

## COM5961 DATA DRIVEN PRODUCTS & SERVICES DESIGN: LESSON 6 - FIGMA PROTOTYPE FOR RESPONSIVE WEB

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 Center for Entrepreneurship  
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**Today's agenda.**

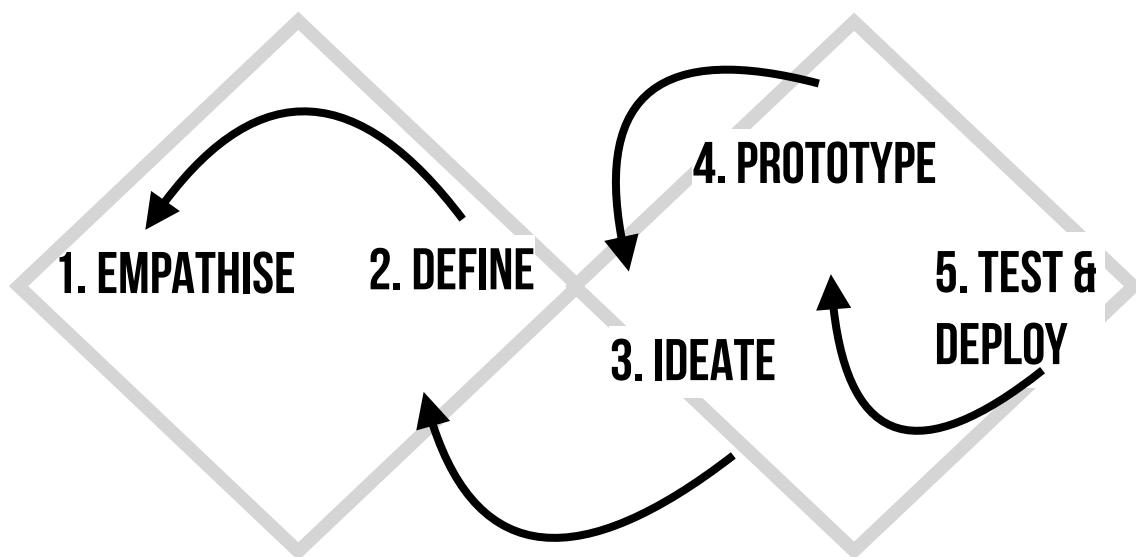
1. From **information architecture** to **wireframes**.
2. **Assignment#3** and final **project proposal**.
3. **Four key elements** of **responsive design**.
4. **Front-end web design libraries and components**.
5. **Figma** for brainstorming, wireframing, prototyping, and collaborating.

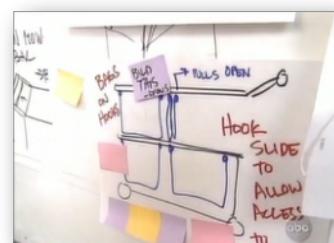
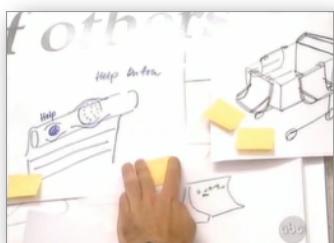
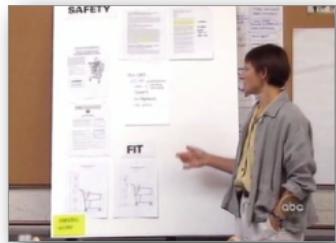
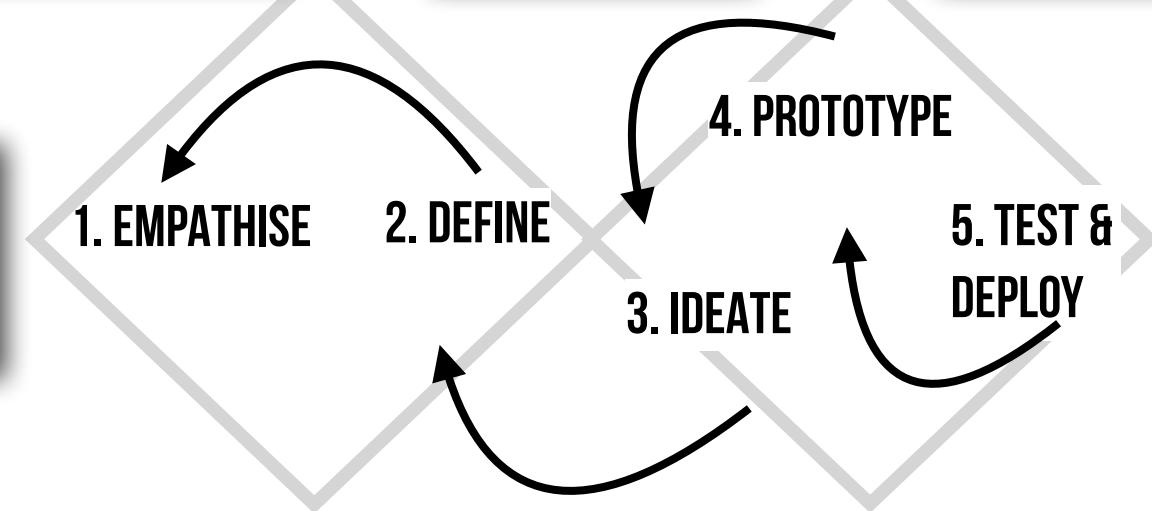
# **Information Architecture** in Design Thinking

**Design thinking is a human-centric problem discovery and problem solving process that:**

- (a) Understand and focus on people**
- (b) Address the right problem, not the symptoms**
- (c) Look at the entire system, not individual components**
- (d) Iterate and improve**

## The Design Thinking Process (Double Diamond Model)



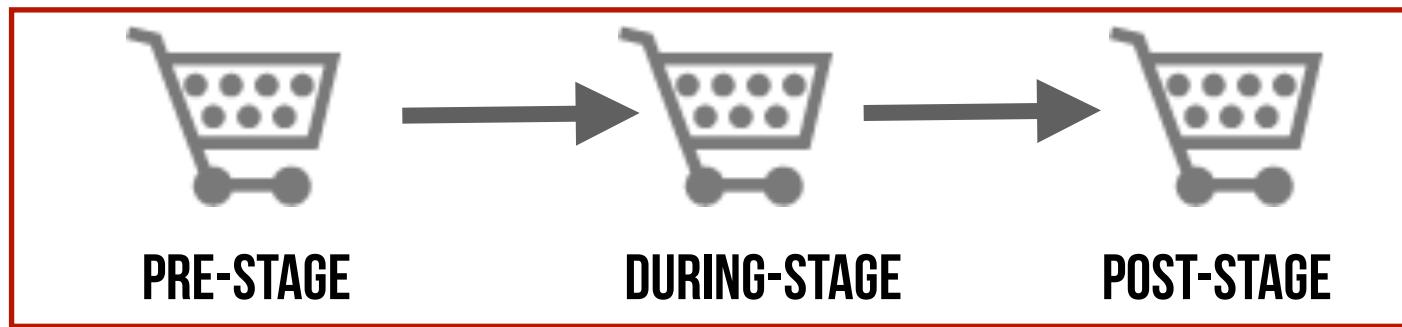




EXPERIENCE OF USING

UX = JOURNEY

**”The experience is the journey.”**

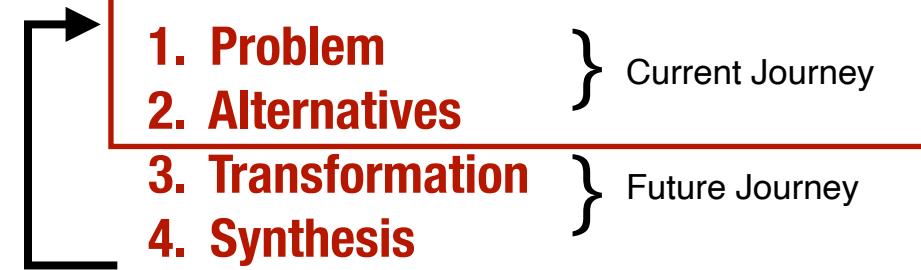


# UX AS A JOURNEY

## Elements

- 1. Persona
- 2. Context
- 3. Artifacts
- 4. Tasks/Jobs

## Structure



HOME



Joins loyalty program, creates a profile & installs phone app.

LOBBY



Check-in.



ROOM



BOOKING

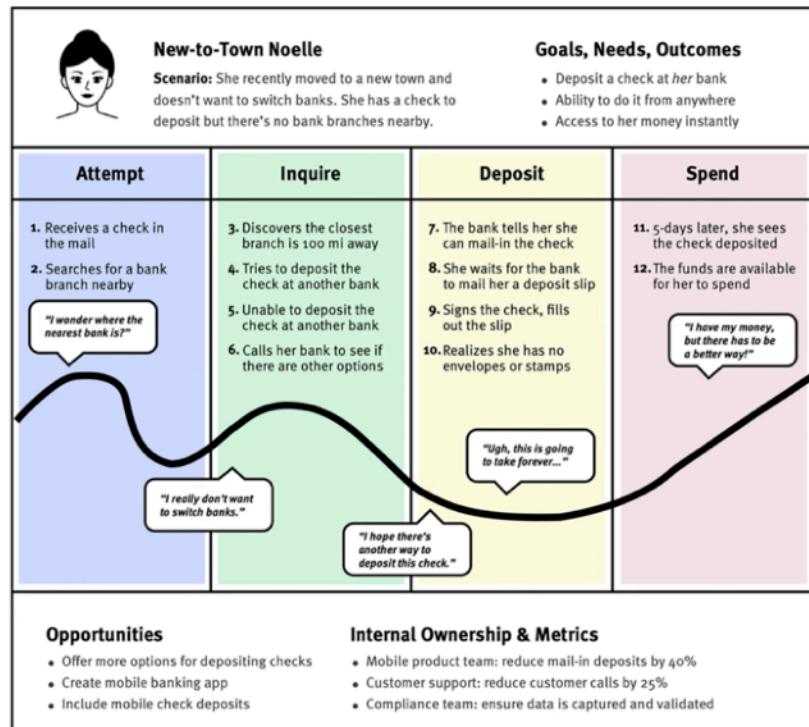
CHECK-IN

VISIT DESTINATIONS

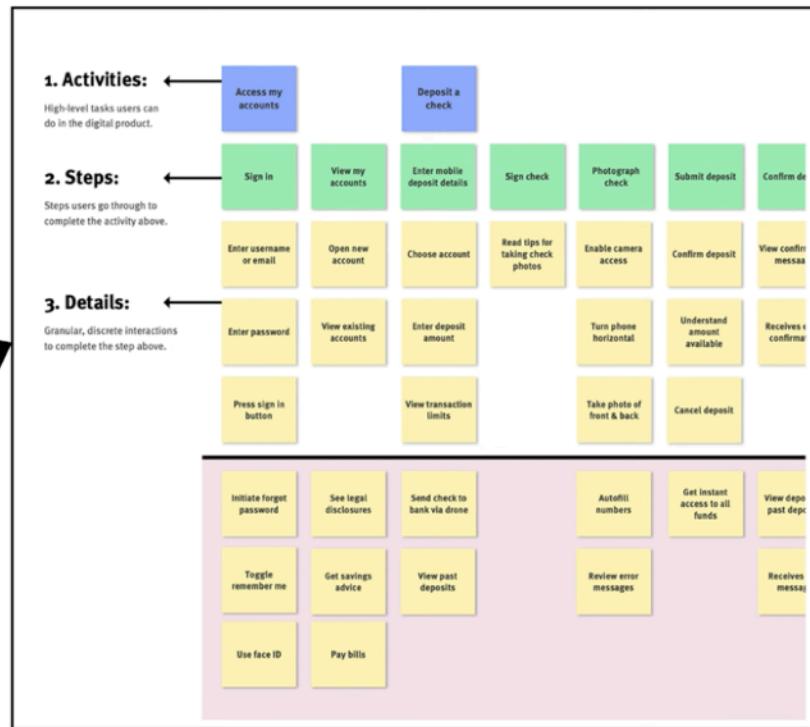
RETURN

Adapted from: MIT  
Mobile Experience Lab

## Customer Journey Map: Depositing a Check



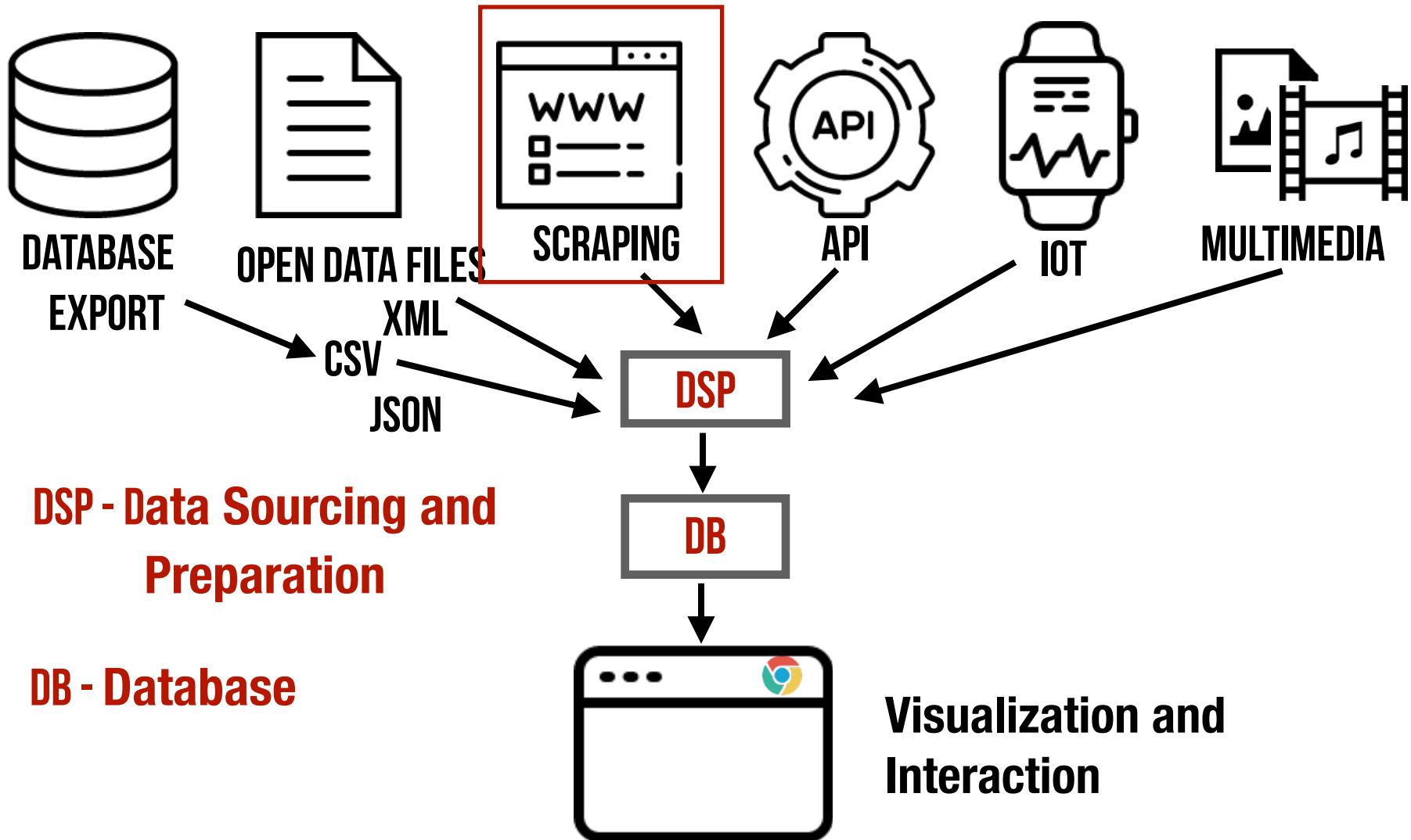
## User Story Map: Mobile App for Depositing Checks



Source: NNGroup



**Design thinking —**  
**Looks at the entire system, not**  
**individual components**



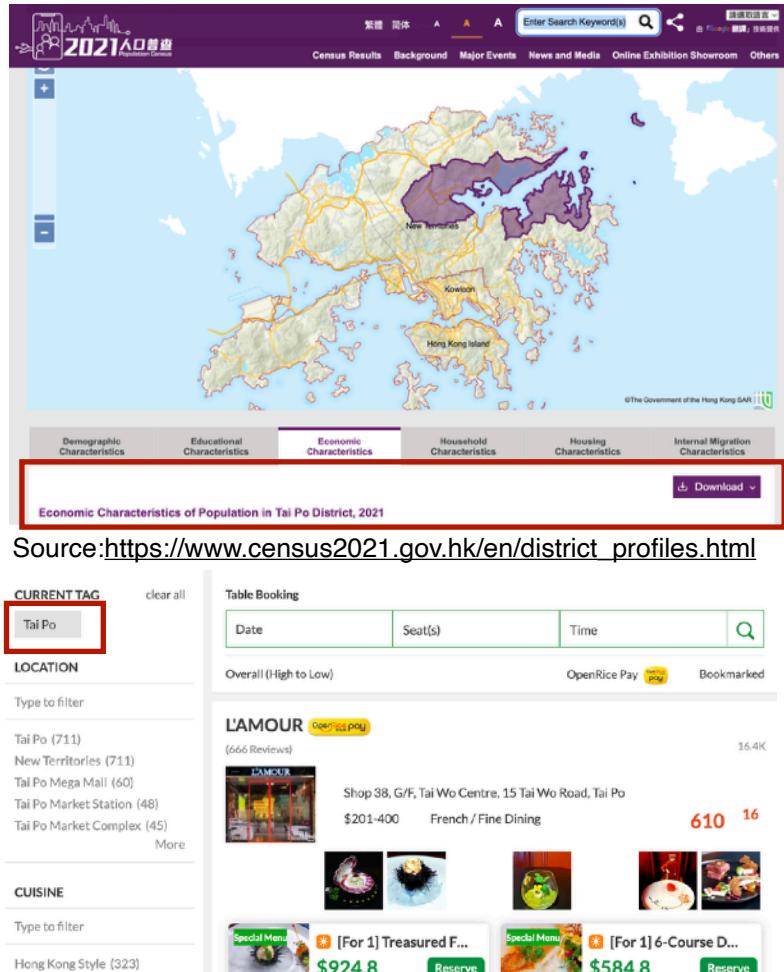
**Big data encompasses multiple sources of data and each source can provide tremendous amount of observations...**

表 4 按區議會分區及住戶每月入息劃分的家庭住戶數目

Table 4 Domestic households by District Council district and monthly household income

區議會分區 District Council district	住戶每月入息 (港元) Monthly household income (HK\$)				住戶每月入息 中位數 (港元) Median monthly household income (HK\$)	
	<10,000		10,000-29,999		總計 Total	Median monthly household income (HK\$)
	數目 No.	百分比 %	數目 No.	百分比 %		
中西區 Central & Western	14 700 (3 200)	16.8 (4.6)	17 900 (14 200)	20.4 (20.2)	55 100 (52 900)	42,000
灣仔 Wan Chai	13 000 (2 600)	20.6 (5.5)	13 000 (9 400)	20.5 (19.9)	37 200 (35 300)	40,400
東區 Eastern	37 200 (8 000)	19.7 (5.6)	52 500 (41 000)	27.9 (28.4)	98 700 (95 100)	55,500
南區 Southern	15 300 (3 600)	17.7 (5.2)	24 300 (20 100)	28.2 (29.3)	46 700 (44 900)	31,500
油尖旺 Yau Tsui Mong	25 000 (6 000)	20.2 (6.3)	39 300 (33 000)	31.8 (34.2)	59 300 (57 400)	35,200
深水埗 Sham Shui Po	37 900 (9 700)	23.0 (7.7)	61 600 (52 200)	37.4 (41.6)	65 200 (63 700)	22,000
九龍城 Kowloon City	28 600 (5 300)	19.5 (4.7)	45 100 (37 800)	30.8 (33.6)	72 800 (69 500)	29,700
黃大仙 Wong Tai Sin	33 800 (7 500)	22.9 (6.6)	54 700 (47 900)	37.1 (42.1)	58 800 (58 400)	30,200
觀塘 Kwun Tong	58 000 (12 800)	23.4 (6.8)	96 200 (83 200)	38.9 (44.2)	93 300 (92 300)	23,300
葵青 Kwai Tsing	37 800 (8 600)	21.4 (6.2)	69 000 (60 700)	39.0 (44.0)	69 800 (68 800)	29,800
荃灣 Tsuen Wan	18 500 (4 300)	16.2 (4.6)	34 700 (28 900)	30.4 (31.1)	60 900 (59 700)	31,800
屯門 Tuen Mun	42 900 (10 700)	22.9 (7.3)	63 400 (56 100)	33.8 (38.2)	81 000 (79 900)	25,400
元朗 Yuen Long	43 200 (10 500)	18.4 (5.5)	82 500 (72 900)	35.2 (38.3)	108 900 (106 800)	27,000
北區 North	25 000 (5 500)	22.5 (6.4)	41 300 (36 300)	37.1 (42.2)	45 100 (44 200)	30,200
大埔 Tai Po	20 100 (4 200)	18.2 (4.7)	34 800 (29 100)	31.5 (33.1)	55 700 (54 600)	30,000
					110 500 (87 900)	50.4 (62.2)
					100.0 (100.0)	100.0 (100.0)
						(37,800)

Source: [https://www.censtatd.gov.hk/en/data/stat\\_report/product/B1130301/att/B11303012021AN21B0100.pdf](https://www.censtatd.gov.hk/en/data/stat_report/product/B1130301/att/B11303012021AN21B0100.pdf)



