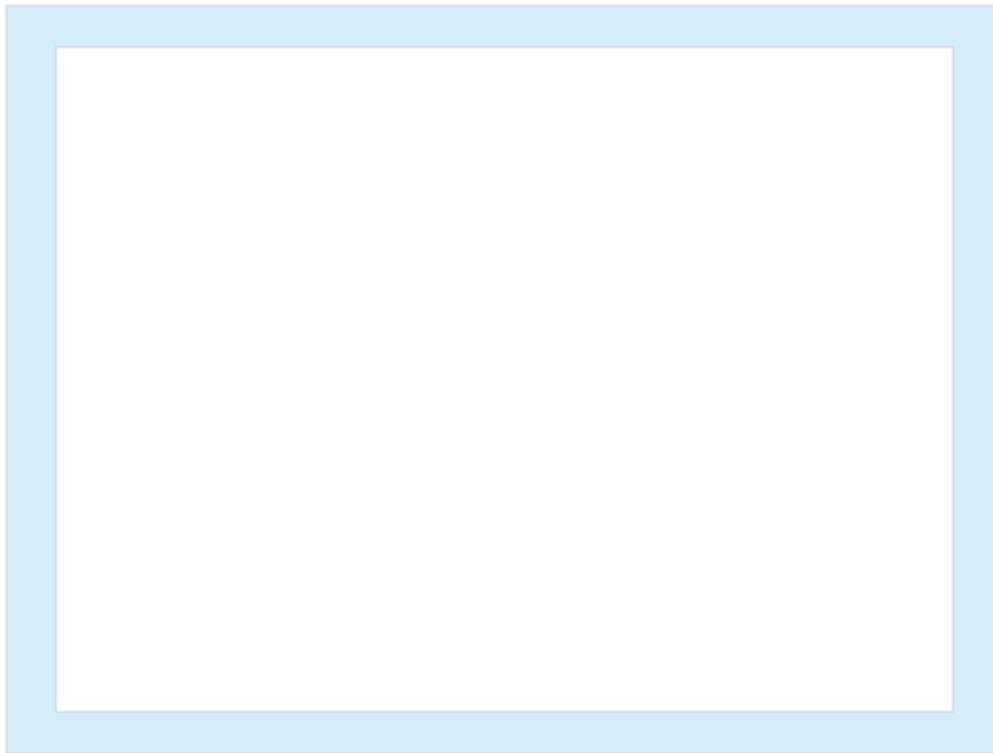
<https://docs.microsoft.com/en-us/visualstudio/extensibility/ux-guidelines/layout-for-visual-studio?view=vs-2019>

# Grid Layout Ingredients

- **Guides:** The edge which you choose to align content with
- **Column:** A vertical division of content
- **Row:** A horizontal division of content
- **Margins:** The area surrounding your content
- **Gutters:** The margins between columns
- **Hang-line:** A horizontal guide to align content to hang off of
- **Baseline:** The horizontal guide for an element to sit on top of
- **Rhythm:** Proportion systems that can help define the sizing frequency and spacing of each of the above elements.

