



COM5940 NEW MEDIA BUSINESS MODEL & INNOVATION: LESSON 0 - INTRODUCTION TO JAVASCRIPT ES6

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Today's agenda.

1. Overview of COM5940.
2. Development **trends** to watch for in 2023.
3. **Key technologies** for enabling new media business models and applications.
4. From **JS ES6** to **cross-platform web/mobile application development**.
5. Quick review of basic JavaScript before ES6.
6. ES6 and modern JavaScript front-end frameworks (e.g. **React, Angular, Vue**).

Comparison Between COM5961 and COM5940

	COM5961	COM5940
Competency	Individual mastery	Team project management
Methodology	DT, Elements of UX, MVC, usability study and AB Test	Business model design, lean & agile product development, growth marketing, and CRISP-DM
Requirement Analysis	Product	Market, Product, Business
Front-end/ Back-end	Front-end: HTML/CSS/JS Back-end: Python Flask/SQL	Front-end: Web/Mobile Back-end: Flask/SQL and API
Technical Focus	Web app prototyping	Mobile, cloud and API services with use of AI and AR in business model and product innovation
Application Focus	Content acquisition and content management	Community formation and E-Commerce (Conversion)

COM5940 Course Description

“In our present age of rapid technological disruption and business transformation, a sustainable innovation requires: 1) engaging user experience, 2) robust technological infrastructure, and 3) viable business model. This course aims to prepare enrolled students in becoming data driven product/operation professional, digital marketing specialist, UX researcher/designer, and startup founder by helping them master the integration challenges in putting the three together.”

COM5940 Course Description

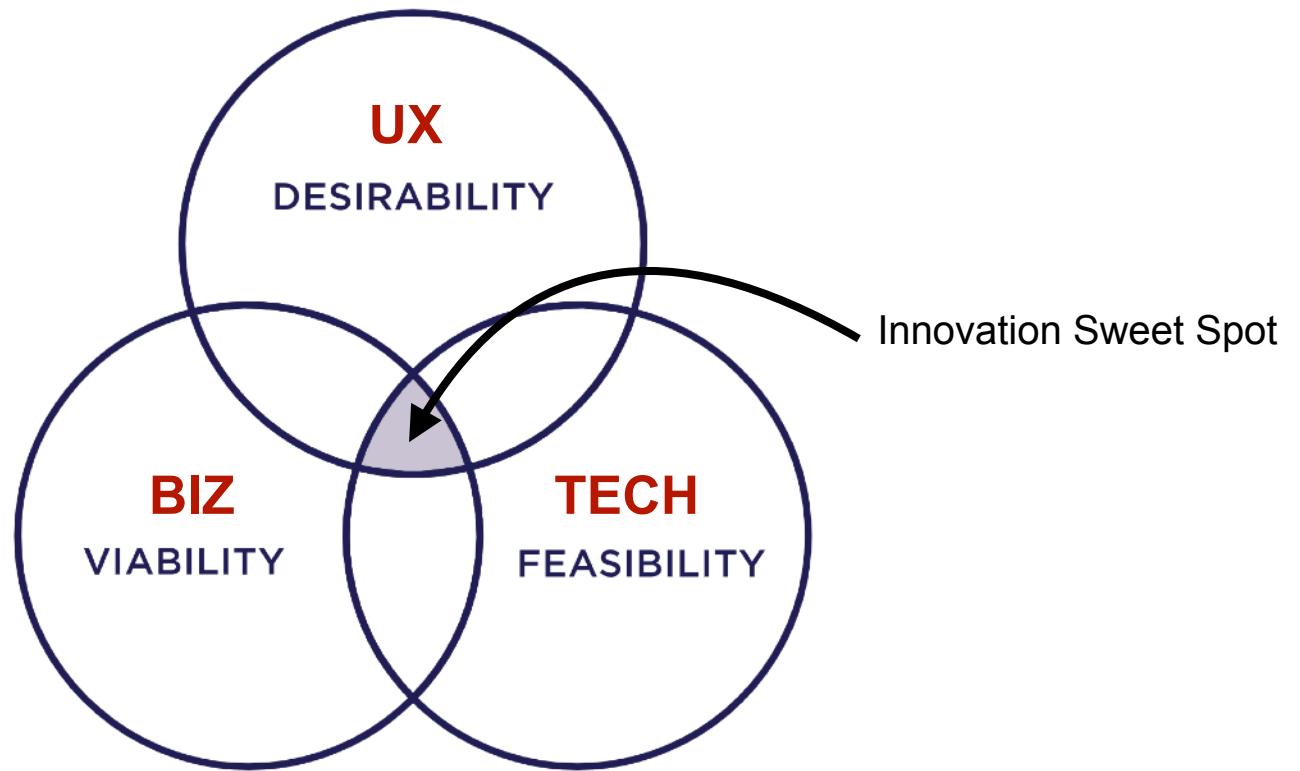
“Throughout the course, special emphasis will be given to new media project management in the context of lean startup, business model design and agile software development. As a sequel to com5961, the course will focus on the deployment of technology stack and back- end web services for supporting a cloud-based data driven product or business.“

COM5940 Course Description

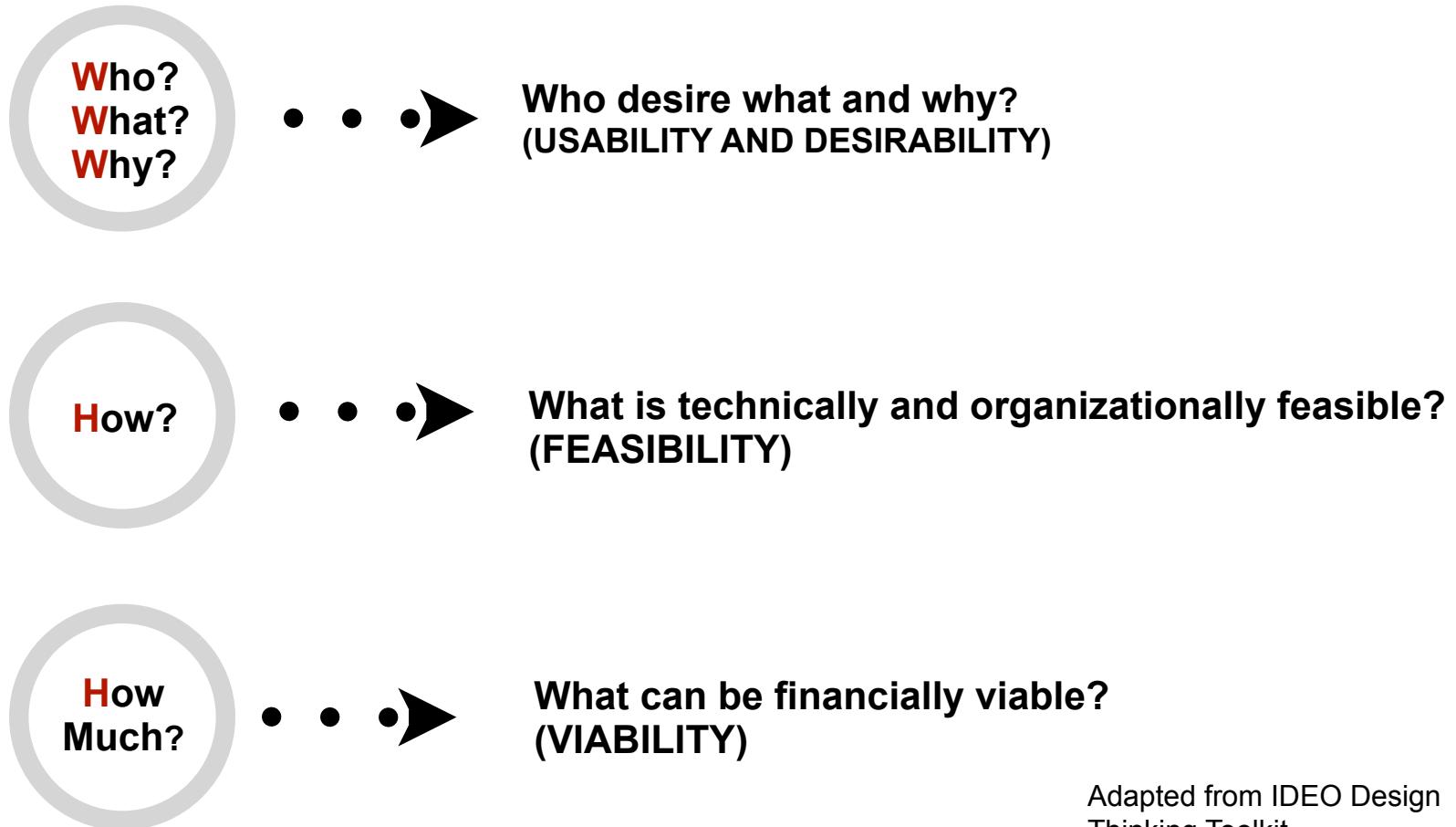
“Given the paradigm shift in computing, immersive technology and machine learning have become core components in any data driven web service architecture. Building REST API services enabled with immersive technology and machine learning models will become common. The data driven product development process introduced in com5961 will be used as a framework to guide data acquisition, exploration and modelling for supporting new business models and innovation.“

Assessment Scheme	Description	Weight
A) Two project progress reports submitted by each group (minimum 5 pages + appendix)	Students will participate in user research and agile software development with project progress documented in SCRUM format.	20%
B) Final Group project: presentation and report	<p>Students organized into teams will present their final project in the form of a pitch deck (10 slides only) complemented with a MVP + final project report (with Market Requirement Document, Business Requirement Document, Product Requirement Document, and Product Road Map) based on a real business problem.</p> <p>Application of qualitative (usability study) and quantitative (A/B test and web analytic) methods to track and analyse user adoption and conversion, using the results as the basis for UX/ Business Model validation and impact assessment.</p>	40%
C) Group Project Management	Maintenance of project site with online documentation of project process, tasks, key milestones and deliverables.	10%
D) Group member assessment	Group participation points as assessed by other team members.	10%
E) 5 coding problem sets	Individual coding problem sets.	20%

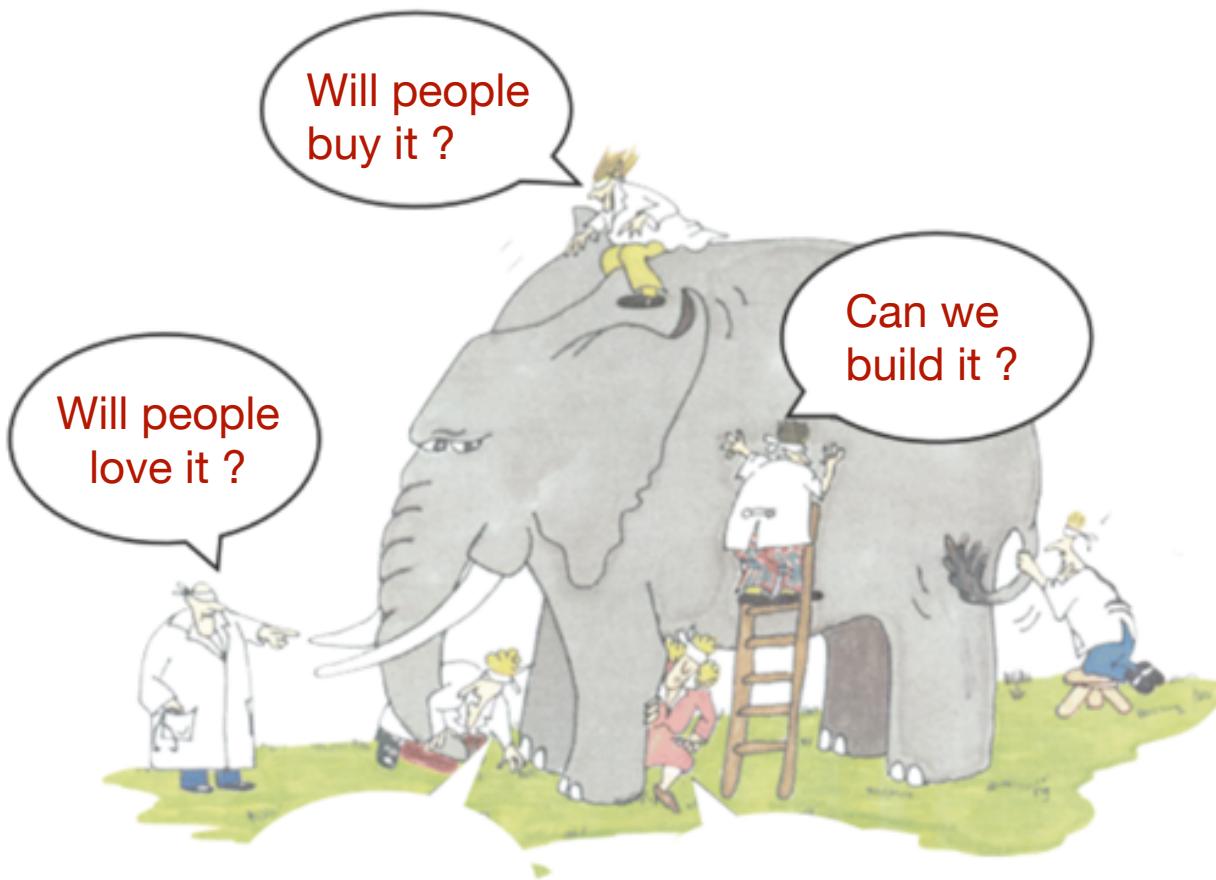
3 Pillars of Innovation

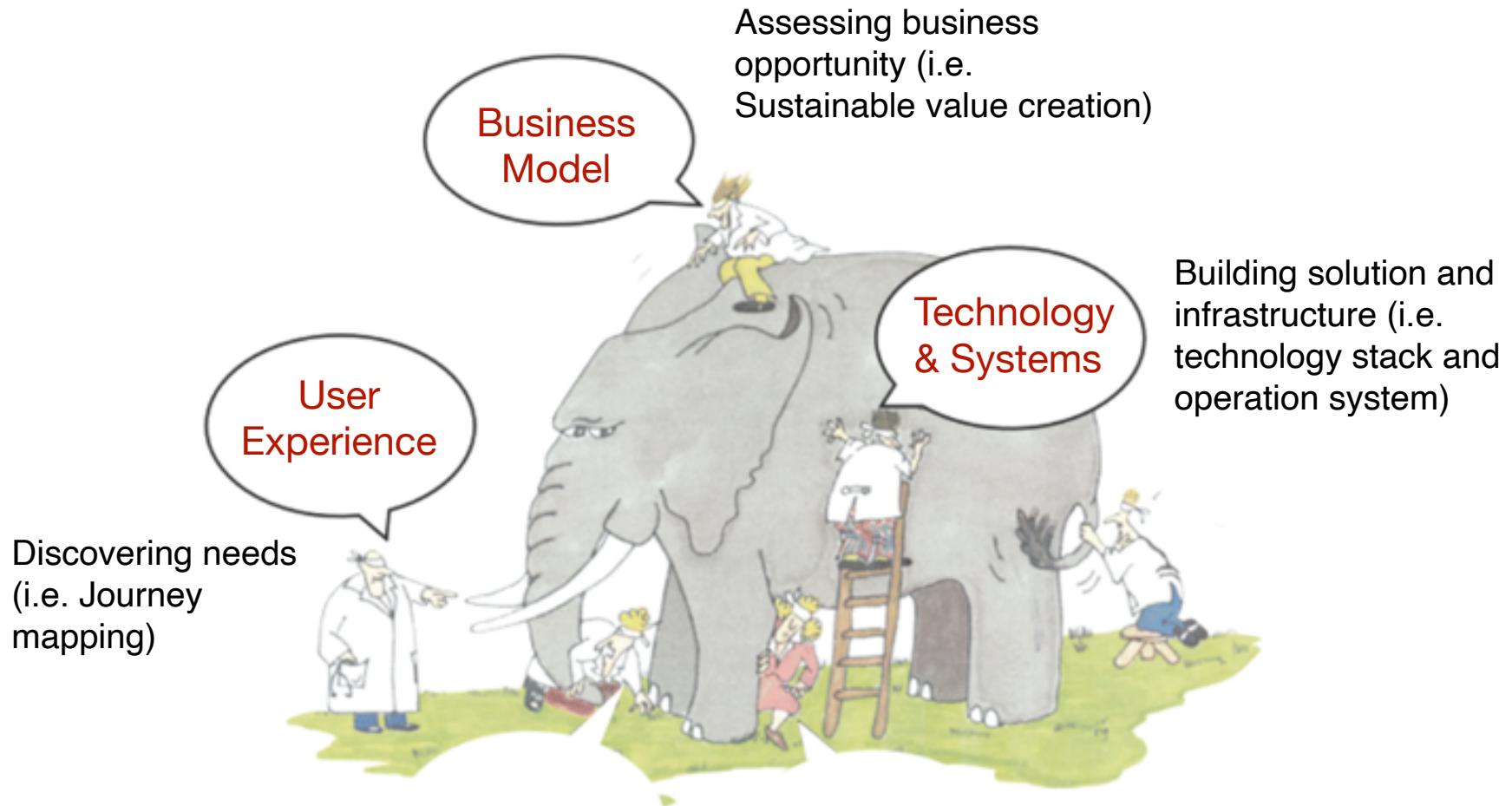


Source: IDEO and Stanford D-School



Adapted from IDEO Design Thinking Toolkit

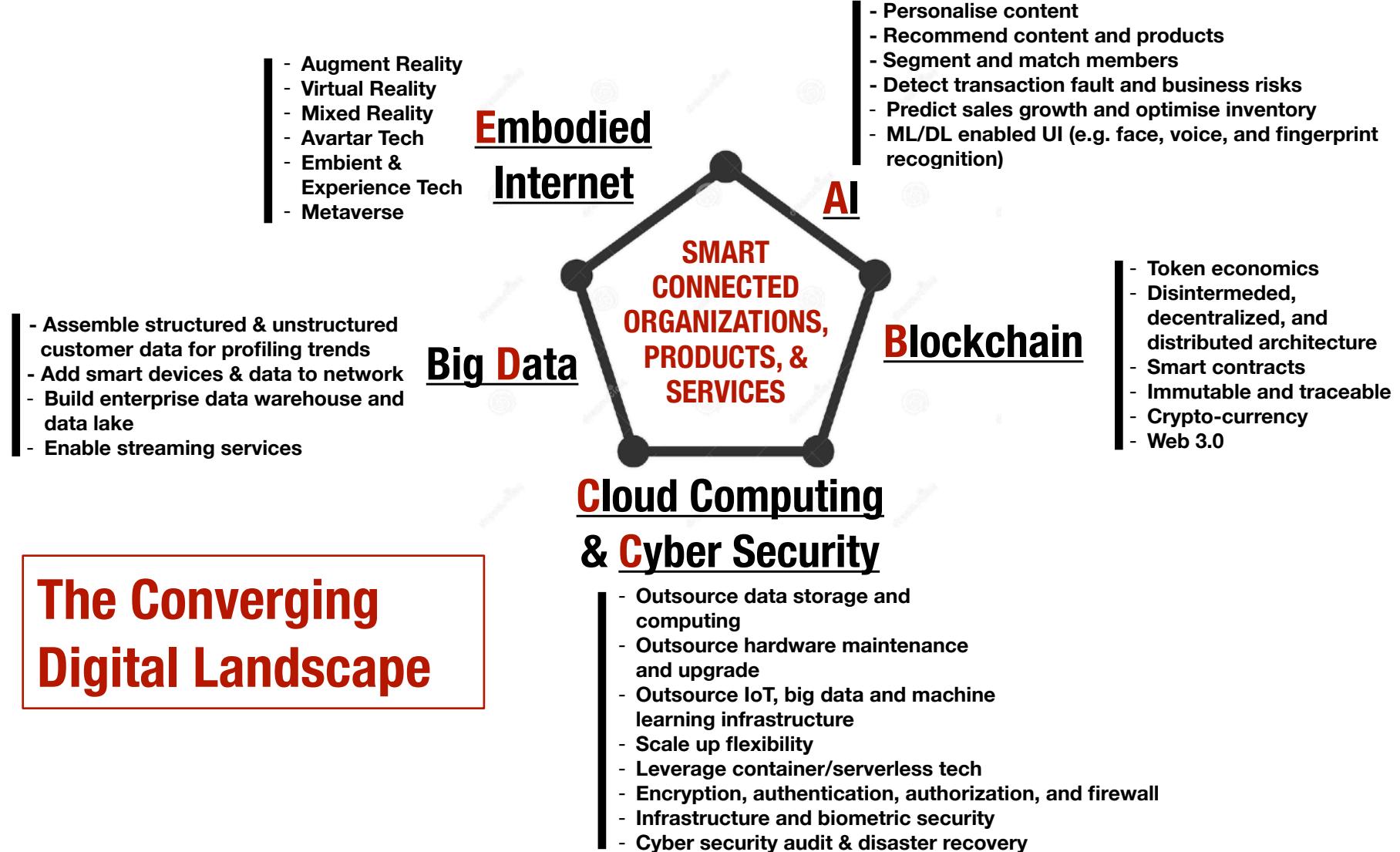




The Converging Digital Landscape

- Assemble structured & unstructured customer data for profiling trends
- Add smart devices & data to network
- Build enterprise data warehouse and data lake
- Enable streaming services

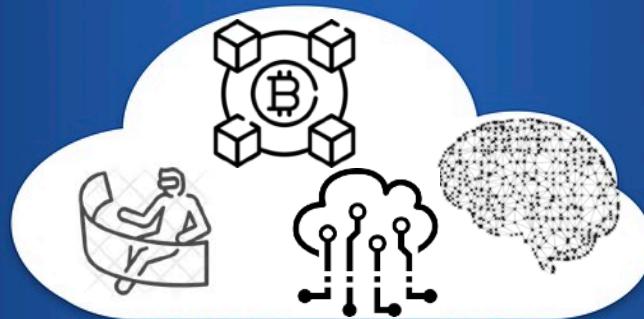
- Augment Reality
- Virtual Reality
- Mixed Reality
- Avatar Tech
- Embient & Experience Tech
- Metaverse



- Outsource data storage and computing
- Outsource hardware maintenance and upgrade
- Outsource IoT, big data and machine learning infrastructure
- Scale up flexibility
- Leverage container/serverless tech
- Encryption, authentication, authorization, and firewall
- Infrastructure and biometric security
- Cyber security audit & disaster recovery

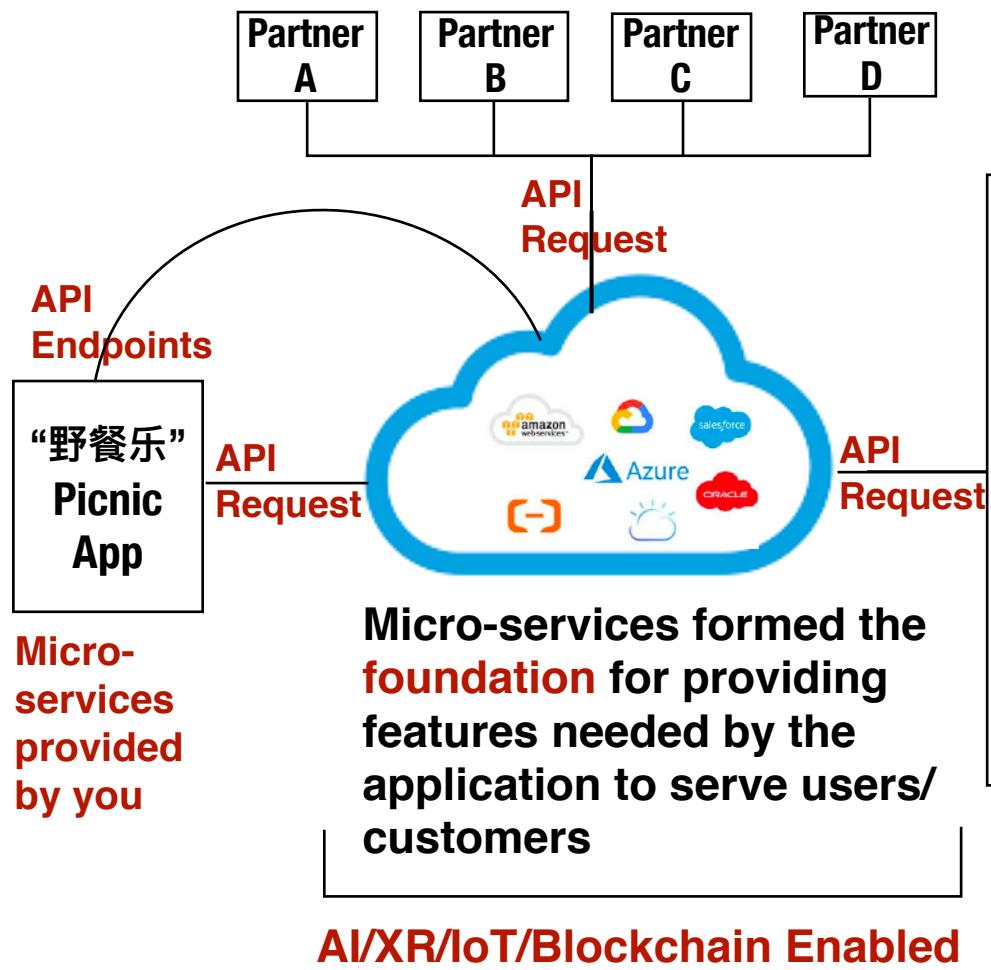
- Personalise content
- Recommend content and products
- Segment and match members
- Detect transaction fault and business risks
- Predict sales growth and optimise inventory
- ML/DL enabled UI (e.g. face, voice, and fingerprint recognition)

- Token economics
- Disintermediated, decentralized, and distributed architecture
- Smart contracts
- Immutable and traceable
- Crypto-currency
- Web 3.0

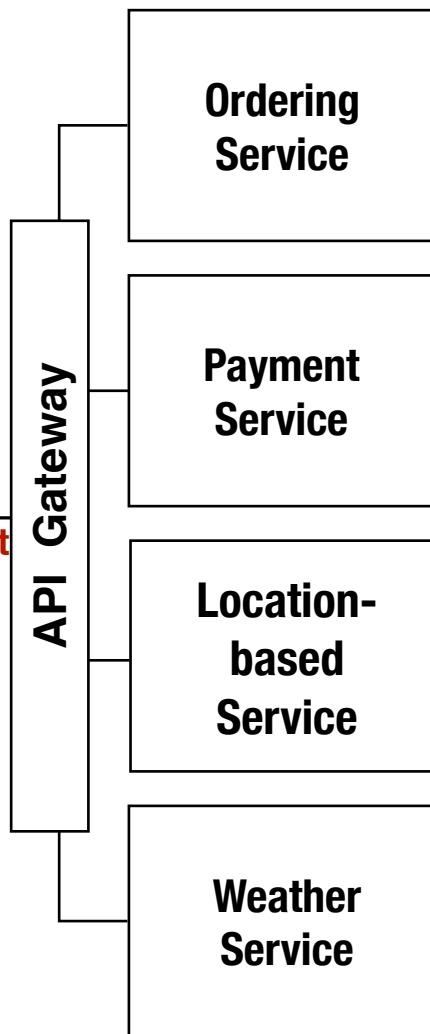


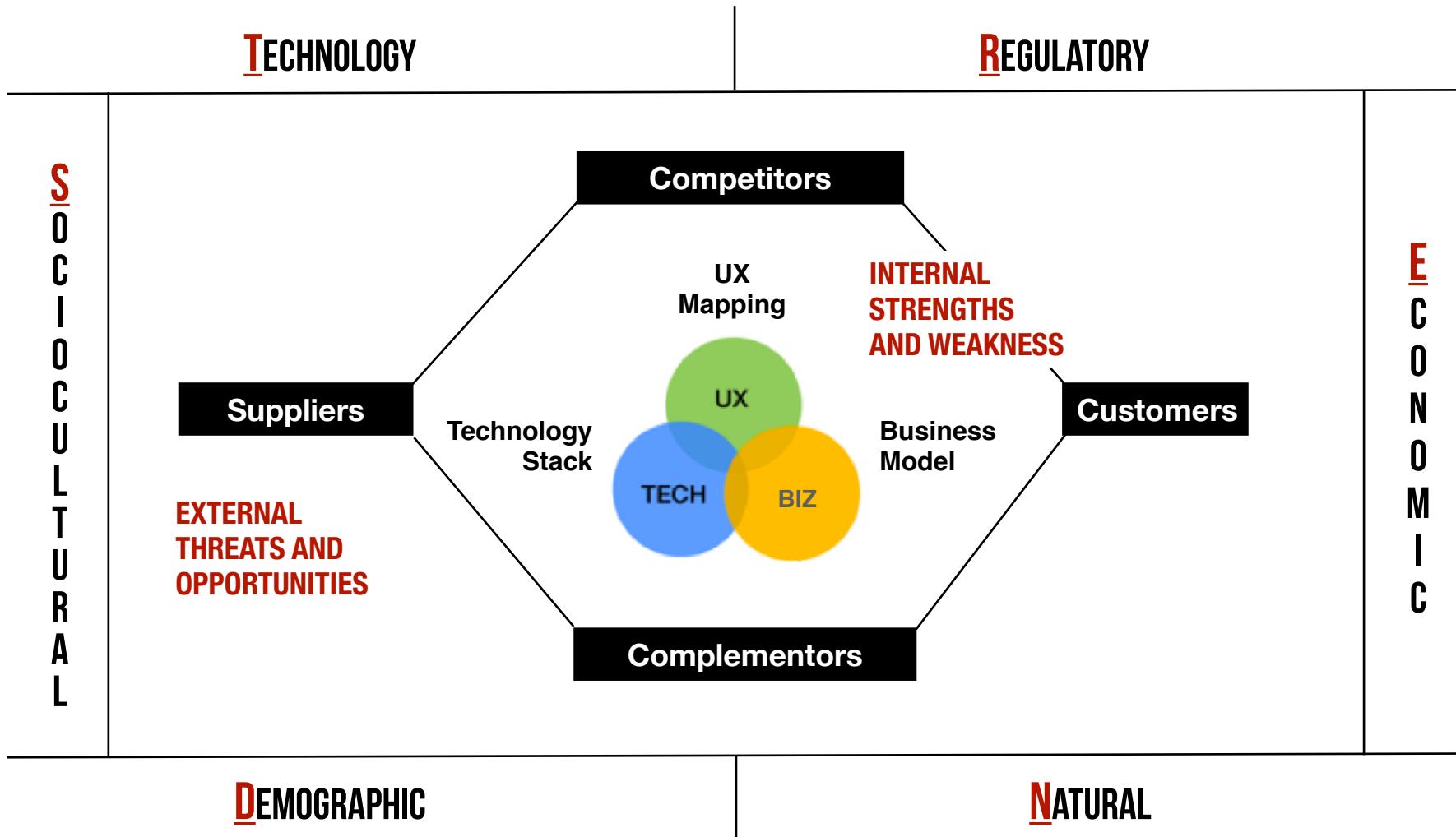
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Business partners requesting your services through API requests.