Source: <https://www.openrice.com/en/hongkong/restaurants/district/tai-po>

## **Open Rice**

- District
- Cuisine/category
- Price
- # of likes/dislikes

## **Census 2021**

- Population growth
- Birth/death rate
- Household size
- Education/others

## **District Report**

- Age distribution
- Sex distribution
- Income distribution
- Population

# Solution Space

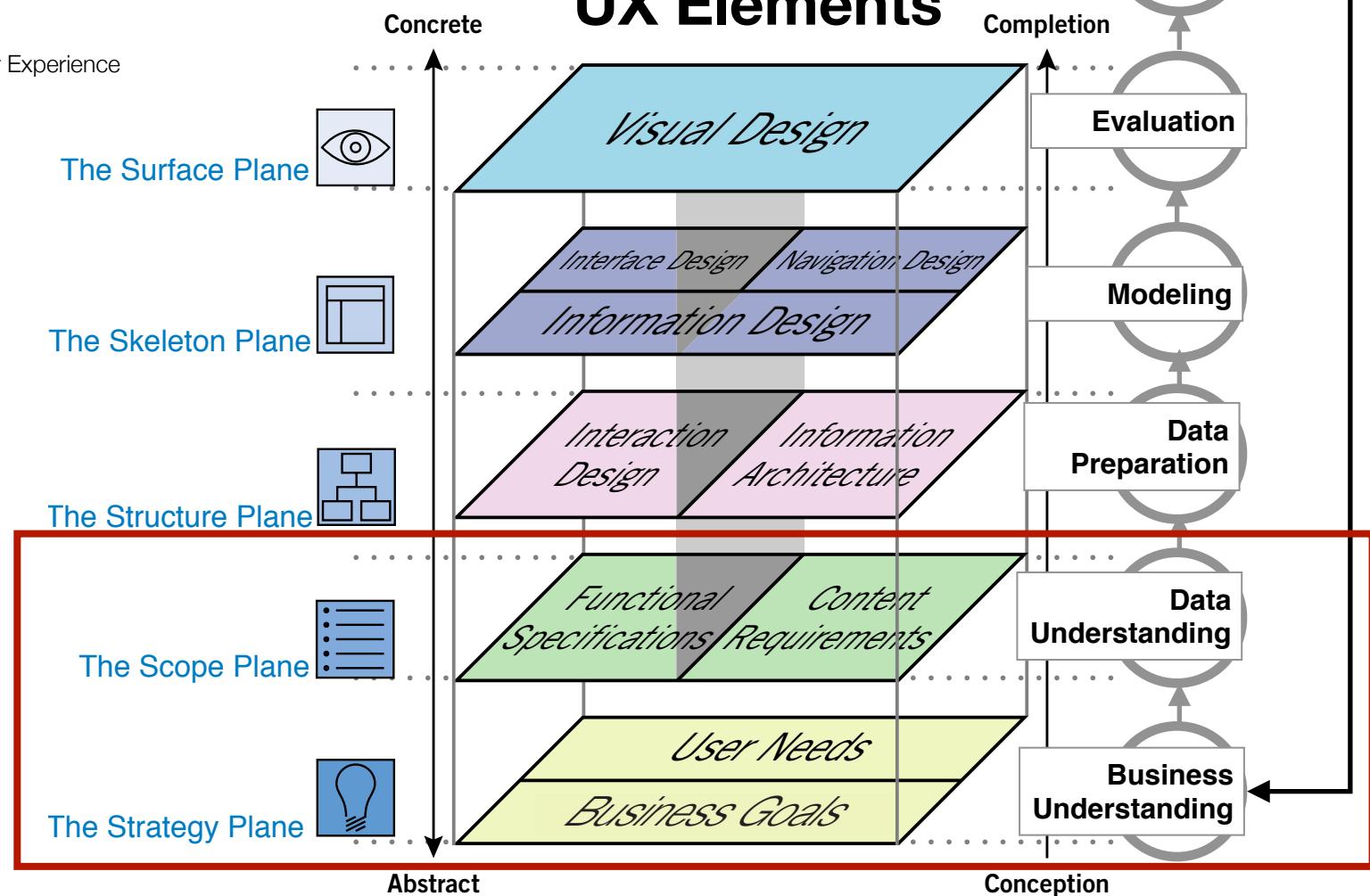
how and  
how much

# Problem Space

who, what,  
and why

Source: Elements of User Experience  
by Jesse James Garrett

# UX Elements

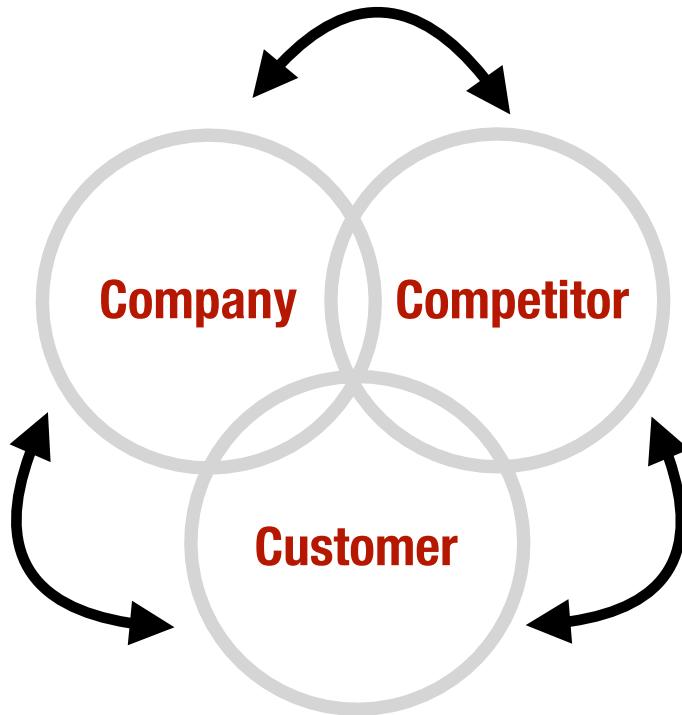


*Business Goals*

# **What is a “business strategy”?**

**“A business strategy is a plan for a **company** to create sustainable advantages over the **competitors** to deliver unique values to **customers**”.**

Adapt from “The Mind of the Strategist” by Kenichi Ohmae

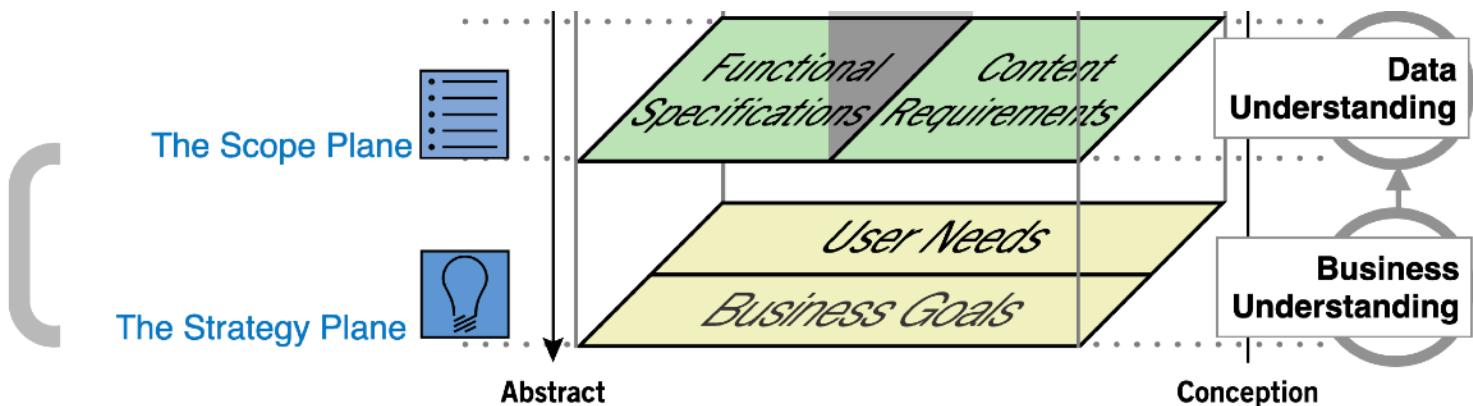


**“What kind of restaurant is in demand in a high income district with an ageing population?”**

# Problem Statement

How might we make high income seniors (**who/user**) address the problem of finding a restaurant near home that serves delicious and healthy cuisine (**what/need**) to achieve the goal of living a fulfilling and healthy life (why/goal)?

**Problem Space**  
who, what,  
and why



# 首尔演唱会地图

THERE'S SALVATION  
FOR ME  
更轻松地规划您的首尔之旅

探索场馆

— 直接下滑，查看近期演出信息 —

Case Study: Seoul Concert Map



# 首尔演唱会地图

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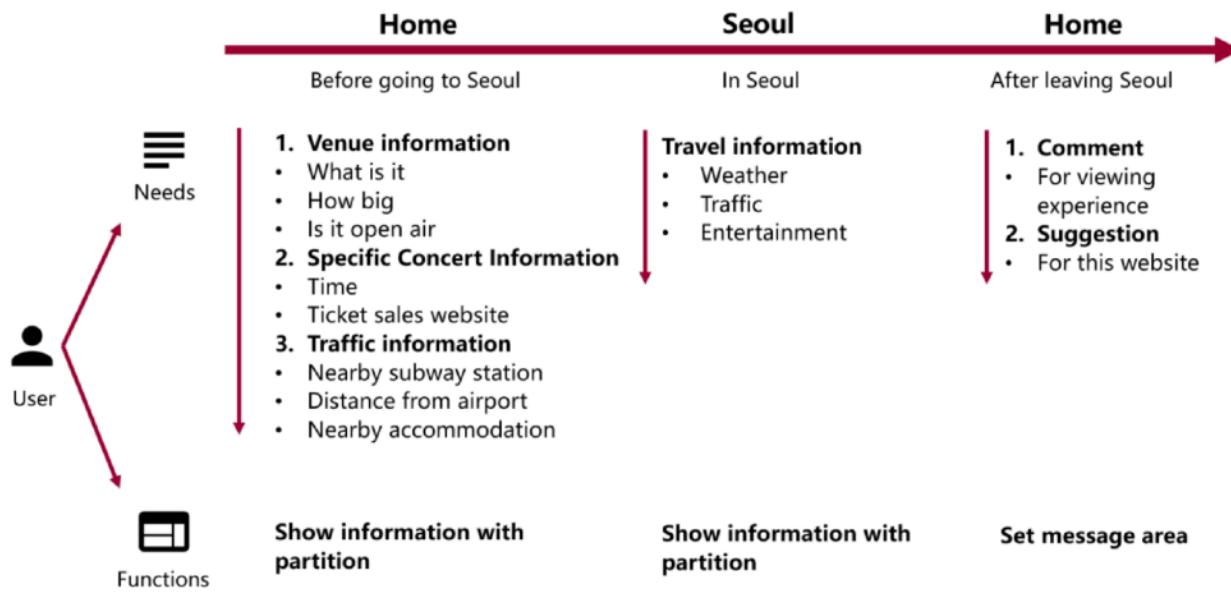
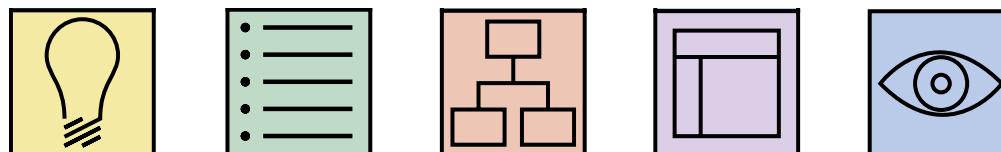


Figure 1. User Journey Map



**SCOPE PLANE**

# Scope - Function and Content Requirements

According to user journey map, this website will mainly provide information needed in the first two phases: before and during the trip.

## Venues information for route planning:

- Venues: all venues in Seoul that have a capacity of more than 500 people and have ever held concerts.
- Venues information: outfield and infield appearance, capacity, district, specific location, nearby subway station, directions and time required from Incheon Airport, recommended accommodation area, examples of previous concerts or plans of upcoming concerts.
- Visualization: map view showing specific locations of all venues, bar chart view comparing venue capacity by categories.

## Upcoming concerts information for scheduling and booking:

- Date, performer, concert name, ticket price and website, corresponding venue.

## Nearby entertainment information for pre-concert and post-concert activities:

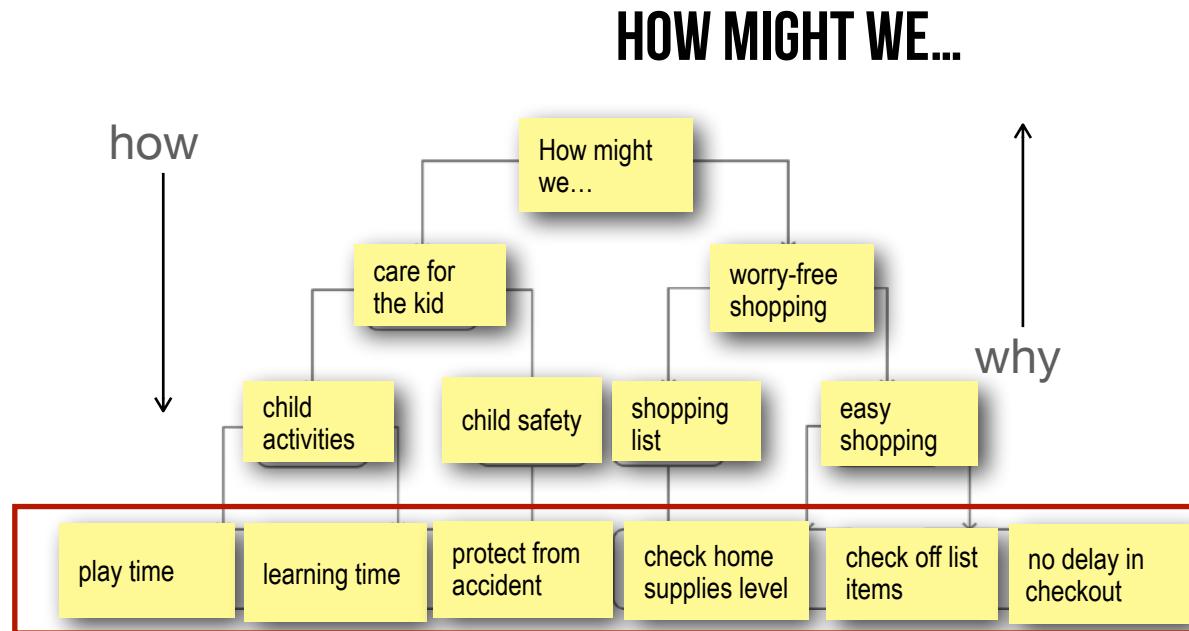
- Distinct, specific location, nearby subway station, corresponding venue, directions and time required from venue, introduction, TripAdvisor comments, opening hours, suggested tour time.
- Additionally, there is also a “Contact Us” section to collect user suggestions and feedback.



## CASE STUDY: REDESIGNING THE SHOPPING CART

## Why How Laddering Tree

Source: d.school

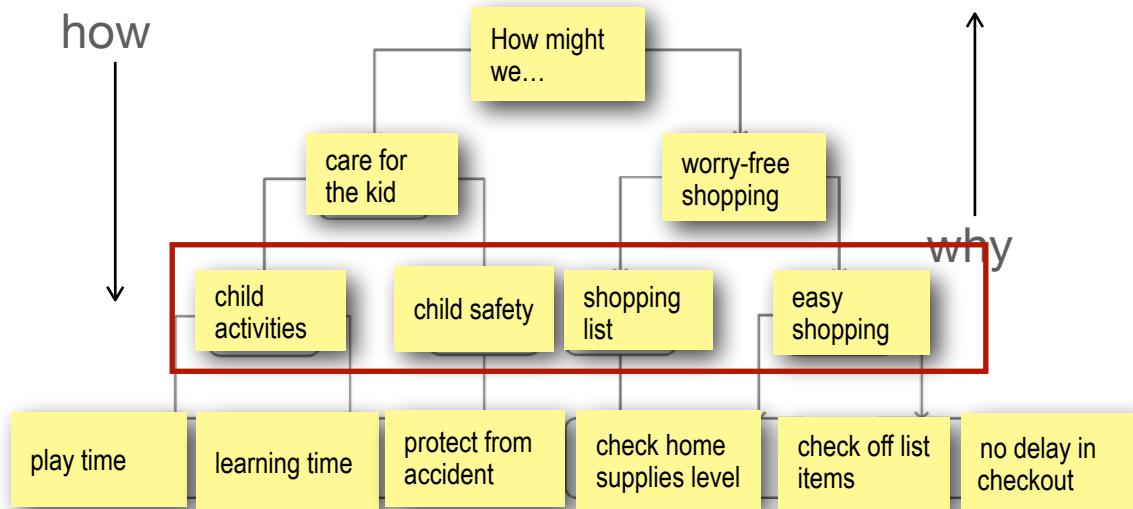


**How might we make a full time mom (who) address the problem of caring for her kid's safety and efficiently finishing up her shopping (what) to achieve the goal of making good use of her time to keep the family and herself happy (why)?**

## Why How Laddering Tree

Source: d.school

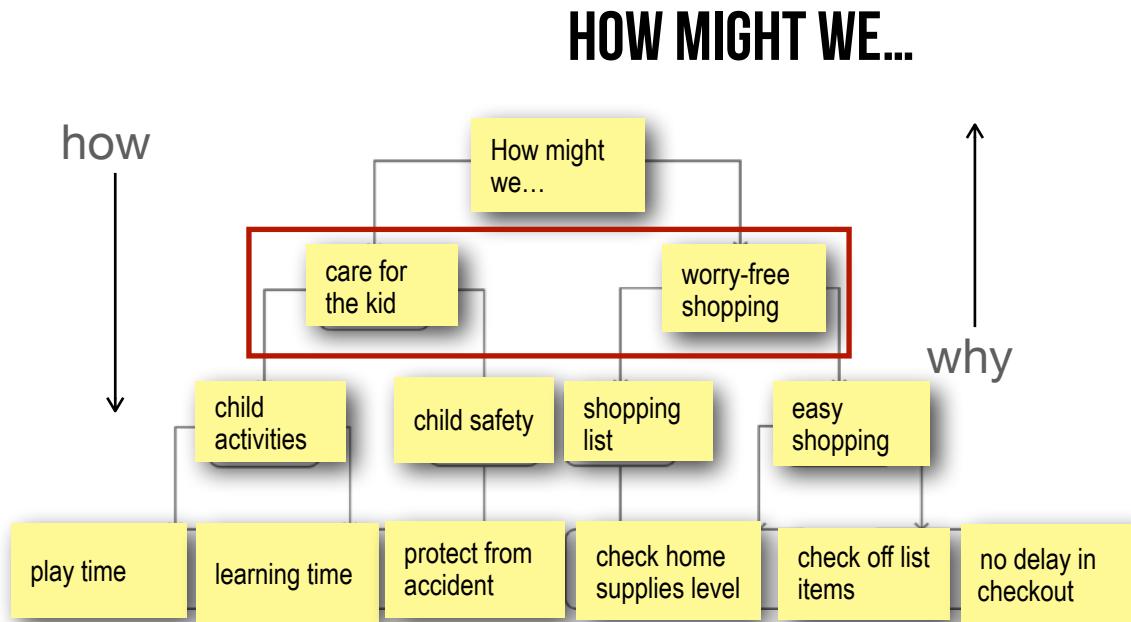
**HOW MIGHT WE...**



**How might we make a full time mom (who) address the problem of caring for her kid's safety and efficiently finishing up her shopping (what) to achieve the goal of making good use of her time to keep the family and herself happy (why)?**

## Why How Laddering Tree

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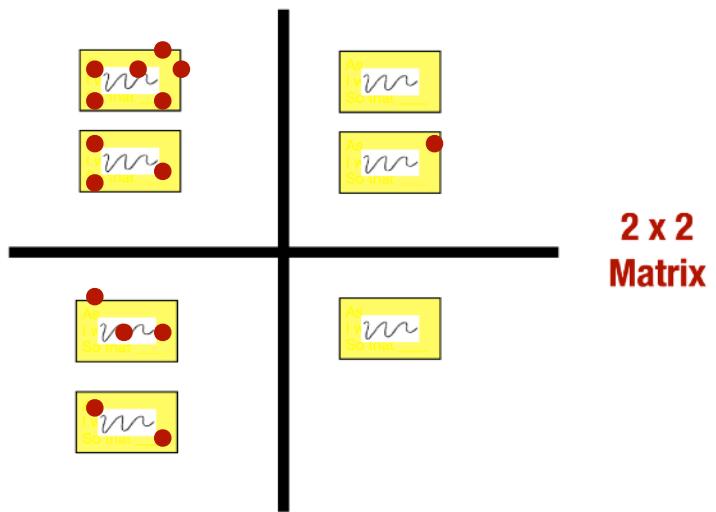


**How might we make a full time mom (who) address the problem of caring for her kid's safety and efficiently finishing up her shopping (what) to achieve the goal of making good use of her time to keep the family and herself happy (why)?**

State your hypothesis and develop 2 x 2 matrix to help **prioritise** your validation tests.

**“Problem” Hypothesis to be validated.**

- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓

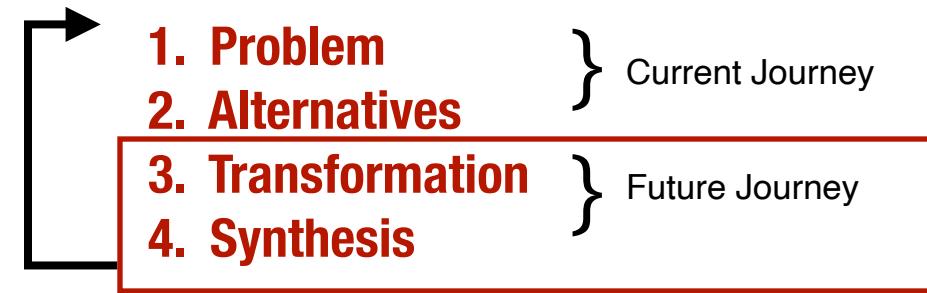


# UX AS A JOURNEY

## Elements

- 1. Persona
- 2. Context
- 3. Artifacts
- 4. Tasks/Jobs

## Structure



# Case Study: Redesigning the Lobby Experience



Exploring the Hotel Experience of the Future with Marriott Hotels

Source: MIT Mobile Experience Lab

<https://design.mit.edu/projects/the-future-hotel-experience>

HOME

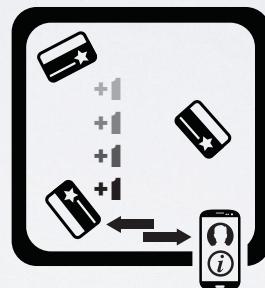


Joins loyalty program, creates a profile & installs phone app.

LOBBY



Given physical loyalty card on check-in — stores profile info, points & doubles as room key.



(Can be done in lobby or room)  
Set availability via orientation of card. (Lobby only) Loyalty points awarded to cards at the same table. Table lights up to show activity, interests shown on table & lobby display map. Profiles added to app network.