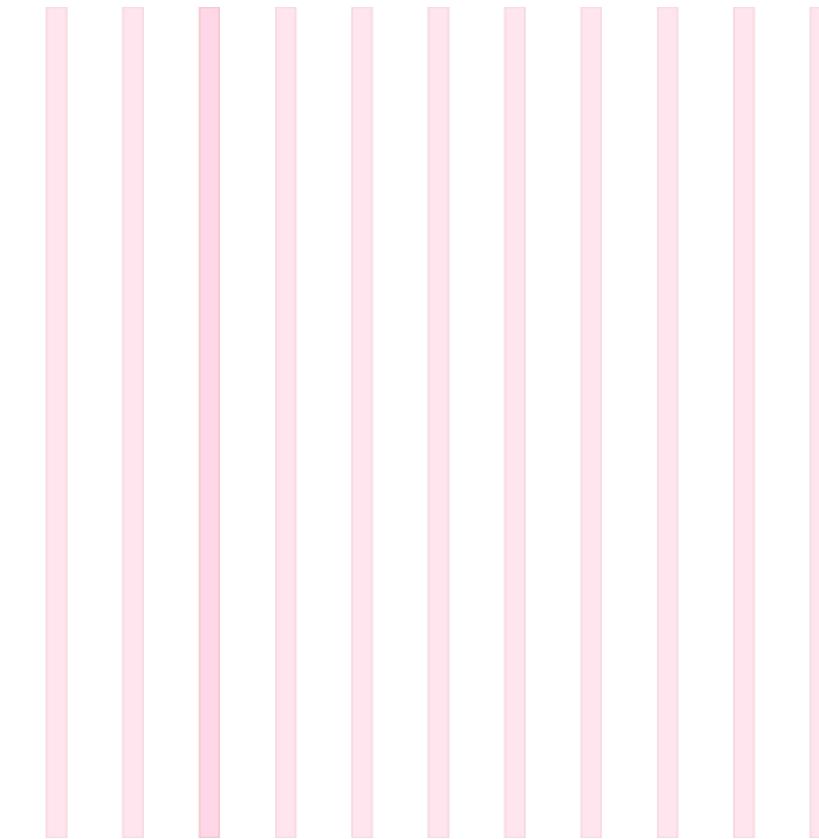
# Grid Layout Ingredients

## Margins



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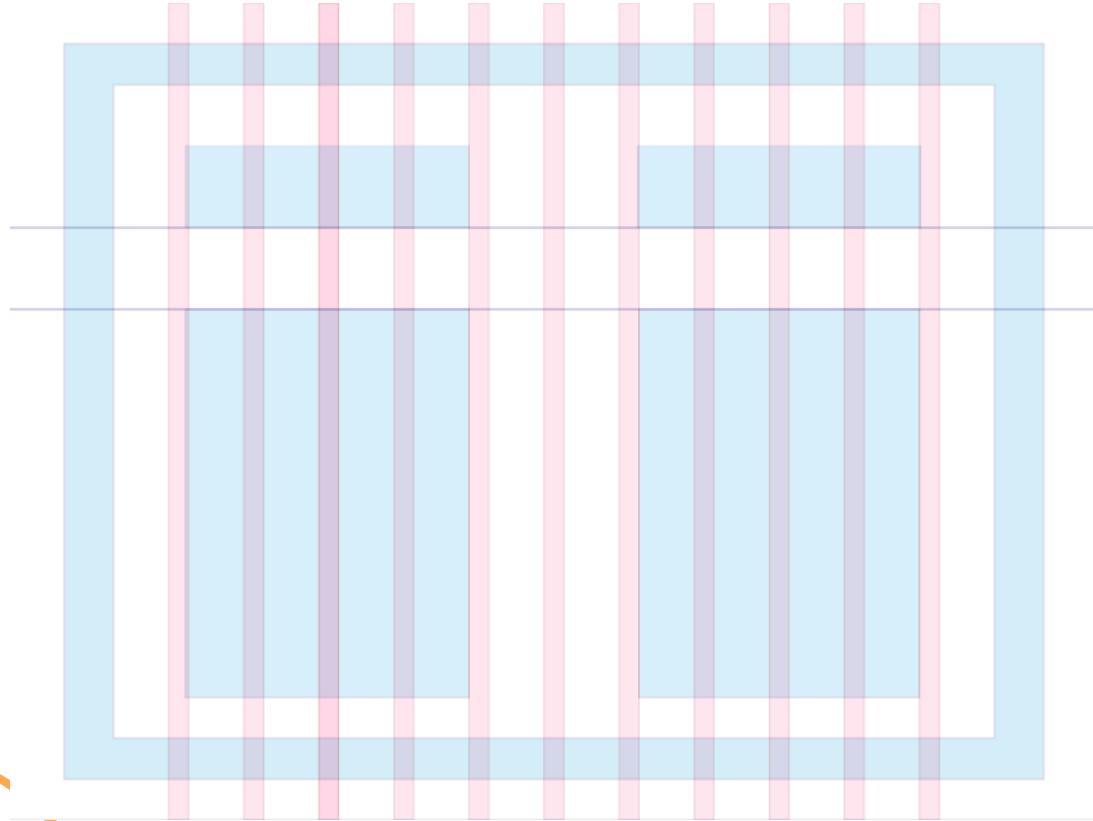
## Columns & Gutters