Micro-services





Adapted From Co-opetition, Adam Brandenburger & Barry Nalebuff

Com5940
One Day Pre-Class Workshop on JavaScript ES6 (Jan 7th, 2023)
Module 1 - Introduction to REST API, User Authentication and Authorization Tokens (Jan 9th, 2023)
Module 2 - Application Development Using No-code/Low-code Tools (Jan 16th, 2023)
Module 3 - Integrate Mobile Front-end with REST API Back-end Micro-Services (Jan 30th, 2023)
Module 4 - Business Model Design and Testing Using the Lean Methods (Feb 6th, 2023)
Module 5 - Go-to Market Strategy and Growth Hacking (Feb 13th, 2023)
Module 6 - From SQL to NoSQL and Big Data (Feb 20th, 2023)
Module 7 - Docker Container Deployment in the Cloud (Feb 27th, 2023)
Module 8 - Blockchain and Decentralised Applications (Mar 6th, 2023)
Module 9 - Innovative Applications of Machine Learning I (Mar 13th, 2023)
Module 10 - Innovative Applications of Machine Learning II (Mar 20th, 2023)
Module 11 - Innovative Applications of Immersive Technology I (Mar 27th, 2023)
Module 12 - Innovative Applications of Immersive Technology II (Apr 3rd, 2023)
Module 13 Final Presentation (Apr 17th, 2023)

Top 10 Software Development Trends For 2023



Source: <https://www.aloitte.com/blog/software-development-trends/>

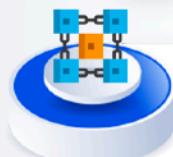
TOP 10 SOFTWARE DEVELOPMENT TRENDS IN 2023



Artificial
Intelligence



Cybersecurity



Blockchain
Adoption



ISO/IEC 9126 Software
Quality Standard



Low-code
Development



Progressive Web
Applications



Software
Outsourcing



Distributed
Cloud Services



The Internet
of Things (IoT)



Mixed Reality

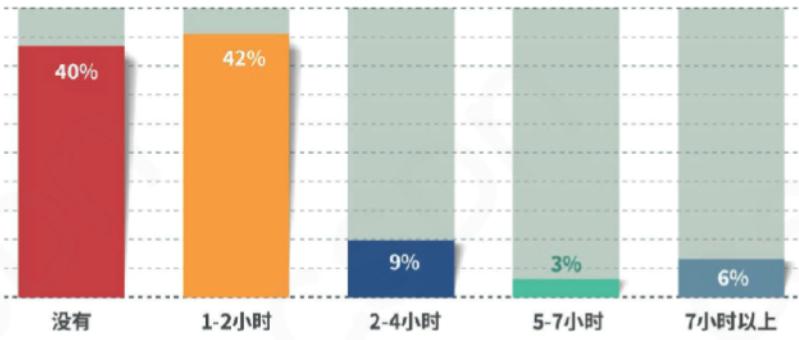


2021-2022 中国开发者调查报告

Survey Report on Developers in China

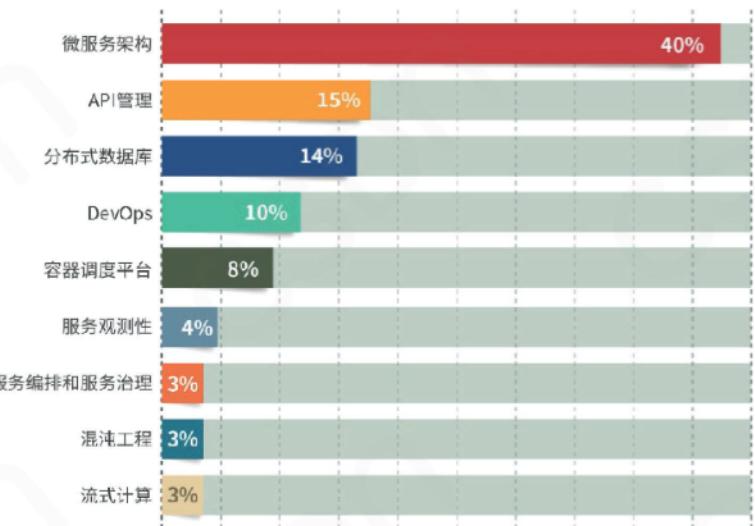
<https://csdn.gitcode.host/Survey-Report-on-Developers-in-China/survey/2021/>

虽然有相当一部分开发者在工作中并没有使用到云原生相关技术，但有42%的开发者表示，每天会花1-2小时学习相关知识。



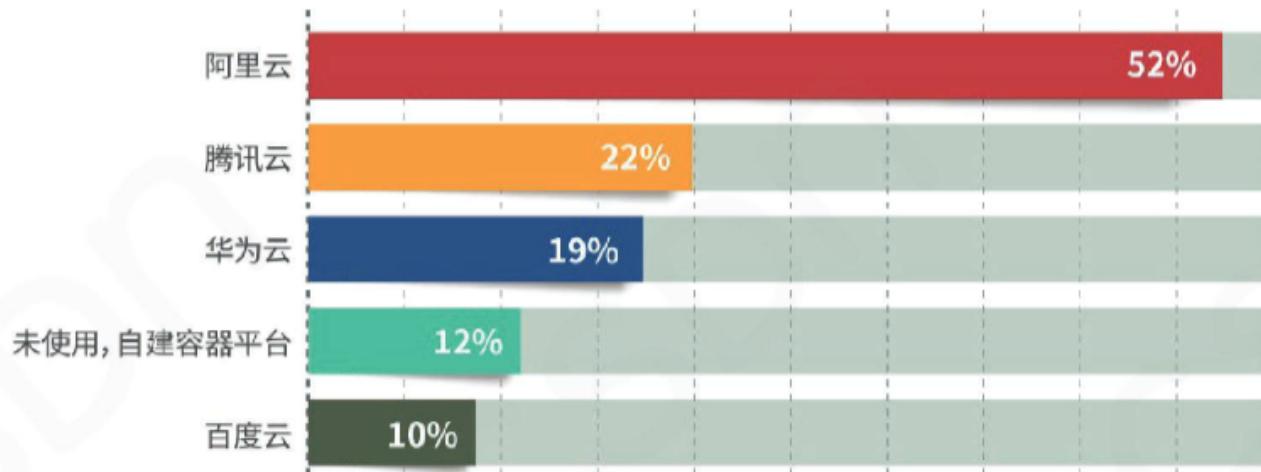
图表47 开发者对云原生学习、实践的每日时长

云原生涉及领域众多，其中以微服务架构为最，40%的开发者专注于微服务架构领域。



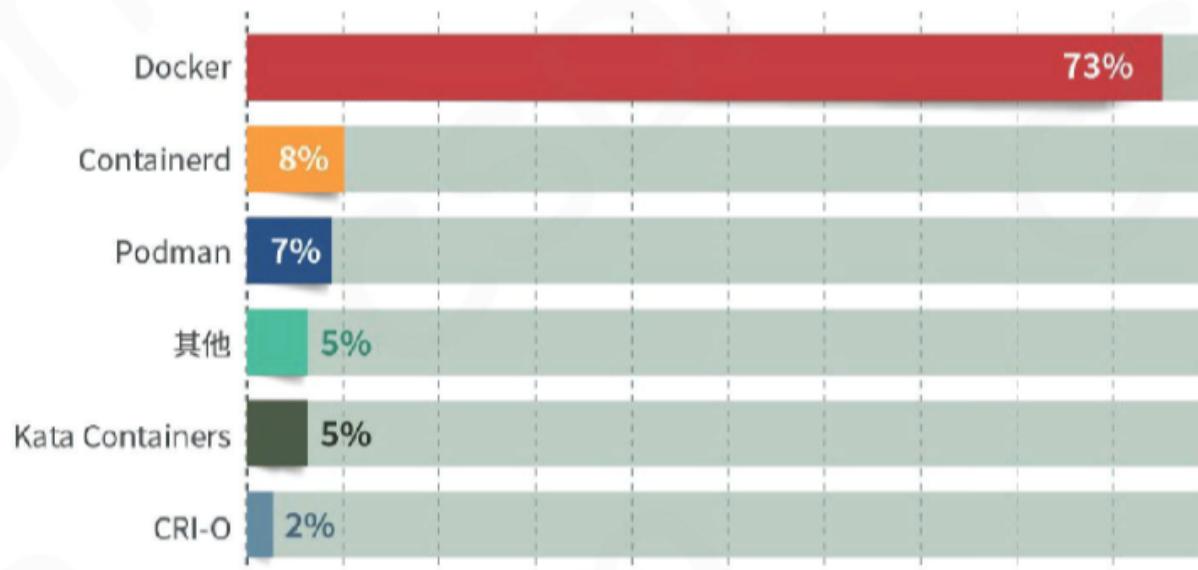
图表48 开发者涉足云原生领域排行

在国内主流容器云平台的使用上，阿里云占领先地位，有52%的开发者在使用阿里云。也有12%的开发者表示，他们自建容器云平台。



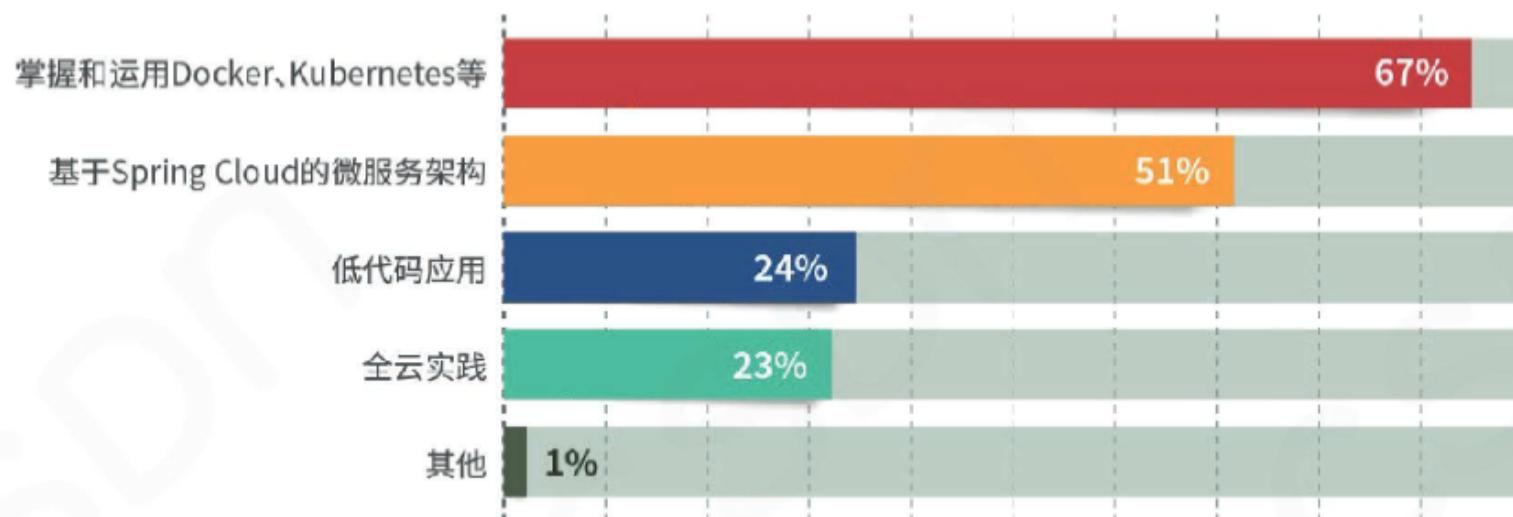
图表58 容器云平台使用情况Top 5 (调查项为多选)

Docker是当今最知名的容器平台之一，它于2013年发布，尽管Kubernetes曾放弃对Docker的支持，但数据显示，73%的开发者使用的容器运行时环境是基于Docker构建的。



图表59 容器运行时环境

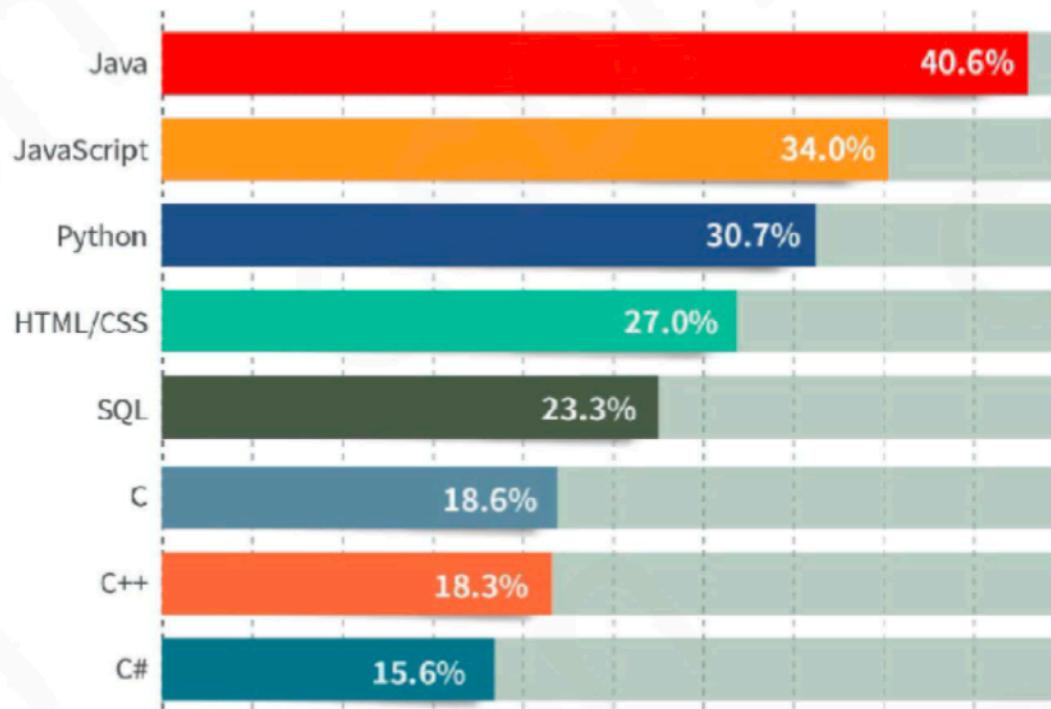
在云原生时代，容器化技术和微服务化技术是开发者最为关注的，67%的开发者认为，掌握和运用 Docker、Kubernetes 等技术最为重要。当然，51%的开发者同样认为微服务架构也非常重要。



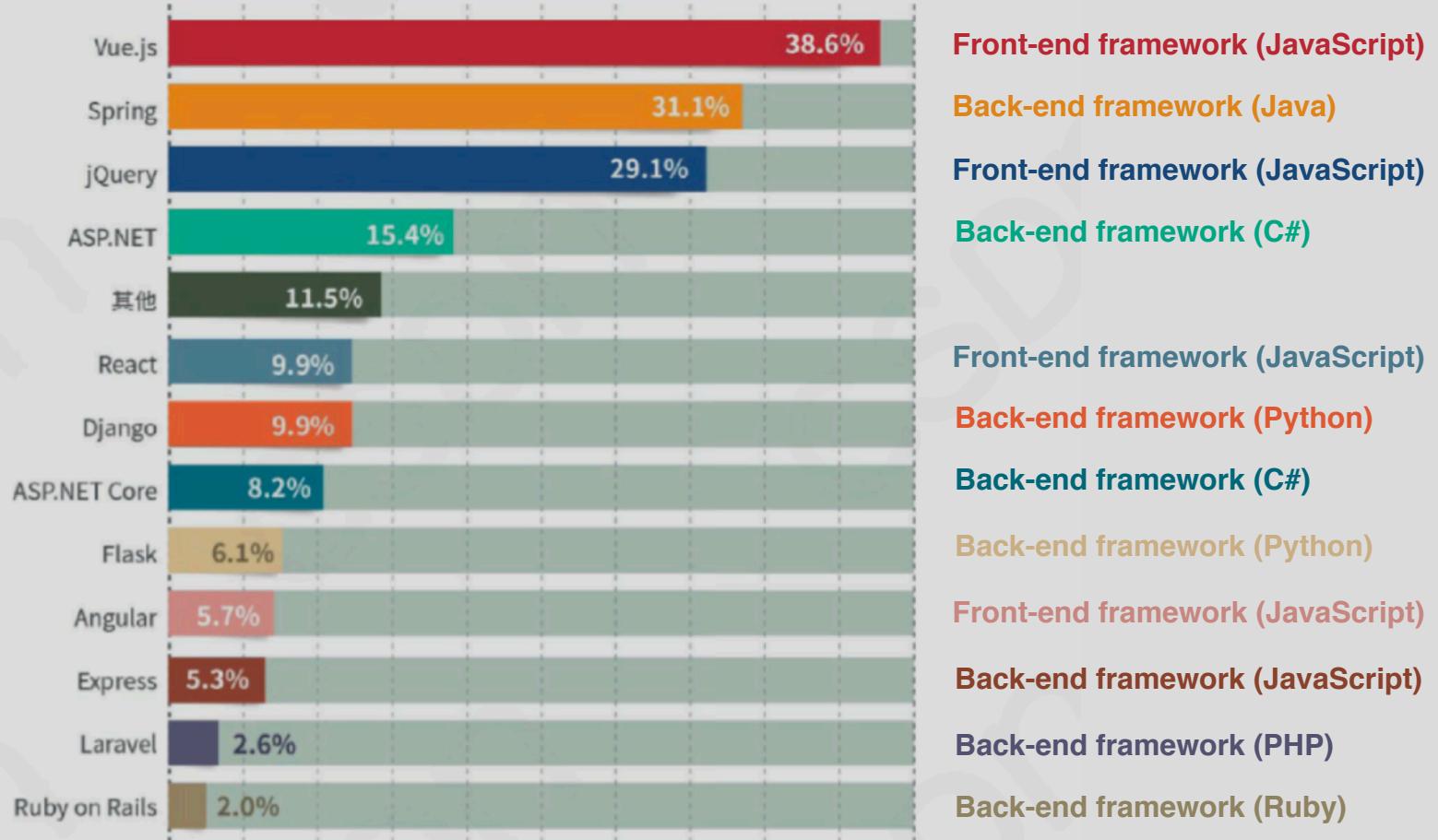
图表63 云原生时代中必不可少的技能 (调查项为多选)

3.5 软件开发工具使用特点

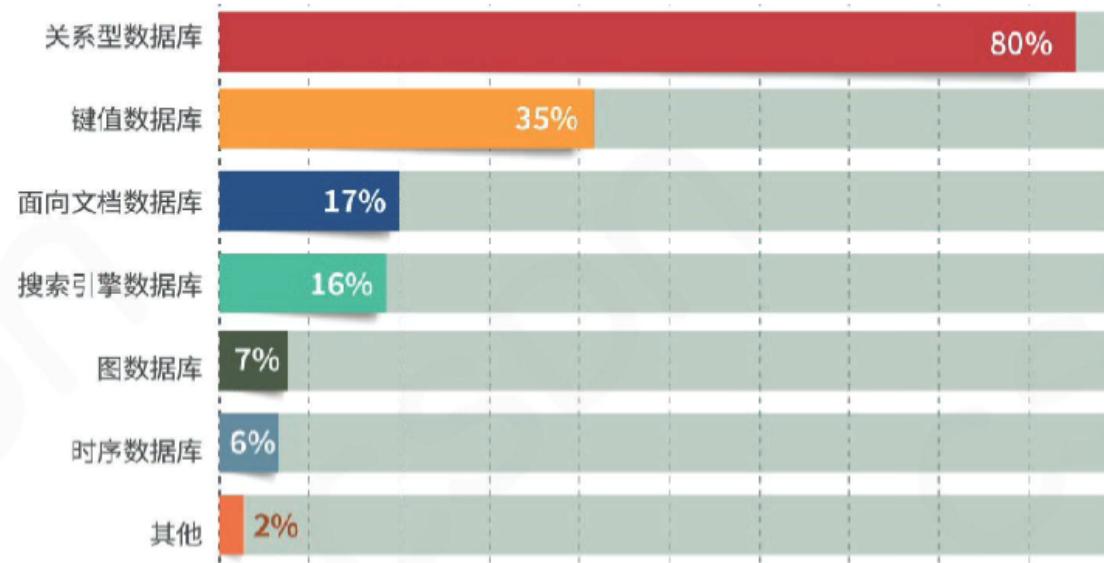
在编程语言方面，使用Java的开发者数量正逐年降低，与去年50%的用户量相比，今年Java开发者人数下降至40%。正如TIOBE编程语言排行中，Java的流行度逐年下降。随着人工智能的发展，Python的优势逐渐凸显，其使用量也在迅速提升，工作中常用Python的开发者占比30.7%。



随着Vue 3.0的普及，使用Vue.js进行Web开发的方式越来越受欢迎，从去年不到30%的占比，到今年的38.6%，有较大幅度的提升。Spring的使用者也越来越多，占比超过三成。



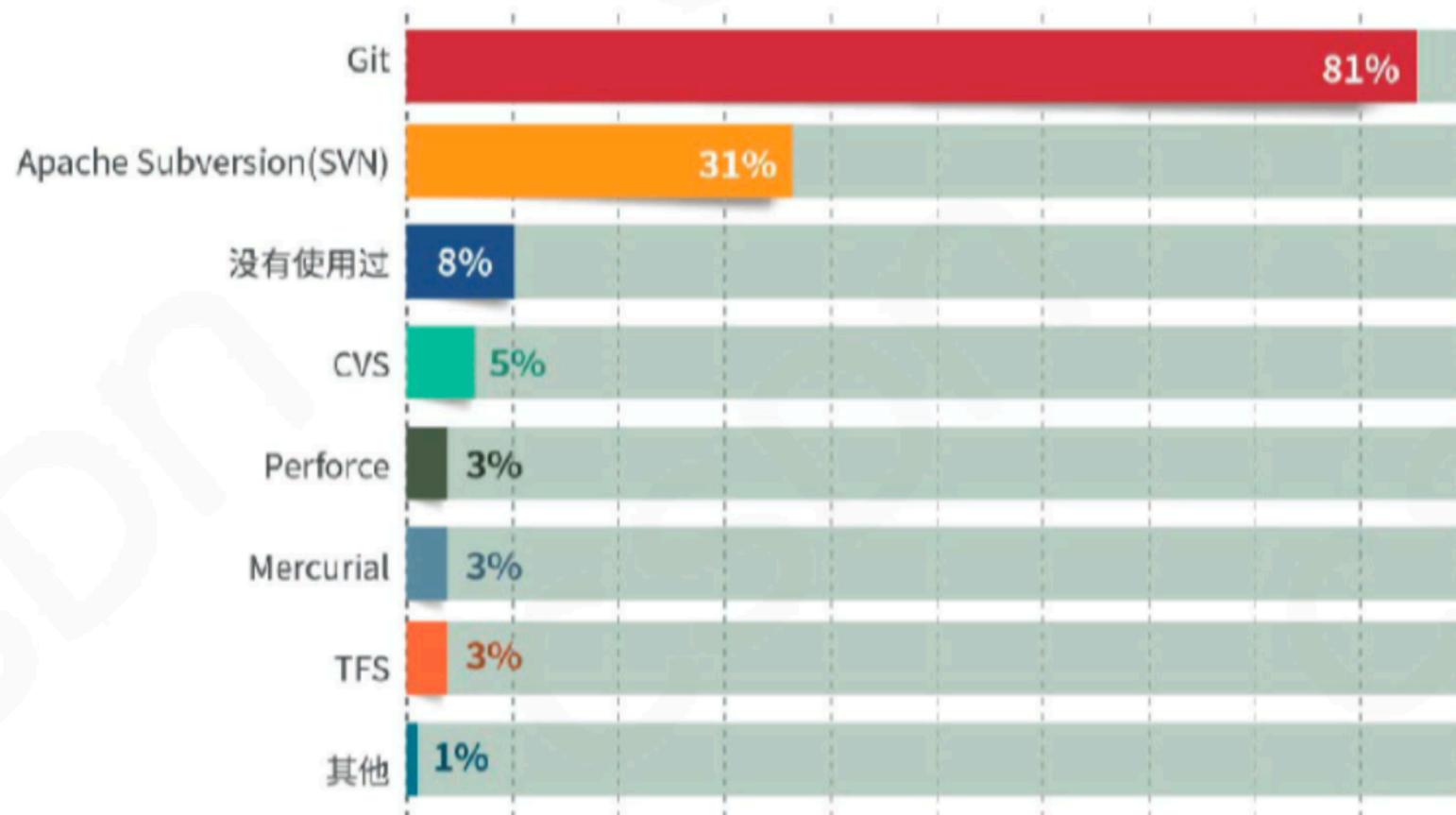
80%的开发者表示关系型数据库是最常用的数据类型。



图表69 常用的数据库类型 (调查项为多选)