ROOM

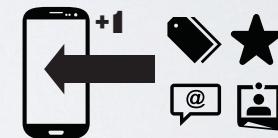
BOOKING

CHECK-IN

MEETUP

RETURN

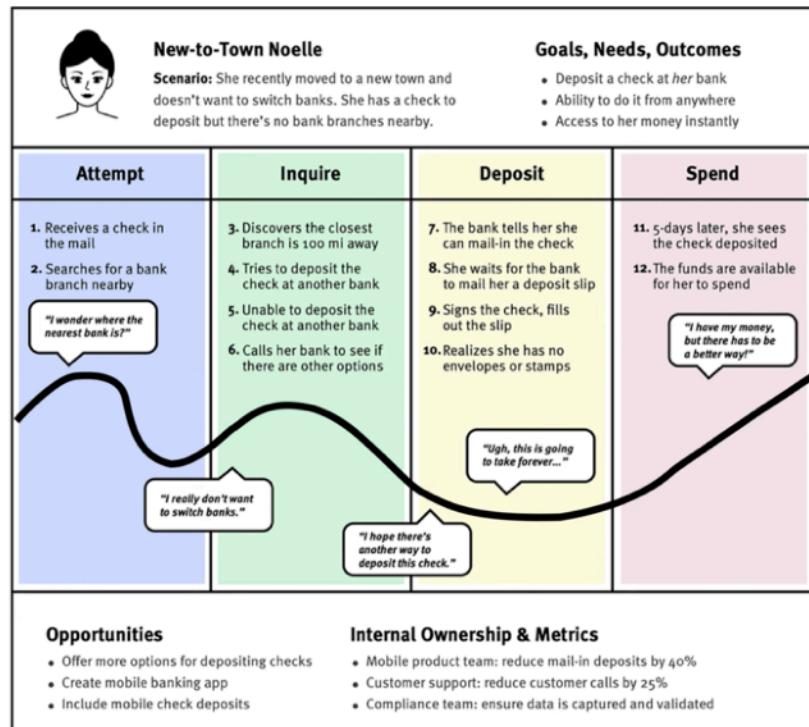
## INTERACTIONS OUTSIDE HOTEL



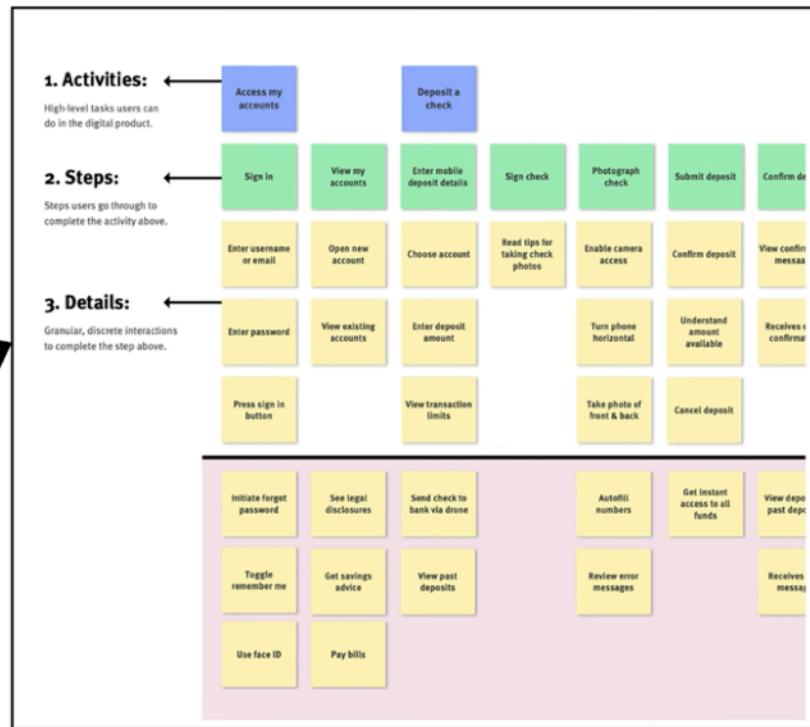
Prompted by app to tag places visited, ratings & social media for points — added to in-app database of recommendations.

Source: MIT Mobile Experience Lab

## Customer Journey Map: Depositing a Check



## User Story Map: Mobile App for Depositing Checks

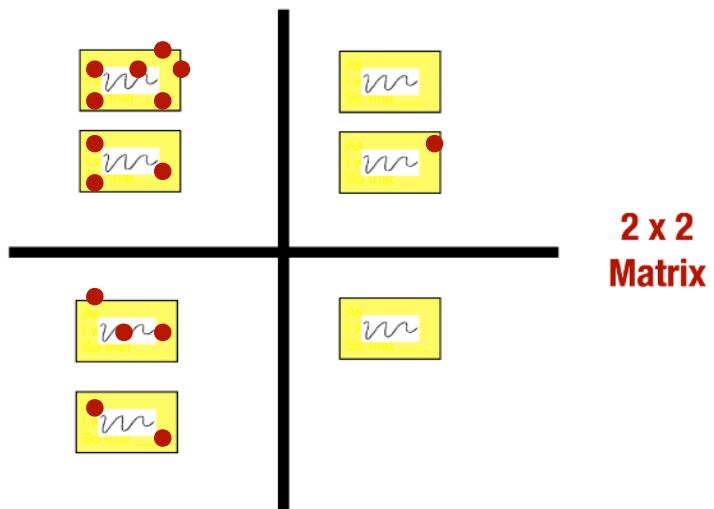


Source: NNGroup

State your hypothesis and develop 2 x 2 matrix to help **prioritise** your validation tests.

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- ✓
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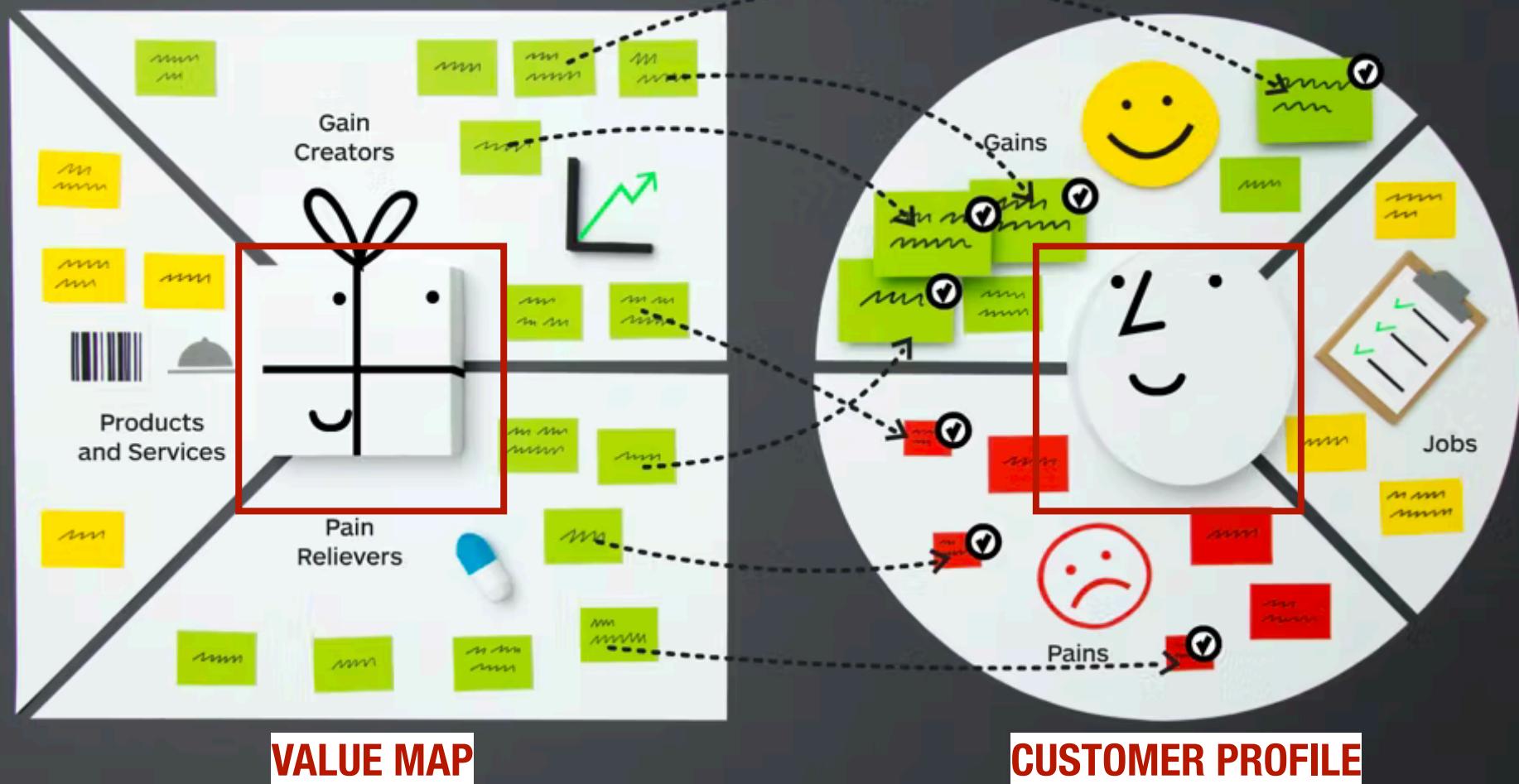


# Story Map

Useful tips to receive from shops	What items not to be missed?	Deadlines for the offerings	Bargains & discounts available	Directions to get to the destinations
As ____ I want _____ So that _____				
As ____ I want _____ So that _____				

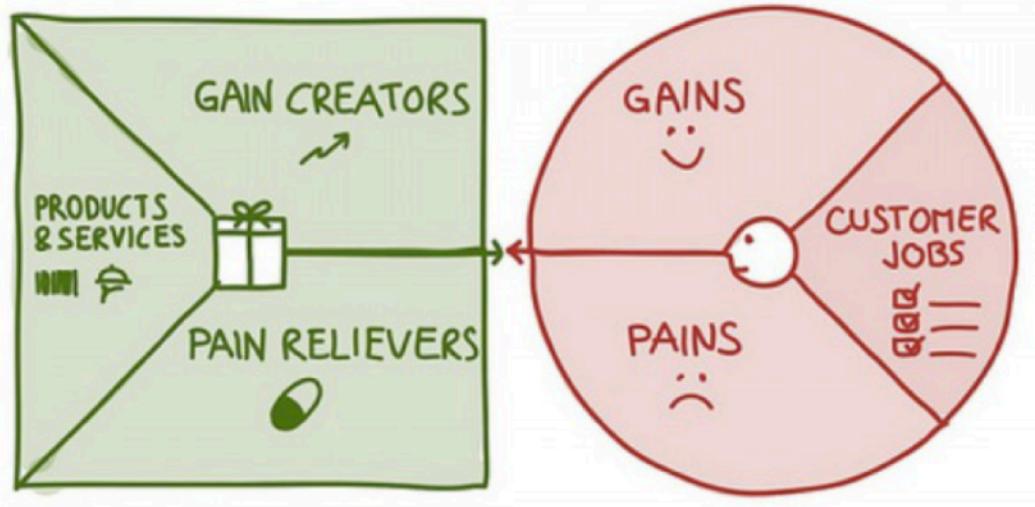
**Who  
What  
Why**

# VALUE PROPOSITION CANVAS



Source: Strategyzer

## Story Card



"As a <type of user> ...

I want <some goal> ...

so that <some reason>."

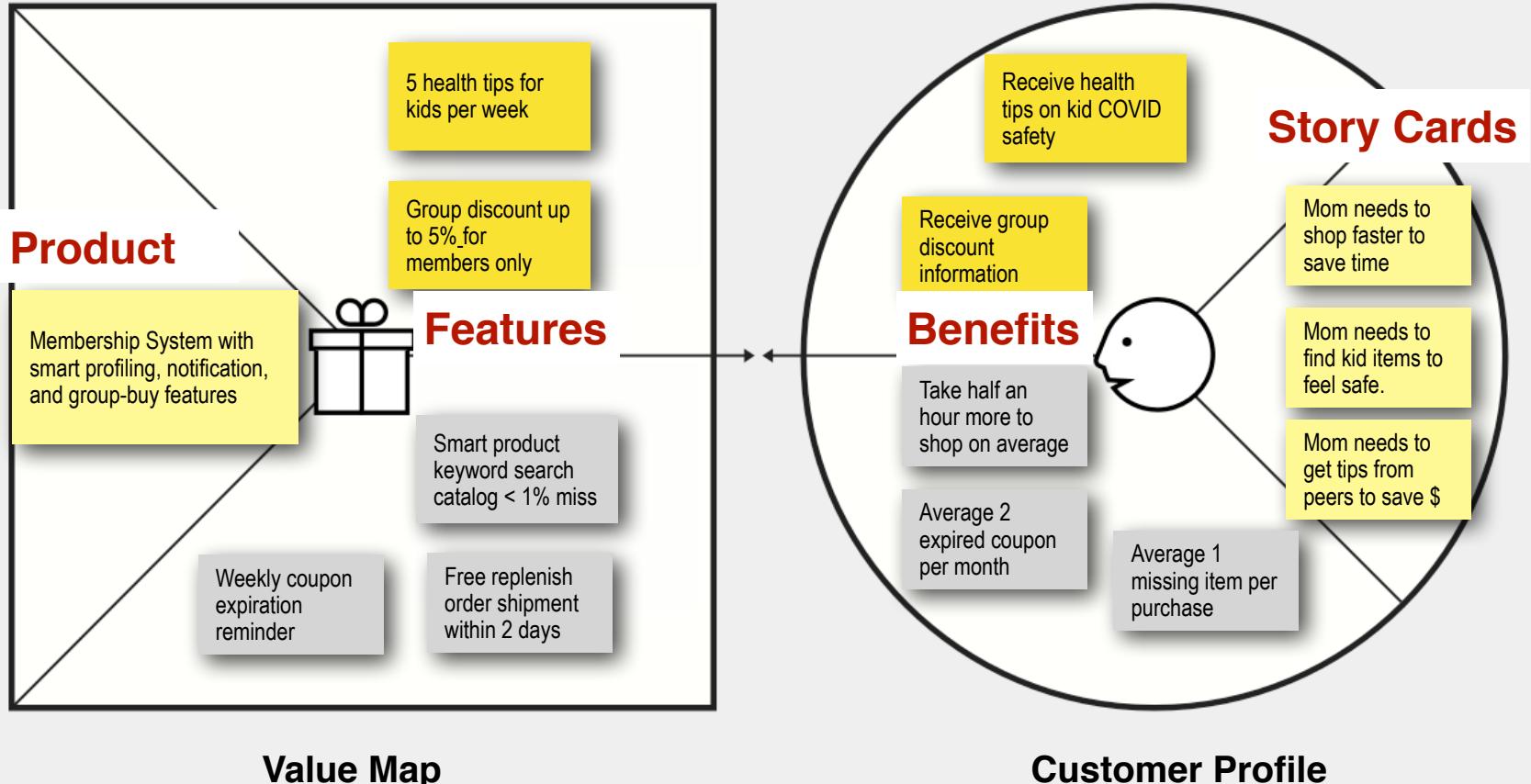
Source: How to: Link User Stories to the Value Proposition Canvas by Stefan Haas

As a  
<certain persona>  
I want  
<this feature>  
so that I can enjoy  
<this benefit>

Feature = Gain Creators &  
Pain Relievers

Benefit = Increase gain &  
Reduce pain

# The Value Proposition Canvas



You need to prepare multiple canvas pages to document all the story cards.

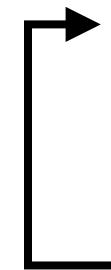
 Strategyzer

# UX AS A JOURNEY

## Elements

- 1. Persona
- 2. Context
- 3. Artifacts
- 4. Tasks/Jobs

## Structure



- 1. Problem
- 2. Alternatives
- 3. Transformation
- 4. Synthesis

} Current Journey

} Future Journey

## **1. Problem**

## **2. Alternatives**

## **3. Transformation**

## **4. Synthesis**

} Current Journey

} Future Journey

WHO/WHAT/WHY(UX)  
Current  
Journey Map

HOW(UI)  
Current  
Story Map

WHO/WHAT/WHY(UX)  
Future  
Journey Map

HOW(UI)  
Future  
Story Map

**“Problem” Hypothesis to be validated.**

- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓

**“Solution” Hypothesis to be validated.**

- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓
- ✓

## What does a Product Manager do?

**Ideates**

Design new products, services, features, and improvements

**Prioritizes**

Which ideas to build and implement?

**Persuades**

Convince leadership, engineering, and other stakeholders

**Executes**

Build and launch products. Track, and manage performance

設計思維 Design Thinking	數據發掘 Data Mining	用戶體驗元素 Elements of UX	內容重點 Main Points
同理心 Empathy	商業理解 Business Understanding	戰畧層 Strategy Plane	Collect stories from stakeholders for framing and decomposing user and business problems into pain points and data points for meeting user needs and business goals.
界定問題 Definition	數據理解 Data Understanding	範圍層 Scope Plane	Define the scope and problem in terms of functional and content requirements for collecting data to support ongoing system development and future operations.
創意發想 Ideation	準備數據 Data Preparation	結構層 Structure Plane	Design classification schemes for grouping data attributes into data structures and information architectures for data aggregation and preparation.
開展原型 Prototyping	建立模型 Modeling	框架層 Skeleton Plane	Develop physical prototypes and software models/applications for later testing and evaluation.
重複測試 Testing	評估 Evaluation	表現層 Visual Plane	Evaluate findings through qualitative and quantitative methods to validate visual outcome and interfaces.

## **Problem Set #3 and Final Project Proposal (Due Lesson 8)**

# Solution Space

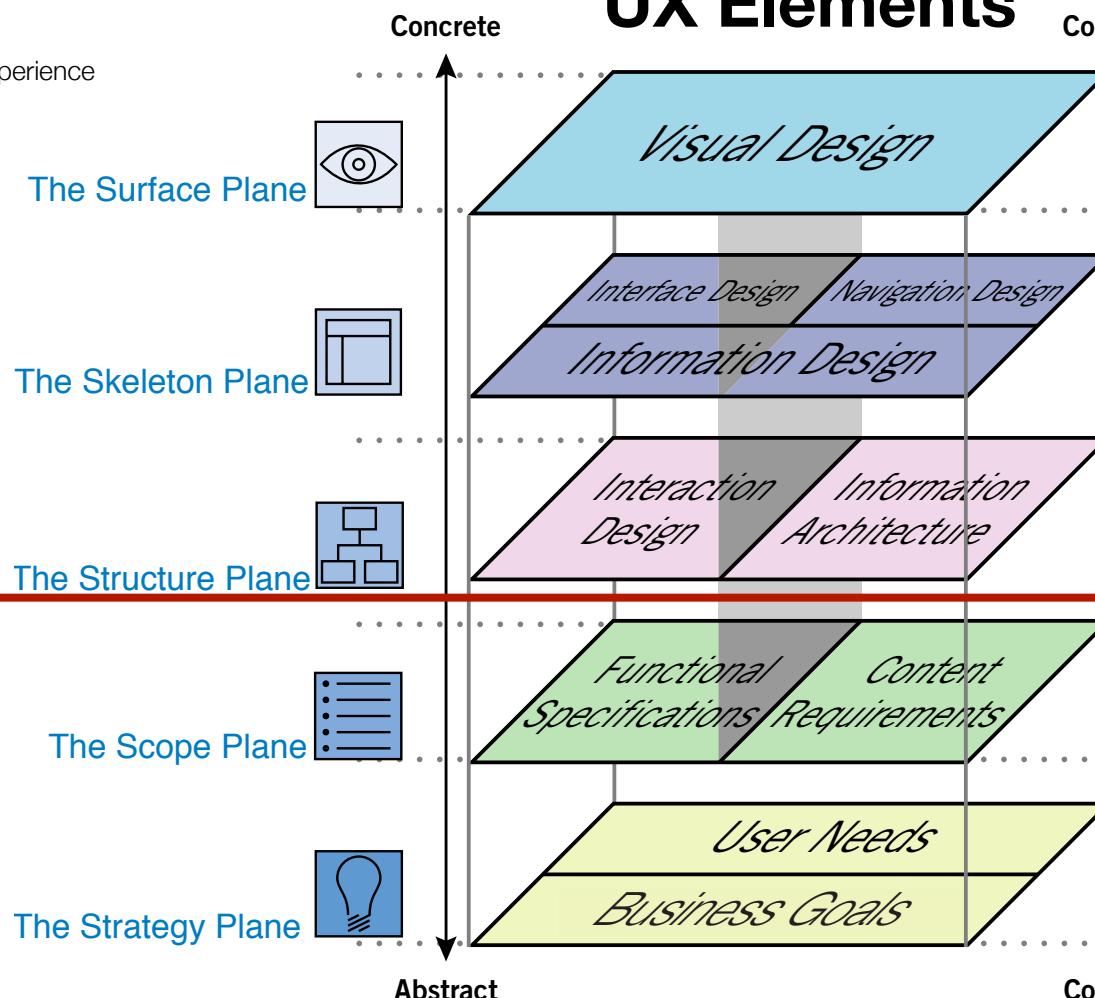
how and  
how much

# Problem Space

who, what,  
and why

Source: Elements of User Experience  
by Jesse James Garrett

# UX Elements



*Business Goals*

Deployment

Completion

Evaluation

Modeling

Data Preparation

Data Understanding

Business Understanding

Conception

## Problem Set #3 + Project Research Proposal (15%)

1. Write a **short introduction** to a problem that interests you tremendously.
2. Interview **five persons** (10 to 15 min per person) who share the same problem (e.g. Planning a trip to Korea to attend the concerts of famous K-Pop idols) with a **list of interview questions** (Include the **interviewees' responses** as appendix).
3. Find **persona types** (e.g student K-Pop fan/fan circle lead/trend reporter).
4. Develop a **current journey map** based on “one” of the persona types (Briefly explain why this one) chosen.
5. Define a **problem statement** (who, what, & why) for the chosen persona.
6. Derive a **current story map** (with **story cards**) from the current journey map to define **functional** (i.e. job to be done) and **content** (i.e. information serving the job's need) **requirements**.
7. Create a **position map** describing competing product solutions vs. yours.

\*\*\* I suggest that you complete ps#3 and research proposal in Figma \*\*\*

8. Conduct data research to identify potential sources of data for addressing the persona's information requirements in getting the job done.
9. Scrap or import data (i.e. open data or API) from sources (including current alternatives) for further analysis of shortcomings in existing information architecture and user interfaces.
10. Shortcomings include: missing information, fragmented information, inconsistent information, outdated information, and erroneous information.
11. Identify and perform data cleaning and data preparation if necessary to meet information requirements.
12. Describe strategy to obtain non-existing data to complete information requirements.
13. Describe how this project can contribute to your resume, portfolio, and job interview.
14. Schedule a 30min Zoom meeting with me for **research advice** and **scope setting**.