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# Grid Layout Ingredients

## Hanglines and Baselines



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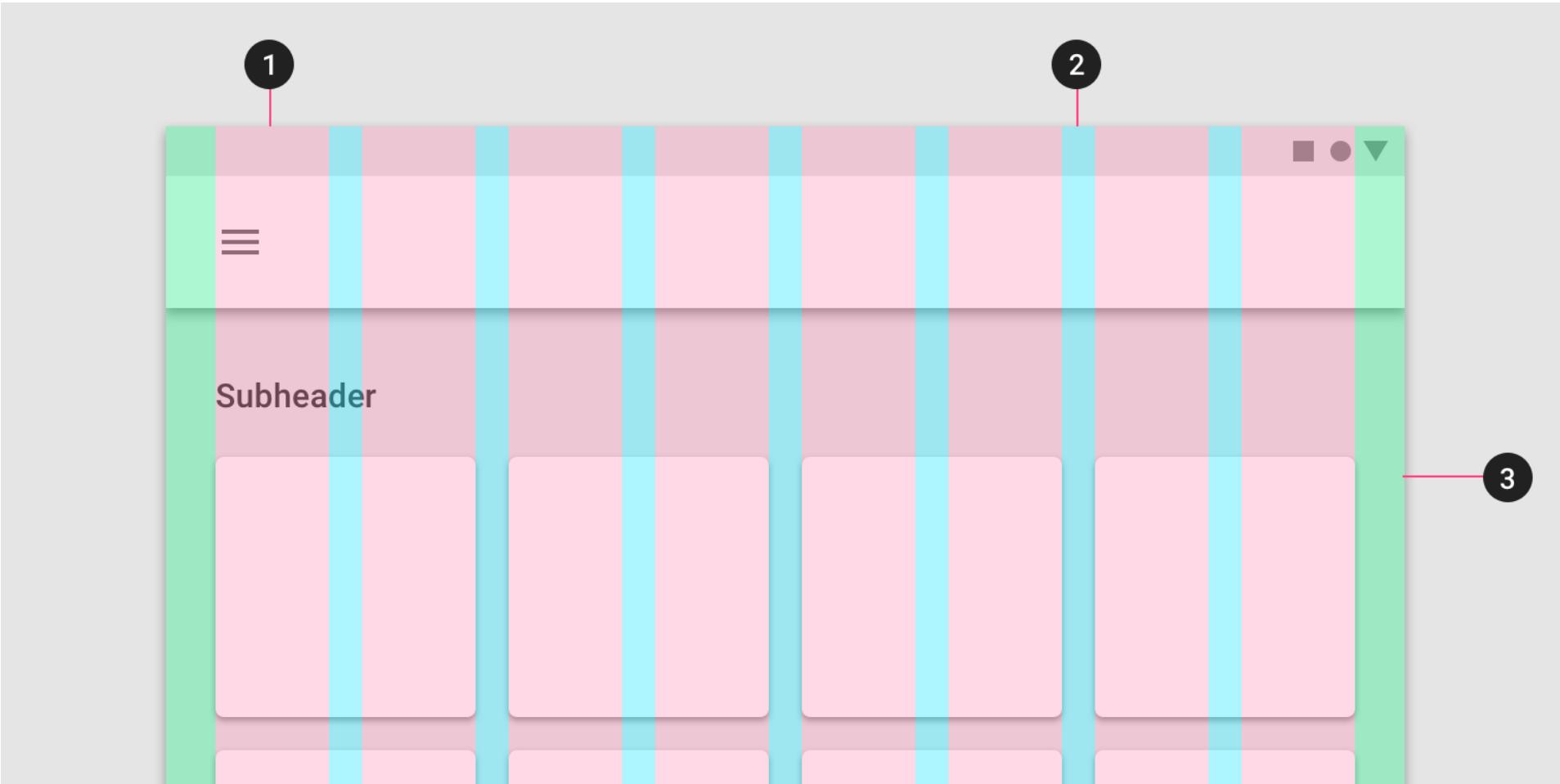
## Baseline Grids



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# Example of Grid-based Layout

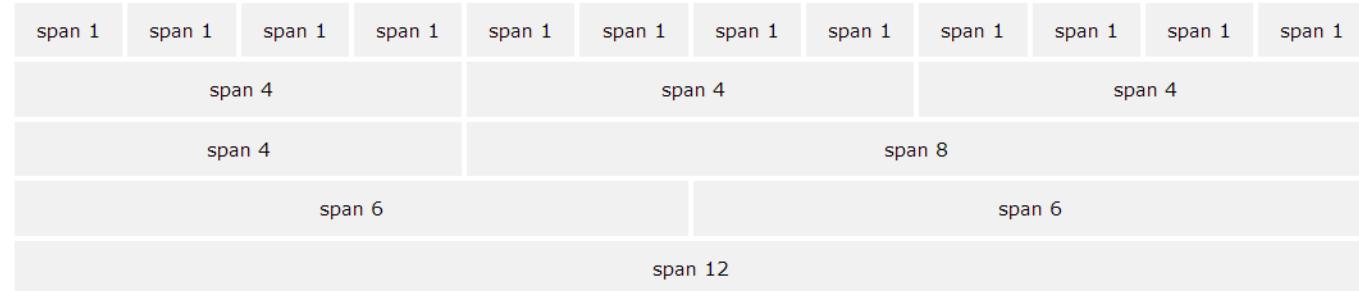
1. Columns
2. Gutters
3. Margins



<https://material.io/design/layout/responsive-layout-grid.html#columns-gutters-margins>

# Example: Bootstrap Grid

- Always 12 columns in total
- May choose to span a group of columns
- Each column is tagged according to the screen size:
  - xs (phones - <768px)
  - sm (tablets - >=768px)
  - md (small laptops - >=992px)
  - lg (laptops and desktops - >1200px)



# Example: Responsive Grid Layout

The image shows four screenshots of a website titled "Learn to Create Websites" from "Tutorial Republic". The layout is a responsive grid using Bootstrap's row and column classes. A purple callout box highlights the HTML section of the first screenshot.

**HTML**

HTML is the standard markup language for describing the structure of web pages. Our HTML tutorials will help you to learn the essentials of latest HTML5 language, so that you can create your own website.

[Learn More >](#)

**CSS**

CSS is used for describing the presentation of web pages. CSS can save a lot of time and effort. Our CSS tutorials will help you to learn the essentials of latest CSS3, so that you can control the style and layout of your website.

[Learn More >](#)

**JavaScript**

JavaScript is the most popular and widely used client-side scripting language. Our JavaScript tutorials will provide in-depth knowledge of the JavaScript including ES6 features, so that you can easily create responsive websites.

[Learn More >](#)

**Bootstrap**

Bootstrap is a powerful front-end framework for faster and easier web development. Our Bootstrap tutorials will help you to learn all the features of latest Bootstrap 4 framework so that you can easily create responsive websites.

[Learn More >](#)

**PHP**

PHP is the most popular server-side scripting language for creating dynamic web pages. Our PHP tutorials will help you to learn all the features of latest PHP5 scripting language so that you can easily create dynamic websites.