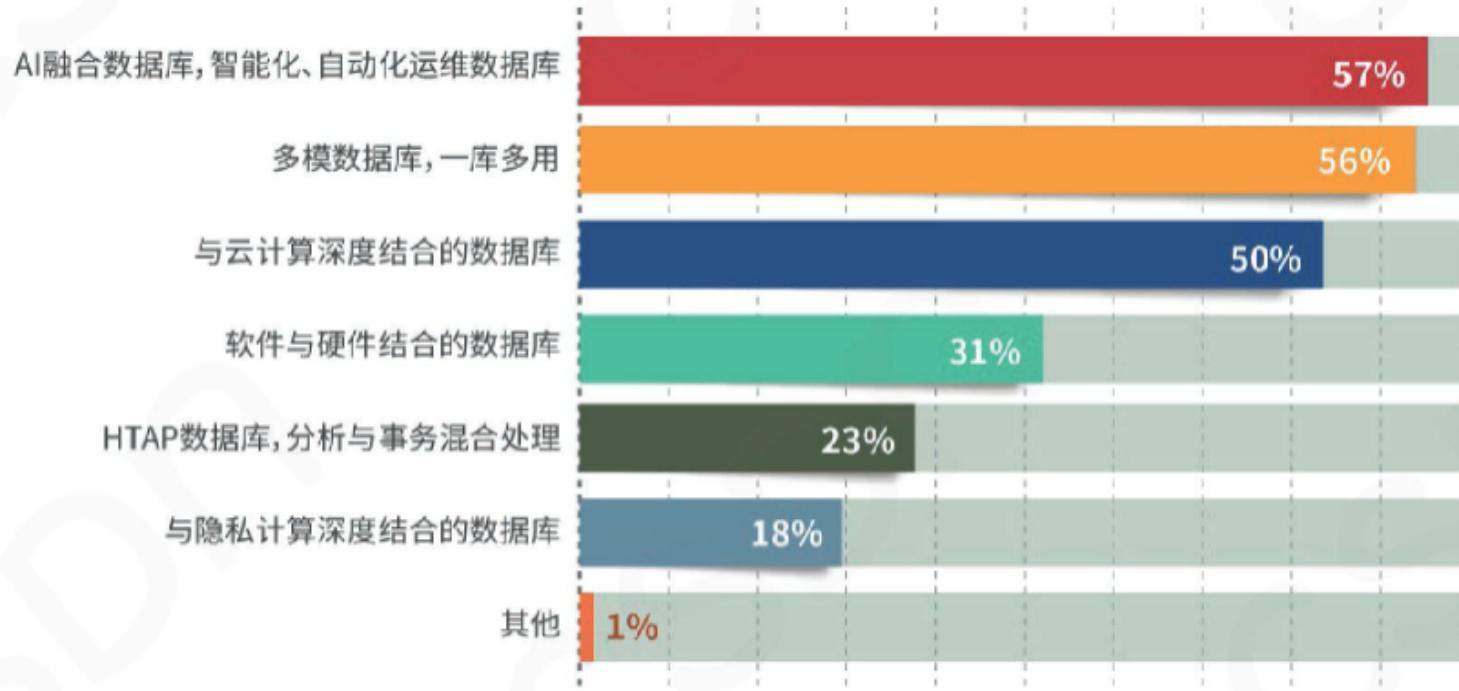
MySQL是开发者使用的主流数据库，有超过7成的开发者在使用MySQL数据库。

81%的开发者使用Git进行版本管理，31%的开发者依然在使用SVN进行版本管理。



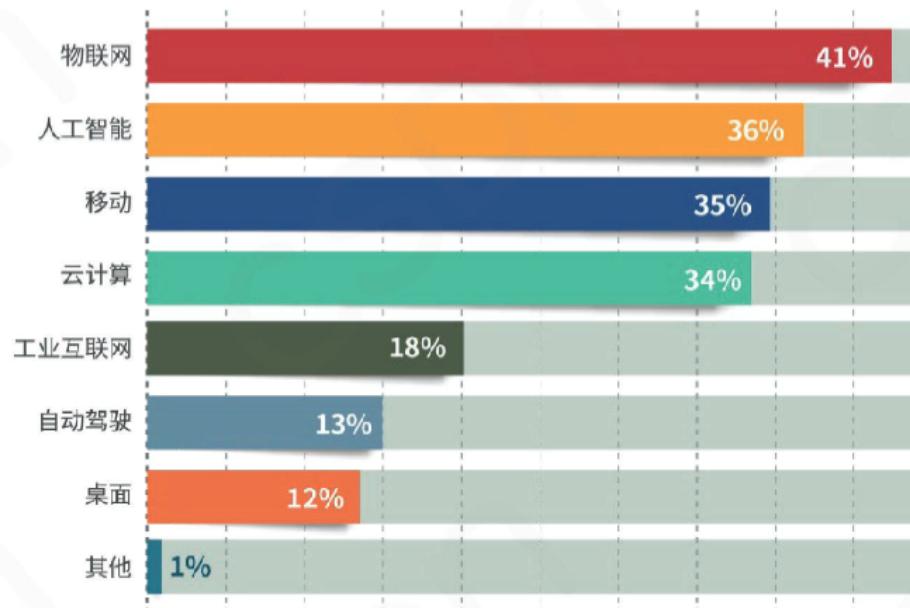
图表119 开发者常用版本工具（调查项为多选）

数据库智能化、一库多用、与云计算结合是开发者最看好的数据库发展方向。



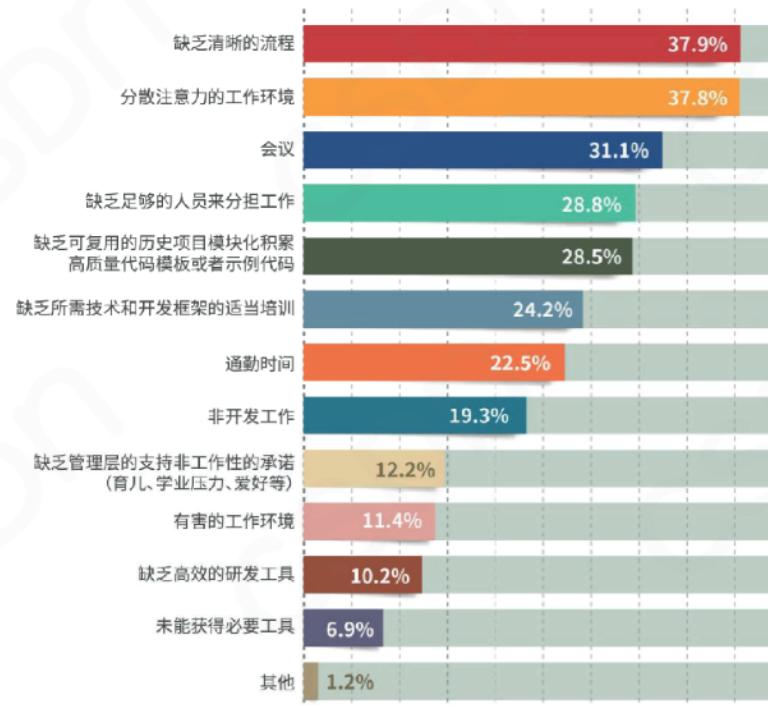
图表81 数据库发展方向 (调查项为多选)

在操作系统的发展方向上，41%的开发者看好物联网操作系统，这或许也是国产操作系统突围的一个方向。



图表95 操作系统能获得成功的领域（调查项为多选）

影响工作效率的原因中，缺乏清晰的流程排第一。37.9%的开发者认为，缺乏清晰的流程会严重影响工作效率，其次是身处一个分散注意力的工作环境。



图表23 影响工作效率排行（调查项为多选）

Becoming a Full Stack Product Person

“全栈”才是产品经理未来的出路吗？



陆佳园

2022-02-28 · 某教育科技公司产品leader

好友

如果要成为一个优秀的产品经理，需要懂的东西很多，要懂技术，懂运营，懂策略，懂增长，懂市场，懂销售，懂财务等等。难道全栈产品经理才是未来的不二选择吗？

或者，我们将视角放高一些，你想要在职场上成为什么样的人，你就需要去掌握相关的能力，其实无关乎你是产品经理，是运营，还是开发工程师。

其实，产品经理越往高阶走，硬实力作为基础的前提下，软实力相关的能力要求会越高，这里给出3个和软实力相关的能力，如果你掌握了，进阶之路将会顺利很多。

一、理解其他人说的话

很多人问，产品经理要不要懂技术，到底需要懂到什么程度。其实在我看来，产品经理要懂到能理解技术同事说的话、想的事情，甚至能理解他们的思考方式。

产品经理要懂技术绝对不是要帮技术同事干活，而是能有技术思维，在做产品设计的时候，可以从技术实现的角度思考，可以想到会有什么技术难点、对性能有什么要求，也可以做一些基础的竞争对手分析，给出一些竞争对手的技术特征报告，这样才能算合格的产品经理。

同样，产品经理要理解运营同事说的话，不是要做运营，而是要明白未来运营推广要怎么做、在哪里做数据埋点更能帮助运营同事做好数据分析、做什么样的产品功能能够帮助运营同事做好推广的体验等。

只有懂财务、市场、营销、法务、风控等同事的工作，才能理解他们提出的问题，才能知道不同职位的关注重点不一样，才能知道如何与他们配合让产品设计更高效。

二、满足其他公司的要求

<https://maimai.cn/article/detail?fid=1713134814&efid=wRPyPz1P41Cfs0wMOqeJhA>

热门人脉圈

好未来

未来一手

图森未来

fiture拟合未来

艾贝未来

热门公司

 好未来
163 职位 0 员工在脉脉

 未来一手
6 职位 0 员工在脉脉

 图森未来
34 职位 0 员工在脉脉

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 艾贝未来
0 员工在脉脉

GENERAL ASSEMBLY BLOG



7 ESSENTIAL SKILLS FOR THE FULL STACK PRODUCT PERSON

By Alex Cowan

Meet Alex Cowan, entrepreneur (5x), intrapreneur (1x), author, and instructor at General Assembly. He's also the author of 'Starting a Tech Business'. When he's not teaching at GA, he's often found advising companies and posting instructional materials for innovators and instructions on alexandercowan.com.

I'm always pushing myself to be the best possible product person I can be, and these days I tend to earn a lot through my work as an instructor. My classes are on the interdisciplinary topics of product design and venture creation, so I get to work with business people wanting to understand the technical side and engineers wanting to learn the business side.

Often times, students from the business side are thinking of learning to code and students from the engineering side are thinking of going to get an MBA. While both might be advisable in certain situations, I've found that there are a few simple foundation skills that drive the interdisciplinary cooperation at the heart of so many successful projects:



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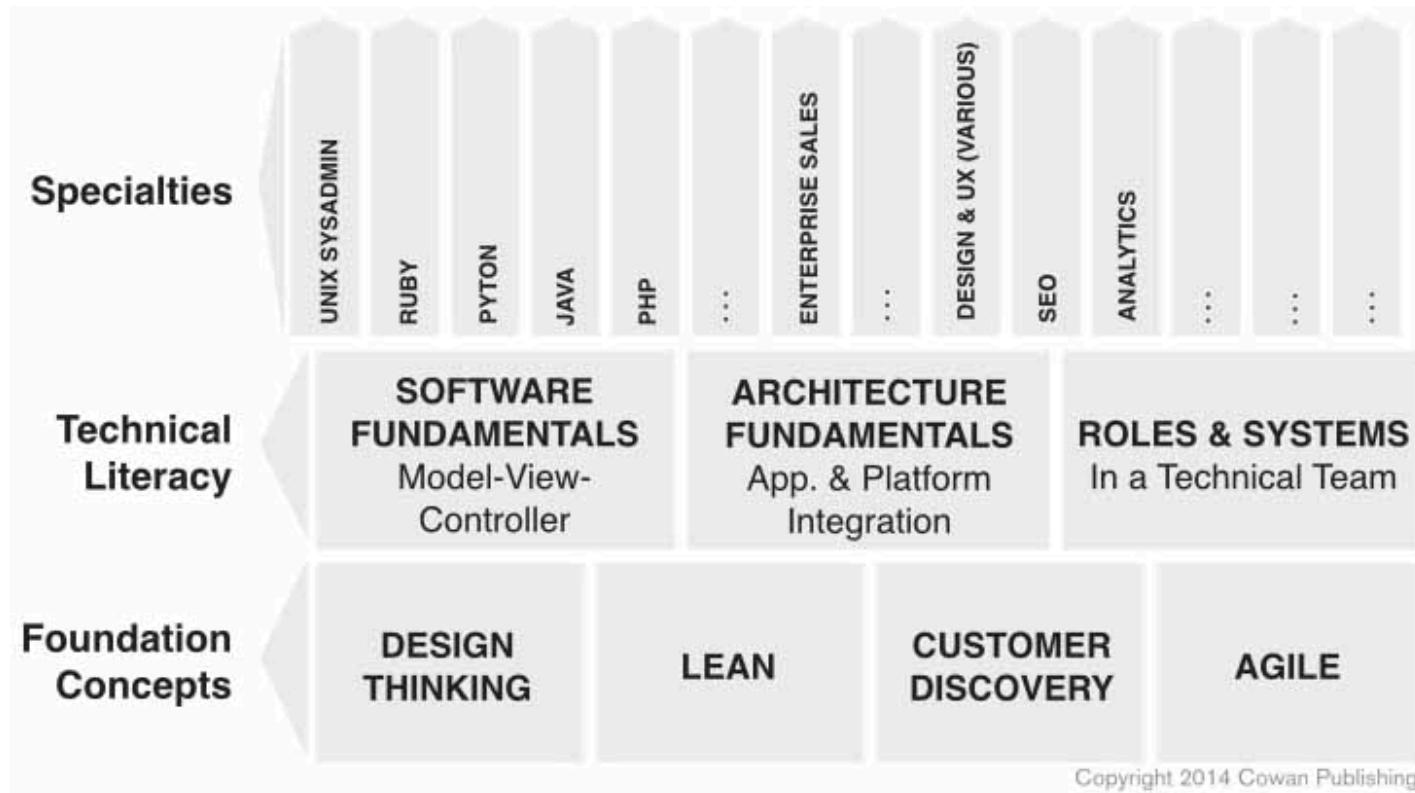
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<https://generalassembly.ly/blog/7-essential-skills-full-stack-product-person/>

SEVEN ESSENTIAL SKILLS



Source: [7 ESSENTIAL SKILLS FOR THE FULL STACK PRODUCT PERSON \(General Assembly\)](#)



产品经理必懂的技术那点事儿：成为全栈产品经理



作者: 唐勒
 出版社: 电子工业出版社
 出品方: 博文视点
 出版年: 2018-1
 页数: 268
 定价: 59
 装帧: 平装
 ISBN: 9787121330780



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内容简介 ······

《产品经理必懂的技术那点事儿：成为全栈产品经理》以非技术背景产品经理学习技术为主题，将技术知识以简单并且易于理解的方式讲述出来，帮助非技术背景产品经理了解技术、学习技术，旨在帮助产品经理高效地与技术人员进行沟通与合作，避免不懂技术带来的困扰。

《产品经理必懂的技术那点事儿：成为全栈产品经理》主要内容围绕产品经理需要了解的互联网基础技术知识展开，涉及客户端、服务器端、数据库及一些数据处理知识。同时，就产品经理需具备的一些软实力，例如沟通能力和解决问题的能力进行了详细介绍。另外，对产品经理必懂的运营“技术”做了详细阐述。

《产品经理必懂的技术那点事儿：成为全栈产品经理》适合非技术背景的产品经理、设计师、运营、市场等互联网岗位的读者阅读，也适合想了解产品经理工作及准备从其他职能转型为产品经理的读者阅读。

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产品经理 (菲常雨)

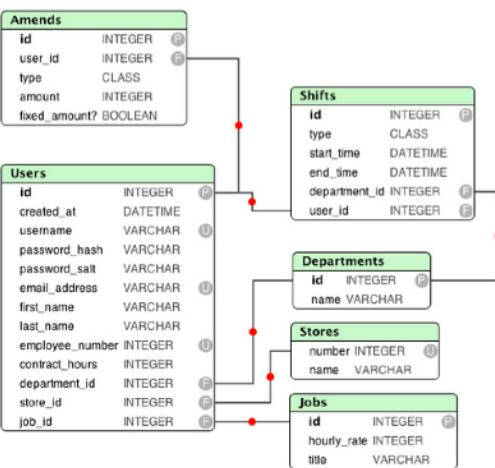


豆瓣时间年度报告：回顾这一年，你的「时间」去哪里

<https://book.douban.com/subject/27666334/>

Front-end vs. Back-end

The **MVC** Pattern for Structuring Application Development



Source: commons.wikimedia.org



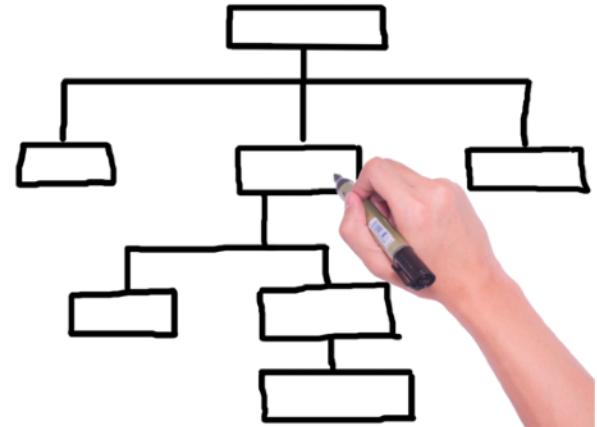
Source: [Caius Durling \(Flickr\)](https://flic.kr)

V(iew) (Flask templates)

Source: pexels.com

M(o del)
(SQL/NoSQL data models and processing functions)

C(ontroller)
(e.g. Routes, rights and authentication)



←→
Routing control to pre-defined data and functions

FRONT-END PROCESSING

HTML/CSS/JS



React/Angular/Vue
PWA, Native iOS and
Android Mobile App

DATA FLOW

<HTML>/ { JSON }

WEB APP FRAMEWORKS For Front-end & Back-end

BACK-END PROCESSING

PYTHON/PHP,
NODE.JS/C# etc



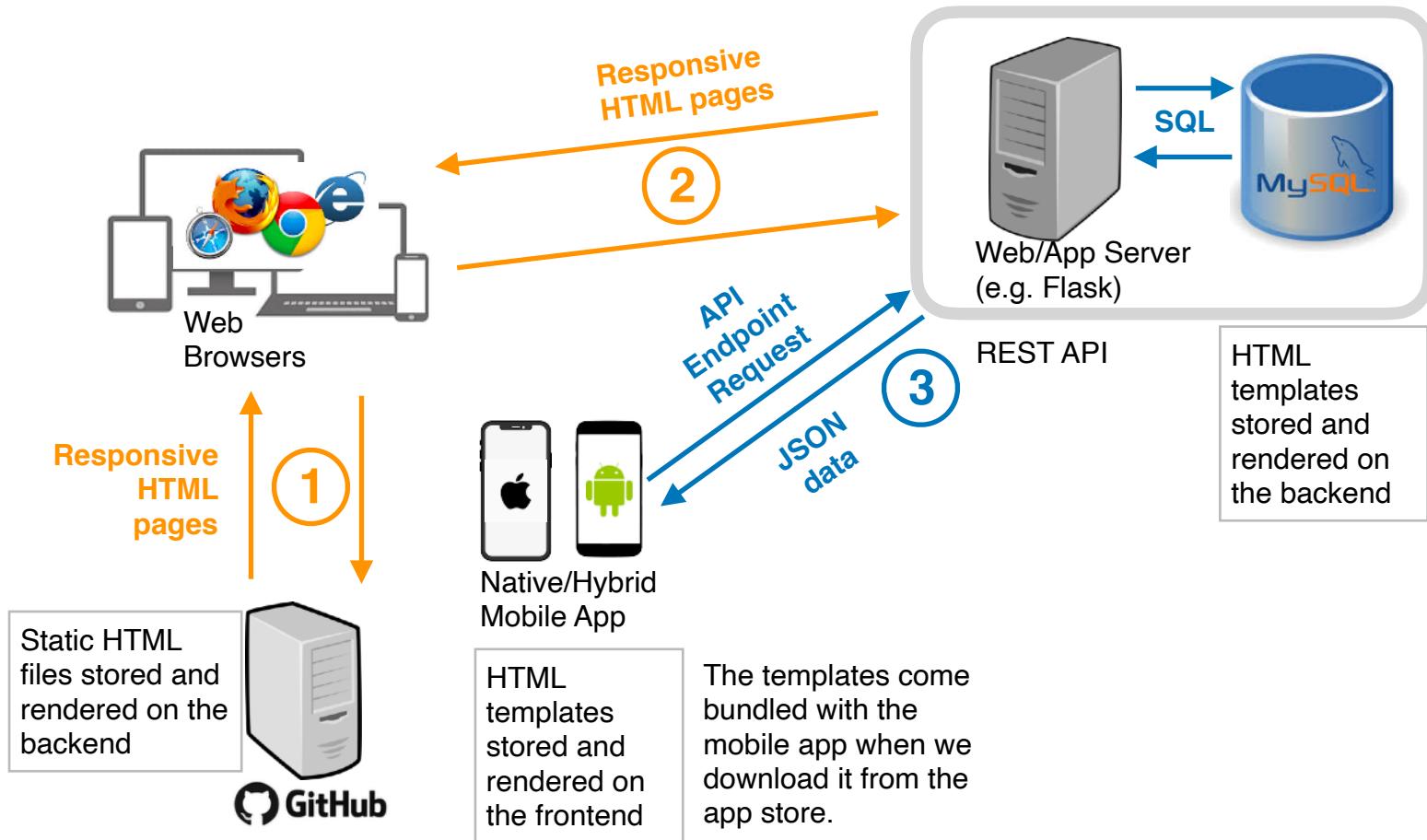
FLASK/Django
Laravel
EXPRESS.JS/.NET

The Rise of the Mobile Internet



Initial Challenges Faced by Mobile Developers

- 1. Limited battery life**
- 2. Slower processor**
- 3. Limited bandwidth**
- 4. Low memory and local storage capacity**
- 5. Immature cross-platform development**





Who rules the platform will rule the world.

What is a **platform**?

1. An eco-system for linking new users, customers, business partners, vendors, regulators, and complementars to create values.
2. Extend beyond traditional supply chain for **value exchange**, resulting in network effect.
3. The agreed upon protocol for value exchange enforces standards for data exchange through API.

GROWTH STRATEGY

The Strategic Value of APIs

by Bala Iyer and Mohan Subramaniam

JANUARY 07, 2015

McKinsey&Company
Digital McKinsey

How We Help Clients Our Insights Careers Our People Contact Us

Article
October 2017

Management's next frontier: Making the most of the ecosystem economy

By Jürgen Metzert and Anand Swaminathan

API經濟來了：從開放創新到Open API

by



《數位時代》整合行銷部

2014.11.04



McKinsey&Company
Digital McKinsey

How We Help Clients Our Insights Careers Our People Contact Us

Article
September 2017

What it really takes to capture the value of APIs

≡ Deloitte.
Insights

Article

API economy

From systems to business services

IBM Cloud 雲端平台 > 瞭解雲端

API 經濟

在您的營運模式中加入 API，
藉此催化創新並觸角伸向新對象

[觀賞影片 \(01:25\)](#)[閱讀 API 入門電子書](#)

IBM 雲端

參加評估



首页 功能与服务 解决方案 开发文档 合作咨询 控制台

登录

百度地图发布全球API试用版

拉开海外地图开发市场序幕 · 全球POI超过1.5亿 · 覆盖209个国家和地区



Android定位SDK v7.4 **NEW!**
优化离线定位内部策略



2018年春运出行仪表盘 **NEW!**
春运综合出行信息播报



iOS地图SDK v3.4.4
适配 iOS 11 定位



iOS定位SDK v1.1
适配 iOS 11 永久定位的设置



微信小程序

百度地图微信小程序JavaScript API 为小程序而生，帮助开发者在微信小程序中快速便捷的获取百度丰富的数据资源

[立即使用](#)

微信小程序JS API

产品简介

百度地图微信小程序JavaScript API 为小程序而生，帮助开发者在微信小程序中快速便捷的获取百度丰富的数据资源，提供诸如POI查询、模糊查询、地址转换和天气查询功能。该套API全面支持HTTPS请求，且免费对外开放。您需先申请密钥([ak](#))才可使用。在您使用百度地图微信小程序JavaScript API之前，请先阅读[百度地图API使用条款](#)。任何非营利性应用请直接使用，商业应用请参考[使用须知](#)。

功能矩阵

服务介绍

开发指南

类参考和DEMO>>

更新日志



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地址：北京市东城区崇文门女子百货地下一层
电话：010-67039668



百度
百度大厦
百度科技园
百度科技园2号楼
百度科技园-1号楼
百度大厦-C座
百度大厦-B座
百度科技园5号楼



地址：北京市东城区正义路2号
描述：北京市政府东南77米
商圈：天安门,前门,东单



天气查询

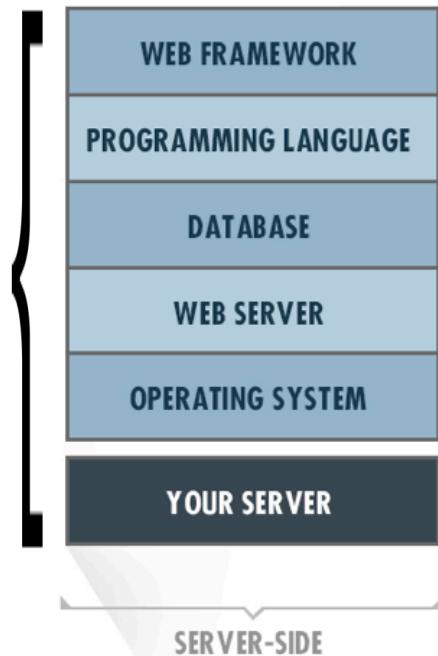
根据经纬度/当前定位点查询城市实时天气，支持实时天气、天气预报



CLOUD-STACK EMBEDDED IN CONTAINERS

REST (Representational State Transfer)

API (e.g. REST)



BACK-END TECHNOLOGY

后台

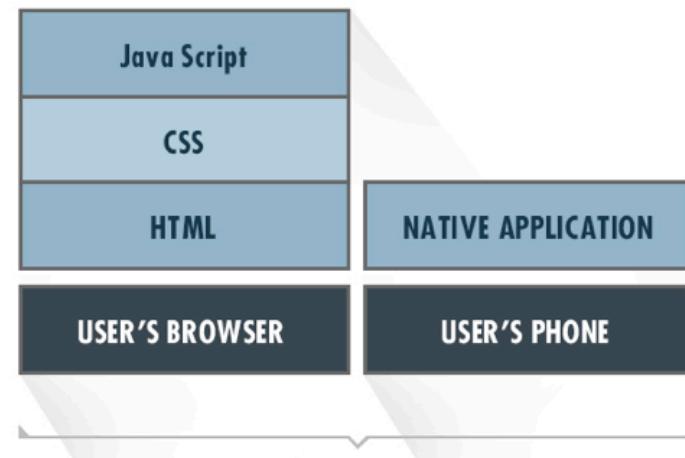
WHAT IS YOUR “CLOUD” AND “STACK” STRATEGY?