\*\*\* I suggest that you complete ps#3 and research proposal in Figma \*\*\*

# 温州剧本杀俱乐部

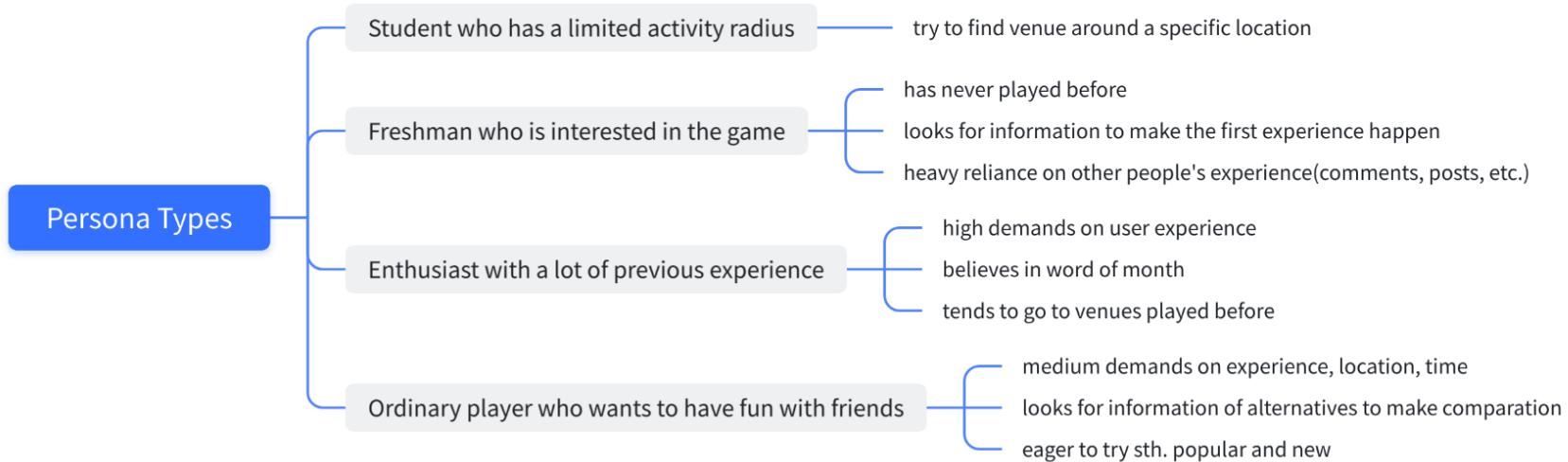
这里有关所有你想要的信息。一起来约本吧！

## **Problem introduction:**

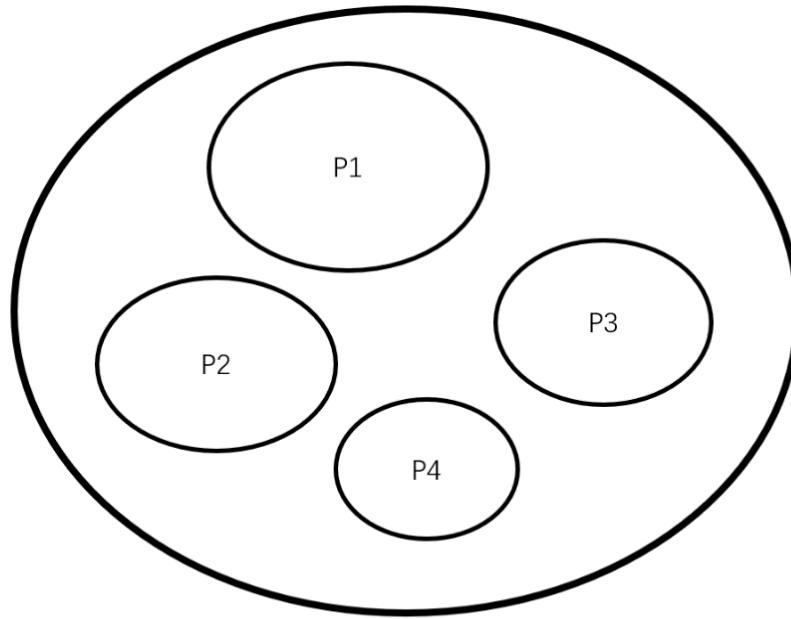
Murder mystery game has become an important way for young people to socialize and have fun these days. In my free time, I also like to ask my friends to play murder mystery games, but I encounter some difficulties when I try to find proper scripts and venues. There is no platform that gathers all relative information. People need to look for information, generally incomplete and inconsistent, on different platforms, combine and compare it manually, which is a waste of time. At the same time, it is difficult for individuals to communicate with other players or to see posts of genuine experience other than advertisements.

Therefore, I want to build a website that can integrate information about venues and scripts to meet the needs of murder mystery games players in different scenarios. They can find important details such as venue location, time availability and information of scripts on one website, so that they can quickly browse for scripts and time options of a proper venue as well as find out a venue that can provide the service of a specific script that interests them. Meanwhile, I want to build an online community for individual enthusiasts to communicate with each other, share experience, and meet with strangers.

## Persona Types:



**People who want  
to plan a murder  
mystery game  
with friends**



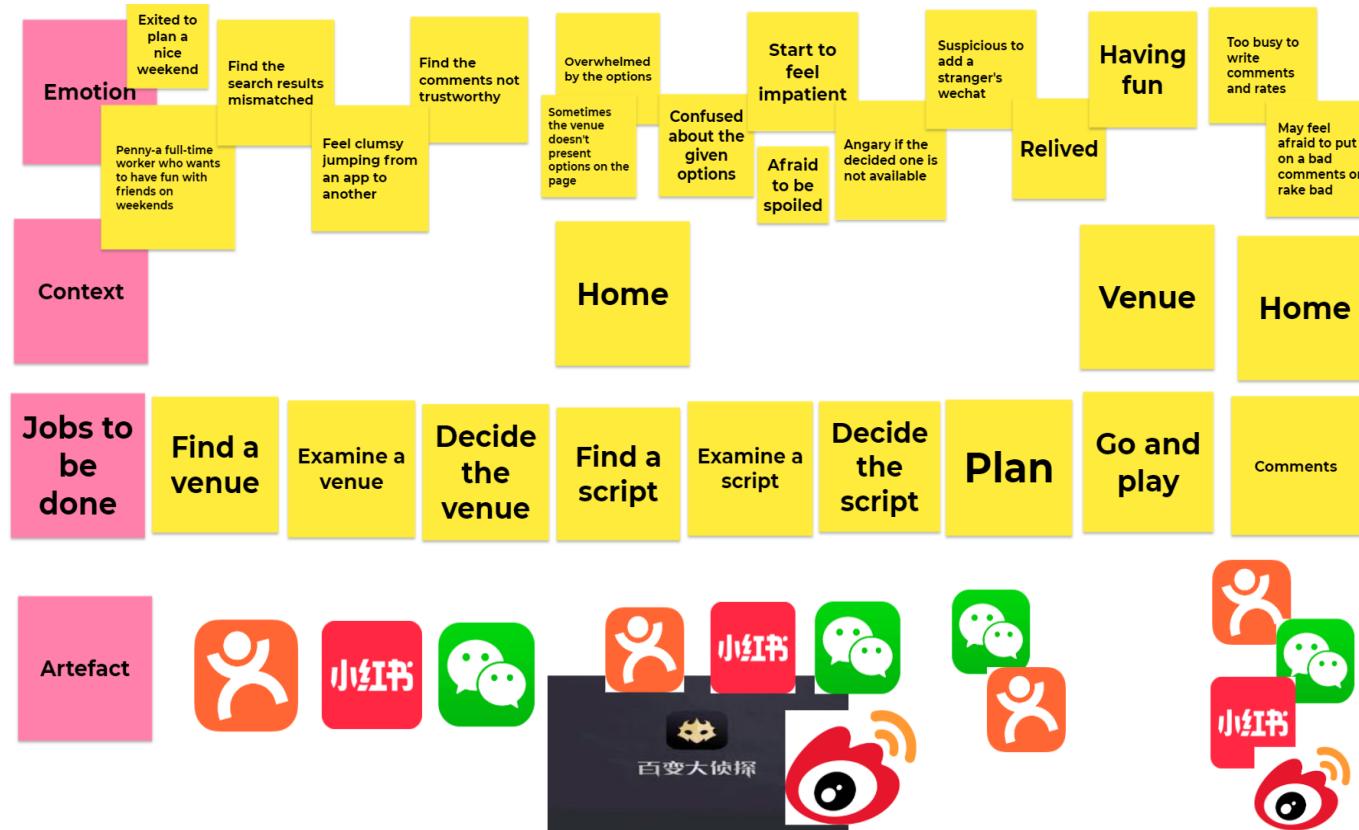
P1 to P4: ordinary players,  
enthusiasts, freshmen, students  
with limited activity radius

## **Persona Type Picked: Ordinary players who want to have fun with friends.**

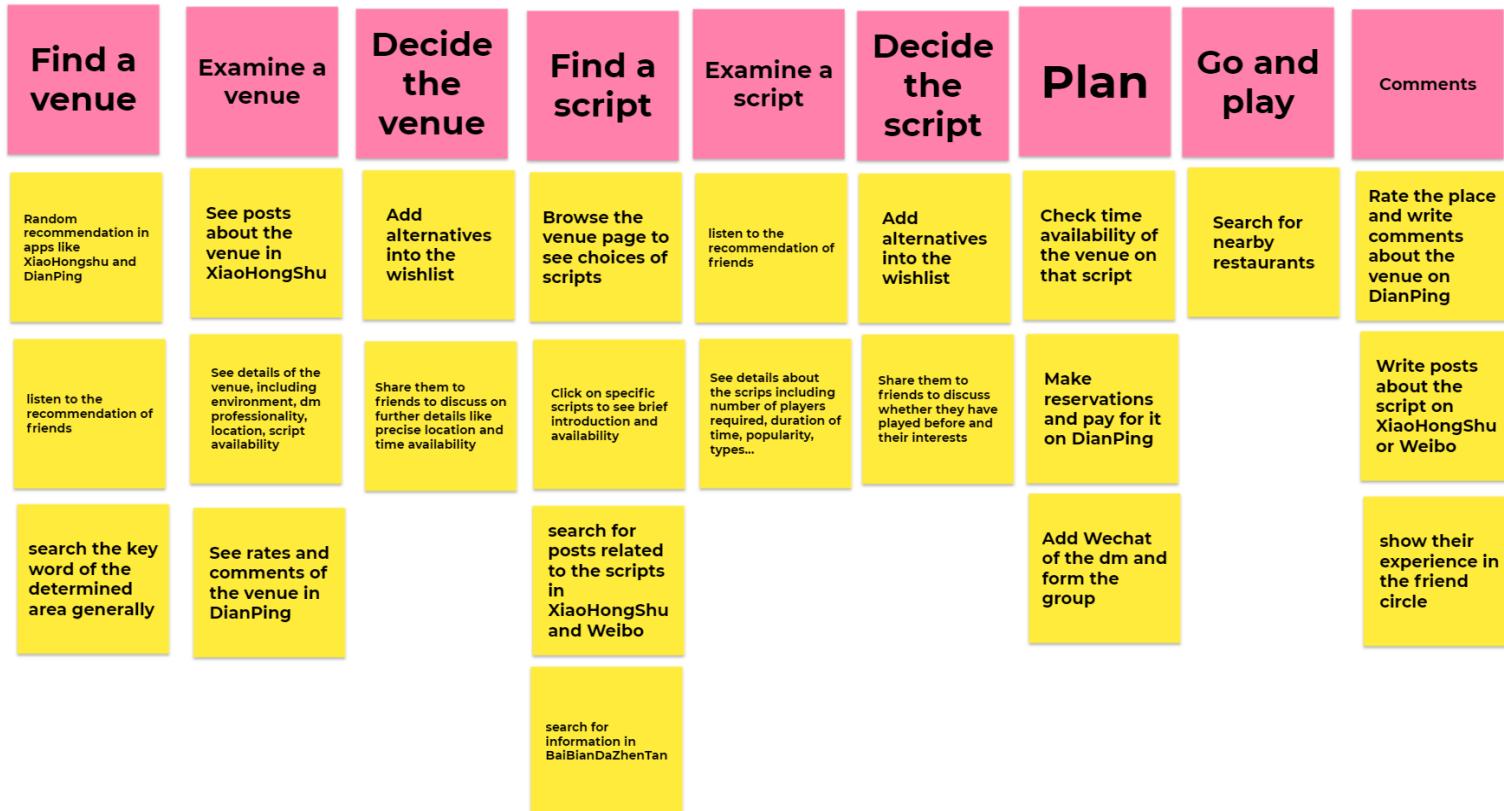
I chose this persona type because ordinary players occupy the majority of murder mystery game players. People use this game as a social event to gather friends or make new friends. It is an important way of entertainment for ordinary people outside of work or study life and because of its long duration and middle-high cost, people usually don't play it too often. Penny is one of the ordinary players who fulfil economic conditions to do it in her spare time, have some experiences related to murder mystery game, have interests in it, would like to organize and play it again but won't play it too often like fans. She is like any one of us.

	Lifestyle	Busy and care about life quality, love to make friends, unit friends, eager to look for entertainment in weekends or holidays
	Media usage habit	Mobile applications, online videos, digital news
Name:Penny	Tech product adoption pref.	Early adopters, afraid of getting out of date
Age:24	Personality	Open-minded, sociable, easy-going
Gender:Female	Daily Routine	Go to work, come back home and rest, only have time for entertainment on weekends, mostly with friends.
Education:Graduate	Core Demands	More efficiency in searching information for holiday activities.
Profession:Teacher		

# Customer Journey Map



# Story Map



## **Interview Questions:**

1. When organizing a murder mystery game with friends, you will first determine the venue or first determine the script?

### **Venue first:**

2. Which websites or information sources will you rely on to obtain murder mystery game related information?
3. What information would you click on from this website or app to view? Can you show me?
4. How do you find out about a venue in the determined location?
5. Do you check the comments of the venues? Where will you inquire?
6. How do you check the number of people required and time availability of the scripts of the venue?
7. Do you look up introductions to plays and reviews? Where would you look up?

### **Script first:**

2. Which websites or information sources will you rely on to obtain murder mystery game related information?
3. What information would you click on from this website or app to view? Can you show me?
4. How do you find out about a script you wanted to play? Or, through which way do you find out about a script that interests you?
5. Do you look up reviews, introductions, etc. of plays? Where do you check?
6. How do you find out about a venue that has that play? Do you look up its reviews?
7. How do you determine the venue location and available times?
8. Is the navigation bar/information shown clear enough?
9. Is the function of each part clear enough? What part could be improved and how?
10. What content should be added?
11. Is this information resource helpful if you are going to plan a murder mystery game?

1. 在开展剧本杀活动时，你会先确定场馆，先确定剧本？

**先确定场馆：**

2. 你通常通过哪些网站、软件等信息来源来获得相关信息？
3. 你会从这个网站或软件点击什么地方查看什么信息？
4. 你如何查到一个地点合适的场馆？
5. 你是否会查询场馆的评价？你会在哪里查询？
6. 你如何查询场馆中人数和时间合适的剧本？
7. 你是否会查询剧本的介绍以及评价？你会在哪里查询？

**先确定剧本：**

2. 你通常通过哪些网站、软件等信息来源来获得相关信息？
3. 你会从这个网站或软件点击什么地方查看什么信息？
4. 你如何查到一个想要玩的剧本？或者，你是通过哪种途径了解到想玩的剧本？
5. 你是否会查询剧本的评价、简介等？你会在哪里查询？
6. 你如何查到一个拥有该剧本的场馆？是否会查询它的评价？
7. 你如何确定场馆地点和可选时间？
8. 软件/页面提供的信息是否足够清晰有效？
9. 每个部分的功能是否足够清晰？哪一部分可以改进，如何改进？
10. 你觉得应该增加哪些内容？
11. 如果你要确定一次剧本杀活动，这个网站/软件有帮助吗？

## Interview1 with CKR

婷予(00:00:01): 好的你好好感谢参与我的这一次。

放羊的 Carina(00:00:05): 你好。

婷予(00:00:06): 访谈。

婷予(00:00:09): 然后我主要是想问一下你关于。就是想要组织开展一次剧本杀的活动的时候，你要搜集的信息的一些途径什么的。然后我想问一下你在比如说朋友之间想要约一次剧本杀活动的时候，你会先确定去找场馆还是先确定玩什么剧本。

放羊的 Carina(00:00:36): 应该先确定就是我们自己有几个人。然后去看一下场馆看一下就离我们比较近的场馆。然后再看这个场馆里面它都有什么本，然后看一下有没有什么比较推荐的。

婷予(00:01:03): 好的，那你通常都是通过什么网站或者软件之类的信息来源去获得你要的信息呢。

放羊的 Carina(00:01:13): 就会去美团或者小红书上面搜一下。美团的话，就是看一下附近有哪些剧本杀馆，然后去小红书上面搜一下他们口碑怎么样。

婷予(00:01:31): 好的，那你能不能，共享一下屏幕给我展示一下你是怎么获取这些信息。

放羊的 Carina(00:01:39): 好的。打开①美团，然后搜剧本杀。然后我们就看这里有一个两个，他都很近。三个。就这里好几个，然后我们就看一看最近的比如说这个什么白日梦，想家，沉浸式剧本推理社。这些然后我们再去②小红书上面看一看。

放羊的 Carina(00:02:33): 然后看一下这上面有没有我们刚刚的，比如说这个白日梦想家就是我们刚刚看到的第一个最近的。然后我们先看一下他的图片，看看它大概在哪个位置。比较好找，然后他这个氛围看起来也还可以。然后我们再看一下他写的那个评论一样的东西。

放羊的 Carina(00:03:09): 然后我们再对比一下，还有没有其他的。这个比较远，但是这个这个场地布置看起来很不错。

放羊的 Carina(00:03:30): 然后就对比一下，然后看看想玩哪个本。

婷予(00:03:37): 你会你会在哪里，看想要玩什么本呢。

放羊的 Carina(00:03:42): 本的话。该去问这个店家看店家这边。比如说他这里就会有很多。就有很多。然后我们首先就是看一下我们一起玩的人里面大家都有哪些玩过的就把排除掉。

婷予(00:04:11): 然后，比如说你们看到。对，然后你们就比如说。会去找这些就是你看相中的剧本会去找他的一些评价和一些内容吧。

放羊的 Carina(00:04:26): 我觉得尽量不要找因为找的话就。大概会知道一点内容。

放羊的 Carina(00:04:36): 就该玩不知道的。

婷予(00:04:45): 那比如说你看中了一个剧本，但是你就是他的大致内容都可能不知道，那你会去看一下吗。

放羊的 Carina(00:04:53): 会。

婷予(00:04:55): 这事你怎么看的。

放羊的 Carina(00:04:58): 就去问一下店员这样问一下这个大概是。是是什么风格的。然后是那种硬推还是什么，情感，本之类的。

婷予(00:05:15): 那你会要在店员的微信什么的是吗？

## Interview3 with SZK

邵郑凯(00:00:01): 就是现在要共享屏幕吗，还是。

婷予(00:00:04): 可以。

婷予(00:00:11): 那我就开始问问题了。哼哼好的，然后感谢你参加我这次采访，然后我想问一下你平时就是会组织朋友们一起玩剧本杀码。

邵郑凯(00:00:26): 对，但是怎么说算是那种轻度用户，就是不是特别。

邵郑凯(00:00:32): 平凡。

婷予(00:00:35): 好的，那你再确定一次剧本杀活动的时候先会确定场馆还是先后确定剧本。

邵郑凯(00:00:42): 就会确定场馆，因为的确不是什么中毒用户，所以剧本的质量应该不是首要考虑更多会确定什么场馆，朋友们都方便，然后会选择人数会是和我们一起玩的地方吗。

婷予(00:01:01): 好的，那你工厂。我觉得。

婷予(00:01:06): 薛静录取相关的信息。

邵郑凯(00:01:10): 会通过大众点评。

婷予(00:01:13): 好的。

邵郑凯(00:01:13): 对。

婷予(00:01:14): 这个你现在给什么地方查看信息。

邵郑凯(00:01:20): 茶，休闲娱乐的分类里专门会有个剧本杀的分类，但首页上好像没有，但是你看如果我搜剧本杀搜出来的商品之后，这里就会有个类别是剧本杀的类别。这里就可以直接开始搜索。

婷予(00:01:38): 然后你一般是去找一个大家地点都合适的剧本杀手。

邵郑凯(00:01:43): 是的，就是更多是招高中高社交需求吧，剧本的质量还是其倒是其次。

婷予(00:01:53): 那你是怎么去找一个合适地点的管。

邵郑凯(00:02:00): 也不单单是合适地点，就比如说。我需要去，这可能需要去选择，比如说人数适合我们的。因为怎么说呢，我和我的朋友们都是比较清楚的患者不太习惯有路人一起玩，所以我们。地点和那个人数，比如说会有人数适合我们的本时间是我们的本这样，比如你点进这家店它下面就会显示他剧本的人数。这家店没有码。对应该是这样的。比如说。

婷予(00:02:38): 那你就是，你说。

邵郑凯(00:02:41): 就是基本上就是我们有几个人，然后大家选一个时间段出来，那我就会

<b>Functional</b>	<b>Overall Venue Information</b>	<b>Detailed Venue Information</b>	<b>Script Information</b>	<b>Planification and Confirmation</b>	<b>Comments</b>
<b>Content</b>	<i>Location:</i> 1.Is it within the area required? 2.Is it easy for everyone to go? How far is the distance?	<i>Location:</i> 1.Detailed location 2.Possible ways of getting there	<i>Attributes:</i> 1.Scripts type 2.Number of players required 3.Scripts introduction 4.Duration of time	<i>Economics:</i> 1.Cost 2.Payment methods	1.Which platform to put on comments? 2.Is it safe to write bad comments?
	<i>Service:</i> 1.Does it have lots of scripts? 2. Does it provide many time options?	<i>Service:</i> 1.Details of scripts provided 2.Details of time availability	<i>References:</i> 1.Players' comments on the scripts 2.Does it up-to-date or popular?	<i>Others:</i> 1.Availability 2.Contact with the venue	
	<i>Others:</i> 1.Is the environment good for the gathering? 2.Is it popular on social media?	<i>Others:</i> 1.Comments about the chosen venue 2. Professionality of dm to lead the game			

Data scraped from 3rd party websites used for the website:

Scripts' information including scripts name, time duration, types, authors and introduction:

我爱剧本杀官网: <http://m.vshang66.com/juben/>

Venues' information including rating, name, district, events information, address and contact number: 大众点评官网: <https://m.dianping.com/>

Map information: API from GaoDe Map : <https://lbs.amap.com/>

,id,name,location,pcname,cityname,adname,address,type,tel,postcode  
0,B0H1U92692,9876剧本杀,"121.452225,31.265585",上海市,上海市,静安区,洛川中路840号5幢303室,体育休闲服务;体育休闲服务场所;体育休闲服务场所,,  
1,B0H5UANJF,BooK思议剧本杀,"121.699787,31.182052",上海市,上海市,浦东新区,川沙路5600弄8号楼925室,体育休闲服务;娱乐场所;娱乐场所,13661822188,  
2,B0H3LF0M3,Until Dark剧本杀狼人杀,"121.443283,31.221729",上海市,上海市,静安区,南京西路1856号7楼709-711室,体育休闲服务;体育休闲服务场所;体育休闲服务场所,13636  
3,B0HUX7MBN6,禾·剧本杀,"121.230754,31.016003",上海市,上海市,松江区,九峰路115号平高广场4层,体育休闲服务;体育休闲服务场所;体育休闲服务场所,021-37890262;150267435  
4,B0HRPM50DH,开盘·剧本杀,"121.456017,31.186432",上海市,上海市,徐汇区,中山南二路777弄1号楼8F,体育休闲服务;娱乐场所;娱乐场所,13122197089,  
5,B0G367MK0Y,wink剧本杀推理馆,"121.518742,31.303278",上海市,上海市,杨浦区,政益路21号五角丰达8号楼1001,体育休闲服务;娱乐场所;娱乐场所,13818834056,  
6,B0FFMFC3PU,1804剧本杀桌游,"121.414052,31.235823",上海市,上海市,普陀区,白兰路137号绿洲广场B座1804室,体育休闲服务;娱乐场所;娱乐场所,18018611004;13761730884,  
7,B0G1URR0JX,REC剧本杀推理,"121.451921,31.247603",上海市,上海市,静安区,恒丰路638号苏河1华森钻石商务广场B,体育休闲服务;娱乐场所;娱乐场所,13917842992,  
8,B0G14PCEKE,ink剧本杀推理馆,"121.467856,31.204432",上海市,上海市,黄浦区,瑞金南路1号海兴广场28楼A座,体育休闲服务;娱乐场所;娱乐场所,13641602602,  
9,B0HALZ3YD0,tax·沉浸式剧本杀推理馆,"121.320157,31.241571",上海市,上海市,嘉定区,"江桥镇金运路505号3楼(链家楼上,近金运路地铁站8号口)",体育休闲服务;娱乐场所;娱乐场  
10,B0H2UUQ8QM,YUE汇剧本杀,"121.442348,31.186108",上海市,上海市,徐汇区,斜土路2669号英雄大厦406室,体育休闲服务;娱乐场所;娱乐场所,17721471573,  
11,B0H1FAEN8R,柒号剧本杀,"121.609264,31.279660",上海市,上海市,浦东新区,巨峰路1058弄3号楼713室,体育休闲服务;体育休闲服务场所;体育休闲服务场所,13601684910;166216  
12,B0HR6D98N1,纸醉金迷剧本杀推理俱乐部,"121.517500,31.253247",上海市,上海市,杨浦区,平凉路179号a205室,体育休闲服务;体育休闲服务场所;体育休闲服务场所,18001981318;  
13,B0HAFYUHJ9,深藏不露剧本杀,"121.360867,31.361701",上海市,上海市,宝山区,陆翔路1018弄1号楼2306室,体育休闲服务;娱乐场所;娱乐场所,13361832836,  
14,B0H2URQGW2,暗号剧本杀,"121.115854,31.159119",上海市,上海市,青浦区,盈港路453号1201室,体育休闲服务;体育休闲服务场所;体育休闲服务场所,15987775257,  
15,B0HU9A5052,王者剧本杀(主场ESP购物中心店),"121.387304,31.227904",上海市,上海市,普陀区,同普路428号5号楼6号楼主场ESP购物中心,体育休闲服务;娱乐场所;棋牌室,,  
16,B0HR07MD36,梦境局剧本杀,"121.521078,31.301427",上海市,上海市,杨浦区,翔殷路999号创智汇3号楼207室,体育休闲服务;娱乐场所;娱乐场所,13429237276,  
17,B0FFJ29ZGZ,扶摇剧本杀推理馆,"121.414179,31.236159",上海市,上海市,普陀区,白兰路137弄A座710室,体育休闲服务;娱乐场所;娱乐场所,17521022655;18721499102,  
18,B0G3FHJKKD,D.B.剧本杀狼人杀,"121.241949,31.055508",上海市,上海市,松江区,广富林路799弄22号811室,体育休闲服务;娱乐场所;娱乐场所,17717496951,

## **Problem Statement**

How might we make a full-time worker who wants to plan a murder mystery game with friends on weekend (who) address the problem of collecting information, generally considered as incomplete and ingenuine, on different platforms (what) so that she/he can save time and have a better murder mystery game experience (why)?

## **Use of Information Architecture for Ideation**

# Solution Space

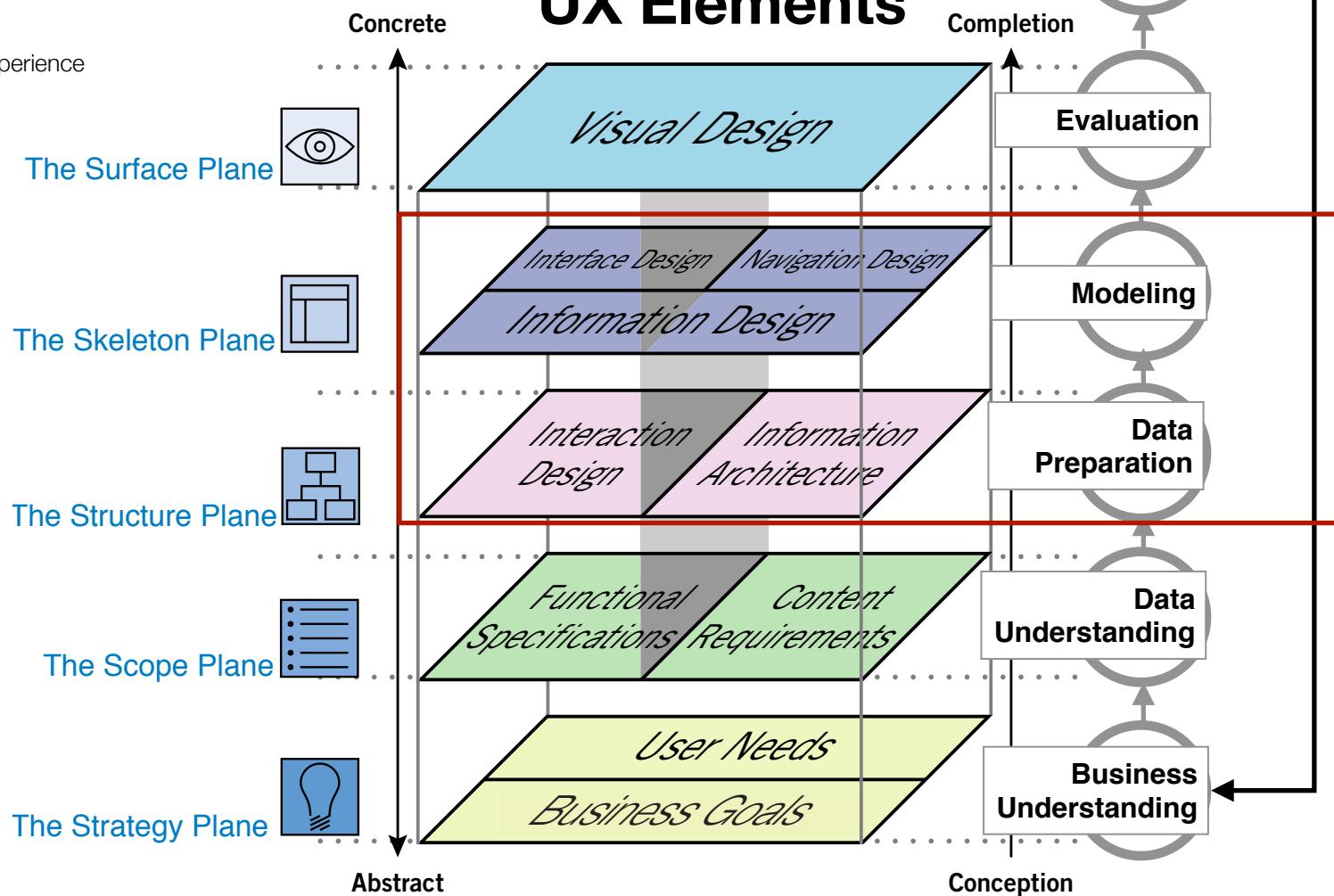
how and  
how much

# Problem Space

who, what,  
and why

Source: Elements of User Experience  
by Jesse James Garrett

# UX Elements



*Business Goals*

# **What is an “information architecture”?**

“Information architecture (IA) **focuses on organizing, structuring, and labeling content in an effective and sustainable way**. The goal is to help users find information and complete tasks.”

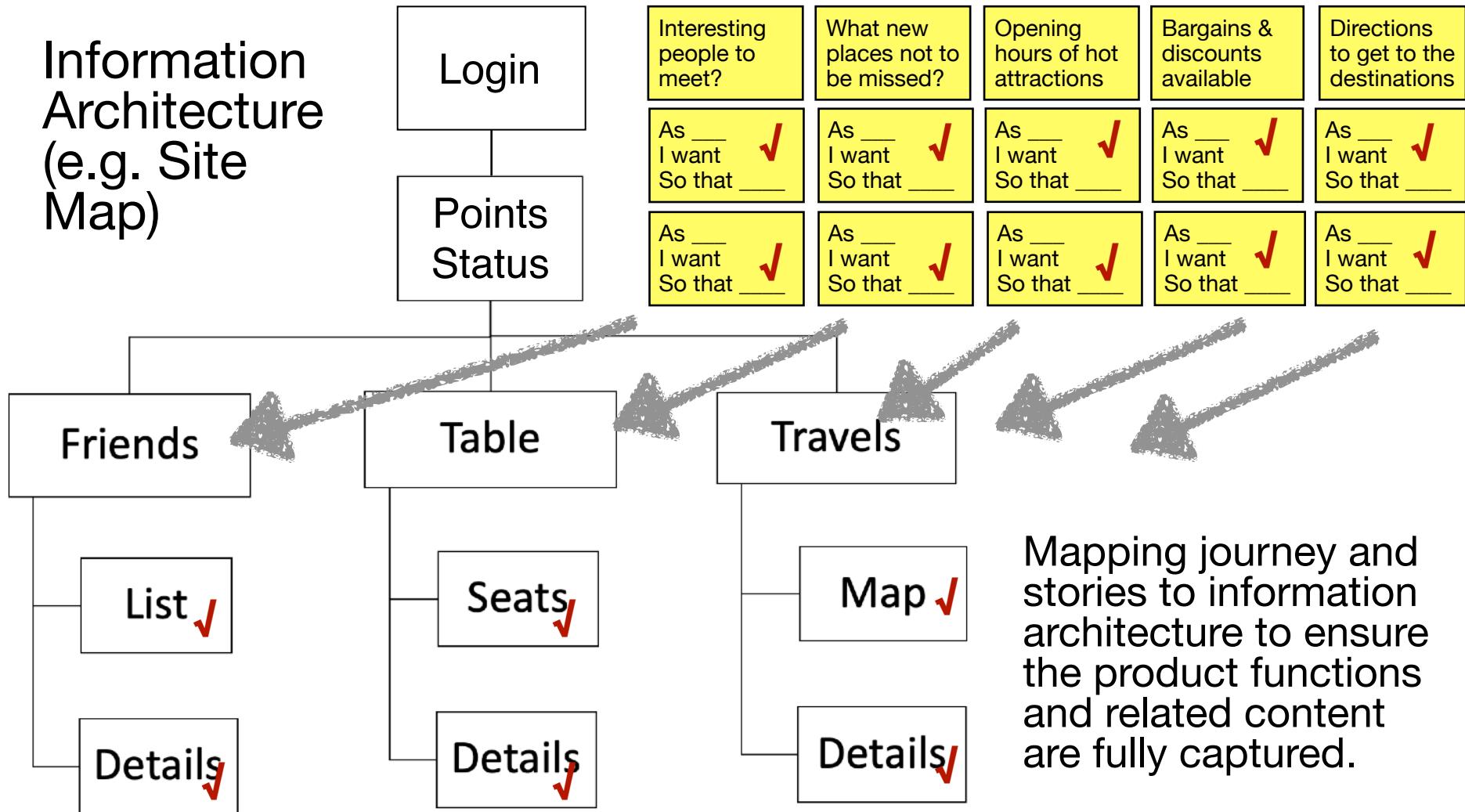
- <https://www.usability.gov>

“...IA informs the content strategy through identifying word choice as well as informing user interface design and interaction design through playing a role in the wireframing and prototyping processes.”

- <https://www.usability.gov>

# **From Story Cards to Site Map and Site Map to Wireframes**

# Information Architecture (e.g. Site Map)



# **Organising Site Map with Cart Sorting**

## From Phase to Noun

As a guest, one wants to know opening hours of destination to entertain friends



Opening hours

# Card Sorting (Before)

Hotel  
Deals

New  
Places

Hotel  
Services

Interesting  
People

Bargain &  
Discounts

Lobby  
Meetup

Opening  
Hours

Direction  
To  
Destination

Guest  
Profiles

Match  
Ratings

Hotel  
Booking

Activity  
Booking

Activity  
Charges

Destination  
Reviews

Group  
Booking

# Card Sorting (After)



**Hotel**

**Places**

**People**

**Open vs. Closed**

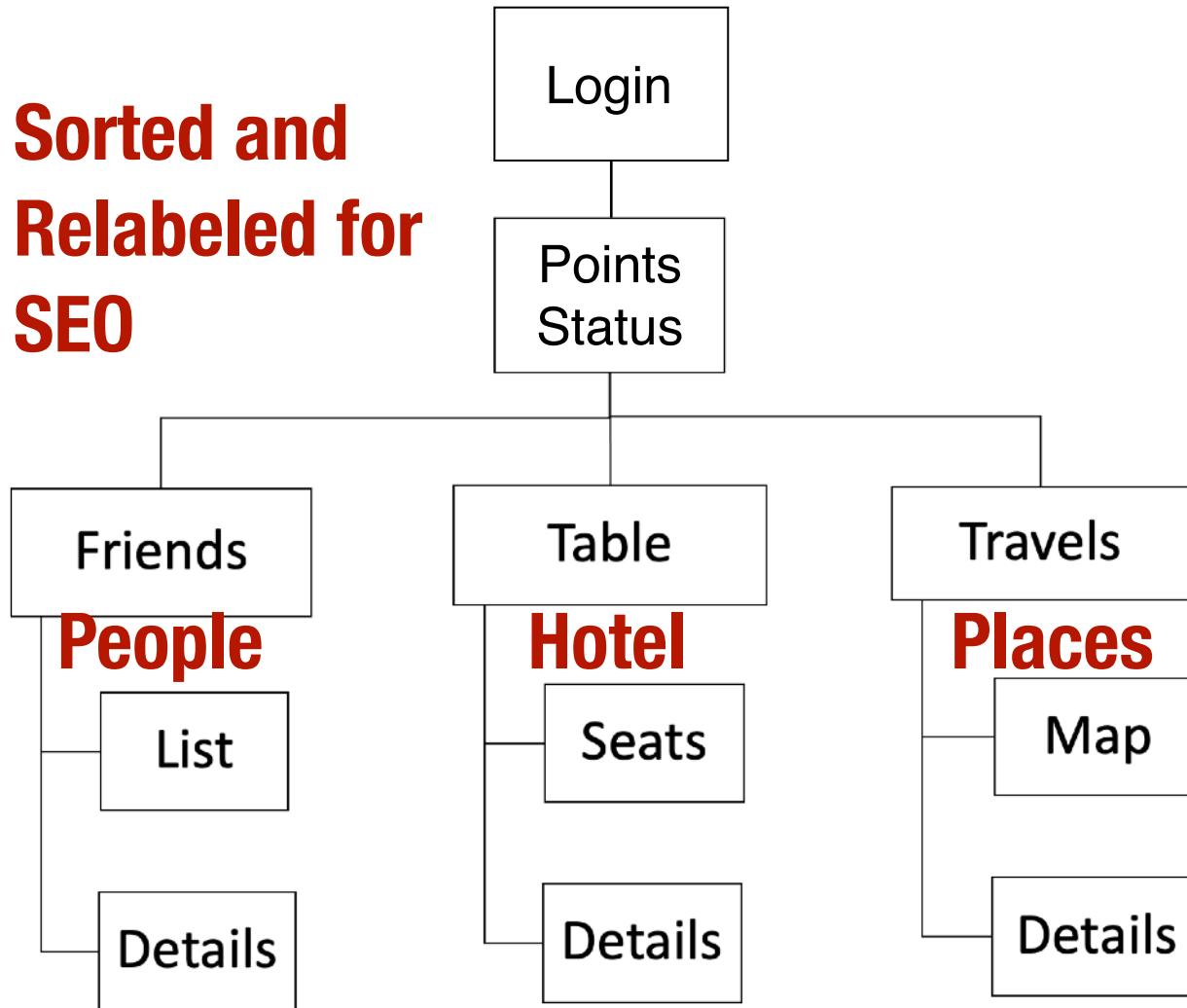
**In-person vs. Remote**

# A GUIDE TO CARD SORTING IN UX DESIGN



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

# **Sorted and Relabeled for SEO**



Login



# Wireframe

# WIREFRAMING TUTORIAL



CF

Source: <https://www.youtube.com/watch?v=qpH7-KFWZRI&t=1s>

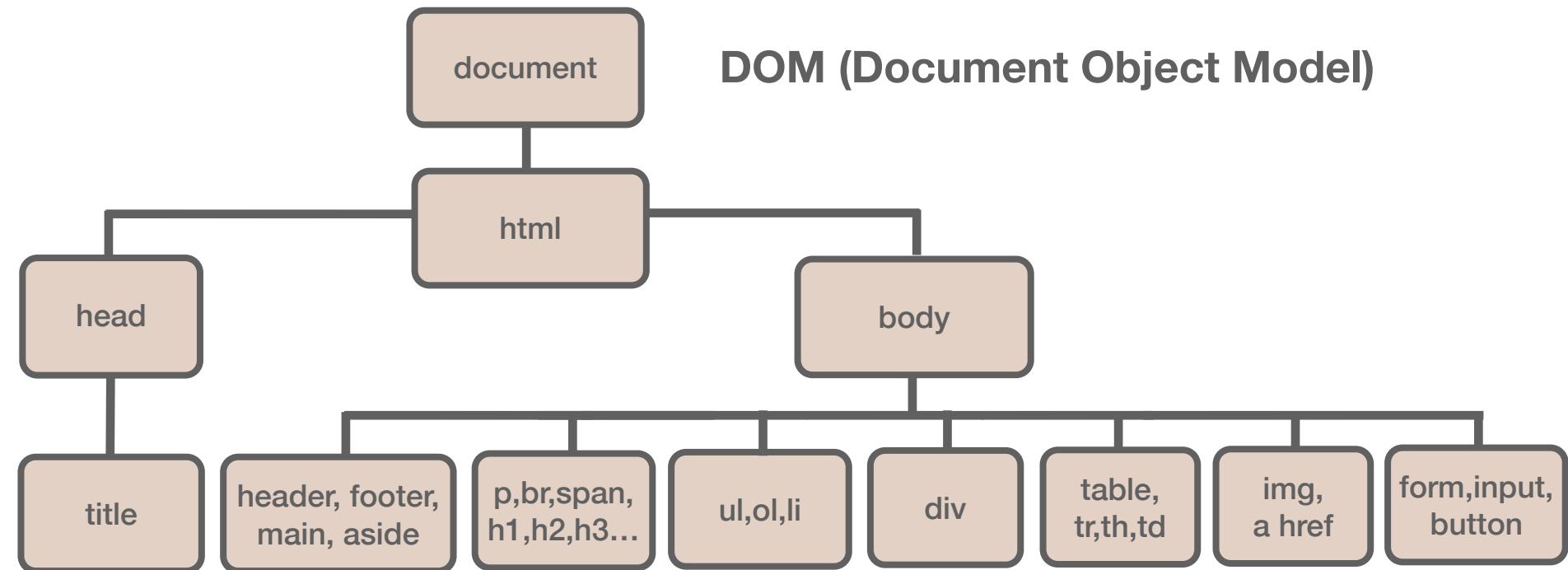
**Why are wireframes typically  
monochrome in color styling?**

**Composition is essential to visual design.  
But challenges exist in adapting content  
display and interactions across different  
devices.**