[Learn More >](#)

**SQL**

SQL is a standard language designed for managing data in relational database management system. Our SQL tutorials will help you to learn the fundamentals of the SQL language so that you can efficiently manage your databases.

[Learn More >](#)

**References**

Our references section outlines all the standard HTML5 tags and CSS3 properties along with other useful references such as color names and values, character entities, web safe fonts, language codes, HTTP messages, and more.

[Learn More >](#)

**FAQ**

Our Frequently Asked Questions (FAQ) section is an extensive collection of FAQs that provides quick and working solution of common questions and queries related to web design and development with live demo.

[Learn More >](#)

**HTML**

HTML is the standard markup language for describing the structure of the web pages. Our HTML tutorials will help you to understand the basics of latest HTML5 language, so that you can create your own website.

[Learn More >](#)

**CSS**

CSS is used for describing the presentation of web pages. CSS can save a lot of time and effort. Our CSS tutorials will provide in-depth knowledge of the CSS3 including ES6 features, so that you can create interactive websites.

[Learn More >](#)

**JavaScript**

JavaScript is the most popular and widely used client-side scripting language. Our JavaScript tutorials will provide in-depth knowledge of the JavaScript including ES6 features, so that you can easily create responsive websites.

[Learn More >](#)

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[Learn More >](#)

**PHP**

PHP is the most popular server-side scripting language for creating dynamic web pages. Our PHP tutorials will help you to learn the fundamentals of the SQL language so that you can efficiently manage your databases.

[Learn More >](#)

**SQL**

SQL is a standard language designed for managing data in relational database management system. Our SQL tutorials will help you to learn all the features of latest SQL5, so that you can create interactive websites.

[Learn More >](#)

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[Learn More >](#)

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[Learn More >](#)

```
<div class="row">
  <div class="col-md-6 col-lg-4 col-xl-3">
    <h2>HTML</h2>
    <p>...</p>
    <p><a href="..." class="btn btn-success">...</a></p>
  </div>

```

<https://www.tutorialrepublic.com/twitter-bootstrap-tutorial/bootstrap-responsive-layout.php>

# Grid Structure

Main body:  
Mix of 2x and 3x  
columns

Alternating row  
types



Title area outside the grid

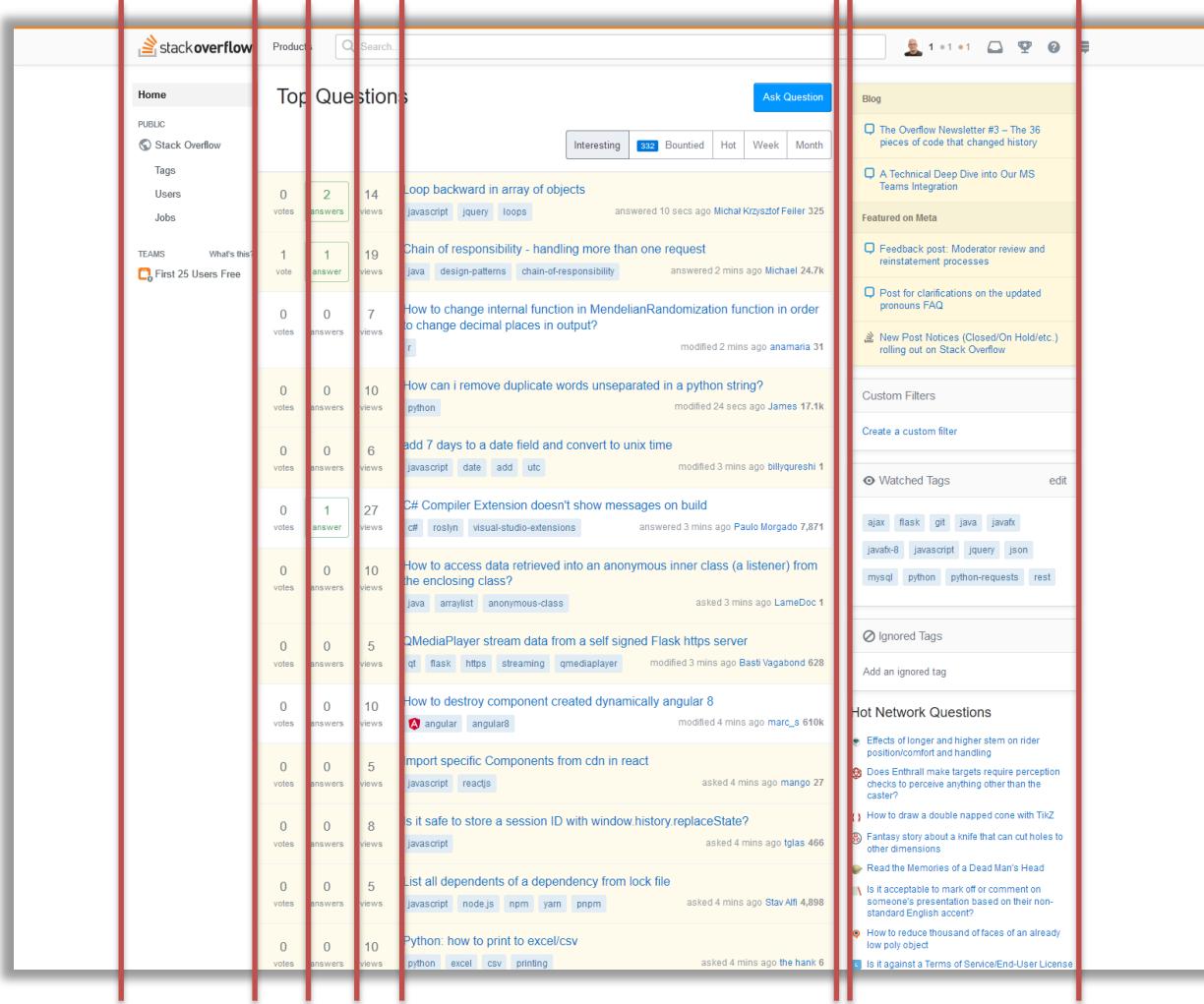
Right column for other types of articles