云架构及前端和后端的全栈策略

{ JSON }



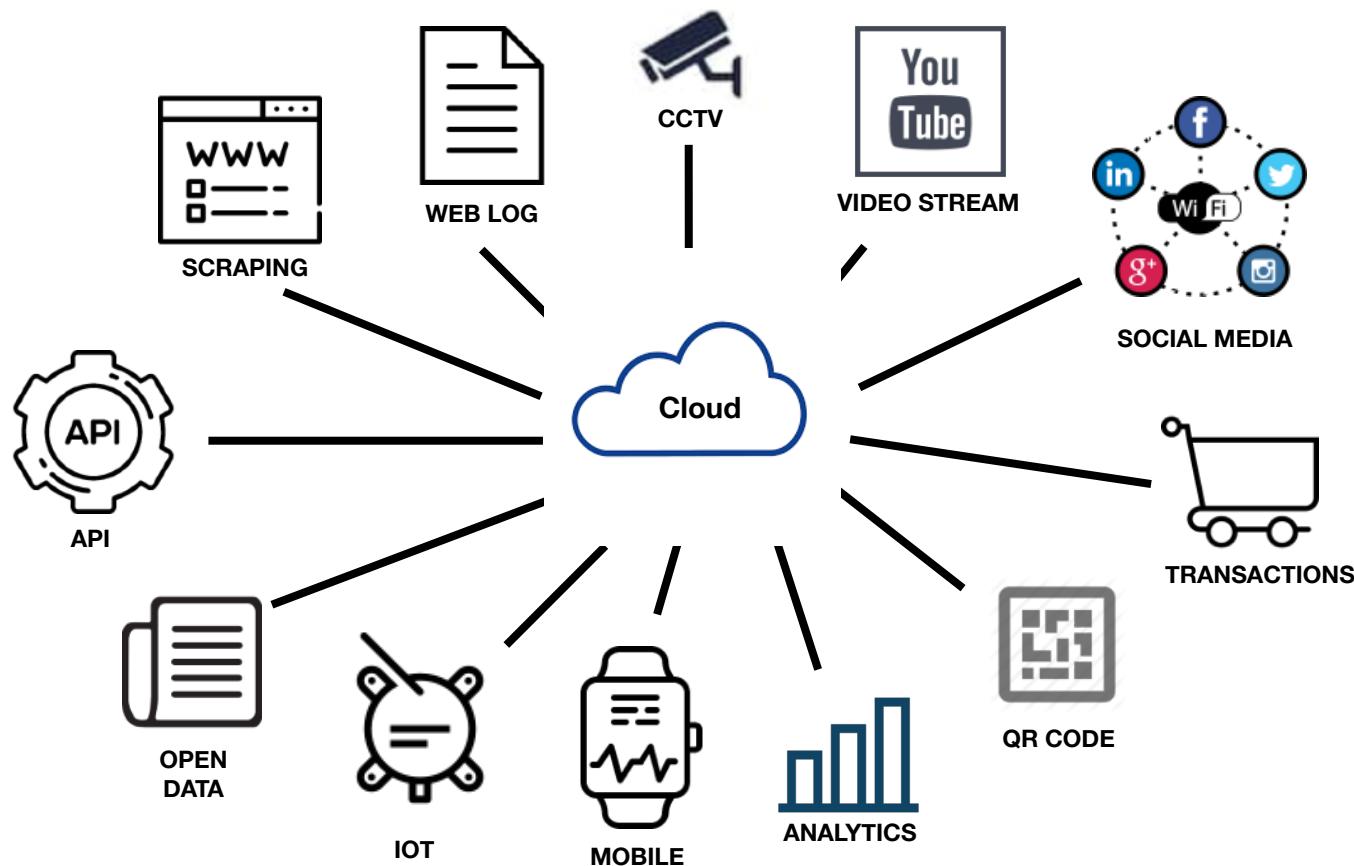
THE INTERNET

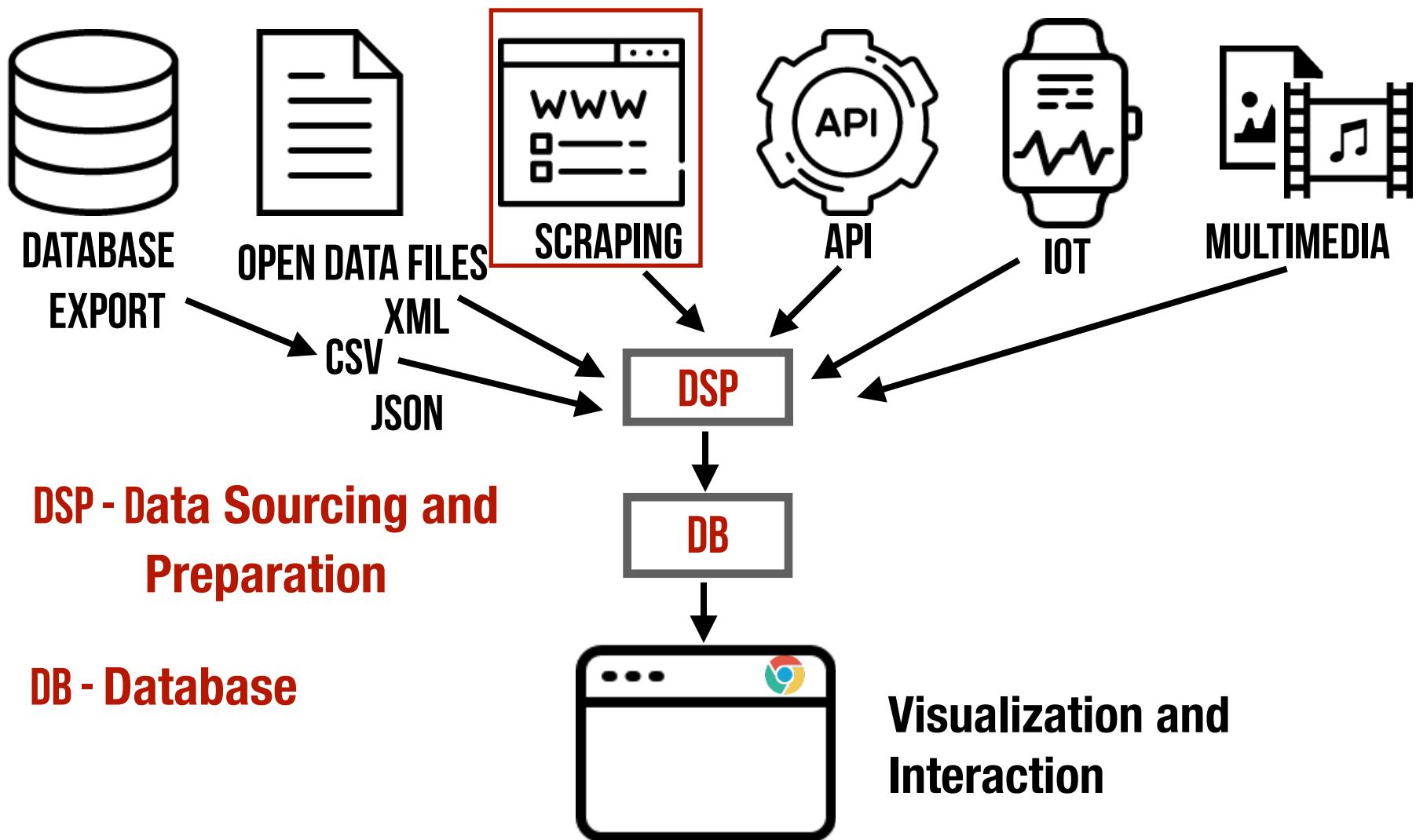


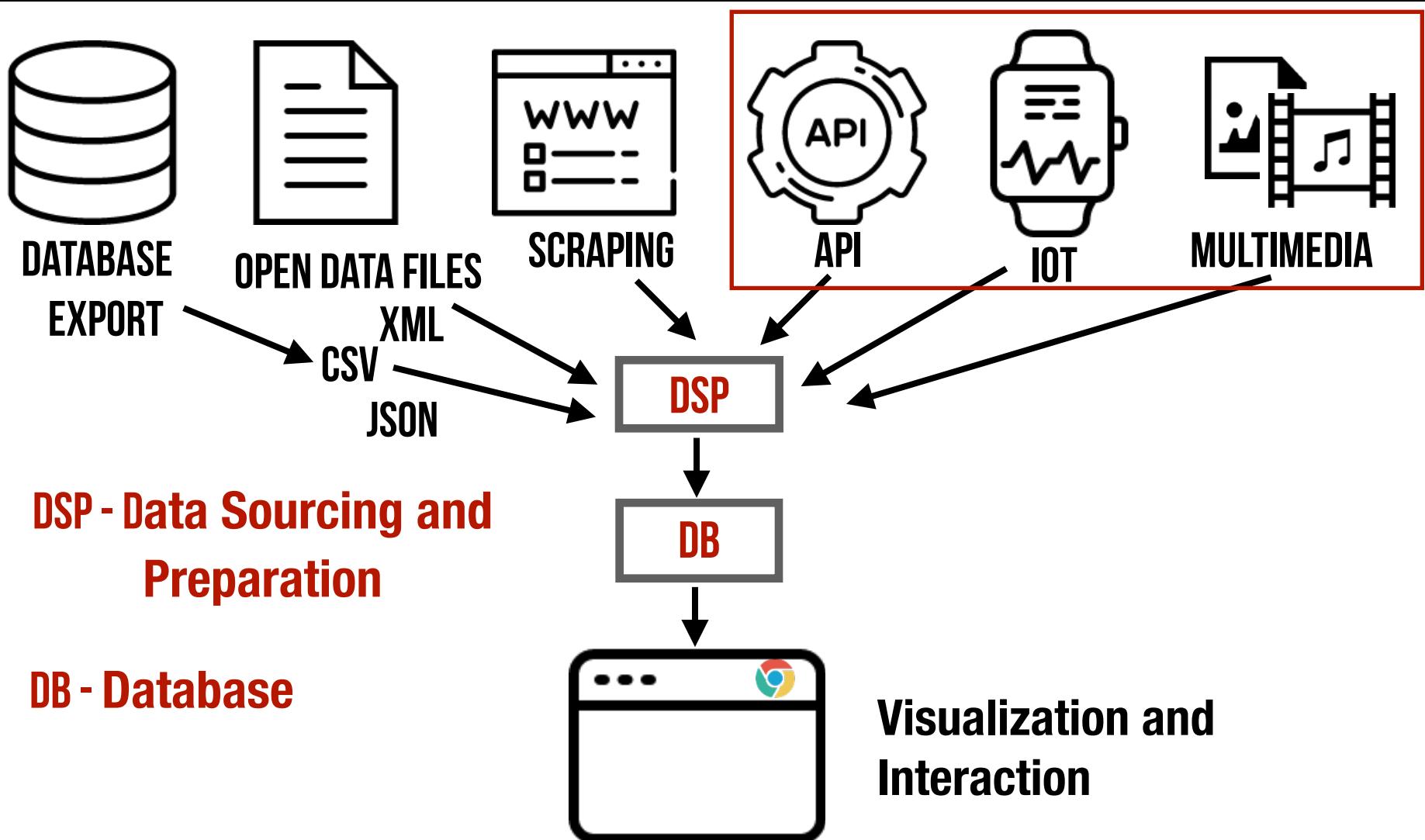
FRONT-END TECHNOLOGY

前台

Structured and Un-structured Data Sources (Big Data)







What is **API**?

API, Application Program Interface, is a protocol for exchanging data (數據傳送協定) between software applications so as to extend the functionality and reach beyond one's original scope and targets.

Case Study: Nike Plus



Source: Nike YouTube Promo

What is a **data-driven** product (e.g. Nike+) ?

1. The **platform** is the product. And the data provides the glue to link everybody in the **platform eco-system** together to create values.
2. The data makes the product **smarter** and **more connected**. Being smarter allows the product to improve its performance over time through **analytics** and being more connected allows the product to amplify the **network effect** by linking with more **stakeholders** and **complementary products**.
3. The **API** based services form an extended data infrastructure to **capture values** created by other stakeholders within the eco-system.

Case Study: Upbeat



<https://vimeo.com/114149570>

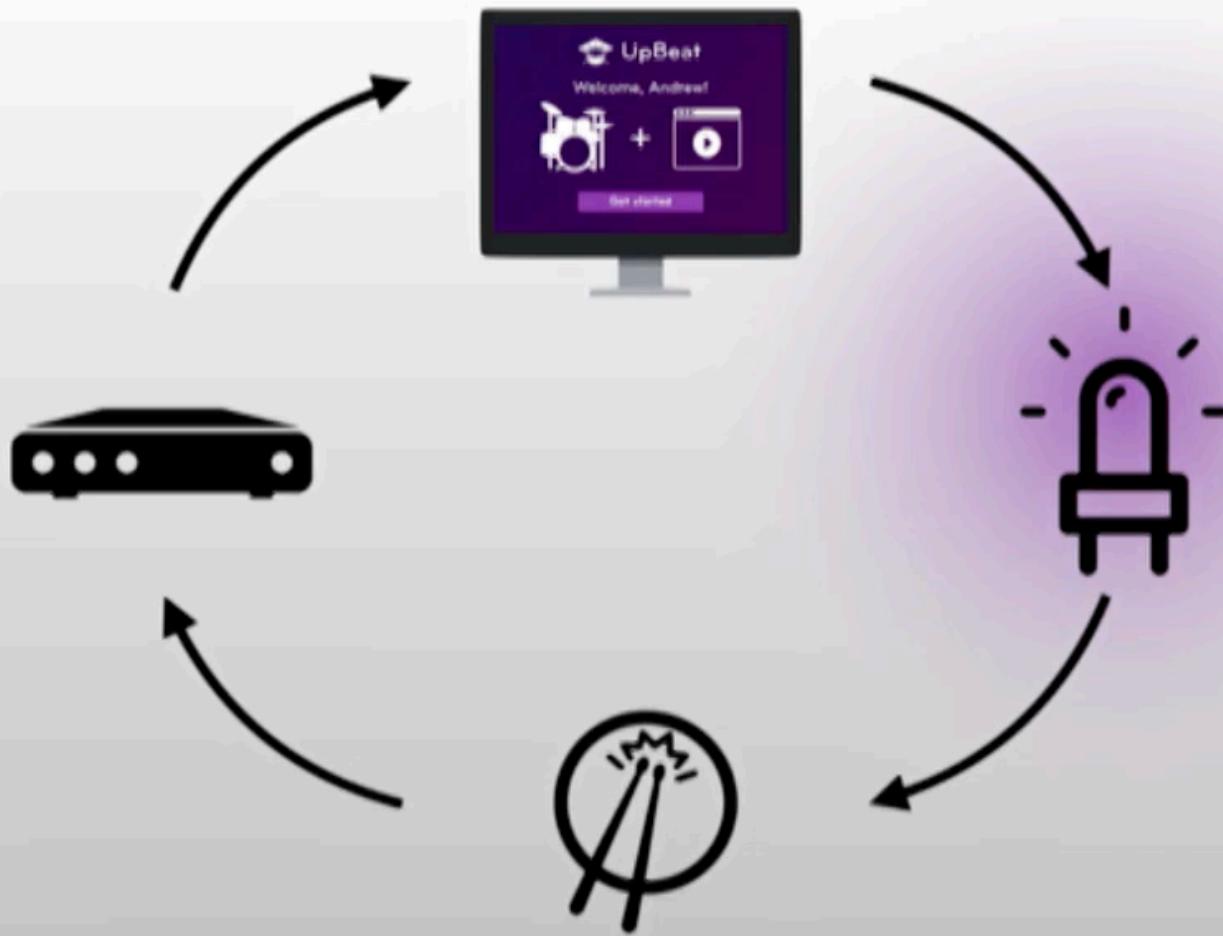
Source: 2.009 @ MIT



Case Study: UpBeat - the Smart Drum Kit

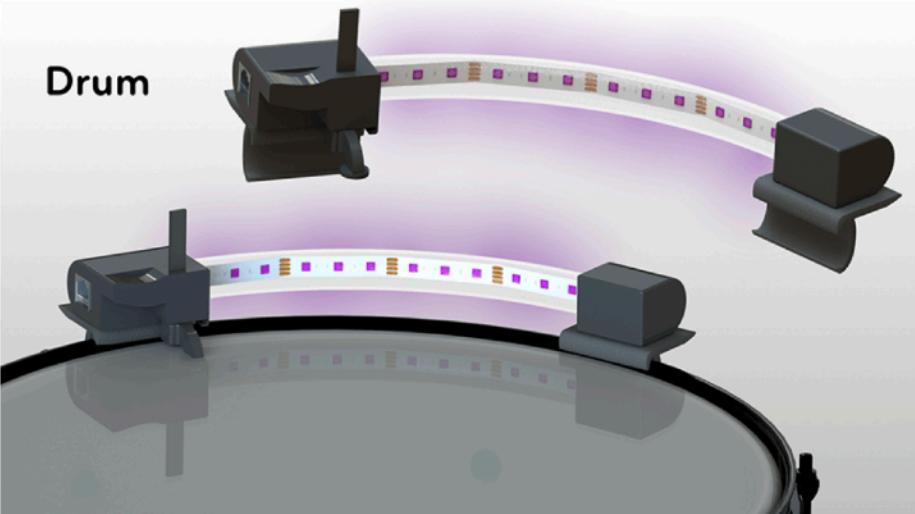
Source: 2.009 @ MIT

<https://vimeo.com/114149506>

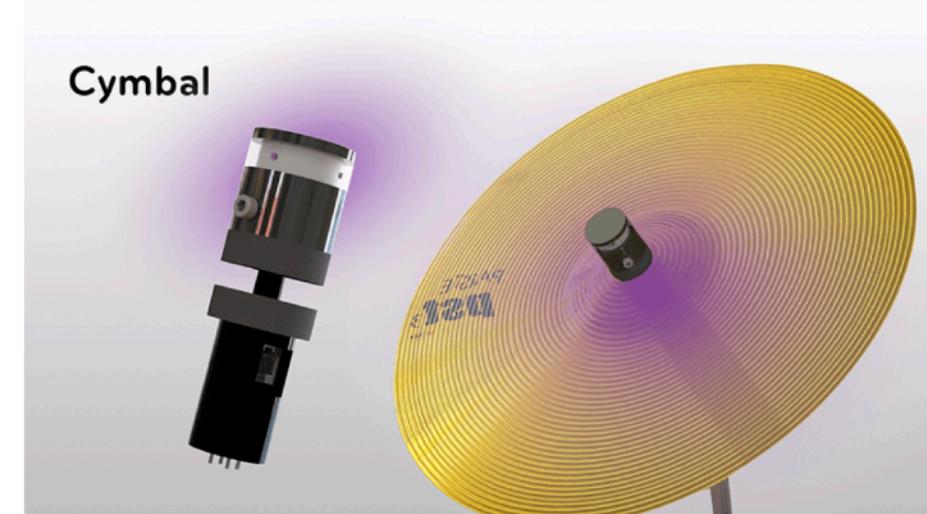


Source: 2.009 @ MIT

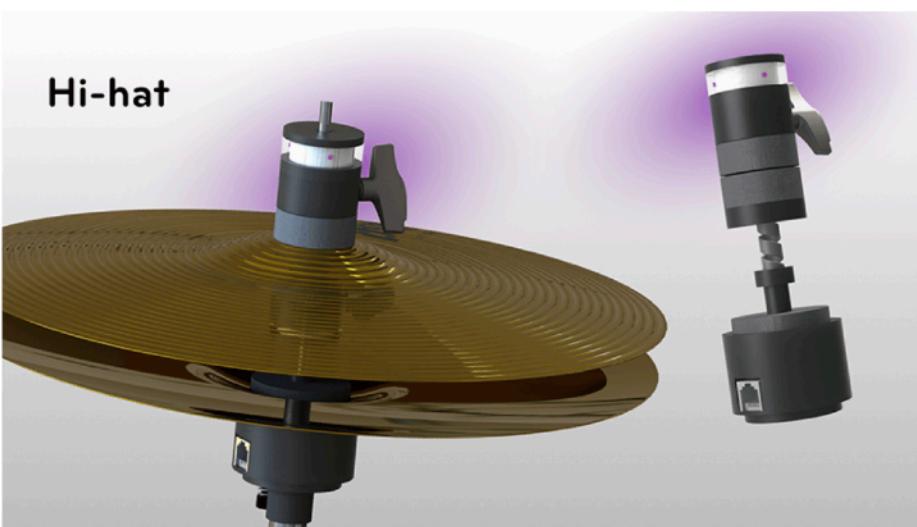
Drum



Cymbal

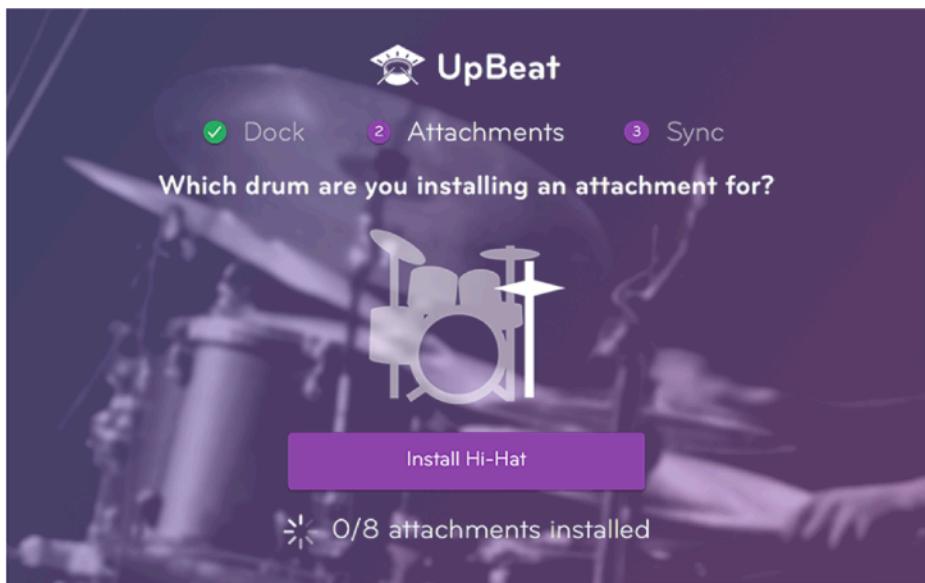


Hi-hat



Dock





Installing a new UpBeat attachment

Source: 2.009 @ MIT

The UpBeat practice mode interface. At the top, it says "Practice" and "Eighth Note Rock Beat 1" by "Jim Chapin". On the right, there's a "GOOD!" button with a circular arrow icon. The main area shows two staves of musical notation. The top staff is highlighted with a purple bar. Both staves have a time signature of 4/4. The notation consists of eighth notes and sixteenth notes, some of which are marked with an 'x' to indicate they should not be played.

UpBeat's practice mode, similar to Guitar Hero or Rock Band

Library

SORT BY DATE ADDED ▾

Drum Rudiments
Terence Fletcher

Amen, Brother 2:32 135 BPM 87% RECORD

The Winstons

Seven Nation Army

The White Stripes

Brianstorm

The Arctic Monkeys

+ ⌂

Learn
Amen, Brother

Closed Hi-Hat + Snare

II

Practice
Amen, Brother

PERFECT!

II

Record

BAR 0005 BEAT 3

II

Settings

SENSORS

Snare Drum
Connected, 54% battery

Bass Drum
Connected, 48% battery

Hi-Hat
Not connected

Tom-Tom

☰

Settings
Sync New Drum

Drum Type Snare Drum ▾

Drum Name optional

Calibrating...

Done

Hit your drum now.

☰

User flows and early wireframes for the three modes of the UpBeat app

Source: 2.009 @ MIT

What makes Upbeat a **data-driven** product?

1. Upbeat is a **platform** for linking drum learners, instructors, and professionals together. Through the circulation of digital sheet music data, Upbeat provides the glue to link everybody on the platform together to create **values**.
2. Being **smarter** allows Upbeat to improve the drum learning and sharing experience through analytics and being **more connected** allows Upbeat to amplify the network effect by connecting more drum learners, instructors, and professionals.
3. Potential **API** based services can be developed to make music sharing **stretched beyond drums** to other music instruments and music lovers.

产品经理，你该懂点API知识了！



大房同学的产品之路

关注

1 2019.06.16 20:06:41

字数 2,989

阅读 971

13赞

赏

赞赏

回复

下载App

还记得5月，人生第一个产品经理面试，面试官问你知道api吗，当时脑袋一懵。事后，决定一定要把它弄清楚。在查询资料后发现，API确实对于产品经理来说那是相当重要：1.对技术理解更深刻，结合已有新的接口，让产品有更丰富的可行性，并降低工作量。2.更好地预估开发工作量，制定合适产品方案

文章将从API介绍，分类，API文档内容和案例四个方面进行介绍。

1.API是什么

全名：Application Programming Interface 中文名：应用程序编程接口

百度百科释义：API是一些预先定义的函数，目的是提供应用程序与开发人员得以访问一组例程的能力，而又无需访问源码，或理解内部工作机制的细节。

看到这你是不是和我一样有点懵，这也太抽象了。于是我又找了一些相关文

https://www.jianshu.com/p/c1b107be9879?utm_campaign=maleskine&utm_content=note&utm_medium=seo_notes&utm_source=recommendation

产品经理，你要懂点API接口知识！



LinKID

关注作者

2019-04-11

40评论 · 2.9万浏览 · 292收藏 · 10分钟

业内首套系统教学课程，从0-1快速掌握移动APP核心设计模块和逻辑，学完打造专属APP，了解一下 >>



释放双眼，带上耳机，听听看~!

00:00

00:00



产品经理不需要深入地去了解各个接口的实现原理，毕竟术业有专攻，但是了解什么场景应该使用什么样的接口还是很有必要的，可以方便更好地对外提供数据服务。

<http://www.woshipm.com/pmd/2203403.html>



Meituan API Endpoints (接口) Example

<https://developer.meituan.com/ka/docs/wmapi-1>

到餐API文档

> 团购API

> 茶饮版 API

智能版 API

门店-获取营业日起...

获取授权资源ID列表

门店-获取物品（分...

总部-获取物品（分...

门店-获取物品类别...

总部-获取物品类别...

门店-获取供应商（...

总部-获取供应商（...

门店-获取物品单位...

总部-获取物品单位 ...