# **Screen Layout (Composition)**

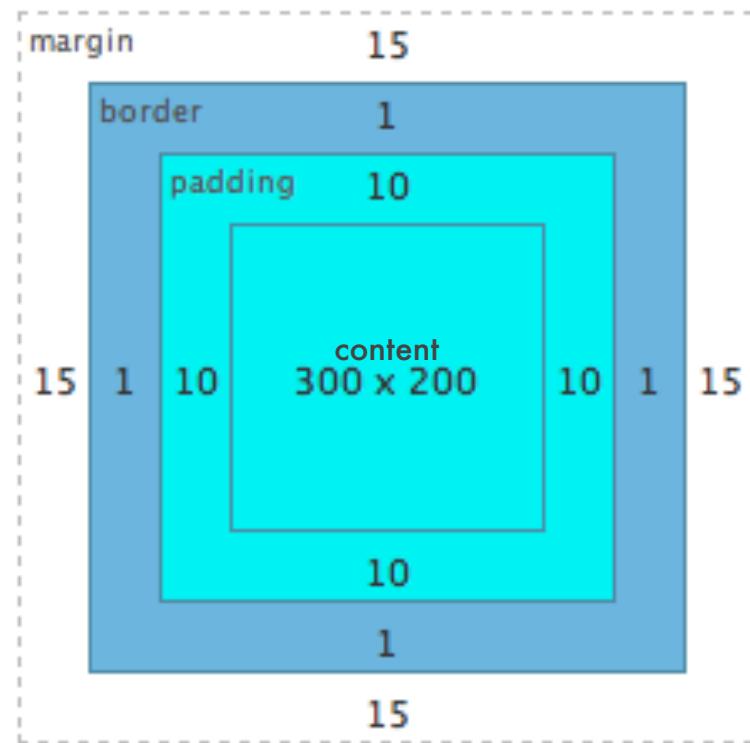
## **Using Box and Display Properties**

# DOM (Document Object Model)



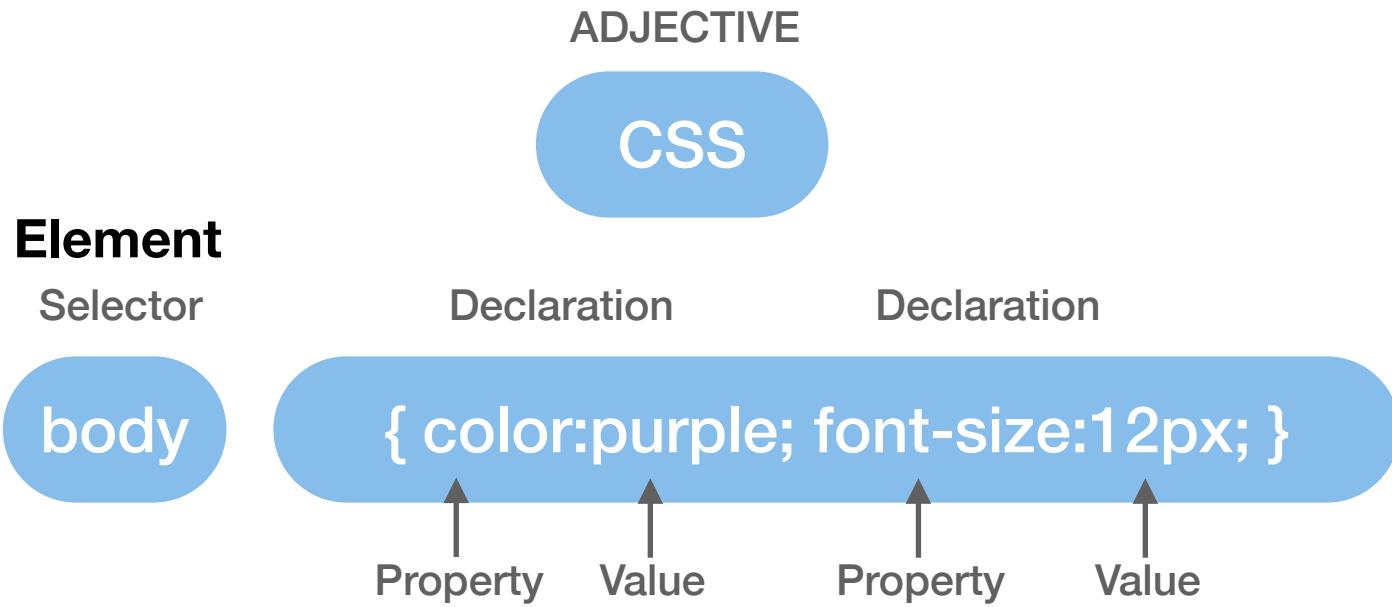
<https://www.runoob.com/htmldom/htmldom-tutorial.html>

# The Box Model



# **Display Properties of the Box**

- **Inline**
- **Block**
- **Inline-block**
- **Grid**
- **Flex**
- **None**



**Custom** (e.g. **class** or **id**)  
Selector

ADJECTIVE

CSS

Declaration

Declaration

.box

#nav

{ color:blue; font-size:12px; }

class

id

Property

Value

Property

Value

**Targeting HTML elements for styling  
through selectors.**

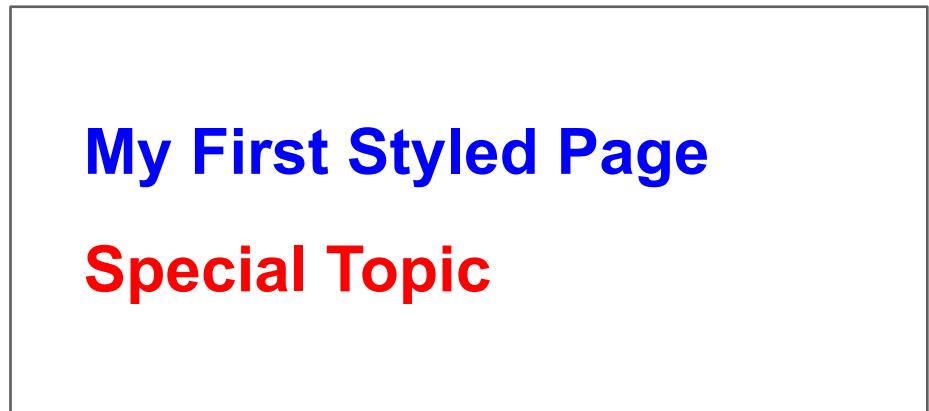
1. **Combine** **selectors** for choosing styling target.
  - 1.1 **Multiple** **selectors** for choosing target.
  - 1.2 **Parent-child** selector hierarchy for choosing target.
  - 1.3 **Same styles** for different targets.
2. **Apply** multiple classes to target.

## 1.1 Multiple selectors combined to choose element to be styled (**no space in between**).

```
h1.first_page {  
    color: blue;  
}
```

```
h1.first_page#special {  
    color: red;  
}
```

```
.....  
<h1 class="first_page">My First Styled Page</h1>  
.....  
<h1 class="first_page" id="special">Special Topic</h1>
```



## 1.2 Parent-child selector hierarchy for choosing target (space between).

```
.rundown .morning h1 {  
    color: gold;  
}  
.....  
<div class="rundown">  
    <div class="morning">  
        <h1>Day 1</h1>  
        1. 9:30-10:30am Introduction<br>  
        2. 10:30-11:30am HTML Elements<br>  
        3. 11:30-12:30pm The DOM<br>  
    </div>  
</div>
```

### Day 1

1. 9:30-10:30am Introduction
2. 10:30-11:30am HTML Elements
3. 11:30-12:30pm The DOM

## 1.3 Same styles for different targets (**separated with comma**)

```
.levels, .values {  
    font-size:20px;  
    color:olive;  
}
```

### Difficulty Level of CSS

1. High
2. Medium
3. Low

### Values of Learning CSS

- Make web publishing fun.
- Create appealing content.
- Support easy reading.

```
<h1>Difficulty Level of CSS</h1>  
<ol class="levels">  
    <li>High</li>  
    <li>Medium</li>  
    <li>Low</li>  
</ol>  
<h1>Values of Learning CSS</h1>  
<ul class="values">  
    <li>Make web publishing fun.</li>  
    <li>Create appealing content.</li>  
    <li>Support easy reading.</li>  
</ul>
```

## 2. Apply Multiple Classes to Target

```
.box {  
    padding: 10px;  
    border-style: solid;  
    border-width: 1px;  
    border-color: black;  
    width: 30%;  
    margin: 20px 0px 2px 0px;  
}  
  
.box-1 {  
    background-color: green;  
    color: white;  
}  
  
.box-2 {  
    background-color: blue;  
    color: white;  
}  
  
.box-3 {  
    background-color: orange;  
    color: white;  
}
```

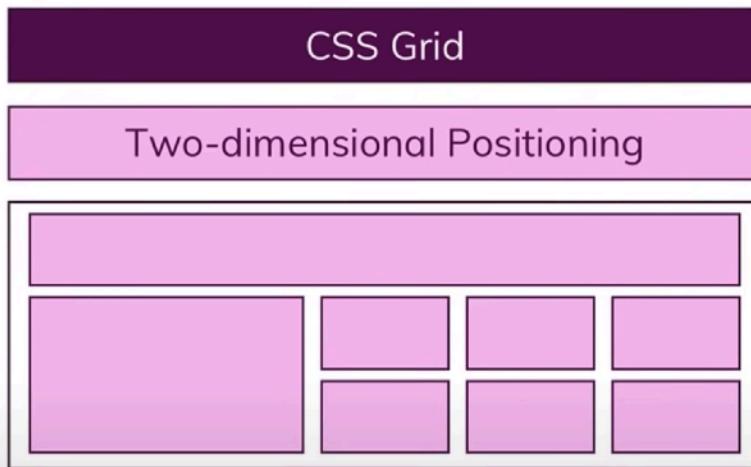
### Apply box and box-1

```
<div class='box box-1'>  
    Box 1  
</div>  
<div class='box box-2'>  
    Box 2  
</div>  
<div class='box box-3'>  
    Box 3  
</div>
```



# CSS Grid vs Flexbox

Source: Academind



## Advanced Display Properties - Grid and Flex

```
.class_name {  
    display:grid;  
}
```

```
.class_name {  
    display:flex;  
}
```

```
<body>
  <header>Header Section</header>
  <main>
    <h2>Main Section</h2>
    <p>Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.</p>
  </main>
  <aside>
    <h2>Aside Section</h2>
    <p>Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.</p>
  </aside>
  <footer>Footer Section</footer>
</body>
```

```
* {  
    margin:0px;  
    padding:0px;  
}  
  
body {  
    height:100vh;  
    display:grid;  
    grid-template-columns: 70% auto;  
    grid-template-rows:10% 80% 10%;  
    grid-template-areas:"header header"  
                      "main aside"  
                      "footer footer";  
}  
  
header {  
    border-style:solid;  
    grid-area:header;  
}  
  
main {  
    border-style:solid;  
    grid-area:main;  
}  
  
aside {  
    border-style:solid;  
    grid-area:aside;  
}  
  
footer {  
    border-style:solid;  
    grid-area:footer;  
}
```

## Grid Display

height:100vh;  
display:grid;  
grid-template-columns: 70% auto;  
grid-template-rows: 10% 80% 10%;

↓  
Apply to  
header.

↓  
Apply to  
main/aside.

↓  
Apply to  
footer.

## Header Section

### Main Section

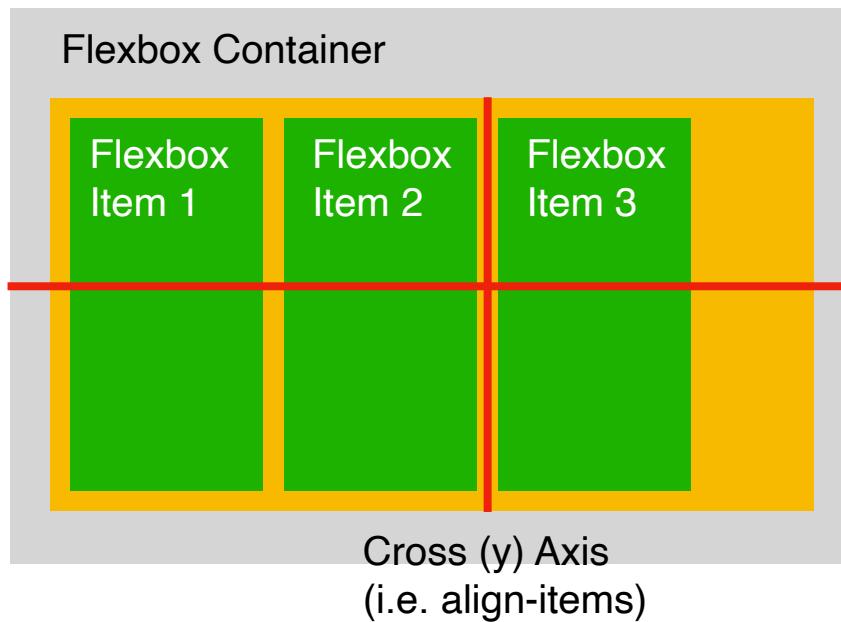
Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Aside Section

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

## Footer Section

# Flex Display



## Header Section

### Main Section Col-1

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
main {  
    display:flex;  
    flex-direction: row;  
    align-items:flex-start;  
    border-style:solid;  
    grid-area:main;  
}
```

### Main Section Col-2

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
main .col {  
    width: 100%;  
    margin:10px;  
}
```

### Main Section Col-3

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
main .col1 {  
}  
main .col2 {  
}  
main .col3 {  
}
```

### Aside Section

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
<main>  
    <div class="col col1">  
        <h2>Main Section Col-1</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus</p>  
    </div>  
    <div class="col col2">  
        <h2>Main Section Col-2</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus</p>  
    </div>  
    <div class="col col3">  
        <h2>Main Section Col-3</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus</p>  
    </div>  
</main>
```

## Footer Section

## Header Section

### Main Section Col-1

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
main {  
    display:flex;  
    flex-direction: row;  
    align-items:center;  
    border-style:solid;  
    grid-area:main;  
}
```

### Main Section Col-2

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
main .col {  
    width: 100%;  
    margin:10px;  
}
```

### Main Section Col-3

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
main .col1 {  
}  
main .col2 {  
}  
main .col3 {  
}
```

## Aside Section

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
<main>  
    <div class="col col1">  
        <h2>Main Section Col-1</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.  
    </div>  
    <div class="col col2">  
        <h2>Main Section Col-2</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.  
    </div>  
    <div class="col col3">  
        <h2>Main Section Col-3</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.  
    </div>  
</main>
```

## Header Section

### Main Section Col-1

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Main Section Col-2

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Main Section Col-3

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Aside Section

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

## Footer

```
main {  
    display:flex;  
    flex-direction: row;  
    align-items:flex-start;  
    border-style:solid;  
    grid-area:main;  
}
```

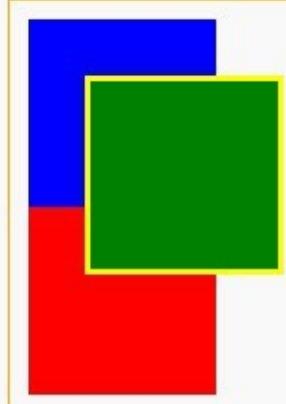
```
main .col {  
    width: 100%;  
    margin:10px;  
}
```

```
main .col1 {  
    width:20%;  
}  
main .col2 {  
    width:30%;  
}  
main .col3 {  
    width:50%;  
}
```

```
<main>  
    <div class="col col1">  
        <h2>Main Section Col-1</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus</div>  
    <div class="col col2">  
        <h2>Main Section Col-2</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus</div>  
    <div class="col col3">  
        <h2>Main Section Col-3</h2>  
        <p>Donec cursus dui nunc, a euismod magna laoreet finibus. Phasellus maximus magna ipsum, eu euismod. Nulla quam sapien, dignissim pretium ante sagittis vel scelerisque sed, auctor nec elit. Vivamus</div>  
</main>
```

**4 ways of positioning display box.**

- **Static** - default position of a box following the normal document flow (not affected by top, left, right, bottom pos.)
- **Fixed** - it always stay on the same location as defined by the positions (top and left or bottom or right) even the page is scrolled. Unlike absolute, its parent is the viewport.
- **Relative** - relative when used with top and left position pair or bottom and right position pair will allow the object box to be moved to a new location relative to its current position (not container).
- **Absolute** - take the positioning out of the document flow and place it at a location (top and left position) as defined in relationship to its containing (or parent) element (context). The container/parent should be set to relative.



The second box is set to “position: absolute” and is offset in relation to the “.container” element

Source: CSS Positioning: A Comprehensive Look  
(<http://blog.teamtreehouse.com/css-positioning>)

## Header Section

### Main Section Col-1

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Main Section Col-2

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Main Section Col-3

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Aside Section

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

```
aside {  
    position: relative;  
    border-style: solid;  
    grid-area: aside;  
}  
  
.aside_textbox {  
    position: absolute;  
}
```

```
<aside>  
    <h2>Aside Section</h2>  
    <p class="aside_textbox">Donec cursus di  
    Suspendisse dignissim laoreet finibus. Phas  
    lorem tristique sodales euismod. Nulla quam  
    tincidunt. Nam enim dolor, sagittis vel sceleri  
</aside>
```

## Footer Section

## Header Section

Main Section	Main Section	Main Section	Aside Section
Col-1	Col-2	Col-3	
Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod.	Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod.	Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod.	Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod.
euismod.	euismod.	euismod.	
Footer Section	Footer Section	Footer Section	Footer Section
sapien, dignissim	sapien, dignissim	sapien, dignissim	
euismod.	euismod.	euismod.	

# Non-Responsive Design

# **Enter Responsive Design.**

“Responsive design is a graphic user interface (GUI) design approach used to create content that adjusts smoothly to various screen sizes. “

~ Interaction Design Foundation

# **Four Key Elements in **Responsive Design** for Web Development.**

**Responsive Design = View Port + Media Query +  
Max/Min Width Setting +  
Proportional units of  
Measurement (e.g. rem, %, vh)**

# **Example**

# VIEW PORT

```
<meta name="viewport" content="width=device-width, initial-scale=1.0, user-scalable=0">
```

# Desktop

# Laptop



**Tablet**

# Mobile

fonts.google.com

Search fonts Sentence Type something 40px

認，乃是世界自由、正義與和平的基礎

Lato Łukasz Dziedzic 10 styles Whereas recognition of the inherent dignity

Poppins Indian Type Foundry, Jonny Pinhorn 18 styles Whereas recognition of the inherent dignity

Fuzzy Bubbles Robert Leuschke 2 styles Whereas recognition of the inherent dignity

Roboto Condensed Christian Robertson 6 styles Whereas recognition of the inherent dignity

Source Sans Pro Paul D. Hunt 12 styles Whereas recognition of the inherent dignity

Noto Serif Gujarati Google Variable કેમ કે માનવકુટુંબના દરેક સત્યની પરંપરાપ્રામ પ્રતિષ્ઠાને અને

Oswald Variable Roboto Mono Variable Noto Sans 18 styles



Fonts

Icons

Knowledge

FAQ

:



Selected family



Google Fonts &gt; Fuzzy Bubbles

Specimen

Type tester

Glyphs

About &amp; license

Download family

# Whereas recognition of the inherent dignity

Hiç kimse keyfi olarak tutuklanamaz, alikonulanamaz veya sürülemez. Herkes, haklarının, vecibelerinin veya kendisine karşı cezai mahiyette herhangi bir isnadın tespitinde, tam bir eşitlikle, davasının bağımsız ve tarafsız bir mahkeme tarafından adil bir şekilde ve açık olarak görülmemesi hakkına sahiptir. Her şahsin dinlenmeye, eğlenmeye, bilhassa çalışma müddetinin makul surette sınırlanılmasına ve muayyen devrelerde ücretli tatillere hakkı vardır.

Considerato che il riconoscimento della dignità inherente a tutti i membri della famiglia umana e dei loro diritti, uguali ed inalienabili, costituisce il fondamento della libertà, della giustizia e della pace nel mondo; Considerato che il disconoscimento e il disprezzo dei diritti umani hanno portato ad atti di barbarie che offendono la coscienza dell'umanità, e che l'avvento di un mondo in cui gli esseri umani godano della libertà di parola e di credo e della libertà dal timore e dal bisogno è stato proclamato come la più alta aspirazione dell'uomo; Considerato che è indispensabile promuovere lo sviluppo di rapporti amichevoli tra le Nazioni;

3 styles

Remove all styles

Regular 400

Remove

Regular 400

Remove

Regular 400

Remove

You can now share your selected families with others.

Dismiss

Fuzzy Bubbles

Regular 400

[Add more styles](#) [Remove all](#)

Use on the web

To embed a font, copy the code into the <head> of your html

 <link>  @import

```
<link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
<link href="https://fonts.googleapis.com/css2?family=Fuzzy+Bubbles&display=swap" rel="stylesheet">
```

CSS rules to specify families

```
font-family: 'Fuzzy Bubbles', cursive;
```

Read our FAQs

Choosing type

[View all articles](#)[API docs](#)[Download all](#)

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0, user-scalable=0">
<title>Workshop</title>
<!--link href="http://fonts.googleapis.com/css?family=Average|Courgette" rel='stylesheet' type='text/css'-->
<!--link href="https://fonts.googleapis.com/css?family=Open+Sans|Oswald" rel="stylesheet"-->
<link href="https://fonts.googleapis.com/css?family=Baloo+Bhaina|Baloo+Paaji|Merriweather" rel="stylesheet">
<link href="mq_demo.css" rel="stylesheet" type="text/css">
</head>
<body>
<div class="showview">
    <div class="desktop"><h1>Desktop</h1></div>
    <div class="laptop"><h1>Laptop</h1></div>
    <div class="tablet"><h1>Tablet</h1></div>
    <div class="mobile"><h1>Mobile</h1></div>
</div>
</body>
</html>
```

```
body {  
    background-color: grey; /* desktop color */  
    font-family: 'Fuzzy Bubbles', cursive;  
}
```

```
.showview {  
    display: flex;  
    align-items: center; /* centre vertically */  
    justify-content:center; /* centre horizontally */  
    height:100vh; /* height of display */  
}
```

```
.desktop {  
    display:block;  
}
```

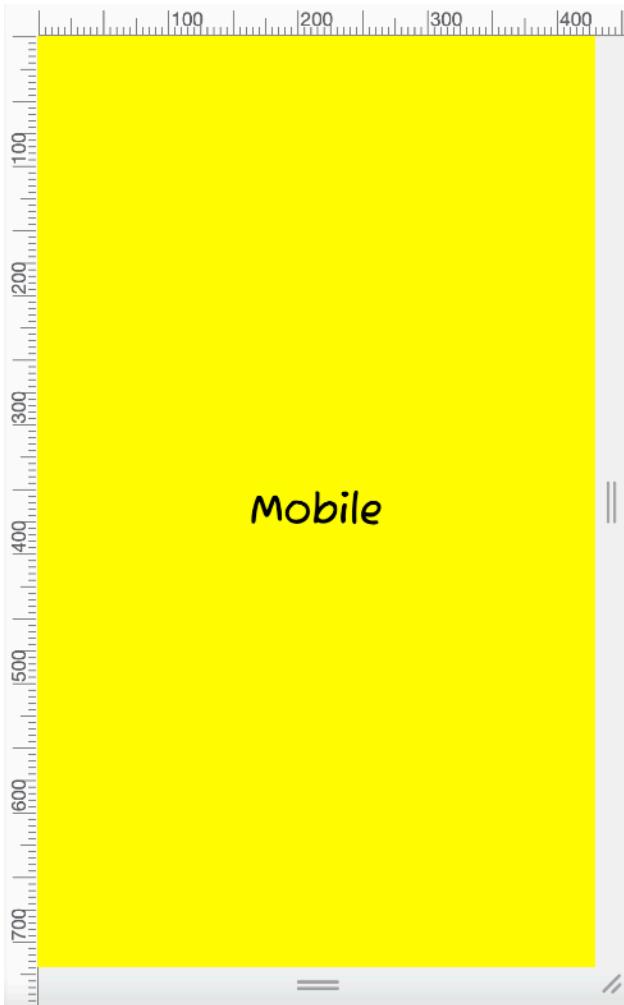
```
.laptop {  
    display:none;  
}  
.tablet {  
    display:none;  
}  
.mobile {  
    display:none;  
}
```

## MEDIA QUERY + MAX/MIN WIDTH SETTING

**mq\_demo.css**