# Grid Structure

Navigation  
(left, smaller)

Main content  
(center, wide)

Related content  
(right, smaller)



# Example (2019)

Software								Top
Periodo		Codice	Lingua	Insegnamento	Crediti	Docente	Note	Vincoli
<b>1° anno</b>								
1	01PDW0V	EN	Information systems	ING-INF/05 (6)	6	M. Morisio	<a href="#">Note</a>	<a href="#">Vincoli</a>
1	02GOLOV	IT	Architetture dei sistemi di elaborazione	ING-INF/05 (10) Oppure	10	P. Bernardi E. Sanchez Sanchez	<a href="#">Note</a>	<a href="#">Vincoli</a>
1	02LSEOV	EN	Computer architectures	ING-INF/05 (10)	10	P. Montuschi	<a href="#">Note</a>	<a href="#">Vincoli</a>
1	01SQJOV	EN	Data Science and Database Technology	ING-INF/05 (8) Oppure	8	S. Chiusano	<a href="#">Note</a>	<a href="#">Vincoli</a>
1	01SQMOV	IT	Data Science e Tecnologie per le Basi di Dati	ING-INF/05 (8)	8	E. Baralis	<a href="#">Note</a>	<a href="#">Vincoli</a>
1	01OTW0V	EN	Computer network technologies and services	ING-INF/05 (6) Oppure	6	M. Baldi	<a href="#">Note</a>	<a href="#">Vincoli</a>
1	02KPN0V	IT	Tecnologie e servizi di rete	ING-INF/05 (6)	6	G. Marchetto	<a href="#">Note</a>	<a href="#">Vincoli</a>
2	02IEUOV	EN	Formal languages and compilers	ING-INF/05 (6)	6	R. Sisto	<a href="#">Note</a>	<a href="#">Vincoli</a>
2	05BIDOV	IT	Ingegneria del software	ING-INF/05 (8) Oppure	8	G. Bruno	<a href="#">Note</a>	<a href="#">Vincoli</a>
2	04GSPOV	EN	Software engineering	ING-INF/05 (8)	8	M. Morisio	<a href="#">Note</a>	<a href="#">Vincoli</a>
2	01UDFOV	IT	Applicazioni Web I	ING-INF/05 (6) Oppure	6	E. Masala	<a href="#">Note</a>	<a href="#">Vincoli</a>
2	01TXYOV	EN	Web Applications I	ING-INF/05 (6)	6	F. Corno	<a href="#">Note</a>	<a href="#">Vincoli</a>
2	02GRSOV	IT	Programmazione di sistemi	ING-INF/05 (10) Oppure	10	G. Cabodi	<a href="#">Note</a>	<a href="#">Vincoli</a>
2	01NYH0V	EN	System and device programming	ING-INF/05 (10)	10	S. Quer	<a href="#">Note</a>	<a href="#">Vincoli</a>
<b>2° anno</b>								
1	01TYMOV	EN	Insegnamento a scelta 1	6				
1	01TYMOV	EN	Information systems security	ING-INF/05 (6)	6		<a href="#">Note</a>	<a href="#">Vincoli</a>
1	01UDUOV	IT	Oppure					
1	01UDUOV	IT	Sicurezza dei sistemi informativi	ING-INF/05 (6)	6		<a href="#">Note</a>	<a href="#">Vincoli</a>
1	01SQNOV	EN	Software Engineering II	ING-INF/05 (6)	6		<a href="#">Note</a>	<a href="#">Vincoli</a>
1,2	29EBHOV		Crediti liberi		6			
1,2	29EBHOV		Tesi		30			
2	01TYMOV	EN	Insegnamento a scelta 2	6				
<b>Insegnamento a scelta 1</b>								
Periodo	Codice	Lingua	Insegnamento	Crediti	Docente	Note	Vincoli	
1	01TYDOV	EN	Cloud Computing	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	
1	01PDCOV	EN	Digital control technologies and architectures	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	
1	01TXZ0V	EN	Distributed systems programming	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	Si
1	01NWPOV	IT	Elaborazione dell'audio digitale	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	
1	01UDGOV	EN	Energy management for IoT	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	Si
1	02JSKOV	EN	Human Computer Interaction	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	★
1	01SQIOV	EN	Machine Learning and Artificial Intelligence	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	
1	01PDX0V	EN	Modern design of control systems	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	
1	01OUUV0V	EN	Optimization methods and algorithms	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	
1	01CET0V	EN	Statistical methods	6		<a href="#">Note</a>	<a href="#">Vincoli</a>	