HTTP请求示例

```
(提示: 实际请求需要进行 urlencode 编码)
POST /rms/base/v1/auth/resources/get HTTP/1.1
Host: api-open-cater.meituan.com
Content-Type: application/x-www-form-urlencoded; charset=utf-8

appAuthToken=qwe&
timestamp=123&
sign=sdsadfsfd&
charset=utf-8&
developerId=100&
version=1&
biz={}
```

REQUEST

响应示例

Json示例

```
{
  "code": "OP_SUCCESS",
  "msg": "成功",
  "traceId": 123,
  "data": {
    "resources": {
      "orgType": "1 总部, 5 门店",
      "rootOrgId": 123,
      "orgId": 123
    }
  }
}
```

RESPONSE

评价管理

外卖门店在延迟发配送名单内才能设置延迟时间

活动管理

订单管理

订单推送

取消订单推送

退款信息推送

图片上传

门店装修

安心卡

在线联系IM

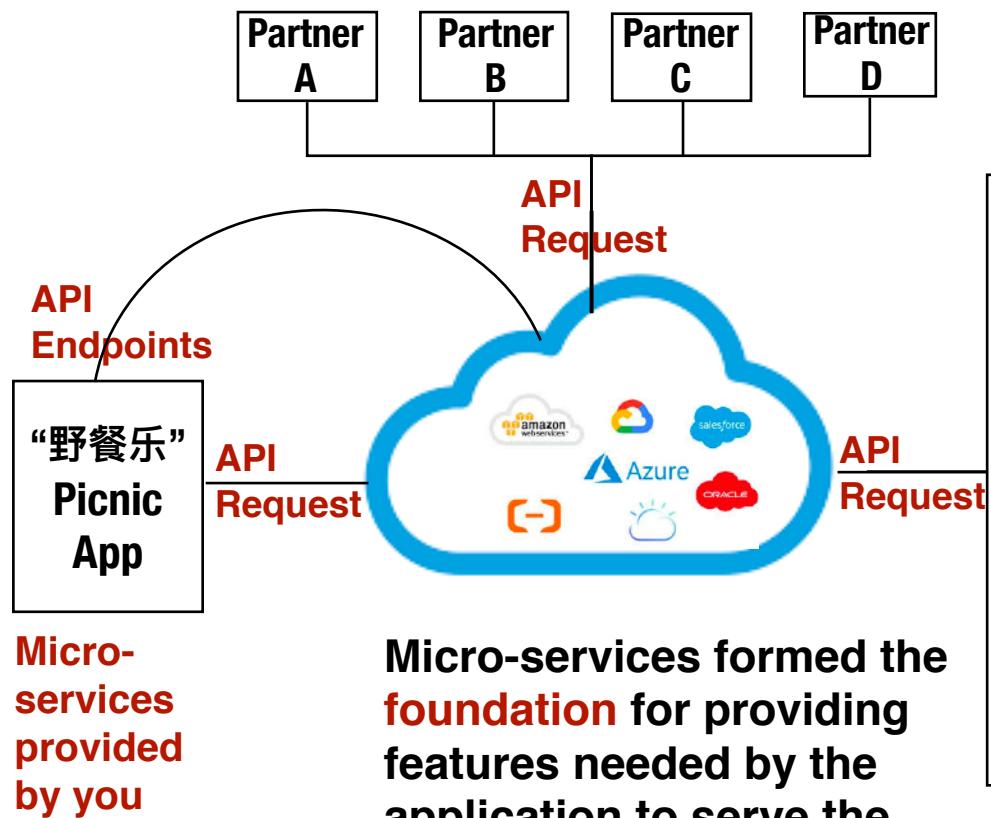
接口code码集合

> 到餐API文档

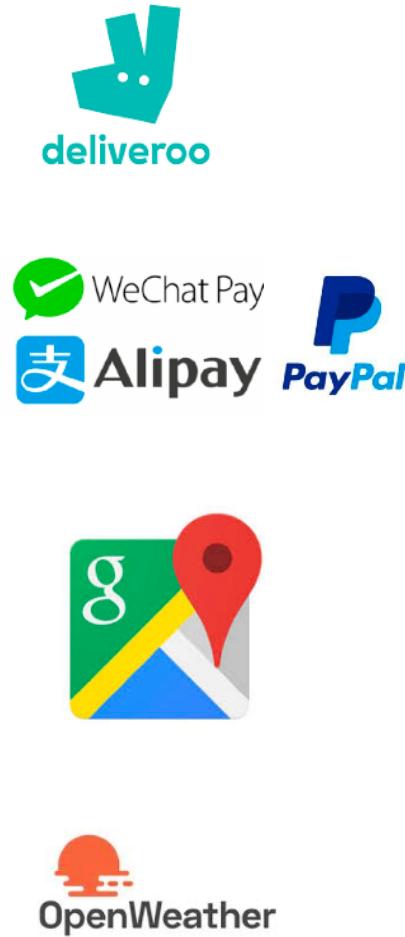
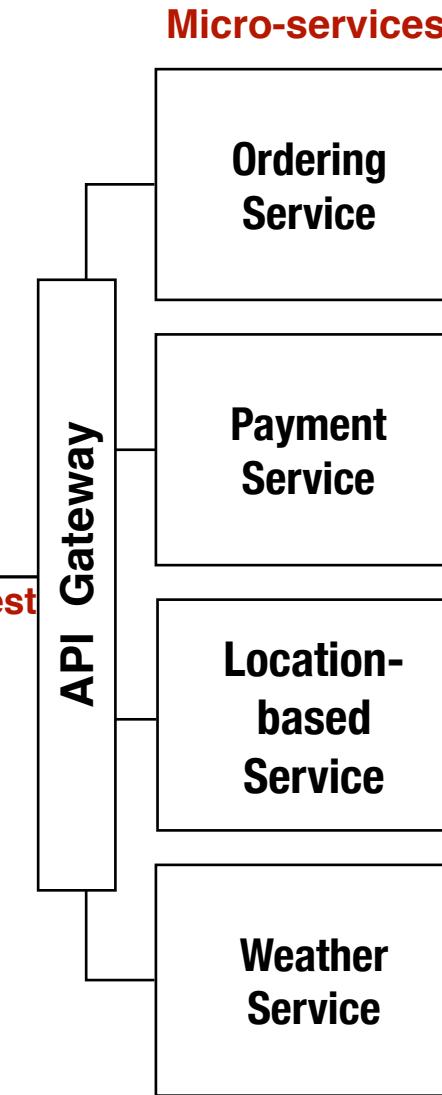
> 茶饮版 API

API接口	接口描述
poi/save	创建或更新门店信息
poi/getids	获取门店ID
poi/mget	批量获取门店详细信息
poi/close	门店设置为休息状态
poi/online	门店设置为上线状态
poi/updatepromoteinfo	更改门店公告信息
poiTag/list	获取门店品类列表
shippingtime/update	更新门店营业时间
poi/logistics/isDelayPush	查询门店是否延迟发配送
poi/logistics/setDelayPush	设置门店延迟发配送时间

Business partners requesting your services through API requests.



Micro-services formed the foundation for providing features needed by the application to serve the ultimate users/customers



Two key API questions to ask:

**Which external API services should I leverage
and what internal API services should I develop
and share to build network effects and to make
our product smarter and more connected?**

Demonstration of REST API/JSON Data Flow

{JSON} Placeholder

Free fake API for testing and prototyping.

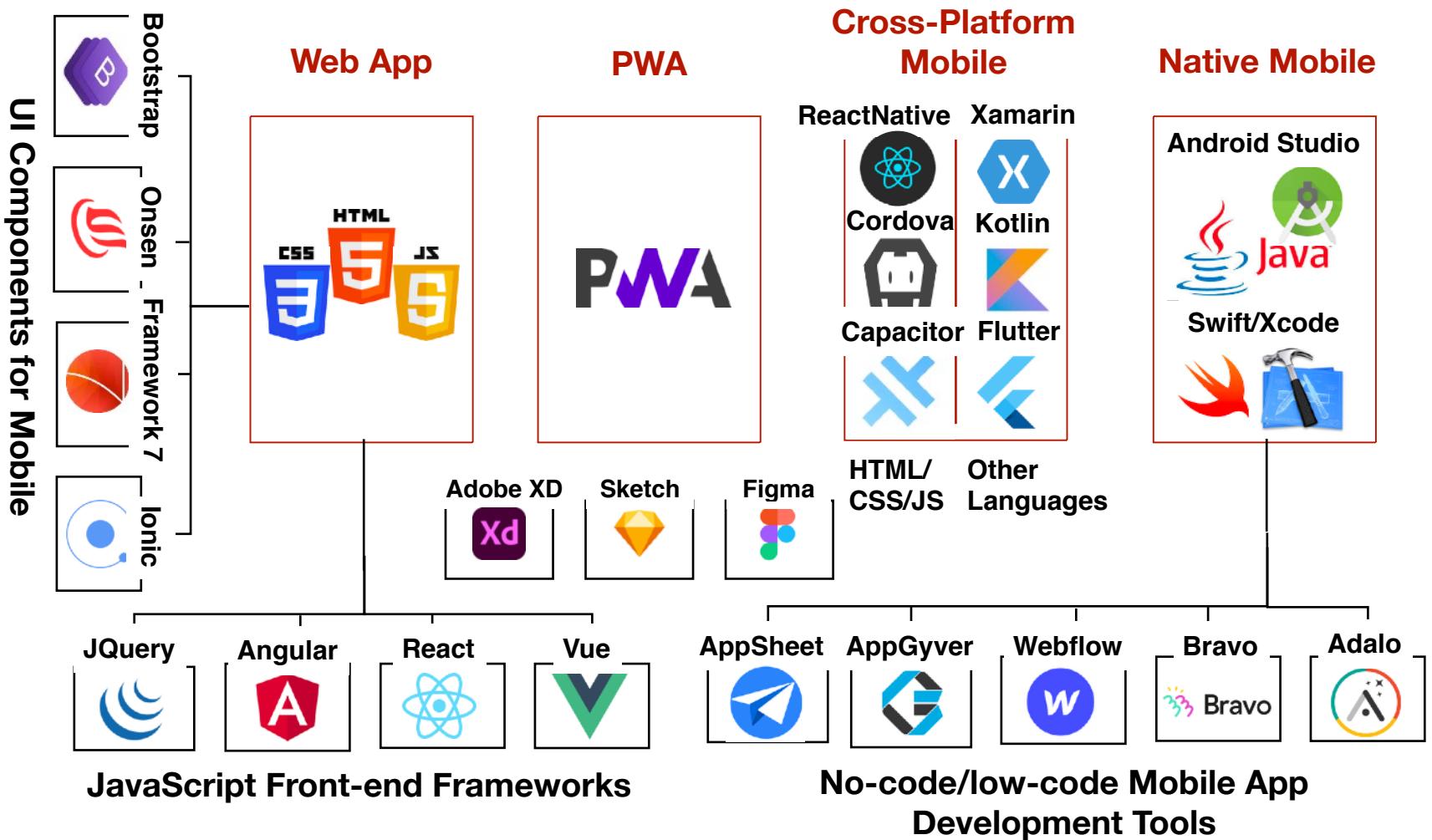
Powered by [JSON Server](#) + [LowDB](#)

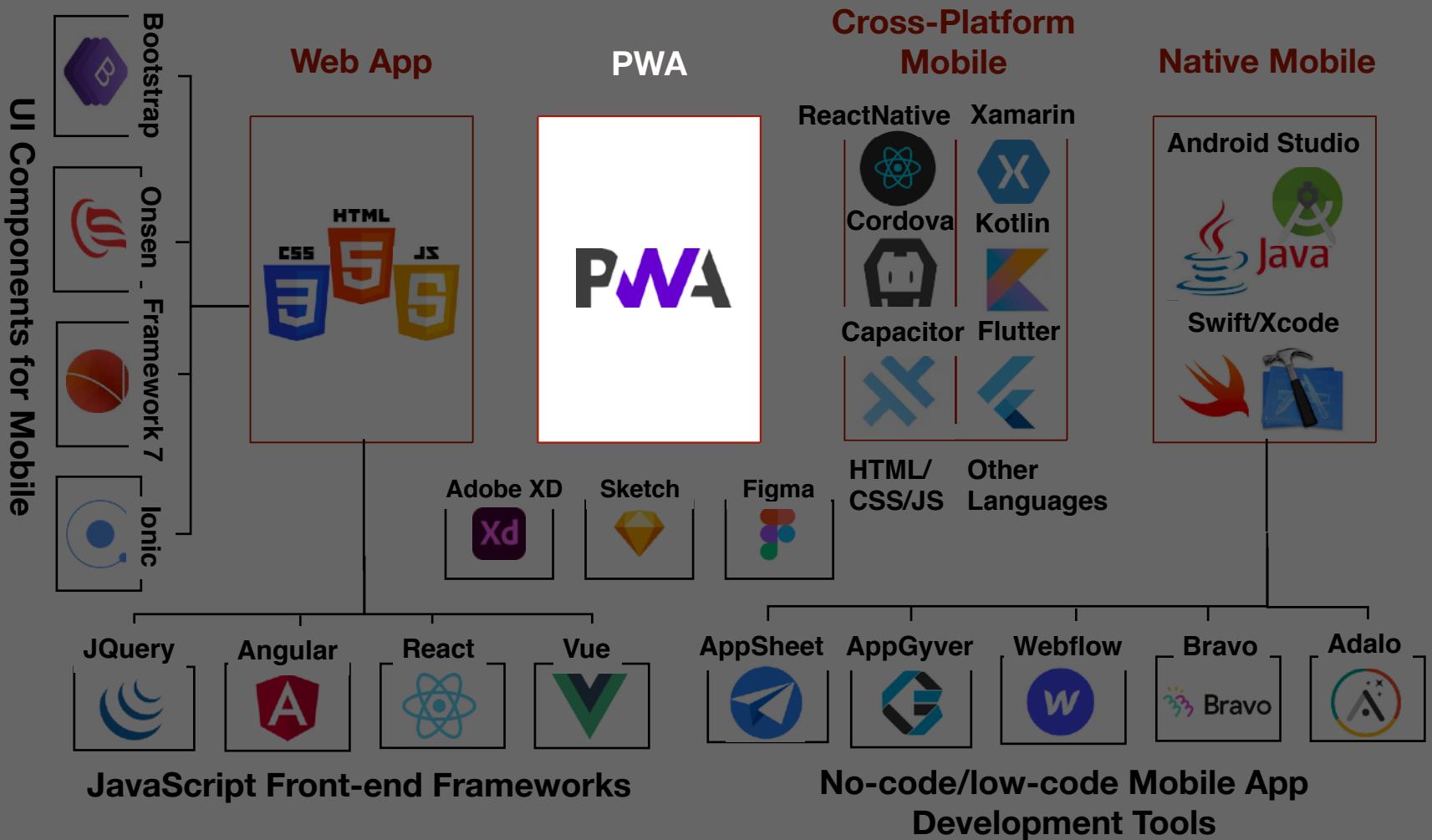
As of Oct 2021, serving ~1.7 billion requests each month.

<https://jsonplaceholder.typicode.com/>

- Convert JSON to CSV (<https://codebeautify.org/jsonviewer>)
- Convert XML to CSV (<https://www.convertcsv.com/xml-to-csv.htm>)
- Import CSV into Excel or Numbers

Background to Front-end/Mobile Development





The trend in using Progressive Web App

PWA



What are Progressive Web Apps (PWAs)?



How to easily turn your website to a Progressive Web App(PWA).



Illemona Achimgu

Follow

Aug 12 · 13 min read



PWA Logo (Wikipedia)

Progressive Web Apps are the new and trending way to introduce the feel of a native app to a normal or traditional web app. Progressive Web Apps are

<https://codeburst.io/how-to-easily-turn-your-static-website-to-a-progressive-web-app-pwa-b0af08da9693>

PWA Stats

A community-driven list of stats and news related to Progressive Web Apps

brought to you by  Cloud Four

AliExpress improved conversion rate for new users by **104%** across all browsers, with **2x** more pages visited and **74%** more time spent per session.



#E-commerce #Offline



Alibaba increased conversions on the mobile web by **76%**, with **14%** more monthly active users on iOS and **30%** more on Android.



#B2B #Home Screen #Notifications



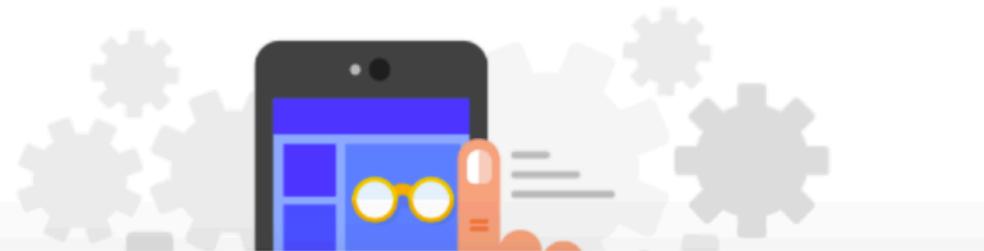
<https://www.pwastats.com/page5/>

比App更好用的PWA，让小程序相形见绌的新标准

2018年03月21日 08:44 观察君2017



Progressive Web Apps，意为渐进式 Web App，它源自Google 在 2015 年推出的一个项目，旨在让 Web 网页通过 OS 层面的进程支持，具备类似原生 App 的使用体验。



<https://t.cj.sina.com.cn/articles/view/5824404251/15b295b1b001004wlh>



新浪首页



语音播报



相关新闻



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糖纸众测



无需下载、打开即用！这 8 个 Google 版小程序真的
太好用了

<https://www.ifanr.com/app/1243437>

“

渐进式 Web 应用会在桌面和移动设备上提供可安装的、仿应用的体验，可直接通过 Web 进行构建和交付。它们是快速、可靠的 Web 应用。最重要的是，它们是适用于任何浏览器的 Web 应用。

“

PWA（Progressive web apps，渐进式 Web 应用）运用现代的 Web API 以及传统的渐进式增强策略来创建跨平台 Web 应用程序。这些应用无处不在、功能丰富，使其具有与原生应用相同的用户体验优势。

Why PWA?

1. It takes time and resources to develop an application for cross-platform (Android and IOS) development.
2. Approval (上架) takes time for native app to appear in the store.
3. Quick to download and launch, like typical **mobile** experience.
4. PWA supports the popular mobile functions such as location detection, notification and camera.
5. PWA can be easily distributed through QR code, app stores, and shared links especially by KOL.

Examples Using PWA



ORDER CARDS GIFT

Find a store

Sign in

Join now

STARBUCKS® REWARDS



Let us treat you—earn and
redeem Stars for free drinks,
food and more.

Customize your order in the
app and pick it up when it's
ready.

Stop in on your birthday for a
special treat on the house.

Join now

Learn More

Good afternoon ☀

**Answer a few questions to find
something new**

What type of drink are you looking for?

Iced

Cool off and uplift



Start an order

<https://app.starbucks.com/>



Home

Create ▾

Search

99+



Your privacy matters

We use your information to provide better recommendations to you. Review your privacy and data settings and make changes anytime. Your choices give you more control over your data. Visit the Help Center to learn more. For more information about how we process your data, you can visit our [Privacy Policy](#).

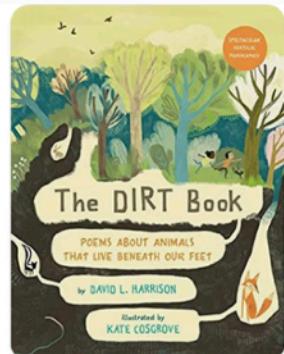
Not now

Go to Settings



Who Loves February Morning...

Marsha McGuire...



The DIRT Book: Poems About Animals That Live Beneath Our...



Southern Collard Greens Recip...
Oen Hammonds



How to prevent
kindergarten
teacher burnout



Printed Batwing Sleeve Dress -
Kate Hewko



Oakley Ampersand

Mark van Leeuwen



90s Fashion Cardigan and Whit...
90s Outfit



<https://www.pinterest.com/>

The image is a composite of several photographs. At the top, a black and white photograph shows a person sitting at a desk in a library aisle, looking down at their work. To the left of this is a close-up of bookshelves filled with books, with the word "Home" overlaid in white text. To the right is a view of the same library aisle from a different angle. Below these, a large white rectangular area contains two course cards. The first card, titled "Digital Transformation in Social Services", features a photo of two people's hands clasped over a keyboard. The second card, titled "Strategic Insights and Analytics", features a photo of a computer screen displaying a wall of code. To the right of these cards is a mobile phone displaying the "HKDesign" app's "Courses" page, which mirrors the layout of the desktop version. The phone's screen also shows the "Home" and library images. At the bottom right, there is a small blue rectangular image showing a person's face.

Courses

Digital Transformation in Social Services

Strategic Insights and Analytics

HKDesign

Courses

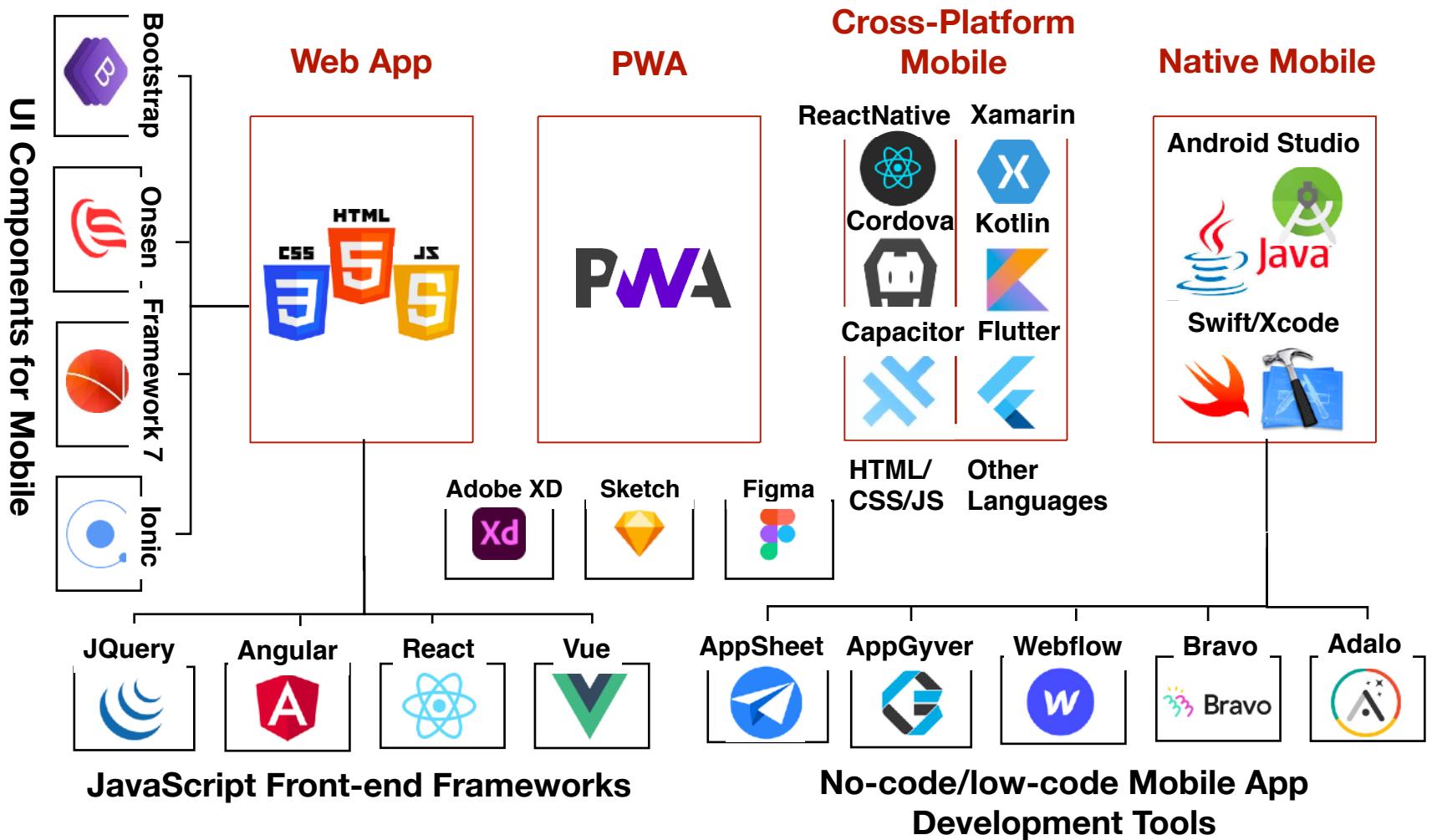
[Events](#)

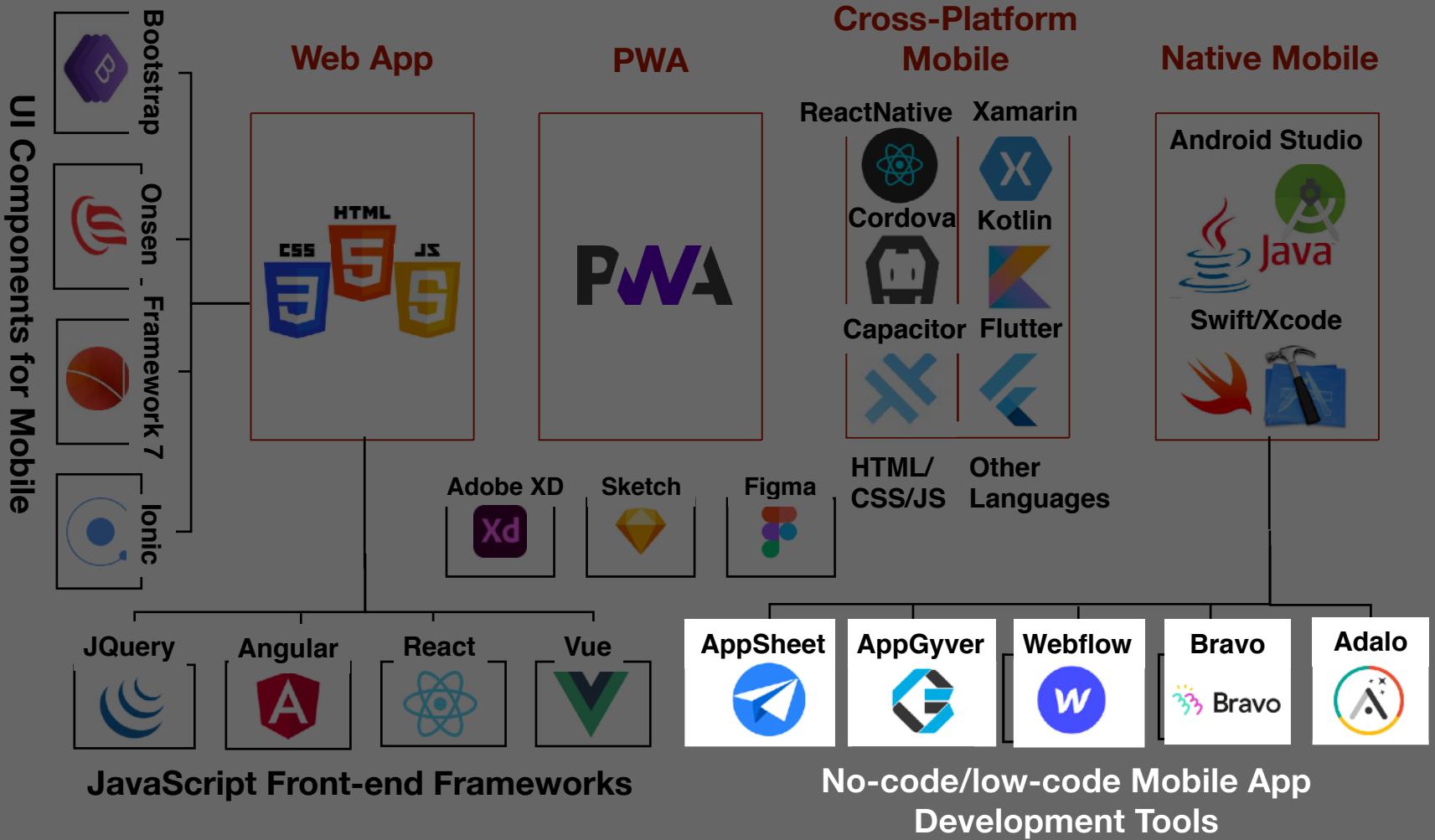
[Courses](#)

[Messages](#)

[Dashboard](#)

No-code/low-code application development





 Tech Accelerator

What is low-code? A guide to enterprise low-code app development

Home > Software Design & Development > Software applications > low-code and no-code development platforms

◀ PREV | NEXT ▶

Download this guide 

1

DEFINITION

low-code and no-code development platforms



By [Mary K. Pratt](#)



Low-code/no-code development platforms are types of visual software development environments that allow enterprise developers and [citizen developers](#) to drag and drop application components, connect them together and create mobile or web [apps](#). These platforms are often discussed synonymously with the development methods they embody.

Low-code and no-code modular approaches let professional developers quickly build applications by relieving them of the need to write code line by line. They also enable business analysts, office administrators, small-business owners and others who are not software developers [to build and test applications](#). These people can create applications with little to no knowledge of traditional programming languages, machine code or the development work behind the platform's configurable components.

The Subpostmasters vs
The Post Office

[ComputerWeekly.com](#)

[Read more here](#)



Source: <https://www.techtarget.com/searchsoftwarequality/definition/low-code-no-code-development-platform>



Technology And Analytics

When Low-Code/No-Code Development Works — and When It Doesn't

by Chris Johannessen and Tom Davenport

June 22, 2021



Source: <https://hbr.org/2021/06/when-low-code-no-code-development-works-and-when-it-doesnt>



Bravo

Product ▾

Resources ▾

Services ▾

Integrations

Pricing

Get started for free

Log in

Build powerful no-code mobile apps faster.