```
@media screen and (max-width: 1280px) {  
    body {  
        background-color: red; /* laptop color */  
    }  
    .desktop {  
        display:none;  
    }  
    .laptop {  
        display:block;  
    }  
    .tablet {  
        display:none;  
    }  
    .mobile {  
        display:none;  
    }  
}  
  
@media screen and (max-width: 1024px) {  
    body {  
        background-color: orange; /* tablet color */  
    }  
    :  
}
```

```
:  
.tablet {  
    display:block;  
}  
.  
}  
@media screen and (max-width: 600px) {  
    body {  
        background-color: yellow; /* mobile color */  
    }  
.desktop {  
    display:none;  
}  
.laptop {  
    display:block;  
}  
.tablet {  
    display:none;  
}  
.mobile {  
    display:none;  
}  
}  
}
```



## Header Section

### Main Section Col-1

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Main Section Col-2

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Main Section Col-3

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Aside Section

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

## Footer Section

## Header Section

### Main Section Col-1

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Main Section Col-2

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

### Main Section Col-3

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

## Aside Section

Donec cursus dui nunc, a euismod magna hendrerit id. Cras porta augue lectus, nec convallis felis convallis id. Suspendisse dignissim laoreet finibus. Phasellus maximus magna ipsum, eu tincidunt leo bibendum ac. Duis ut vehicula mi. Integer aliquam lorem tristique sodales euismod. Nulla quam sapien, dignissim pretium ante quis, eleifend consequat justo. Etiam mattis velit eget laoreet tincidunt. Nam enim dolor, sagittis vel scelerisque sed, auctor nec elit. Vivamus commodo aliquam ligula ac elementum.

## Footer Section

Assignment 1 Assignment 2 Assignment 3 Assignment 4 Assignment 5

## Assignment 1



This is my first experience in creating a web page and sharing with the world. It was unbelievable that I can do that as a person coming from a non-technical background. After all, the learning hasn't been as difficult as I thought. Hopefully, I can do more interesting things with the newly acquired skills.

My current design for the first assignment is based on one main idea: How can I make my creative works more accessible and inspiring for other people? That's why I have chosen a simple horizontal navigation bar with the current navigation option highlighted and the paragraph heading displayed in H1 tag.

Simplicity is important but amusement, the entertaining impact my works create, is equally so. I still have to work harder on both. They are design attributes that can delight people and make them willing to see my works

more.

More details about my design can be found [here](#).

## My Journals

Making Remote Works  
Collaborative and  
Accountable

Rethink Digital  
Transformation

## Assignment 1



This is my first experience in creating a web page and sharing with the world. It was unbelievable that I can do that as a person coming from a non-technical background. After all, the learning hasn't been as difficult as I thought. Hopefully, I can do more interesting things with the newly acquired skills.

My current design for the first assignment is based on one main idea: How can I make my creative works more accessible and inspiring for other people? That's why I have chosen a simple

**Popular Web Front-end UI Framework.**

New in v5.2 CSS variables, responsive offcanvas, new utilities, and more!



# Build fast, responsive sites with Bootstrap

Powerful, extensible, and feature-packed frontend toolkit. Build and customize with Sass, utilize prebuilt grid system and components, and bring projects to life with powerful JavaScript plugins.

\$ npm i bootstrap@5.2.2



[Read the docs](#)

Currently v5.2.2 · [Download](#) · [v4.6.x docs](#) · [All releases](#)



Couchbase Capella DBaaS: Get the power of SQL with the flexibility of JSON

ads via Carbon

<https://getbootstrap.com/>

## Getting started

### Introduction

Download  
Contents  
Browsers & devices  
JavaScript  
Webpack  
Parcel  
Vite  
Accessibility  
RFS  
RTL  
Contribute

## Customize

Overview  
Sass  
Options  
Color  
Components  
CSS variables  
Optimize

## Layout

Breakpoints  
Containers  
Grid  
Columns  
Gutters  
Utilities  
Z-index  
CSS Grid

# Get started with Bootstrap

[View on GitHub](#)

Bootstrap is a powerful, feature-packed frontend toolkit. Build anything—from prototype to production—in minutes.

## Quick start

Get started by including Bootstrap's production-ready CSS and JavaScript via CDN without the need for any build steps. See it in practice with this [Bootstrap CodePen demo](#).

1. Create a new `index.html` file in your project root. Include the `<meta name="viewport">` tag as well for proper responsive behavior in mobile devices.

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Bootstrap demo</title>
  </head>
  <body>
    <h1>Hello, world!</h1>
  </body>
</html>
```

2. Include Bootstrap's CSS and JS. Place the `<link>` tag in the `<head>` for our CSS, and the `<script>` tag for our JavaScript bundle (including Popper for positioning dropdowns, poppers, and tooltips) before the closing `</body>`. Learn more about our [CDN links](#).

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Bootstrap demo</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  </head>
  <body>
```

## On this page

Quick start  
CDN links  
Next steps  
JS components  
Important globals  
HTML5 doctype  
Responsive meta tag  
Box-sizing  
Reboot  
Community

<https://getbootstrap.com/docs/5.2/getting-started/introduction/>

# **Screen Layout (Composition)**

## **Using Bootstrap**

## twitter-bootstrap

The most popular front-end framework for developing responsive, mobile first projects on the web.

★ 160k  GitHub  package  0 vulnerabilities

MIT licensed <http://getbootstrap.com/>

Tags: css, less, mobile-first, responsive, front-end, framework, web, twitter, bootstrap

Version **5.2.2**

Asset Type **All**

Some files are hidden, click to show all files

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/js/bootstrap.min.js>

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/css/bootstrap-grid.min.css>

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/css/bootstrap-grid rtl.min.css>

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/css/bootstrap-reboot.min.css>

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/css/bootstrap-reboot rtl.min.css>

# Use CDN link to access remote CSS and JS libraries for Bootstrap 5.5.2.

<https://cdnjs.com/libraries/twitter-bootstrap/5.2.2>



## Getting started

- Introduction
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- Contents
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- Webpack
- Parcel
- Vite
- Accessibility
- RFS
- RTL
- Contribute

## Customize

- Overview
- Sass
- Options
- Color
- Components
- CSS variables
- Optimize

## Layout

- Breakpoints
- Containers
- Grid
- Columns
- Gutters
- Utilities
- Z-index
- CSS Grid

# Grid system

[View on GitHub](#)

Use our powerful mobile-first flexbox grid to build layouts of all shapes and sizes thanks to a twelve column system, six default responsive tiers, Sass variables and mixins, and dozens of predefined classes.



Your new development career awaits. Check out the latest listings.  
ads via Carbon

## Example

Bootstrap's grid system uses a series of containers, rows, and columns to layout and align content. It's built with [flexbox](#) and is fully responsive. Below is an example and an in-depth explanation for how the grid system comes together.

New to or unfamiliar with flexbox? [Read this CSS Tricks flexbox guide](#) for background, terminology, guidelines, and code snippets.

Column	Column	Column
--------	--------	--------

HTML