# Example (same page in 2020)

Software

▼ 1° anno 2020/2021

Periodo	Codice	SSD	Insegnamento	Lingua	Crediti	Docente	Note	Orario
1	01PDWOW	ING-INF/05 (6)	Information systems	🇬🇧	6	M. Morisio (118 iscr.)	🕒	
1	02GOLOV	ING-INF/05 (10)	Architetture dei sistemi di elaborazione	🇮🇹	10	P. Bernardi (150 iscr.) E. Sanchez Sanchez (159 iscr.)	🕒	
oppure								
1	02LSEOV	ING-INF/05 (10)	Computer architectures	🇬🇧	10	P. Montuschi (207 iscr.)	🕒	
1	01SQJOV	ING-INF/05 (8)	Data Science and Database Technology	🇬🇧	8	S. Chiusano (172 iscr.)	🕒	
oppure								
1	01SQMOV	ING-INF/05 (8)	Data Science e Tecnologie per le Basi di Dati	🇮🇹	8	E. Baralis (254 iscr.)	🕒	
1	01OTWOW	ING-INF/05 (6)	Computer network technologies and services	🇬🇧	6	G. Marchetto (161 iscr.)	🕒	
oppure								
1	02KPNOV	ING-INF/05 (6)	Tecnologie e servizi di rete	🇮🇹	6	G. Marchetto (253 iscr.)	🕒	
2	02JEUOV	ING-INF/05 (6)	Formal languages and compilers	🇬🇧	6	R. Sisto (60 iscr.)	🕒	
2	05BIDOV	ING-INF/05 (8)	Ingegneria del software	🇮🇹	8	G. Bruno (132 iscr.)	🕒	
oppure								
2	04GSPOV	ING-INF/05 (8)	Software engineering	🇬🇧	8	M. Morisio (202 iscr.)	🕒	
2	01UDFOV	ING-INF/05 (6)	Applicazioni Web I	🇮🇹	6	E. Masala (91 iscr.) L. De Russis (57 iscr.)	🕒	
oppure								
2	01TXYOV	ING-INF/05 (6)	Web Applications I	🇬🇧	6	F. Corno (185 iscr.)	🕒	
2	02GRSOV	ING-INF/05 (10)	Programmazione di sistema	🇮🇹	10	G. Cabodi (100 iscr.) A. Savino (112 iscr.)	🕒	
oppure								
2	01NYHOV	ING-INF/05 (10)	System and device programming	🇬🇧	10	S. Quer (108 iscr.)	🕒	
▼ 2° anno 2021/2022								
Periodo	Codice	SSD	Insegnamento	Lingua	Crediti	Docente	Note	Orario
1			Insegnamento a scelta 1		6			
1	01TYMOV	ING-INF/05 (6)	Information systems security	🇬🇧	6		🕒	
oppure								
1	01UDUOV	ING-INF/05 (6)	Sicurezza dei sistemi informativi	🇮🇹	6		🕒	
1	01SQNOV	ING-INF/05 (6)	Software Engineering II	🇬🇧	6		🕒	
1,2			Crediti liberi		6			
1,2	29EBHOV		Tesi		30			
2			Insegnamento a scelta 2		6			

# Some Guidelines

- When designing a template, start from the longest block of text
- Left-aligned text is (usually) faster to skim
- Alignment guides the eye and reduces clutter
  - Avoid slight misalignments
  - Patterns and deviations are “automatically” detected
    - Deviate from a pattern for strategic reasons
  - Use visual proximity and scale to convey semantic information

# COLORS

03/11/23

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I live inside my car leasing website all day Monday to Friday 9am-6pm. I lease the cheapest PCP and contract hire cars in the UK! - I am Ling, accept no substitutes

# LINGSCARS.com

Leader of the Pack - The UK's favorite car leasing website!  
Contract hire cars from Ling Valentine. LINGSCARS is the UK's favourite car leasing website - On 2016 I leased over £85 million in cars!

**Believe it or not, this Gateshead-based website, featuring Mrs Ling jiggling on her motorbike, is one of the biggest online drivers of car sales in Great Britain" 25th July 2017**

4 News

**Leader of the Pack**

"[Ling Valentine is] Britain's **BIGGEST** individual seller of new cars."

**BREXIT RISK FREE!** February 2017 theguardian

**LING'S BREXIT BORIS PROMISE:** If the UK leaves the EU with "no deal", tariffs may apply to EU built cars landing in the UK after Brexit day (31st Jan?). If this is the case with YOUR car, and if the price increases due to tariffs, YOU will be able to cancel the car order at **NO COST** to you. **YOU can order a new car from me, with NO BREXIT RISK.** - Ling