Make, manage and maintain fully native mobile apps for iOS and Android.

Develop fast, iterate fast, adapt forever.

Start building for free

How it works ►

<https://www.bravostudio.app/>

Introducing Composer Pro

You will never go back to coding. Seriously.

The world's first professional no-code platform, enabling you to build apps for all form factors, including mobile, desktop, browser, TV and others.

[Sign up for free](#)

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OK

<https://www.appgyver.com/>

Examples Using No-code/Low-code Tools



SAP AppGyver Community Edition

Welcome to the documentation for AppGyver Community Edition!

This documentation aims to help you build with SAP AppGyver. It covers all principal concepts present within the app builder, and documents advanced topics for more complex applications and use cases. If this is your first experience using our no-code platform, we highly suggest checking out our new Quick Start guide. It contains a perfect blend of a written introduction and series of beginner-friendly videos.

Glossary

Documentation

Quick Start

Search

Introducing full-stack visual development: SAP Build Apps

Build pixel-perfect web and mobile apps. Create backends with the new cloud functions. Integrate seamlessly with SAP solutions. Co-create with your team. All without writing code.

[Learn more](#)

Browse by category

The image shows a comparison between a mobile application screen and its design in a UI canvas tool.

Mobile Application Screen:

- Header:** "Flask Backend Integration | Com X" with a "+" button.
- Form Fields:** "Username" and "Password" fields with placeholder text "Type here...".
- Buttons:** A large red "Login" button and a blue "Register" button below it.
- Text Input:** A text input field containing the text "Bernard I thanks".
- Keyboard:** A virtual keyboard at the bottom.

UI Canvas Design:

- Header:** "Flask Backend Integration" with a "Logout" link.
- Toolbar:** "UI CANVAS", "LAUNCH", "THEME", "NAVIGATION", "DATA", "AUTH", "HELP".
- Page View:** "437317/pages/3".
- Page Properties:**
 - Page name:** Login
 - Short description:** The default empty page
 - ID:** page.Page3
 - Show spinner on page load:**
- Advanced Properties:** "REMOVE PAGE"
- Tree:** "Container Main"

Bottom Bar: "Add logic to LOGIN" with a gear icon.

Wine Store | Composer Pro : page X +

9:41 90%

Wine Store
Empty page

UI CANVAS LAUNCH THEME NAVIGATION DATA AUTH HELP HISTORY EXIT APP

Empty page
Page

VIEW ● VARIABLES PROPERTIES STYLE LAYOUT

BASIC

- Icon Title
- Text Image
- Spinner Card

FORMS

- Button Dropdown field
- Checkbox field Slider field
- Password field Input field

LAYOUT

- Container Row
- Scroll view

LISTS

HELLO, Joseph

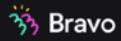
FIND YOUR FAVOURITE WINE

SPECIAL OFFER MORE

Lorem ipsum dolor sit amet. Quo sint molestiae vel quod consequatur sit rerum quod qui corporis nobis est impedit.

Container Main

Add logic to EMPTY PAGE



Bravo

Product ▾

Resources ▾

Services ▾

Integrations

Pricing

Get started for free

Log in

Build powerful no-code mobile apps faster.

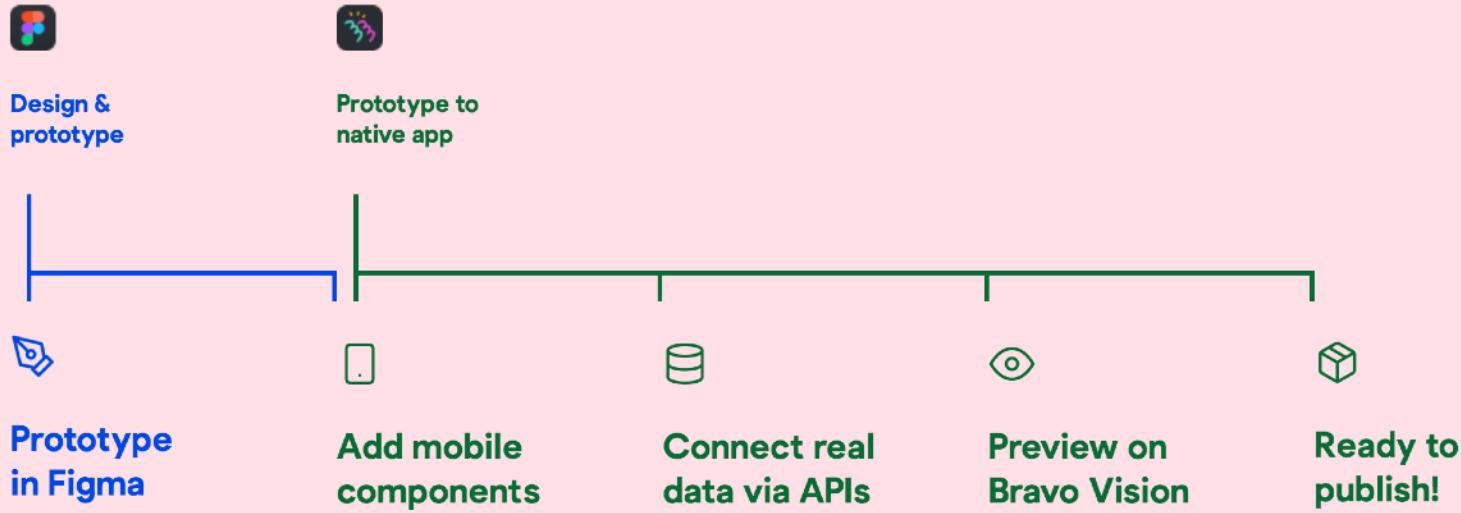
Make, manage and maintain fully native mobile apps for iOS and Android.

Develop fast, iterate fast, adapt forever.

Start building for free

How it works ►

<https://www.bravostudio.app/>



<https://www.bravostudio.app/>

**Create a real native app from
a Figma app prototype**

Adventure Listing ⓘ

[Copy base](#)

Adventures

Views

Adventure Listing

...

Hide fields

Filter

Group

Sort

⋮

🔍

Find a view

Adventure Listing ✓

Activity Name	Photos	Length	Price	Location	Description
1 Deep Sea Scuba Dive		1 hr	\$55	Ubud	Our driver
2 Jetski Island Tour		1 hr	\$40	Canggu	Our driver
3 Paddleboard Yoga		30 min	\$10	Kuta	Our driver
4 Advanced Surf Lesson		2 hrs	\$25	Denpasar	Our driver
5 ATV Ride		3 hrs	\$45	Jimbaran	Our driver
6 Black's Beach		45 min	\$15	Kintamani	Our driver
7 Uluwatu Temple		1 hr	\$20	Ubud	Our driver
8 Quad Bike Tour		1 hr	\$55	Canggu	Our driver
9 Canoe to Waterfalls		30 min	\$40	Kuta	Our driver
10 Snorkeling in Blue Lagoon		3 hrs	\$25	Jimbaran	Our driver
11 Surf School		45 min	\$30	Kintamani	Our driver
12 Sunrise Breakfast Trip		2 hrs	\$25	Ubud	Our driver
13 Volcanic Trek		3 hrs	\$25	Denpasar	Our driver

15 records

Sum \$505

Bravo Sample: Expeditions Guide ✎ Sample Bravo app kit * Travel App ✎ +

Sample Bravo app kit * Travel App View only

B M Share 18% ▾

Page 1 ▾

Menu [menu:slide]

Adventure list

Adventure detail

Featured activity

[asset:splash]

[asset:icon]

[asset:icon]

[asset:spl...]

Menu [me...]

Adventur...

Adventur...

Featured ...

Inspect Export

CSS ▾

background: #E5E5E5; ▾

?

Bravo Sample: Expeditions Guide Sample Bravo app kit * Travel App

Sample Bravo app kit * Travel App View only

B M Share 100%

Page 1

Menu [menu:slide]

Adventure list

[container:top-bar]

menu [component:svg]

Section title

*Activity card

clock icon

*2 hrs

Time BG

Group 2

*Activity Name

*Main image

Adventure detail

Frame

Featured activity

[asset:splash]

[asset:icon]

Adventure list

375 x 78

BALI INDONESIA

Pick your adventure.

TOP ADVENTURES

Connected to an Airtable database.

Activity Name
\$ Price

Inspect Export

[container:top-bar]

Properties

Width 375px

Height 78px

CSS

```
/* [container:top-bar] */  
  
position: absolute;  
width: 375px;  
height: 78px;  
left: 0px;  
top: 0px;
```




Bravo

Projects

Data Library

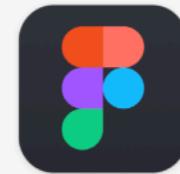
Sample apps

Bravo Tags List

Community

Feedback

Logout



Import your design

Enter the link of your Figma file below to create a Bravo project

https://www.figma.com/file/...

Import

Don't have a figma doc? Try [Bravo Starter Kit](#)

Help



Bravo

Projects

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Sample apps

Bravo Tags List

Community

Feedback

Logout

Upgrade

SL bsysin

Import Figma File

My Apps

Search



Sample Bravo app kit *

Travel App

9 minutes ago

Feedback

Help



Projects

Data Library

Sample apps

Bravo Tags List

Community

Feedback

Logout



Sample Bravo app kit * Travel App

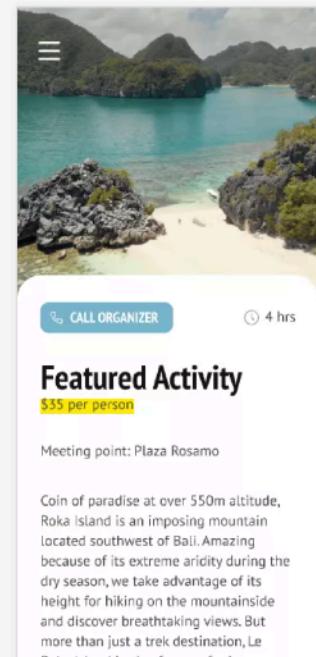
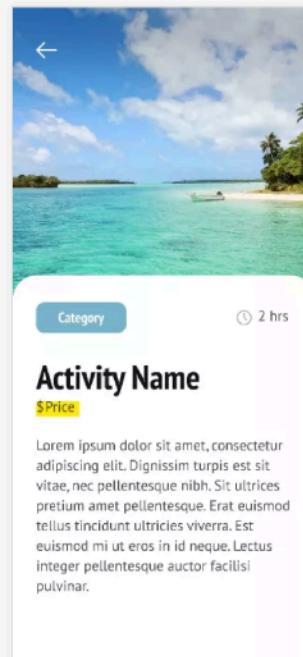
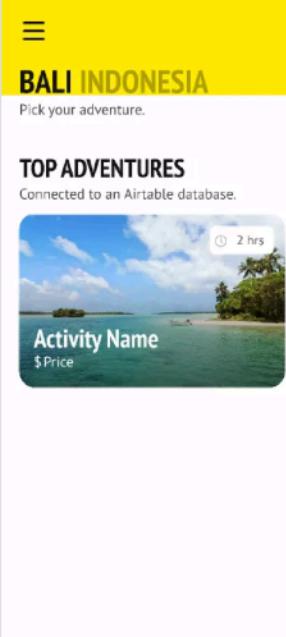
Screens

Publish

Settings



Menu



Menu

Nov 27, 2020 7:47 PM

Adventure list

Nov 27, 2020 7:47 PM

Adventure detail

Nov 27, 2020 7:47 PM

Featured act

Nov 27, 2020 7:47 PM



Help



Projects

Data Library

Sample apps

Bravo Tags List

Community

Feedback

Logout



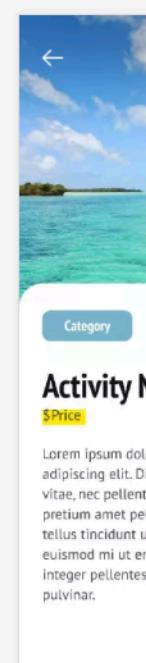
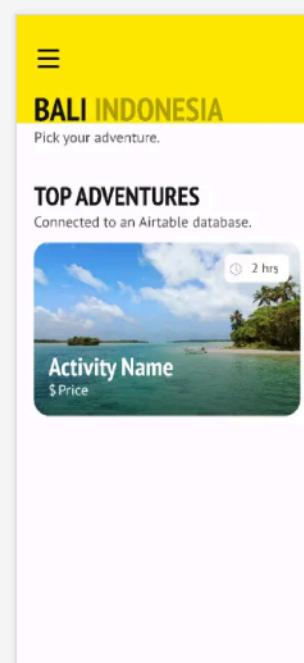
Sample Bravo app kit * Travel App

Screens

Publish

Settings

Menu



Scan to open Bravo Vision

Download Bravo Vision to preview your app project on your phone



GET IT ON
Google Play

Download on the
App Store



4 hrs

Visit from your device

www.bravostudio.app/download-bravo-vision

Meeting point: Plaza Rosamo

Coin of paradise at over 550m altitude, Roka Island is an imposing mountain located southwest of Bali. Amazing because of its extreme aridity during the dry season, we take advantage of its height for hiking on the mountainside and discover breathtaking views. But more than just a trek destination, Le Roka Island is also famous for its

Menu

Nov 27, 2020 7:47 PM

Adventure list

Nov 27, 2020 7:47 PM

Adventure detail

Nov 27, 2020 7:47 PM

Featured act

Nov 27, 2020 7:47 PM



Help



Bravo

Projects

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Bravo Tags List

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Logout

Data Library

Search

+ New Collection

Your Data Collections

Organize your API requests by creating a collection for each data source.



Adventure List...

<https://airtable.com/shrM...>

+ New Collection

Help



Bravo

Projects

Data Library

Sample apps



Adventure Listing



Saved

[Advanced view](#)

👉 Now it's time to connect this data collection to your app.

Select one of your projects to get started.

[Learn how](#)

[Go to Projects](#)

⚡ Bravo Tags List

Requests

{o} Community

Adventures - Detail



💬 Feedback

Adventures - List



Logout

[Help](#)



Bravo

Projects

Data Library

Sample apps

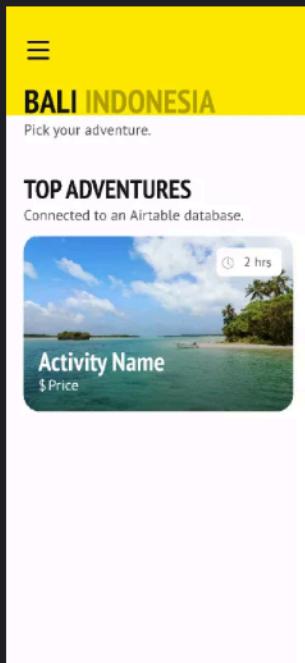
Bravo Tags List

Community

Feedback

Logout

Adventure list



Data Binding

Open data request

1. Select request

Adventure Listing

GET Adventures - List

2. Select Visual Elements

Search

*Activity card

*Main image

*Main image (GRADIENT_LINEAR)

*Activity Name

\$

*Price

X

Element binding

T *2 hrs

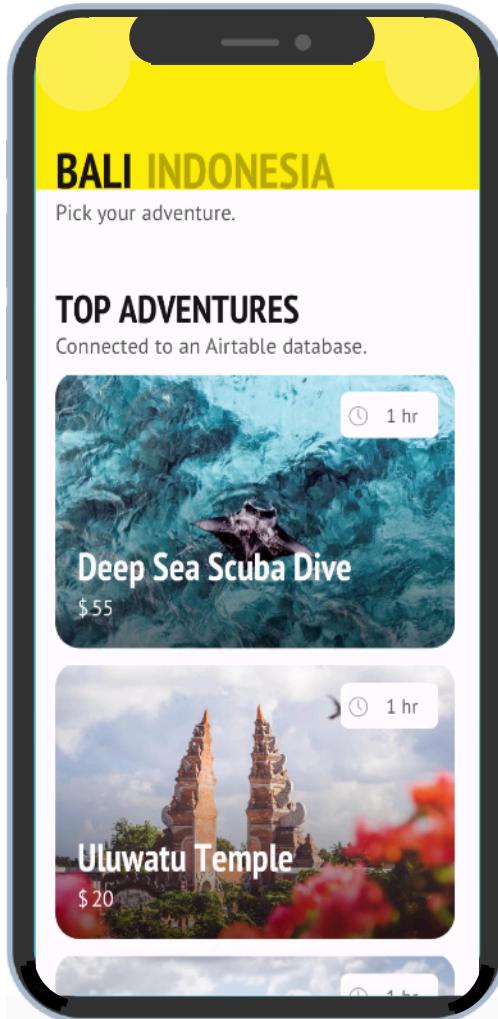
Content

T Text

GET Adventures - List

Length

Help



App Store Preview



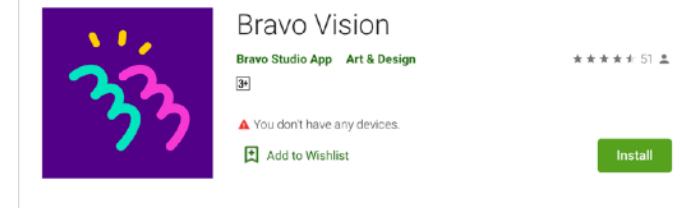
Bravo Vision

CodelessLabs

Designed for iPhone

4.7 • 20 Ratings

Free



<https://www.notion.so/Using-the-Airtable-API-Wizard-f2e75dde9f13419f93661a9e116c1ac3>

★ New! The Component Marketplace is here. Create your own custom components! → X



Product ▾

Showcase ▾

Experts

Pricing

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Log In

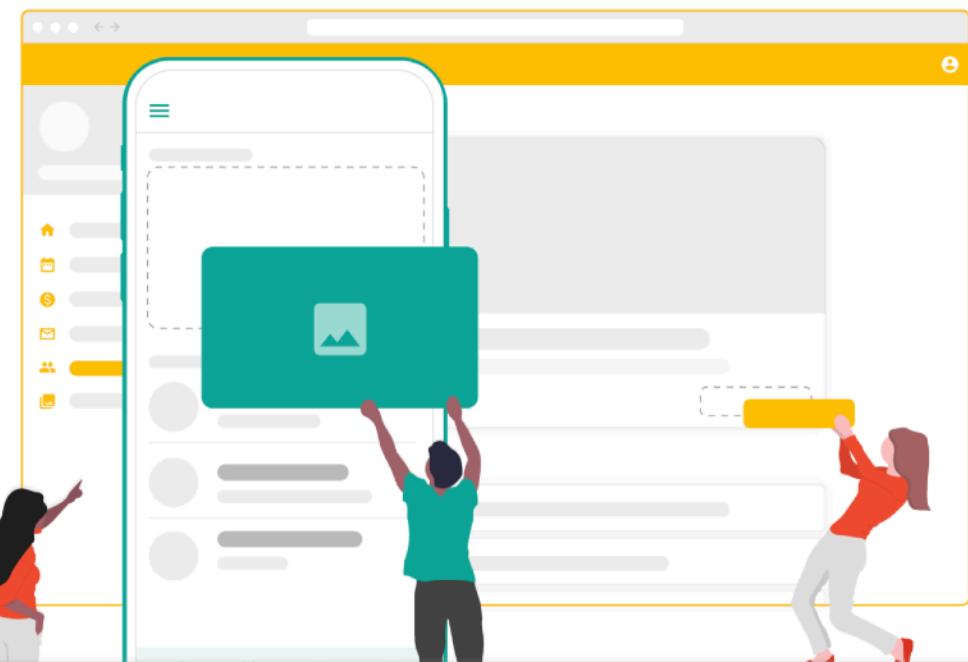
SIGN UP

Meet Adalo.

Turn Your Client'
Into Reality Without Coding!

GET STARTED FOR FREE!

▶ WATCH VIDEO



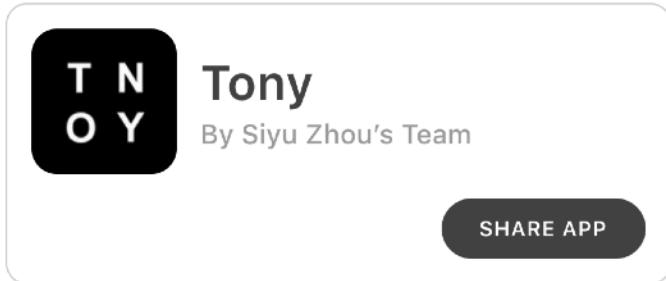
Yay! Cookies! To personalize your experience, we use cookies. By continuing you agree.

SOUNDS GOOD

Resolving host...

<https://www.adalo.com/>

Example Using Adalo



Scan to Install

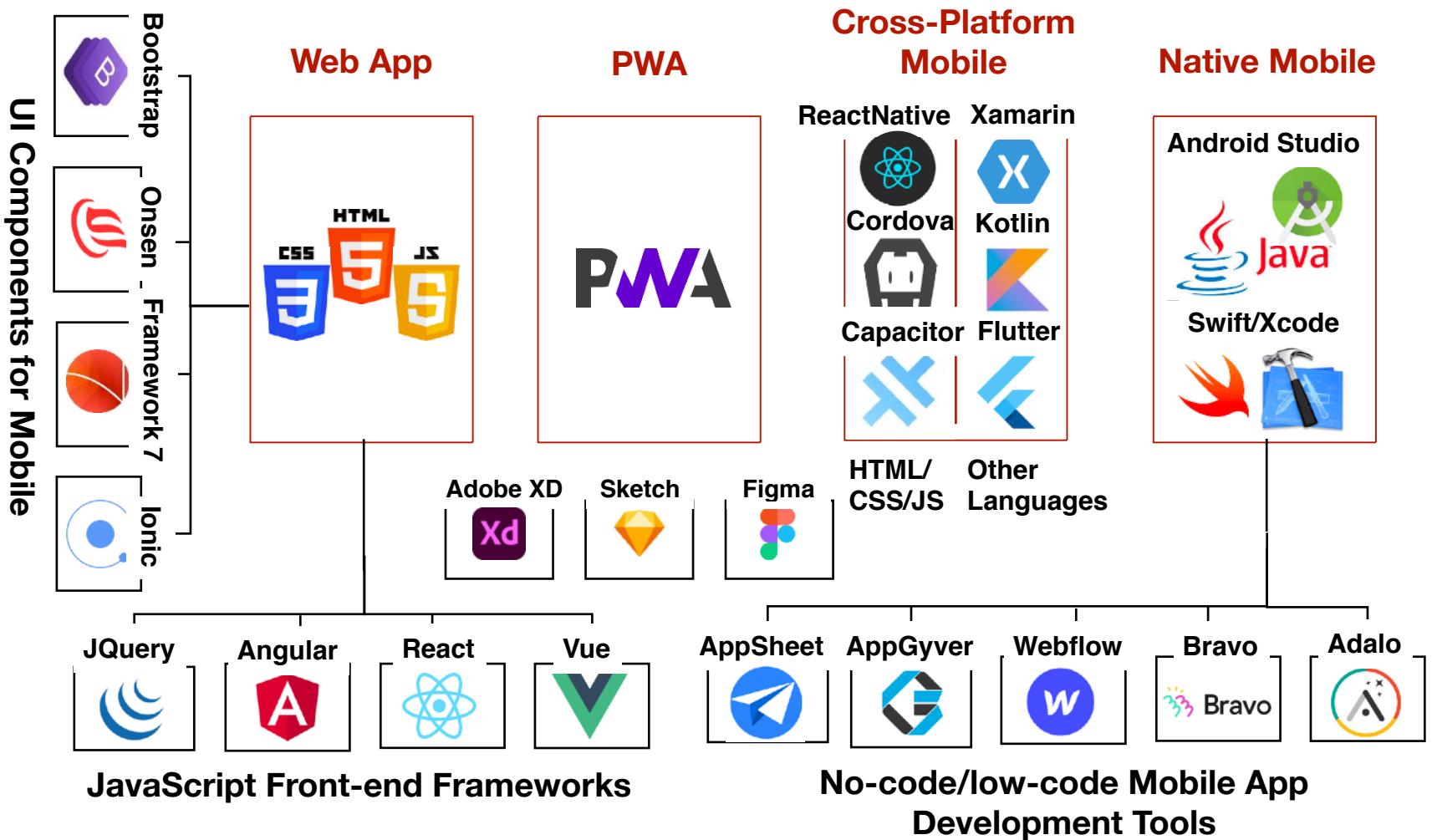
*If your camera doesn't have a QR code scanner,
you can [send the link via sms](#) or [copy the link here](#).

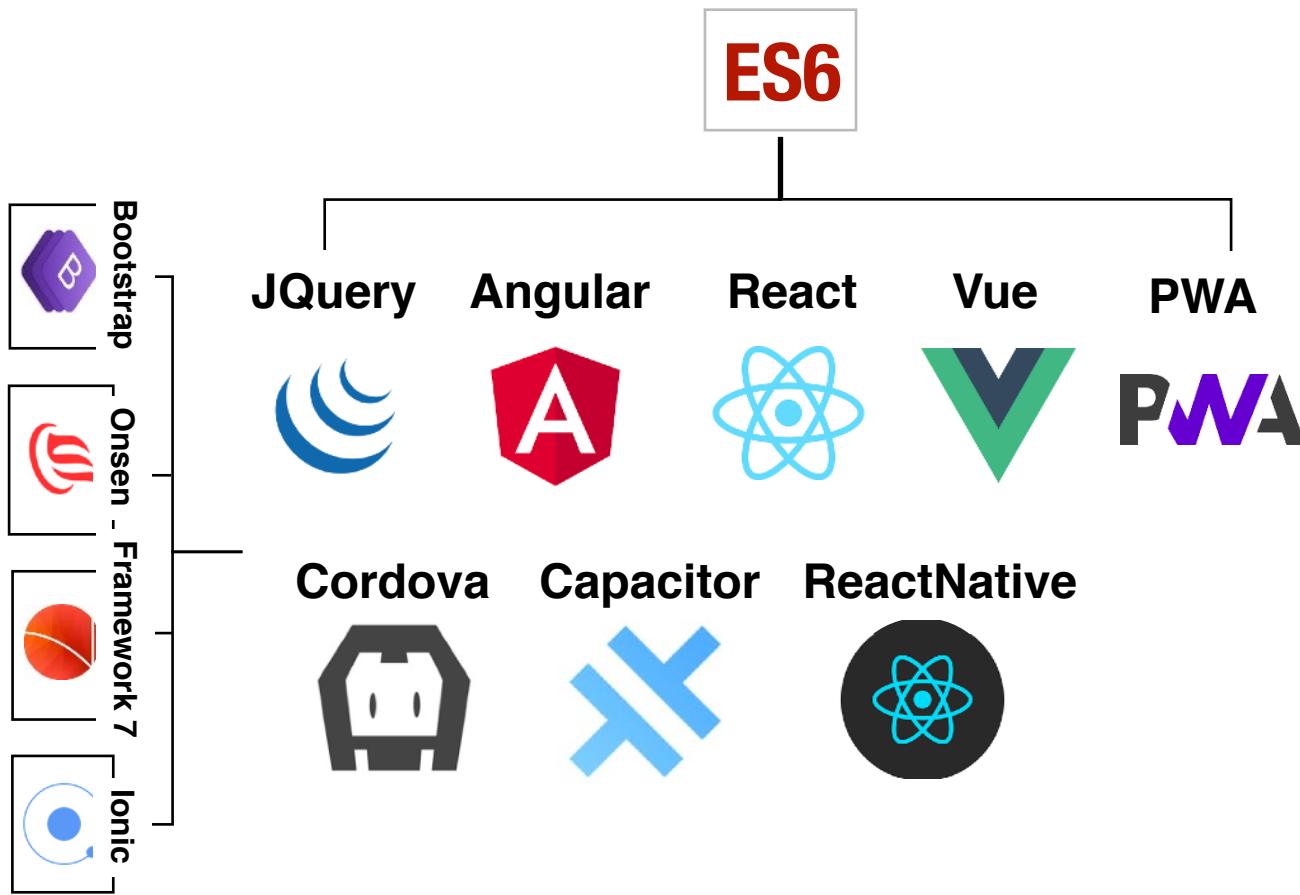


<https://previewer.adalo.com/ec8f2d77-7957-4caf-a171-4957a698102a?target=1g6tj7tp0d67xfweckvxpdztd¶ms=%7B%7D>

1. The **positioning** of this no-code/low-code may get stuck in the middle for app development.
2. UX/UI designers may find the **UI** handling parts too **limiting**.
3. Developers find the **business logic** and **back-end** handling parts too **limiting**.
4. When used only for **design** and **prototyping**, it is **not as flexible as Sketch, Adobe XD and Figma**.
5. Nonetheless, it is suitable for cross-platform **MVP** development and deployment.