```
<div class="container text-center">
  <div class="row">
    <div class="col">
      Column
    </div>
```

## On this page

- Example
- How it works
- Grid options
- Auto-layout columns
- Equal-width
- Setting one column width
- Variable width content
- Responsive classes
- All breakpoints
- Stacked to horizontal
- Mix and match
- Row columns
- Nesting
- Sass
- Variables
- Mixins
- Example usage
- Customizing the grid
- Columns and gutters
- Grid tiers

<https://getbootstrap.com/docs/5.2/layout/grid/>

# Grid Classes

Bootstrap's grid system allows up to 12 columns across the page.

The Bootstrap grid system has four classes:

- `xs` (for phones - screens less than 768px wide)
- `sm` (for tablets - screens equal to or greater than 768px wide)
- `md` (for small laptops - screens equal to or greater than 992px wide)
- `lg` (for laptops and desktops - screens equal to or greater than 1200px wide)

The classes above can be combined to create more dynamic and flexible layouts.

**Tip:** Each class scales up, so if you wish to set the same widths for xs and sm, you only need to specify xs.

# Grid System Rules

Some Bootstrap grid system rules:

- Rows must be placed within a `.container` (fixed-width) or `.container-fluid` (full-width) for proper alignment and padding
- Use rows to create horizontal groups of columns
- Content should be placed within columns, and only columns may be immediate children of rows
- Predefined classes like `.row` and `.col-sm-4` are available for quickly making grid layouts
- Columns create gutters (gaps between column content) via padding. That padding is offset in rows for the first and last column via negative margin on `.rows`
- Grid columns are created by specifying the number of 12 available columns you wish to span. For example, three equal columns would use three `.col-sm-4`
- Column widths are in percentage, so they are always fluid and sized relative to their parent element

[https://www.w3schools.com/bootstrap/bootstrap\\_grid\\_system.asp](https://www.w3schools.com/bootstrap/bootstrap_grid_system.asp)

# Design Patterns in Bootstrap

# **Bootstrap Examples, Components, and Icons**



# Examples

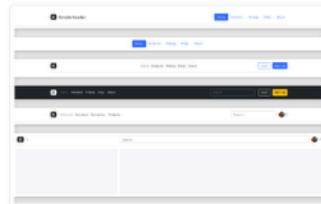
Quickly get a project started with any of our examples ranging from using parts of the framework to custom components and layouts.

[Download examples](#)[Download source code](#)

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ads via Carbon

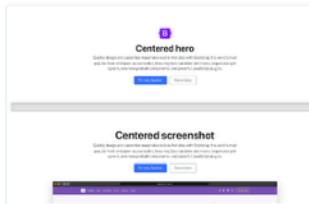
## Snippets

Common patterns for building sites and apps that build on existing components and utilities with custom CSS and more.



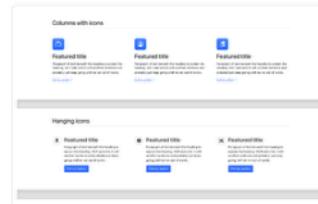
### Headers

Display your branding, navigation, search, and more with these header components



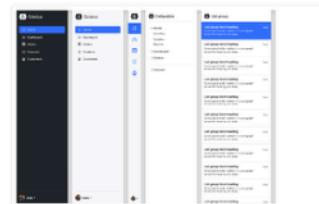
### Heroes

Set the stage on your homepage with heroes that feature clear calls to action.



### Features

Explain the features, benefits, or other details in your marketing content.



### Sidebars

Common navigation patterns ideal for offcanvas or multi-column layouts.

## Custom Components

Brand new components and templates to help folks quickly get started with Bootstrap and demonstrate best practices for adding onto the framework.



<https://getbootstrap.com/docs/5.2/examples/>



## Example headline.

Some representative placeholder content for the first slide of the carousel.

[Sign up today](#)



Heading

Some representative placeholder content for the three columns of text below the carousel. This is the first column.

[View details »](#)



Heading

Another exciting bit of representative placeholder content. This time, we've moved on to the second column.

[View details »](#)



## Example headline.

Some representative placeholder content for the first slide of the carousel.

[Sign up today](#)



Heading

Some representative placeholder content for the three columns of text below the carousel. This is the first column.

[View details »](#)



<https://getbootstrap.com/docs/5.2/examples/carousel/>

# Accordion

[View on GitHub](#)

Build vertically collapsing accordions in combination with our Collapse JavaScript plugin.



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ads via Carbon

## How it works

The accordion uses `collapse` internally to make it collapsible. To render an accordion that's expanded, add the `.open` class on the `.accordion`.

The animation effect of this component is dependent on the `prefers-reduced-motion` media query. See the [reduced motion section of our accessibility documentation](#).

## Example

Click the accordions below to expand/collapse the accordion content.

### Accordion Item #1



This is the first item's accordion body. It is shown by default, until the collapse plugin adds the appropriate classes that we use to style each element. These classes control the overall appearance, as well as the showing and hiding via CSS transitions. You can modify any of this with custom CSS or overriding our default variables. It's also worth noting that just about any HTML can go within the `.accordion-body`, though the transition does limit overflow.

<https://getbootstrap.com/docs/5.2/components/>

## On this page

[How it works](#)  
[Example](#)  
[Flush](#)  
[Always open](#)  
[Accessibility](#)  
[CSS](#)  
[Variables](#)  
[Sass variables](#)



Docs Examples **Icons** Themes Blog



New in v1.9.0: 140+ new icons!

# Bootstrap Icons

Free, high quality, open source icon library with over 1,600 icons. Include them anyway you like—SVGs, SVG sprite, or web fonts. Use them with or without [Bootstrap](#) in any project.

\$ npm i bootstrap-icons



[Open in Figma](#)



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Check out the latest listings.

[ads via Carbon](#)

Currently [v1.9.1](#) • [Icons](#) • [Install](#) • [Usage](#) • [Styling](#) • [Accessibility](#) • [GitHub repo](#)

Icons

Start typing to filter...

<https://icons.getbootstrap.com/>

# **Popular Components**

- a. Container
- b. Navbar/Navs
- c. Icons
- d. Grid/Row/Column
- e. Images
- f. Buttons/Alerts
- g. Form
- h. Panel/Wells/Jumbotron
- i. Carousel/Collapse
- j. Scrollspy/Offcanvas
- k. Table
- l. Pagination
- m. Badges/List Group/Cards
- n. Modal/Tooltip/Toast/Popover

<https://www.w3schools.com/bootstrap5/index.php>

## Bootstrap 5 Tutorial

BS5 HOME

BS5 Get Started

BS5 Containers

BS5 Grid Basic

BS5 Typography

BS5 Colors

BS5 Tables

BS5 Images

BS5 Jumbotron

BS5 Alerts

BS5 Buttons

BS5 Button Groups

BS5 Badges

BS5 Progress Bars

BS5 Spinners

BS5 Pagination

BS5 List Groups

**BS5 Cards**

BS5 Dropdowns

BS5 Collapse

BS5 Navs

BS5 Navbar

BS5 Carousel

BS5 Modal

## Cards

A card in Bootstrap 5 is a bordered box with some padding around its content. It includes options for headers, footers, content, colors, etc.



John Doe

Some example text some example text. John Doe is an architect and engineer

[See Profile](#)

[https://www.w3schools.com/bootstrap5/bootstrap\\_cards.php](https://www.w3schools.com/bootstrap5/bootstrap_cards.php)

**More free themes/templates.**

1. <https://bootstraptaste.com/>
2. <http://blacktie.co/>

**Free images.**

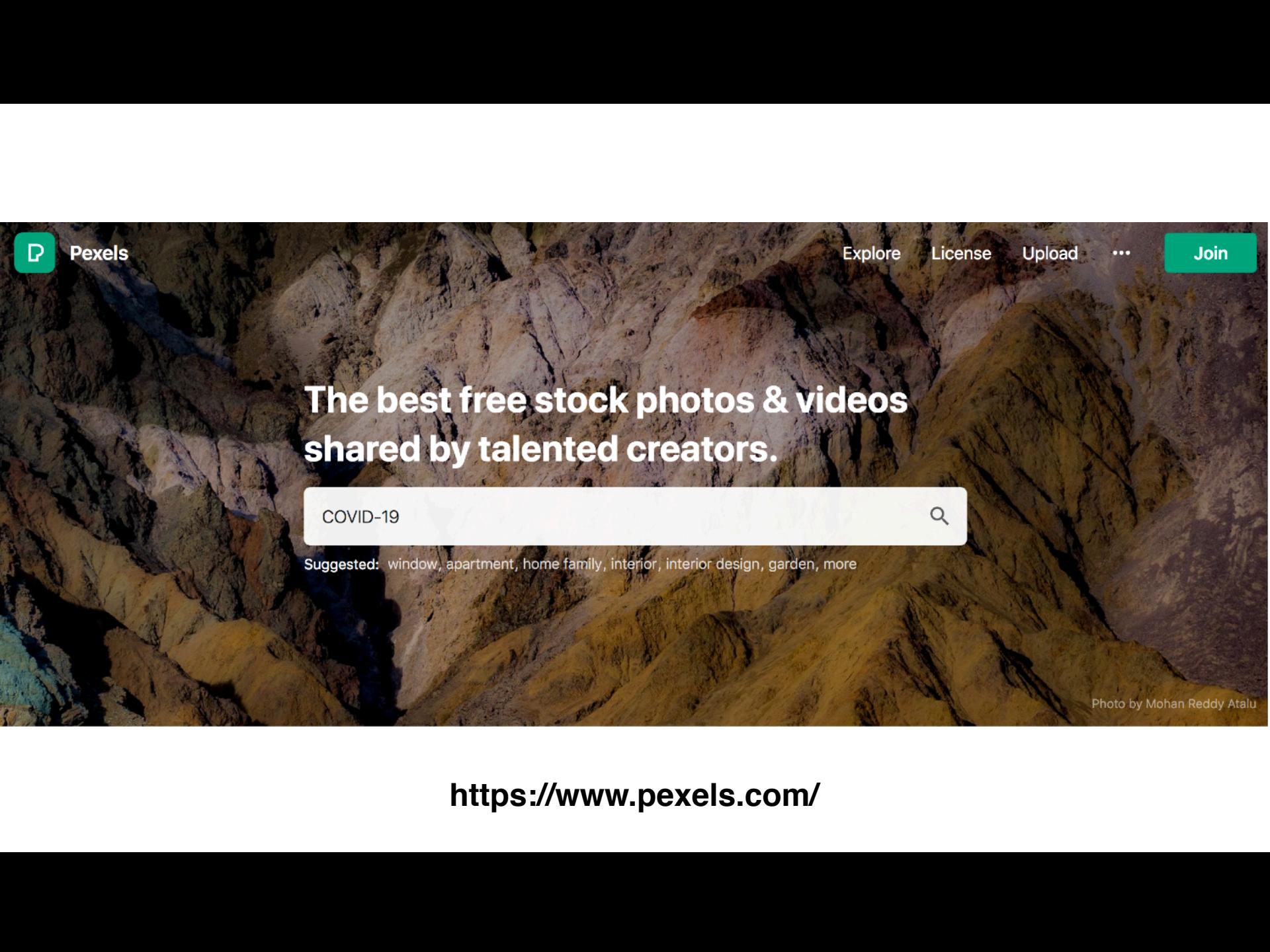
# Unsplash

The internet's source of freely usable images.  
Powered by creators everywhere.

 COVID-19 x

Trending: flower, wallpapers, backgrounds, happy, love

<https://unsplash.com/>



**<https://www.pexels.com/>**

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Popular images: easter, wallpaper, coronavirus, nature, corona, love, business, food, spring, money, covid, computer

Free image by mac231

<https://pixabay.com/>

# **Prototype for Design Evaluation**

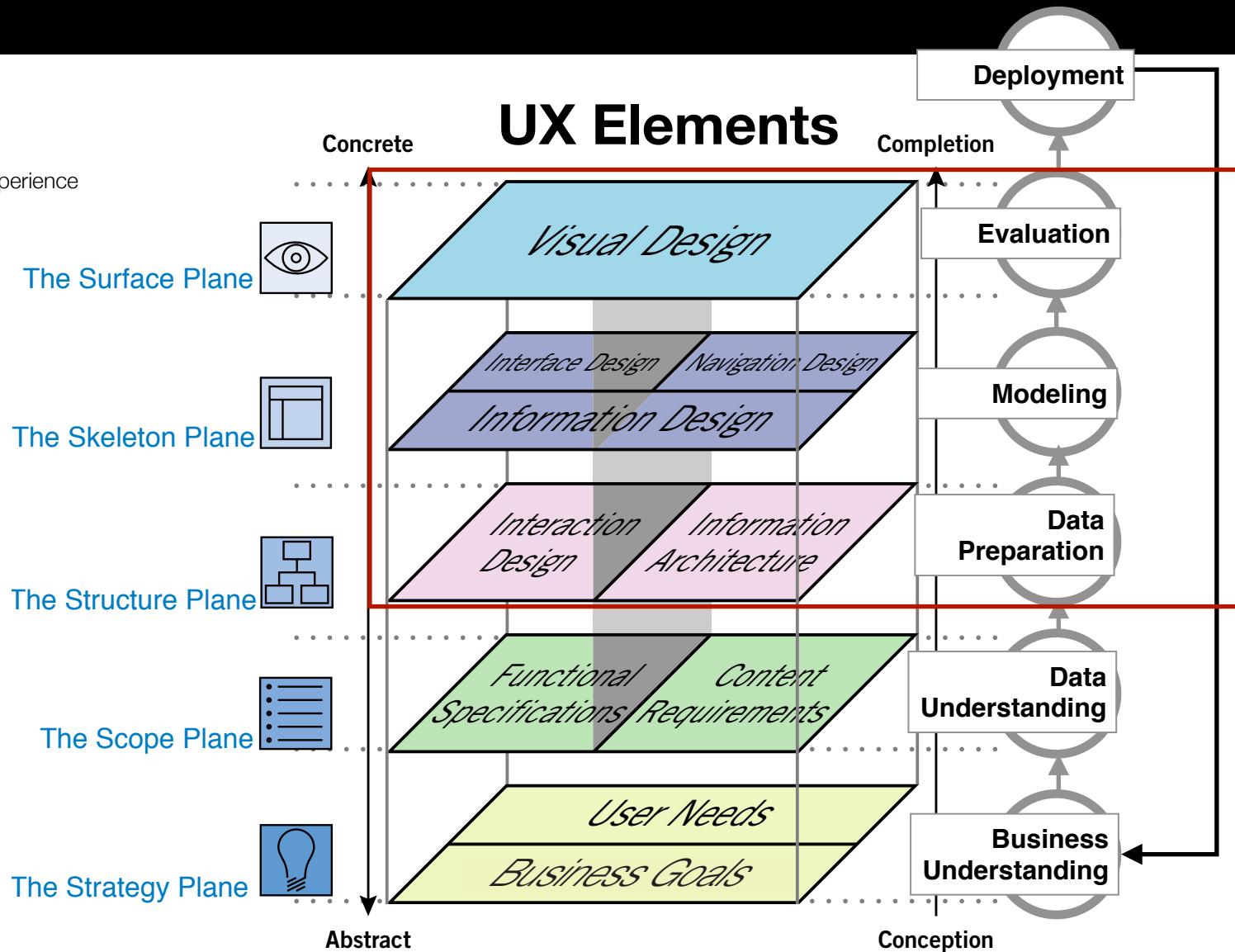
# Solution Space

how and  
how much

# Problem Space

who, what,  
and why

Source: Elements of User Experience  
by Jesse James Garrett



*Business Goals*

**Wireframing the structure (sitemap)  
and skeleton (screen layouts) for  
design validation.**

**Introducing Figma.**



Features ▾ Enterprise ▾ Pricing Community ▾ Company ▾ Log in

Sign up

Tony

Mae

# Where teams design together

Luis

Sunni

Figma helps teams create, test, and ship better designs from start to finish.

Try Figma for free

▶ See how it works

### Starter

**Free**

for up to 2 editors and 3 projects

- ✓ 3 projects
- ✓ 30-day version history
- ✓ Up to 2 editors
- ✓ Unlimited cloud storage
- ✓ Unlimited free viewers

[Choose Starter](#)

### Professional

**\$12 per editor/month**

Billed annually or \$15 month-to-month

- ✓ Unlimited projects
- ✓ Unlimited version history
- ✓ Custom file/user permissions
- ✓ Invite-only private projects
- ✓ Shareable team libraries

[Choose Professional](#)

Free for students and educators

### Organization

**\$45 per editor/month**

Annual billing only

Everything in Professional, plus...

- ✓ Org-wide design systems
- ✓ Centralized teams
- ✓ Private plugins
- ✓ Plugin administration
- ✓ Shared fonts
- ✓ SSO + advanced security
- ✓ Design System Analytics

[Choose Organization](#)

Contact sales (best for 9+ editors)

The screenshot shows the Figma application interface with two cards displayed side-by-side.

**Home Page**

- Card title:** Hello, world!
- Text:** Although the improvement in user experience is the starting point, the development should not stop at that.
- Image:** A small thumbnail image showing a landscape with clouds and green fields.
- Text:** Card title  
Sed vel turpis adipiscing penatibus orci neque. Erat sed fermentum ipsum vel quis quam. Nunc etiam dui tortor, non in aliquam lacinia tempor.
- Image:** A large main image showing a landscape with mountains and a valley.

**Card Page**

- Card title:** Card title
- Image:** A large image showing a landscape with clouds and green fields.
- Text:** Card title  
Sed vel turpis adipiscing penatibus orci neque. Erat sed fermentum ipsum vel quis quam. Nunc etiam dui tortor, non in aliquam lacinia tempor.
- Text:** Sed vel turpis adipiscing penatibus orci neque. Erat sed fermentum ipsum vel quis quam. Nunc etiam dui tortor, non in aliquam lacinia tempor.
- Text:** Sed vel turpis adipiscing penatibus orci neque. Erat sed fermentum ipsum vel quis quam. Nunc etiam dui tortor, non in aliquam lacinia tempor.
- Buttons:** button button

**Design Tools**

- Layers: Card Page, Home Page
- Assets: None
- Page 1
- Grid: -200, -100, 0, 100, 200, 300, 400, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400
- Share: B Share
- Design, Prototype, Inspect

**Frame**

Device	Dimensions
iPhone 14	390x844
iPhone 14 Pro	393x852
iPhone 14 Plus	428x926
iPhone 14 Pro Max	430x932
iPhone 13 Pro Max	428x926
iPhone 13 / 13 Pro	390x844
iPhone 13 mini	375x812
<b>iPhone 11 Pro Max</b>	<b>414x896</b>
iPhone 11 Pro / X	375x812
iPhone SE	320x568
iPhone 8 Plus	414x736
iPhone 8	375x667
Android Small	360x640
Android Large	360x800
Surface Pro 8	1440x960
iPad mini 8.3	744x1133
iPad Pro 11"	834x1194
iPad Pro 12.9"	1024x1366
MacBook Air M2	1280x832
MacBook Pro 14"	1512x982
MacBook Pro 16"	1728x1117
Desktop	1440x1024
Wireframes	1440x1024
iMac	1280x720
TV	1280x720
Slide 16:9	1920x1080
Slide 4:3	1024x768
Apple Watch 41mm	176x215

Untitled Demo Wireframe Kit (Free Edition) (Copy)

Community

Bootstrap 5

Publish

All 69

Trending

Files + templates 67

Plugins 2

Widgets 0

Creators 1

Figma + FigJam

Dashboard Template Grid... Jehad

Bootstrap 5 Grid Starter Konstantyn Burlai

Bootstrap 5 Grid System... Jehad

Bootstrap 5 [ Grid & Icons ] Артур Моснан

Bootstrap 5 • Figma Kit v1.1 Updated: November 2021

Bootstrap 5 Responsive... Aytaç Özdalıgil

Bootstrap 5 Oliver Williams

Bootstrap 5 - 2021.11 Stefan

Free Figma Bootstrap 5 ... Anand Designer

Retículas Bootstrap 5 XS,... Plácido Luna

Bootstrap 5 Design System ... Cesar Mendonça

Comprende las clases para... Plácido Luna

Bootstrap 5 UI Kit (Community) Gahan

Bootstrap grid v5

Free Figma Bootstrap 5 UI Kit

Bootstrap 5 Design System

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Community Q Search Community Publish B

## Bootstrap 5 - 2021.11

By Stefan 

224 Get a copy 6k



The cover features a large white 'B' inside a white curly brace on a purple background. To the right are several white rounded rectangles containing text: 'Variants', 'Auto-layout', 'Components', 'Open-Sourcelcons', 'Icons', and 'Layout examples'. Below this is the title 'Bootstrap 5 • Figma Kit' in large white font. At the bottom left is the text 'Updated: November 2021' and at the bottom right is 'v1.1'.

### 2021, Nov 29

- fixed cover typo
- added donation link

### 2021, Nov 22

- fixed cover date

### 2021, Nov 16

#### Tags

bootstrap bootstrap 5 design kit free free kit hey minimal random starter ui kit

Untitled Demo Wireframe Kit (Free Edition) (Copy) Bootstrap 5 - 2021.11 (Community)

Drafts / Bootstrap 5 - 2021.11 (Community)

B Share A? 112% □

Layers Assets -- Card

Search assets...

Local components

- Alerts
  - A simple primary alert—check it out!
- Badge
  - Primary
  - Large
- Breadcrumb
  - Home / Library / Data
- Buttons
  - Large button
- Buttons / Button
- Card
  - Card Title  
Some quick example text to build on the card title and make up the bulk of the card's content.  
[Go somewhere](#)
- Forms
- Icons
- Modal
- Nav & Tabs

Background E5E5E5 100%

Text Styles

- Display 1 · 80/Auto
- Display 2 · 72/Auto
- Display 3 · 64/Auto
- Display 4 · 56/Auto
- Display 5 · 48/Auto
- Display 6 · 40/Auto
- Headline 1 · 40/Auto
- Headline 2 · 32/Auto
- Headline 3 · 28/Auto
- Headline 4 · 24/Auto
- Headline 5 · 20/Auto
- Headline 6 · 16/Auto
- Body Large
- Body
- Body Small
- Forms

Color Styles

- bs-blue
- bs-indigo
- bs-purple
- bs-pink

Image cap

Car Title

Some quick example text to build on the card title and make up the bulk of the card's content.

Go somewhere

Untitled Demo Wireframe Kit (Free Edition) (Copy) Bootstrap 5 - 2021.11 (Community)

Drafts / Bootstrap 5 - 2021.11 (Community)

B Share A? 139% v

Layers Assets -- Icons +

Pages

- Grid
- Alerts
- Badge
- Icons
- Breadcrumb
- Buttons
- Grid

Shapes

Symbols

dash-lg

plus-lg

slash-lg

x-lg

i-lg

?-lg

l-lg

check-lg

box-arrow

box-arrow-bg

box-arrow-45

box-arrow-bg-45

Fri

Aug

day-19

heart-fill

Star 8

Files and folders

UI and keyboard

Background E5E5E5 100%

Text Styles

Display 1 · 80/Auto

Display 2 · 72/Auto

Display 3 · 64/Auto

Display 4 · 56/Auto

Display 5 · 48/Auto

Display 6 · 40/Auto

Headline 1 · 40/Auto

Headline 2 · 32/Auto

Headline 3 · 28/Auto

Headline 4 · 24/Auto

Headline 5 · 20/Auto

Headline 6 · 16/Auto

Body Large

Body

Body Small

Forms

Color Styles

bs-blue

bs-indigo

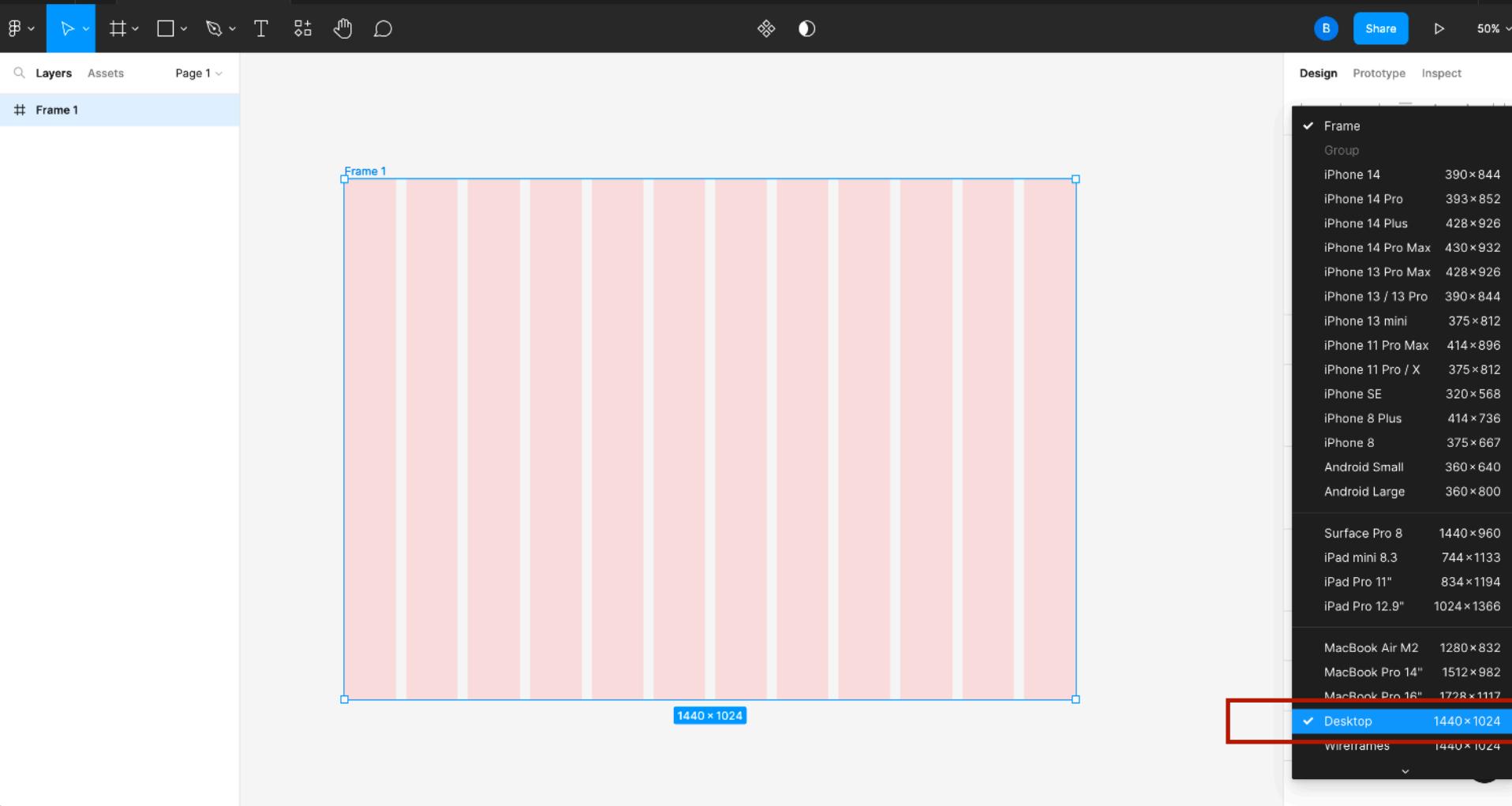
bs-purple

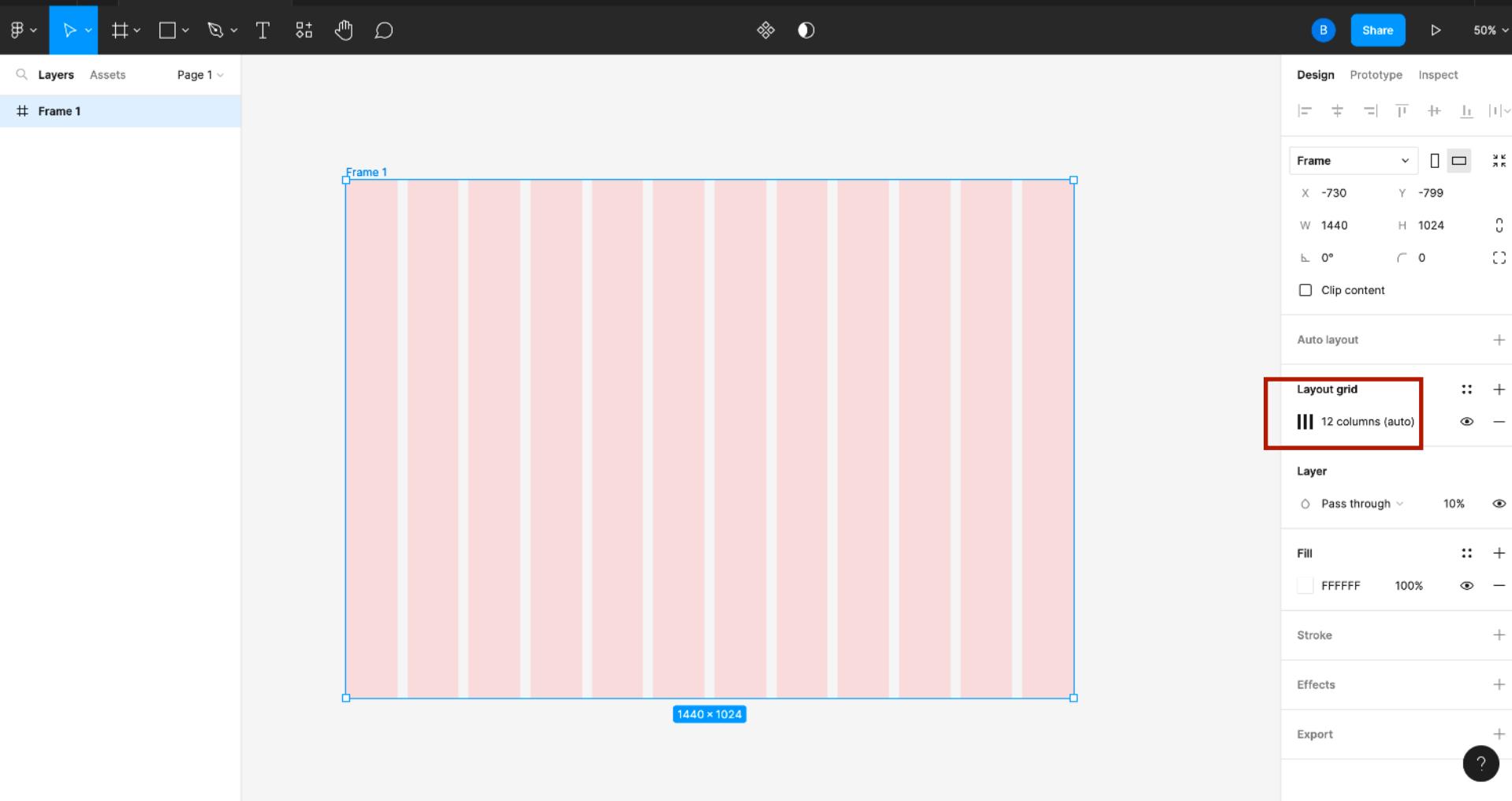
bs-pink

Dev

?

This image shows a wireframe kit interface, likely from Figma, displaying a collection of icons and UI components. The main area is a grid of icons under two sections: 'Files and folders' and 'UI and keyboard'. The 'Files and folders' section contains a variety of file-related icons like document, image, video, and folder symbols. The 'UI and keyboard' section contains icons for navigation, media controls, and system status. On the left, there's a sidebar with a tree view of categories such as Pages, Grid, Alerts, Badge, Icons, Breadcrumb, Buttons, and various shape and symbol sets. On the right, there are panels for Design, Prototype, and Inspect, along with settings for background color (E5E5E5) and text styles (Display 1-6, Headline 1-6, Body sizes, Forms). A color palette at the bottom includes bs-blue, bs-indigo, bs-purple, and bs-pink.





Screenshot of the Figma interface showing the main workspace and various tools and features.

**Top Bar:**

- Home icon
- Demo
- + (New file)
- Search bar: Search files, teams, or people
- Profile icon: B Sy Sin (bsysin@gmail.com)
- Notification bell icon
- Help icon

**Left Sidebar:**

- Recents
- Drafts
- Community
- Up arrow:** You're running out of files in your free team. Upgrade to give your ideas and designs room to grow without limits.  
View plans
- Favorite files
- Teams
  - com5961 (Free)  
Team project
  - Orangant (Free)  
Create new team

**Main Workspace:**

Recently viewed:

- New design file (Design and prototype) +
- New FigJam file (Whiteboard and diagram) +
- Import file (Bring in files from other tools)

Explore FigJam templates:

- Information Architecture & Indexation
- Diagram basics in FigJam
- Daily sync
- Team meeting agenda
- User persona
- Empathy map

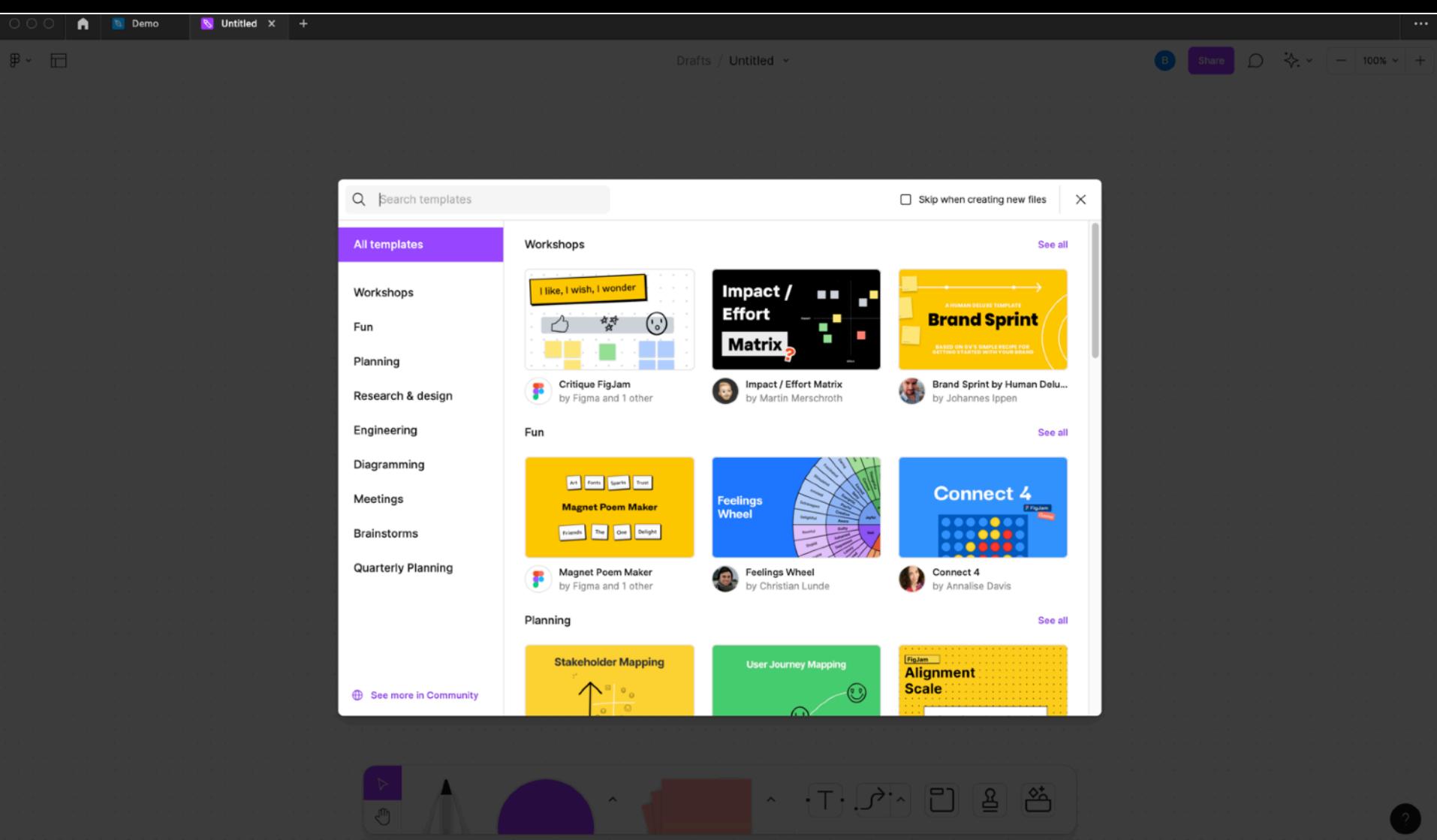
Filter: All files ▾ Sort: Last viewed ▾

Recent files:

- Demo (In Drafts - Edited 3 days ago)
- Untitled (In Drafts - Edited 19 hours ago)
- Bootstrap 5 • Figma Kit (Updated: November 2021, v1.1)
- Bootstrap 5 - 2021.11 (Community) (In Drafts - Edited 4 minutes ago)
- Wireframe Kit (Free Edition) (Copy) (In Drafts - Edited 3 years ago)

Bottom row (partial view):

- Image of a wireframe component
- Image of a complex wireframe structure
- Image of a wireframe component
- Image of a person working at a desk with multiple screens



Drafts / Untitled

All templates

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Skip when creating new files

Workshops

Fun

Planning

Research & design

Engineering

Diagramming

Meetings

Brainstorms

Quarterly Planning

See more in Community

Microsoft Azure Diagram Te... by Figma

Google Cloud Diagram Tem... by Figma

AWS Cloud Diagram Template by Figma

Flow Charts by Fifi Law and 1 other

User journey map by Figma and 1 other

UML Diagrams by Figma

GANTT chart template by Emily Lin and 1 other

Stand-up by Bersabel Tadesse and 1 ...

Lean Coffee by Bendik Kristiansen

See all

See all

?



1. Pick a column and type your name  
2. Take 10 minutes to add as many ideas to your column as you can  
3. Take turns sharing and clustering similar ideas.
- Pro tip: Use this plugin to convert paragraphs or text layers into sticky notes.*

**Thanks for joining me today!**