**CARS A-Z**

**ABARTH**

124 Spider Convertible  
595 Convertible  
595 Hatchback  
695 Convertible

**ALFA ROMEO**

Giulia Saloon  
Giulietta  
Stelvio Estate

**AUDI**

**MY BEST SELLING CAR LEASING DEALS!**

**500 IDEAS!**

**NICOLE...PAPA!**

**MEGA-HATCH!**

**Fiat 500**  
1.2 Pop 8v (69bhp) (4 seats)  
Hatchback 3dr 124cc Petrol Manual (5 Speed)

**Rent New £127/mth including VAT**

**Renault Clio**  
0.9 TCE Iconic 12v (90bhp)  
Hatchback 5dr 898cc Petrol Manual (5 Speed)

**Rent New £152/mth including VAT**

**Citroen C3**  
1.2 PureTech 12v (83bhp) Flair  
Hatchback 5dr Manual 1199cc

**Rent New £157/mth including VAT**

**Car Leasing Online Service Response Times**

**75 CUSTOMERS IN 'PROPOSAL'**

Ling replies in... **0:03:07**

**129 CUSTOMERS IN 'ORDER'**

Ling replies in... **0:05:03**

**1 DELIVERY TODAY**

Ford Ka+  
Arthur  
ATTBLEBOROUGH, NR17

**21 DELIVERIES IN LAST WEEK**

Renault Captur  
Cath  
PONTEFRAC, WF81

Mercedes GLC Coupe  
Bill  
BEDLINGTON, NE22

BMW 2 Series Convert...  
Pingu  
DERBY, DE6

Nissan Qashqai  
Arlene  
GLASGOW, G11

Volvo XC60 Estate  
Saif  
MILTON KEYNES, MK8

Seat Leon  
Ben  
BARNESLEY, S70

Skoda Kodiaq Estate  
Hannah  
HAY-ON-WYE, HR3

Renault Clio  
Paul  
MIDDLEBROUGH, TS7

Renault Clio  
Paul  
MIDDLEBROUGH, TS7

Seat Arona  
Steve  
LONDON, SE18

Seat Leon  
Adam  
HATFIELD, AL10

Audi A3 Sportback  
Chris  
WYMONDHAM, NR18

# Colors

- Be careful, do not exaggerate
- Design in grayscale, first
  - Ensure information is conveyed by text and layout
- When adding colors, try to conserve the same luminance of the grayscale design
- Assign meaning to color
- Use a limited and consistent palette and use slight variations

# Example

The image displays two side-by-side screenshots of the Stack Overflow homepage, specifically the 'Top Questions' section. Both screenshots show the same content but with slight differences in the order of the questions.

**Left Screenshot:**

- Top Questions:** A list of 15 questions with their details (votes, answers, views, tags, asked time, answered by).
- Blog:** A sidebar with links to 'The Overflow Newsletter #3 – The 36 pieces of code that changed history' and 'A Technical Deep Dive into Our MS Teams Integration'.
- Featured on Meta:** A sidebar with links to 'Feedback post: Moderator review and reinstatement processes' and 'Post for clarifications on the updated pronouns FAQ'.
- Custom Filters:** A sidebar with 'Create a custom filter' link.
- Watched Tags:** A sidebar with a list of watched tags: ajax, flask, git, java, javascript, mysql, python, python-requests, rest.
- Ignored Tags:** A sidebar with 'Add an ignored tag' link.
- Hot Network Questions:** A sidebar with a list of 10 questions from other sites.

**Right Screenshot:**

- Top Questions:** A list of 15 questions with their details (votes, answers, views, tags, asked time, answered by).
- Blog:** A sidebar with links to 'The Overflow Newsletter #3 – The 36 pieces of code that changed history' and 'A Technical Deep Dive into Our MS Teams Integration'.
- Featured on Meta:** A sidebar with links to 'Feedback post: Moderator review and reinstatement processes' and 'Post for clarifications on the updated pronouns FAQ'.
- Custom Filters:** A sidebar with 'Create a custom filter' link.
- Watched Tags:** A sidebar with a list of watched tags: ajax, flask, git, java, javascript, mysql, python, python-requests, rest.
- Ignored Tags:** A sidebar with 'Add an ignored tag' link.
- Hot Network Questions:** A sidebar with a list of 10 questions from other sites.