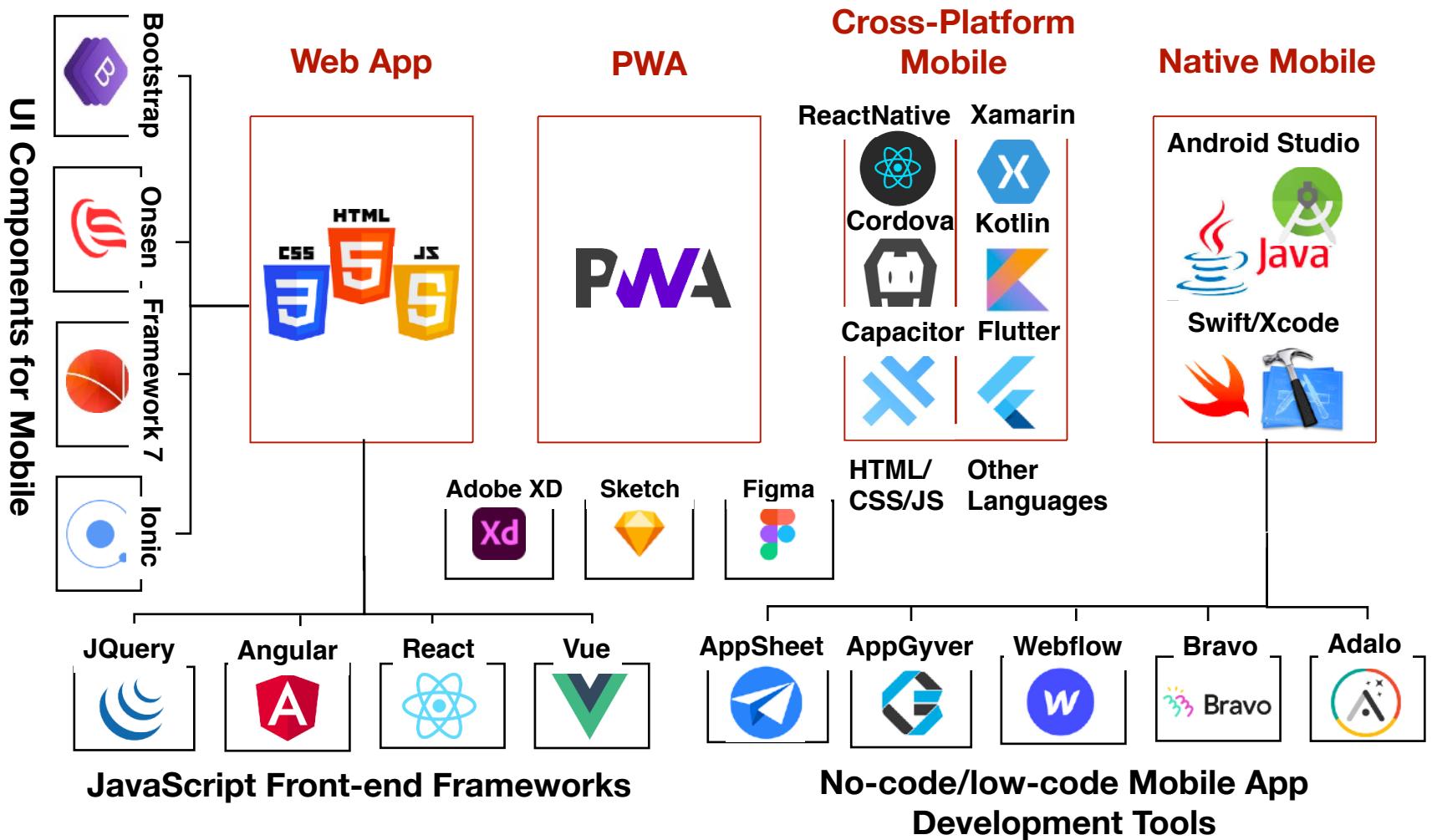
Why ES6?



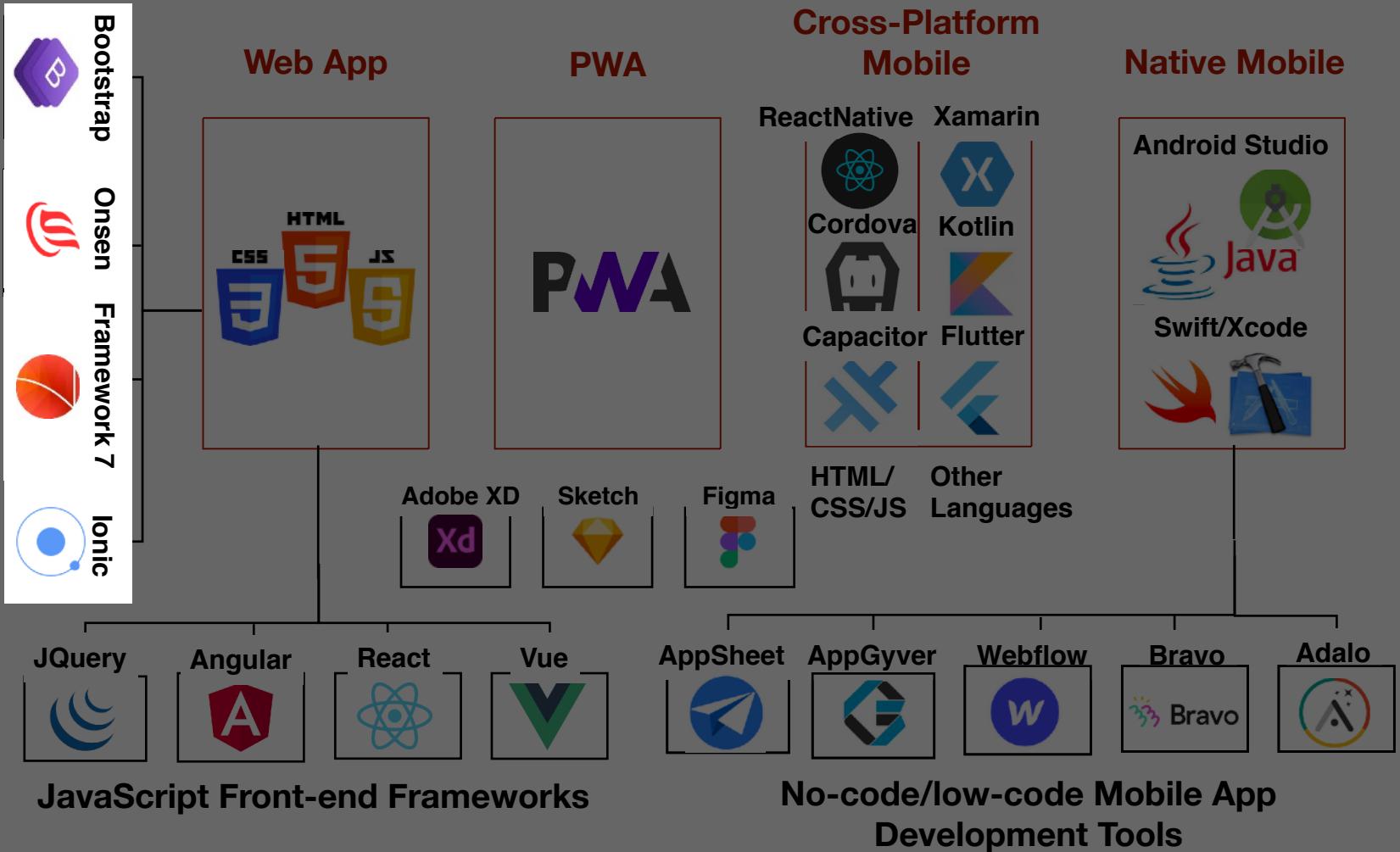


1. **Evolution of front-end development** and how ES6 becomes a critical part of the new development.
2. From **ES6** to cross-platform mobile application development.
3. **Quick review** of basic JavaScript before ES6.
4. ES6 and modern JavaScript frameworks (e.g. **React, Angular, Vue**)
5. Code development and deployment on **Heroku**.

Front-end mobile UI Components



UI Components for Mobile



Material Design for Bootstrap v5 & v4



- ✓ 700+ UI components & templates
- ✓ Super simple, 1 minute installation
- ✓ Free hosting
- ✓ MIT license - free for personal & commercial use

[GET STARTED](#)`npm i mdb-ui-kit`

Trusted by 2,000,000+ developers and designers



02

MDB
Crash Course
For Beginners

Deploy with free hosting

Learn how to **create, deploy & host** anything with a single command. Go from Zero to Production with the most efficient method of using MDB tools.

Material Design for Bootstrap 5 & Vanilla JavaScript

Standard Bootstrap version built with plain JS (but works also with jQuery)

- ✓ 700+ UI components & templates
- ✓ Built with plain, vanilla JavaScript
- ✓ Super simple, 1 minute installation
- ✓ Free hosting
- ✓ Easy customization with Webpack
- ✓ MIT license - free for personal & commercial use

GET STARTED

DEMO

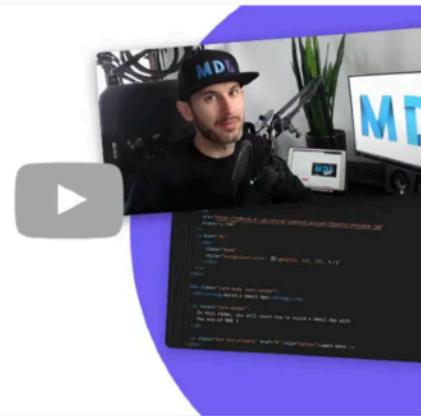


npm i mdb-ui-kit



01

MDB
1 minute
Quick Start



Trusted by 2,000,000+ developers and designers



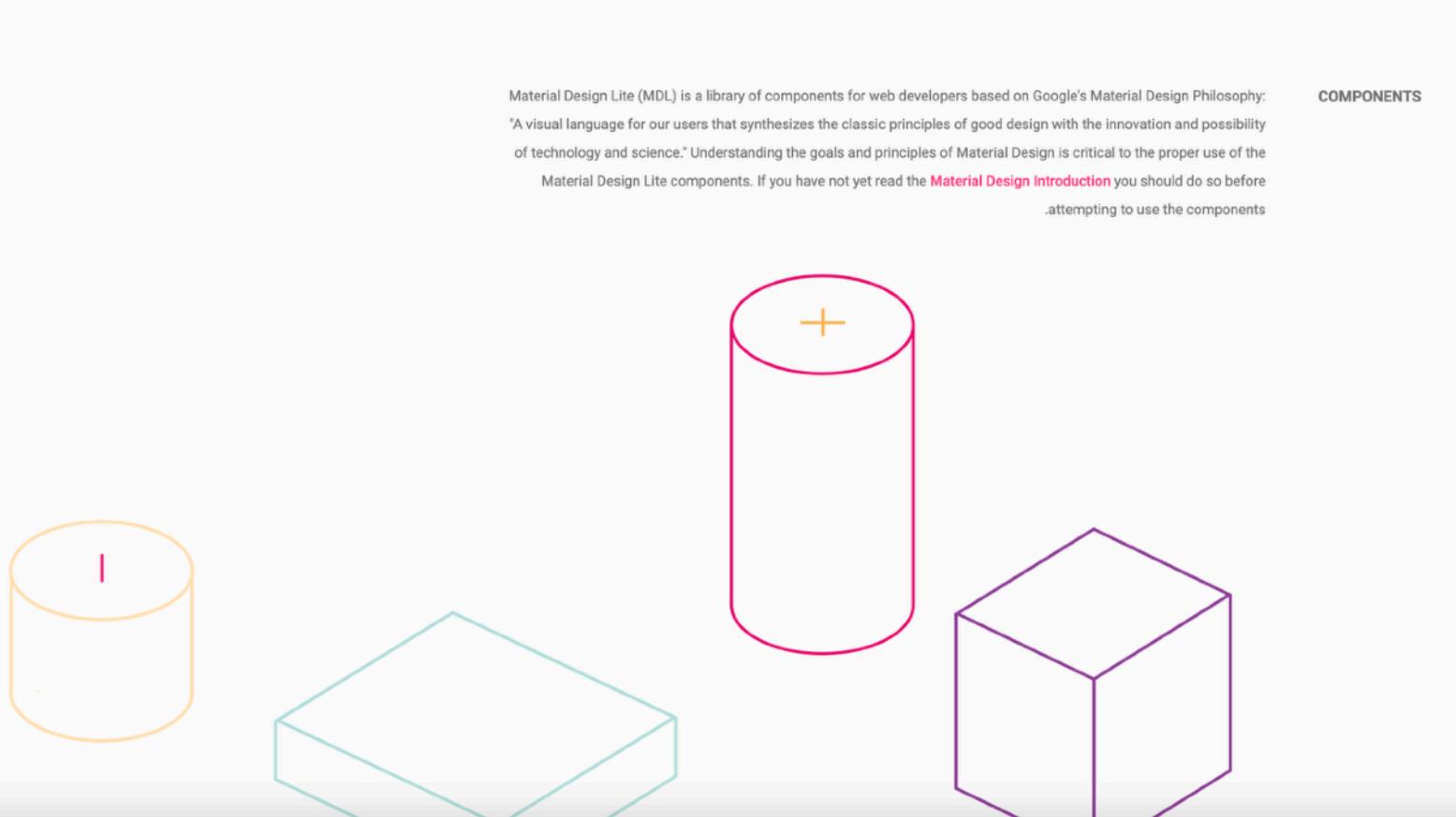
<https://mdbootstrap.com/docs/jquery/components/demo/>



Material Design Lite

Material Design Lite lets you add a [Material Design](#) look and feel to your websites. It doesn't rely on any JavaScript frameworks and aims to optimize for cross-device use, gracefully degrade in older browsers, and offer an experience that is immediately accessible. [Get started now.](#)

<https://getmdl.io/>

[Download](#)[GitHub](#)[FAQ](#)[SHOWCASE](#)[CUSTOMIZE](#)[STYLES](#)[COMPONENTS](#)[TEMPLATES](#)[GETTING STARTED](#)[ABOUT](#)

COMPONENTS

- Badges
- Buttons
- Cards
- Chips
- Dialogs
- Layout
- Lists
- Loading
- Menus
- Sliders
- Snackbar

<https://mdl.rtlcss.com/components/index.html>



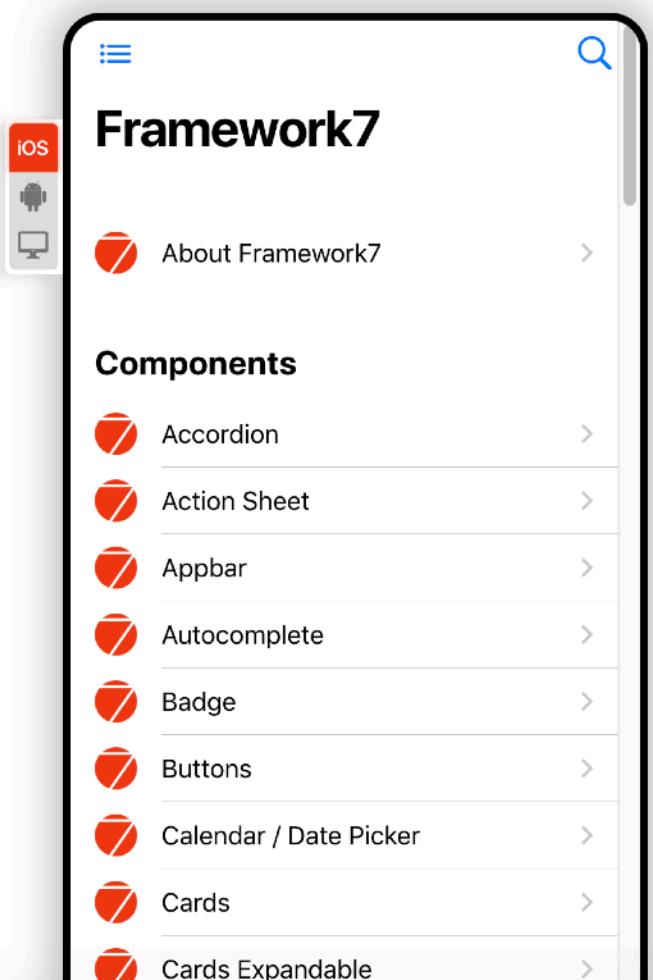
**Build full featured iOS,
Android & Desktop apps**

 **Get Started**

[Docs](#) [Templates](#) [Apps Showcase](#) [Forum](#)

<https://framework7.io/>

MIT Licensed, v5.3.2 released on January 18, 2020



The screenshot shows a mobile application interface for Framework7. At the top left is a navigation menu icon (three horizontal lines) and at the top right is a search icon (magnifying glass). Below the header, there's a toolbar with icons for iOS, Android, and Desktop. The main content area has a title "Framework7" and a sidebar titled "Components". The "Components" section lists ten items, each with a red circular icon containing a diagonal slash:

- About Framework7
- Accordion
- Action Sheet
- Appbar
- Autocomplete
- Badge
- Buttons
- Calendar / Date Picker
- Cards
- Cards Expandable

Sponsors

Kitchen Sink

[Source Code](#)[Running Locally](#)

Framework7 Kitchen Sink is a great place to get started, it has a lot of examples for all Framework7 components and covers most of aspects.

It is recommended to use Kitchen Sink as a reference during development.

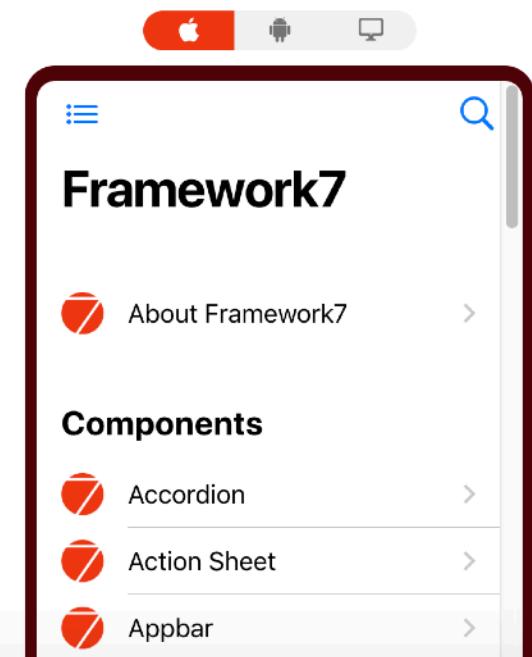
Source Code

Core Kitchen Sink source code is located at [GitHub repository](#)

Running Locally

To run Core Kitchen Sink locally we need:

1. Download and unzip [Framework7 GitHub repository](#) to a local folder
2. Install [Node.js](#) (if not installed)



<https://framework7.io/docs/kitchen-sink.html>

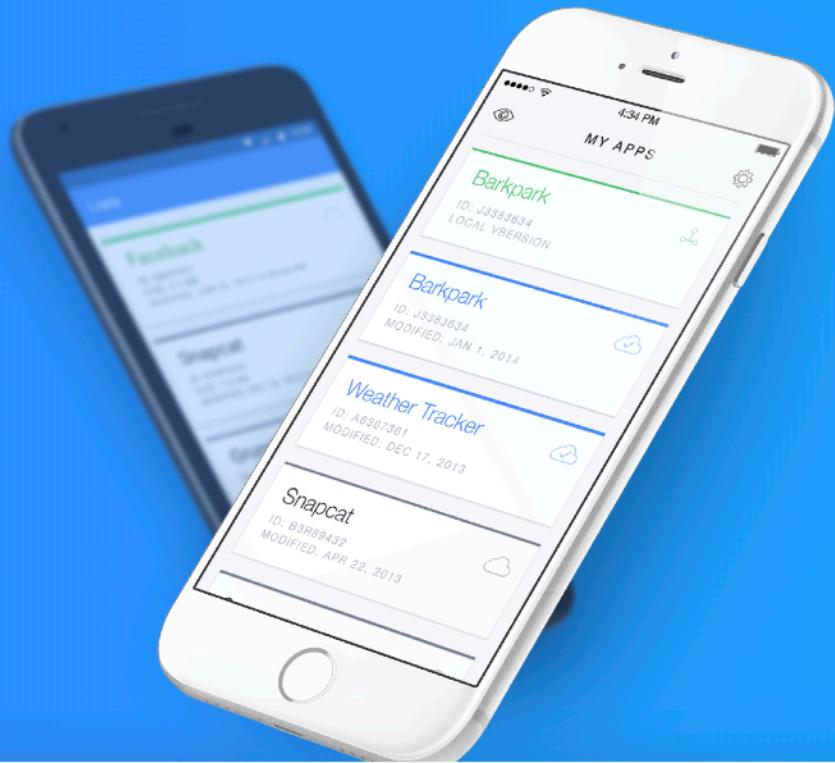
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The top open source framework for building amazing mobile apps.

Ionic is the beautiful, free and open source mobile SDK for developing native and progressive web apps with ease.

[Get started](#)[Explore the docs](#)

v4.10.0 / 2019-09-27 / MIT Licensed / [Release Notes](#)



<https://ionicframework.com/framework>

JS JavaScript

ACTION SHEET

ion-action-sheet

ion-action-sheet-controller

ALERT

ion-alert

ion-alert-controller

BADGE

ion-badge

BUTTON

ion-button

ion-ripple-effect

CARD

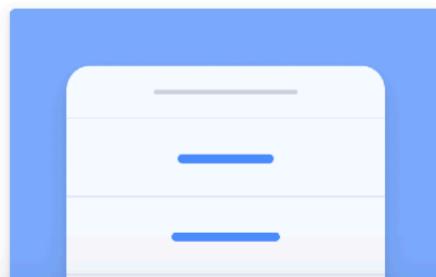
ion-card

ion-card-content

ion-card-header

UI Components

Ionic apps are made of high-level building blocks called Components, which allow you to quickly construct the UI for your app. Ionic comes stock with a number of components, including cards, lists, and tabs. Once you're familiar with the basics, refer to the [API Index](#) for a complete list of each component and sub-component.



Alert

Alerts are a great way to offer the user the ability to choose a specific action or list of actions.

Badge

Badges are a small component that typically communicate a numerical value to the user.

<https://ionicframework.com/docs/components>

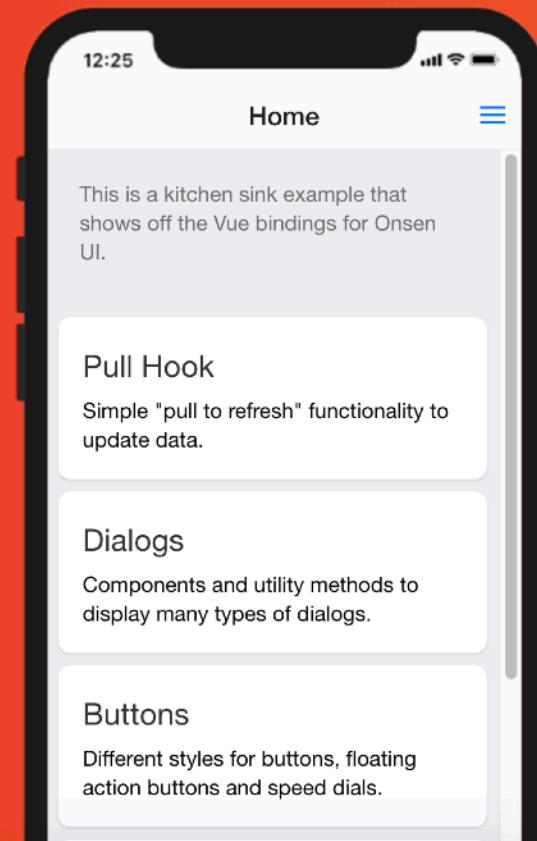
The most beautiful and efficient way to develop HTML5 hybrid and mobile web apps.

[GET STARTED](#)[DOWNLOAD](#)

2.10.10

 Star 7,808

Libraries for framework users

<https://onsen.io/>

Carousel**carousel**

Tutorial

See Also

Attributes

Properties

Methods

Events

carousel-item

Conditional

if

Control

pull-hook

segment

speed-dial-item

speed-dial

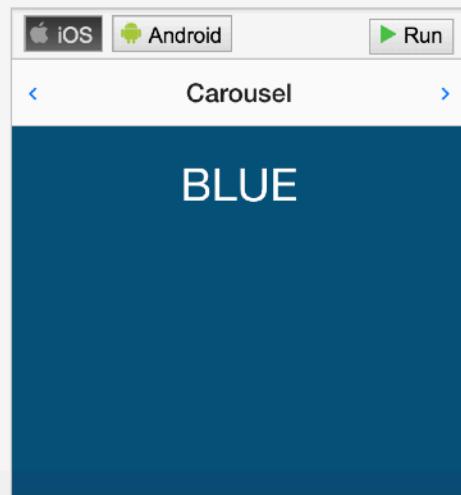
Dialog

ons-carousel

JavaScript Core ▾

Carousel component. A carousel can be used to display several items in the same space. The component supports displaying content both horizontally and vertically. The user can scroll through the items by dragging and it can also be controlled programmatically.

Tutorial



The screenshot shows the same mobile application interface as above, but with code visible on the right side. The code is split into two sections: 'HTML' and 'JS'.