# Palettes

Allegato 1

ABACO COLORI POLITICO

BLU

PANTONE	CMYK
288 CVP	100/80/0/30
90%	90%
80%	80%
70%	70%
60%	60%
50%	50%

ARANCIO

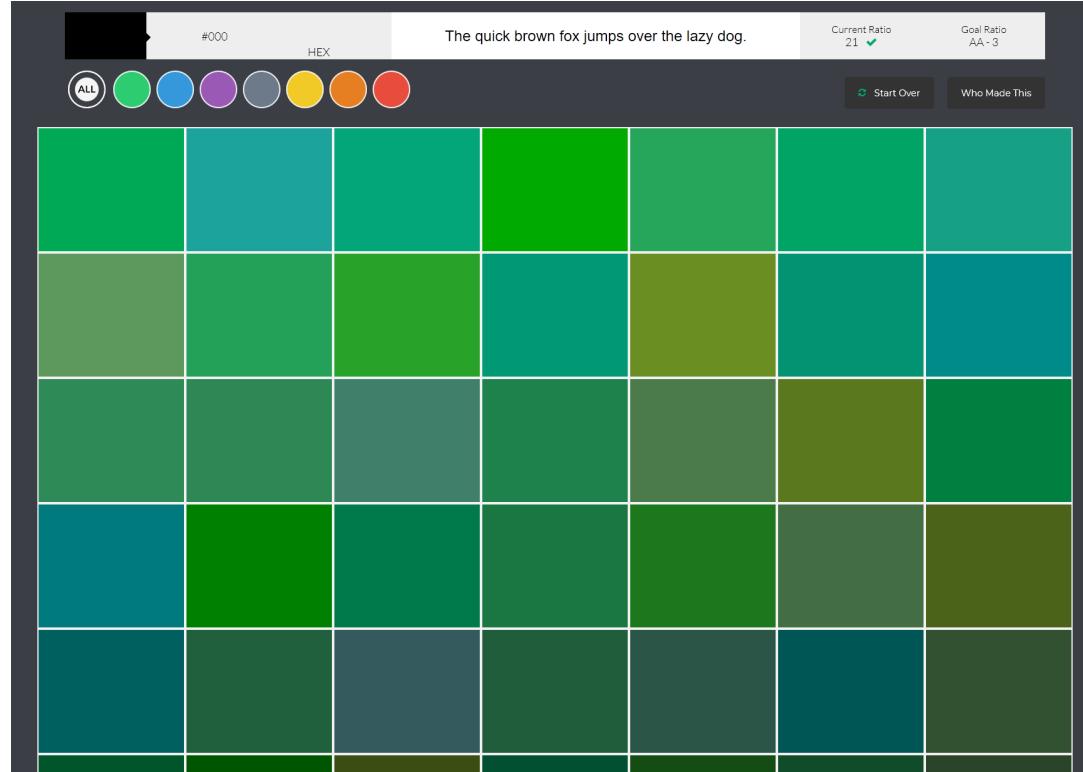
PANTONE	CMYK	CMYK
ORANGE 021	0/70/90/0	0/70/100/0
137 CVP	0/60/90/0	0/60/100/0
130 CVP	0/50/90/0	0/50/100/0
123 CVP	0/40/90/0	0/40/100/0
	0/30/90/0	0/30/100/0

COMBINAZIONI

CMYK
100/80/0/30
100/80/0/30
100/80/0/30
100/80/0/30
100/80/0/30
100/80/0/30



# Color Contrast



Default type color On light			Default type color On dark		
Primary	#000000	1a	Primary	#FFFFFF	1a
Secondary	#000000	0.54a	Secondary	#FFFFFF	0.54a
Disabled	#000000	0.26a	Disabled	#FFFFFF	0.26a
Link	#3367D6	1a	Link	#7BAAF7	1a
Positive	#0B8043	1a	Positive	#57BB8A	1a
Negative	#C53929	1a	Negative	#E67C73	1a
Warning	#EA6100	1a	Warning	#F7CB4D	1a

Google Chrome Palette

# Example

- Colors needing an explanation legend
- Time intervals are shaded with 2 different colors
  - “why is the first hour filled with a different color?”
- No indication of the “fill level”

Turni disponibili - Aule Studio - Sala studio al Secondo Piano di C.so Castelfidardo 39

Legenda turni prenotazione

Disponibile Passato Non prenotabile Prenotazioni non attive Turno al quale sei prenotato

Tutti gli orari sono da intendersi espressi secondo il fuso orario italiano

A partire da giorno 15 luglio 2020, è consentito l'uso della seguente Sala Studio della Sede Centrale:  
- Sala studio al Secondo Piano di C.so Castelfidardo 39, codice locale TO\_CIT11\_XP02\_001

Le sale studio sono aperte dalle ore 9.00 alle ore 18.00 dal lunedì al venerdì. L'accesso sarà consentito su due turnazioni orarie, dalle ore 9.00 alle 13.00 e dalle ore 14.00 alle ore 18.00

21 Set 2020 - 27 Set 2020							1 giorno	3 giorni	Settimana lavorativa	Settimana	
	Lunedì 21 Set 2020	Martedì 22 Set 2020	Mercoledì 23 Set 2020	Giovedì 24 Set 2020	Venerdì 25 Set 2020	Sabato 26 Set 2020	Domenica 27 Set 2020				
09:00	09:00 - 13:00 - prenotazioni: 36/36	09:00 - 13:00 - prenotazioni: 36/36	09:00 - 13:00 - prenotazioni: 35/36	09:00 - 13:00 - prenotazioni: 36/36	09:00 - 13:00 - prenotazioni: 36/36	09:00 - 13:00 - prenotazioni: 34/36					
10:00											
11:00											
12:00											
13:00											
14:00	14:00 - 18:00 - prenotazioni: 36/36	14:00 - 18:00 - prenotazioni: 36/36	14:00 - 18:00 - prenotazioni: 34/36	14:00 - 18:00 - prenotazioni: 34/36	14:00 - 18:00 - prenotazioni: 26/36						
15:00											
16:00											
17:00											

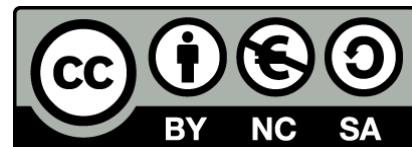
# EXERCISE

03/11/23

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# Exercise

- Starting from the MangiaTO homepage developed in the past weeks
- Reflect and apply the principles and practices discussed today
- Start designing the “Menu” page



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