HTML:

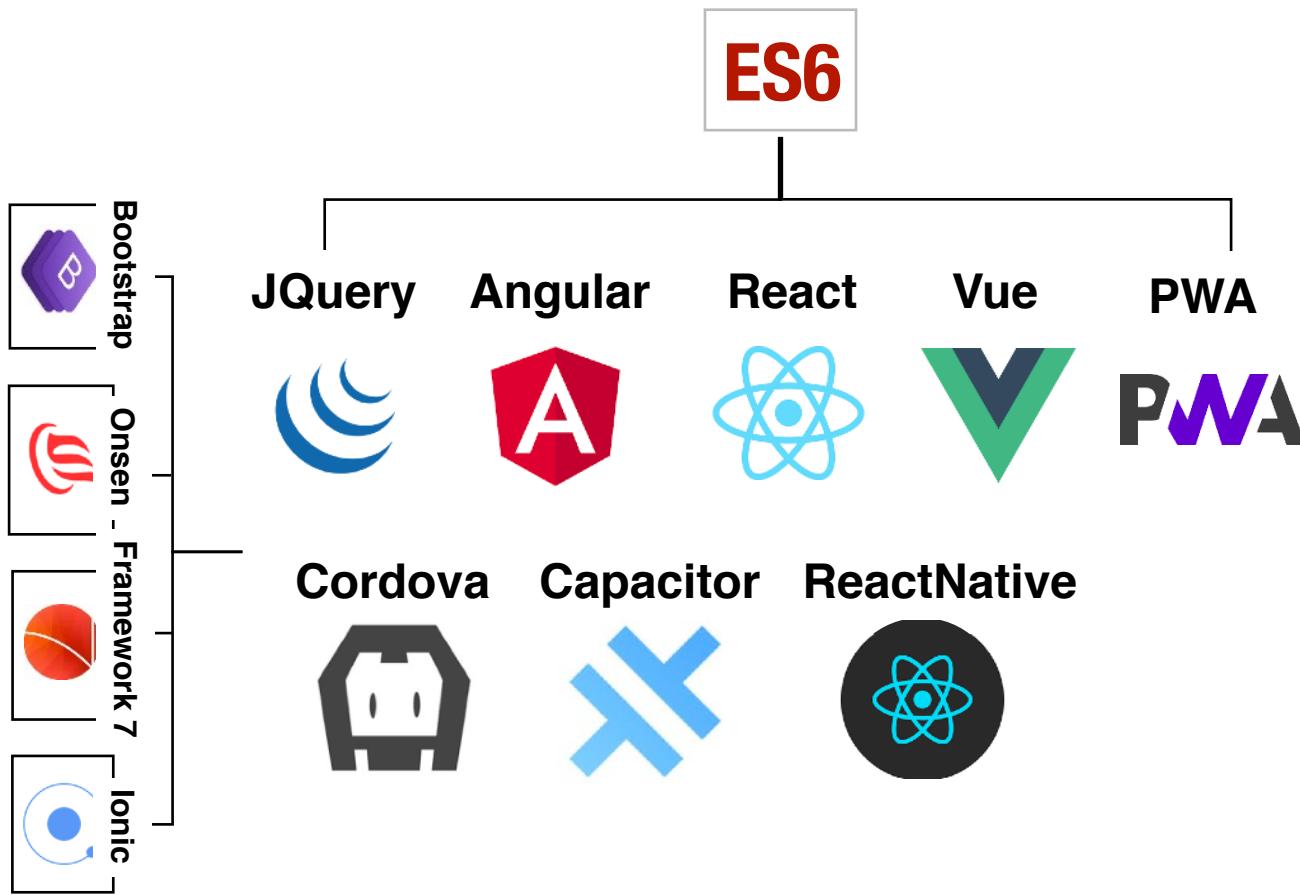
```
<ons-page>
  <ons-toolbar>
    <div class="left">
      <ons-toolbar-button onclick="prev()>
        <ons-icon icon="md-chevron-left"></ons-icon>
      </ons-toolbar-button>
    </div>
    <div class="center">Carousel</div>
    <div class="right">
      <ons-toolbar-button onclick="next()>
        <ons-icon icon="md-chevron-right"></ons-icon>
      </ons-toolbar-button>
    </div>
  </ons-toolbar>
</ons-page>
```

JS:

```
var prev = Function();
var carousel = document.getElementById('carousel');
carousel.prev();
```

<https://onsen.io/v2/api/js/ons-carousel.html>

JavaScript Frameworks



[Documentation](#)[Plugins](#)[Blog](#)[Contribute](#)[Get Started](#)

Search 'g.x' docs...



APACHE CORDOVA™

Mobile apps with **HTML, CSS & JS**

Target multiple platforms with **one code base**

Free and **open source**

[GET STARTED](#)[DOCUMENTATION](#)

Reusable code
across

Waiting for cordova.apache.org...



Support for
offline scenarios



Access native
device APIs

<https://cordova.apache.org/>

Mobile App Bridge



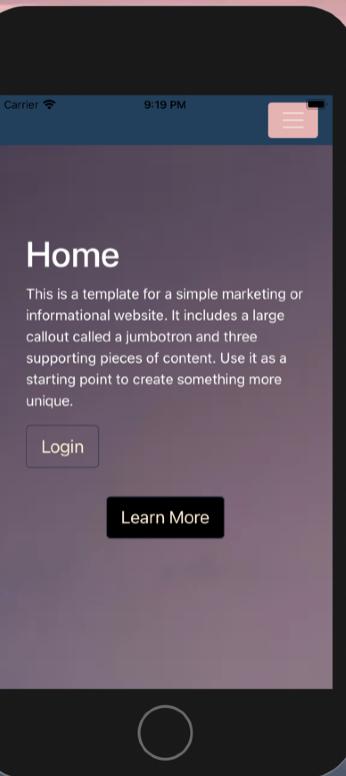
Examples Using Cordova

Home

This is a template for a simple marketing or informational website. It includes a large callout called a jumbotron and three supporting pieces of content. Use it as a starting point to create something more unique.

Login

Learn More



<https://suentze2021.pythonanywhere.com/>



A screenshot of a desktop browser showing the "Book Detective" website. The header features a red navigation bar with "首页" (Home), "作家" (Author), "小说" (Novel), "影视化" (Cinema), and "书店" (Bookstore). The main content area has a large image of a bookshelf. On the right, a large white text box contains the title "寻书侦探" and the subtitle "带你探索你喜欢的日本侦探小说". Below this, a smaller text box says "欢迎初体验日本侦探小说阅读者、学生党以及工作党。寻书侦探为读者寻找书籍以及购买方式提供建议。". At the bottom left, the text "Student Project" is displayed.

https://halliez.github.io/2019-COMM5961/Final_Project/index.html



首页



筛选



发现

<https://gracege29.github.io/exercise/BTA/home.html>





PASSION
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From Cordova to Monaca



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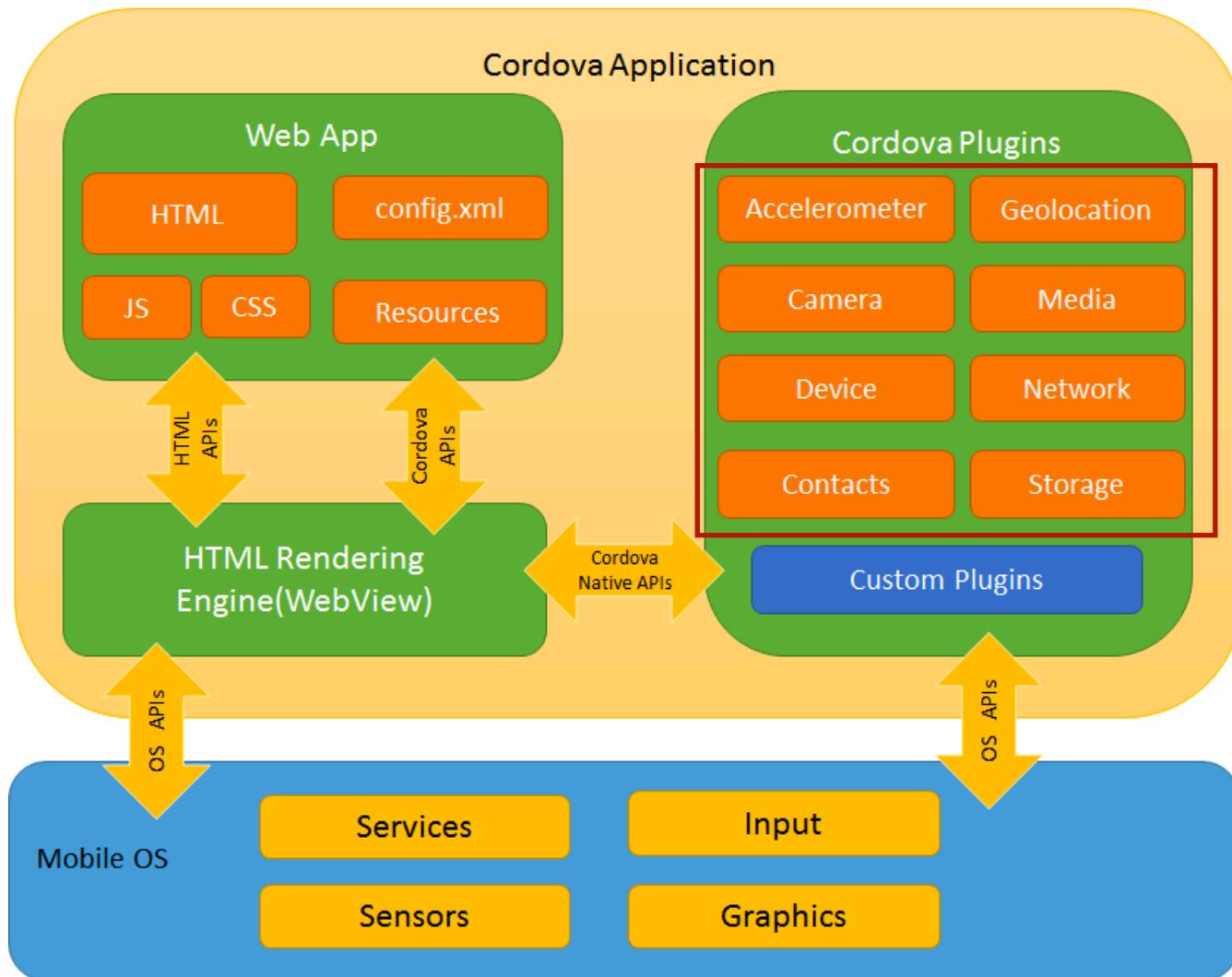
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1 month License	Free	\$22	\$77	\$1,100
6 month License	Free		\$423.50	\$6,050
1 year License	Free	\$220	\$770	\$11,000
Developer license			1 @5 while in Trial period	5
Additional Developer License (1 month)			\$55	\$110
pay by a credit card		✓	✓	
Invoice payment			✓ @5 months or 1 year license only	✓

Mobile App Bridge



Source: <https://www.udemy.com/course/learn-to-build-your-first-apache-cordova-app/>

The Native Bridge for Cross-Platform Web Apps

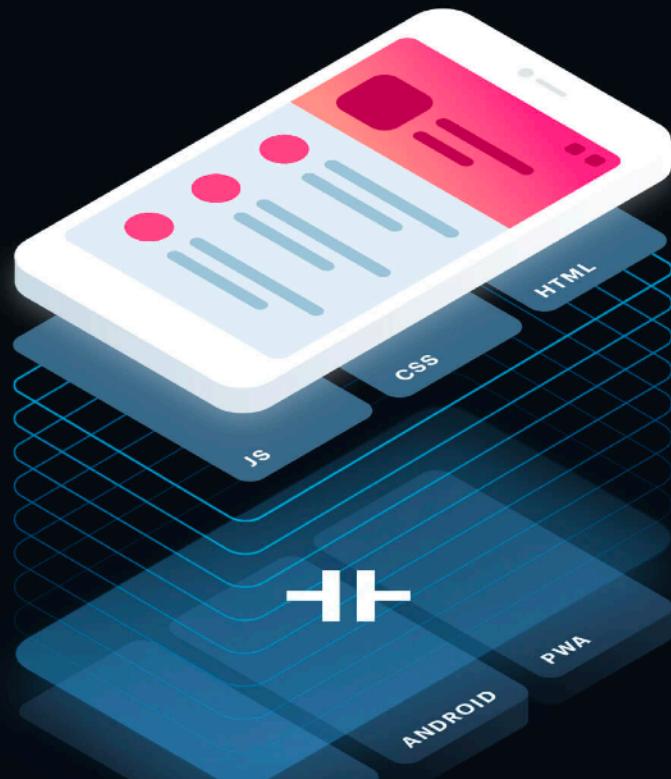
Invoke Native SDKs on iOS, Android, Electron, and the Web with one code base. Optimized for Ionic Framework apps, or use with any web app framework.

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SUPPORTS



<https://capacitor.ionicframework.com/>



Mobile App Bridge



 capacitor





0.61

Docs

API

Community

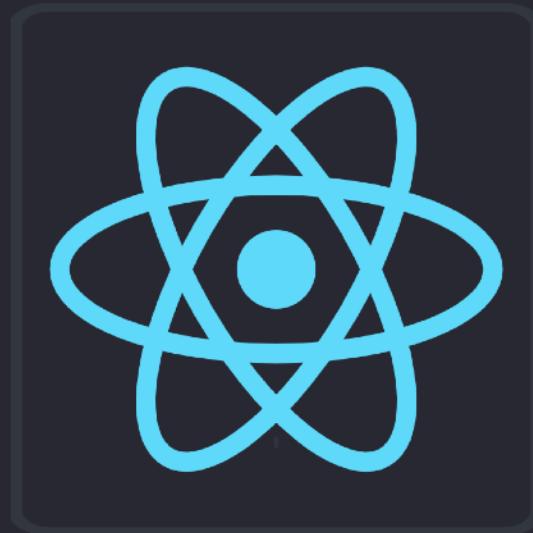
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React Native

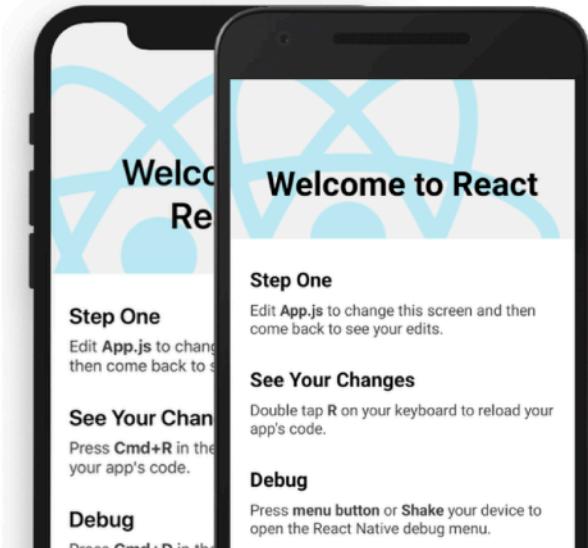
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<https://facebook.github.io/react-native/>

Mobile App Bridge





Written in JavaScript—rendered with native code

React primitives render to native platform UI, meaning your app uses the same native platform

[API](#) [About](#) [Example](#)

Create native apps for Android and iOS using React

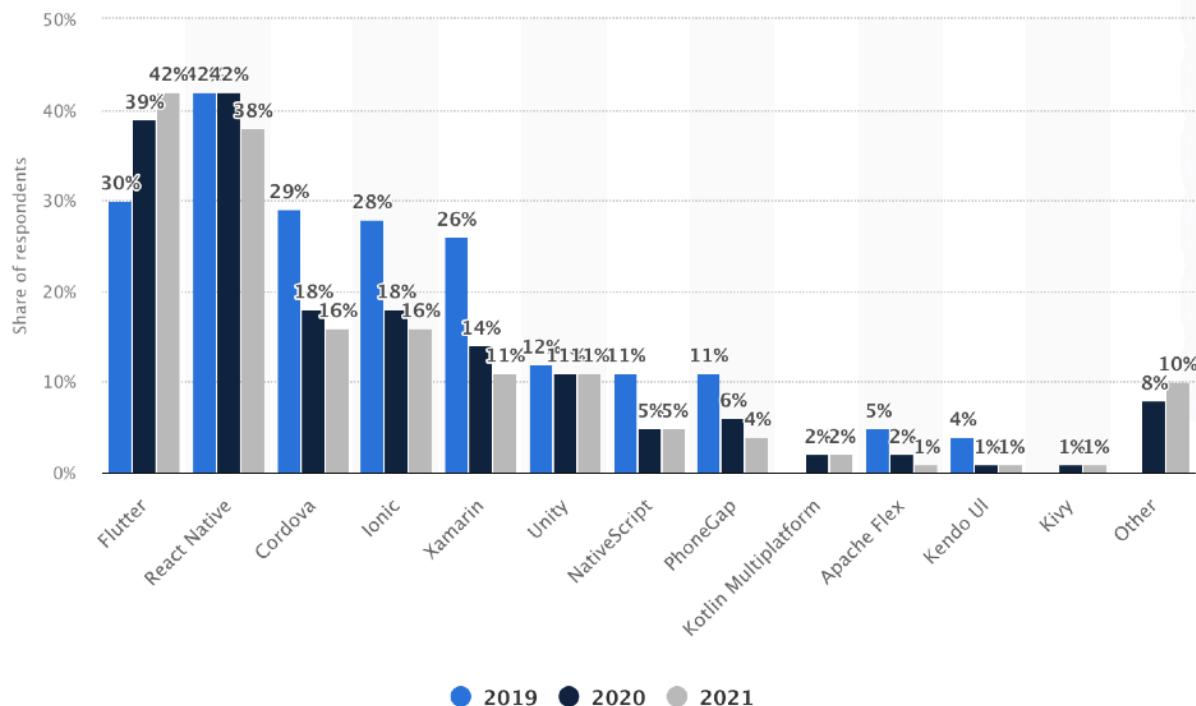
React Native combines the best parts of native development with React, a best-in-class JavaScript library for building user interfaces.

Use a little—or a lot. You can use React Native today in your existing Android and iOS projects or you can create a whole new app from scratch.

```
import React from 'react';
import {Text, View} from 'react-native';
import {Header} from './Header';

const WelcomeScreen = () =>
  <View>
    <Header title="Welcome to React Native"/>
    ...
  </View>
```

Cross-platform mobile frameworks used by software developers worldwide from 2019 to 2021



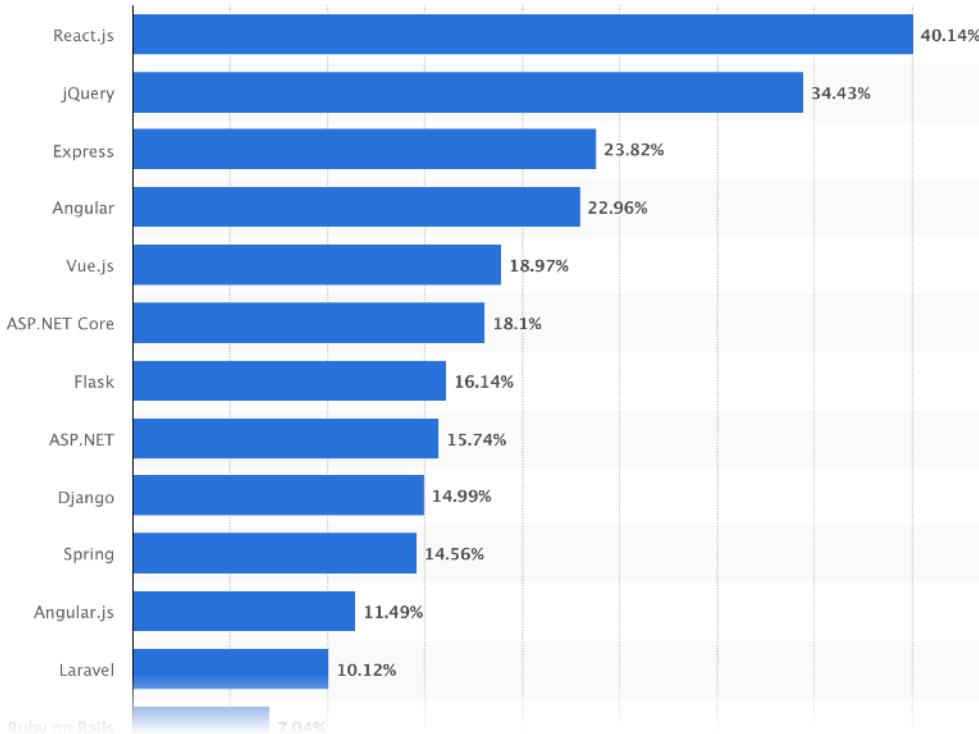
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Source: Statista 2022

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Most used web frameworks among developers worldwide, as of 2021



⊕ Expand statistic

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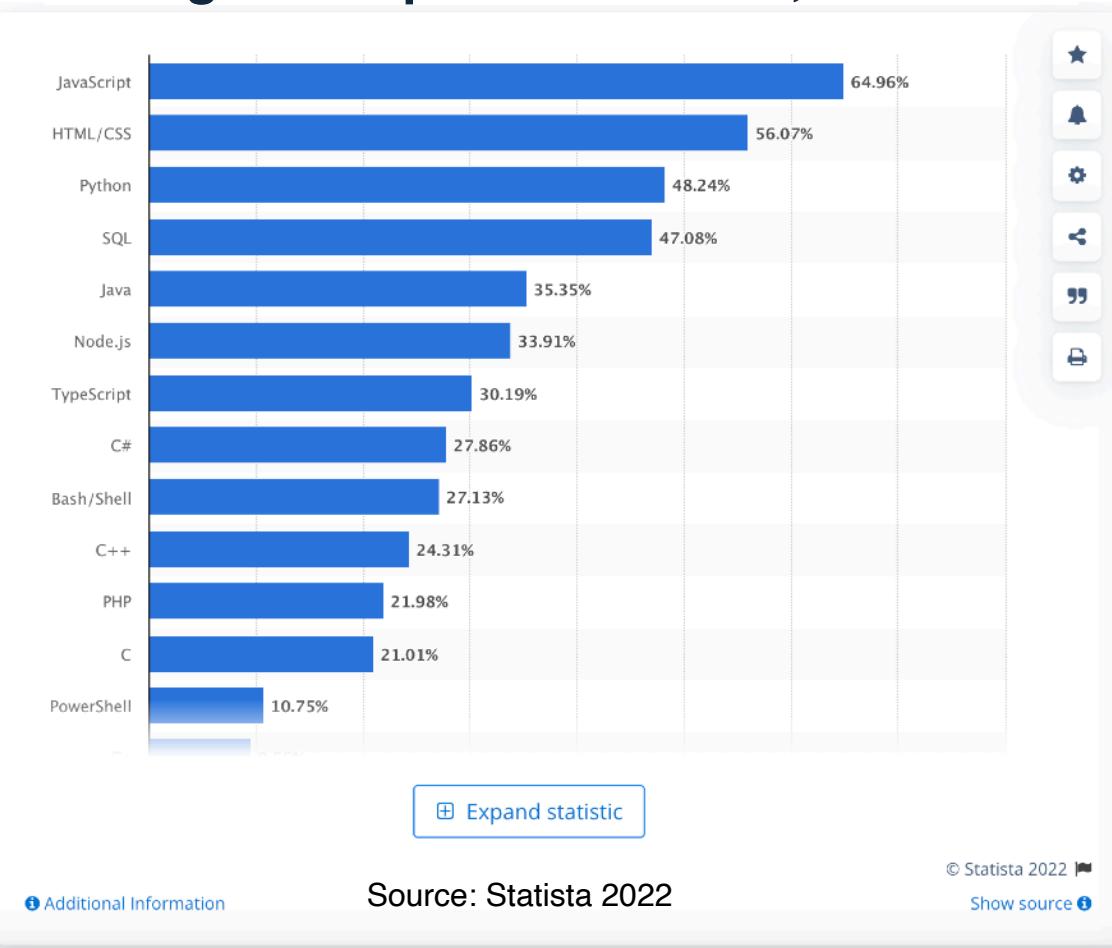
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Most used programming languages among developers worldwide, as of 2021



Implications for PM

Features	Web	PWA	Hybrid	Native	No-code/ Low-code
Knowledge of HTML/CSS/JS	✓	✓	✓	✗	NA
SEO-indexed	✓	✓	✓	✗	✗
Easy to build and cheaper	✓	✓	✗	✗	✓
Cross-Platform Support	✓	✓	✓	✗	✓
Run in a browser	✓	✓	✗	✗	✗
Faster performance	✗	✗	✗	✓	✗
Downloadable from app store	✗	✓	✓	✓	✓
Prebuilt component support	✓	✓	✓	✗	✓
Device support (camera, push notification, geolocation, etc)	✗	✗	✓	✓	✓
Flexibility and control over UI and device	✗	✗	✓	✓	✗

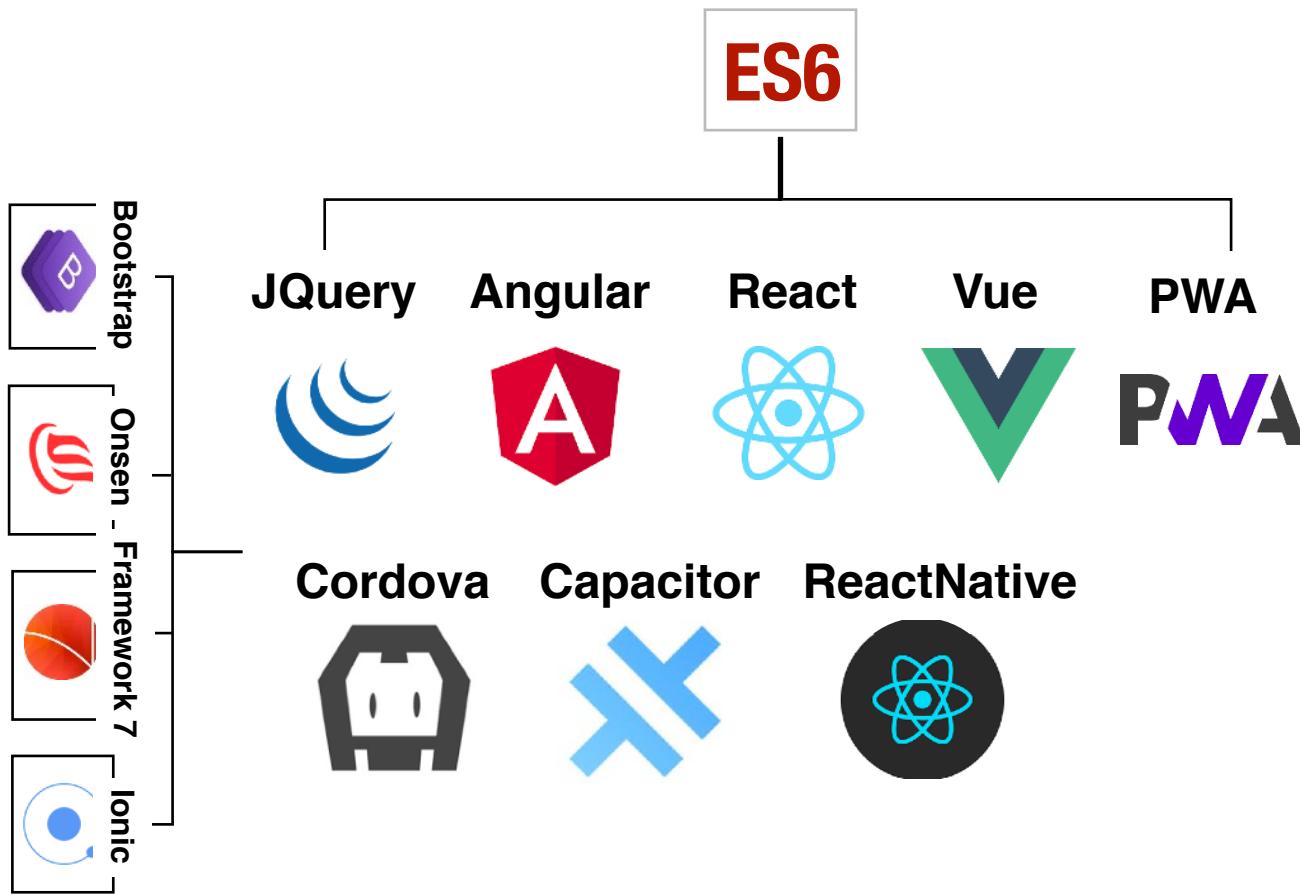
No - ✗ / Somewhat - ✘ / Yes - ✓ / NA

1. Budget Limitation.
2. Cannot afford to have both **Android** and **IOS** developers onboard.
3. Under extreme time pressure to launch the product.
4. Leverage **HTML/CSS/JS** expertise and **SEO**.
5. Leverage modern JS frameworks and no-code/low-code tools for **rapid cross-platform development**.
6. **Division** of labor among team members will change.
7. Cut down development **cost** with quicker product release iteration and **less** human labour.
8. Native code **optimisation** can be done **later** once market validation is completed.

Question to ask:

As an organization, how best to choose one's front-end/back-end technology stack (i.e. suite of tools) to boost development time and performance?

JavaScript Programming: From Pre- ES6-JS to ES6-JS (ECMAScript 2015)



Pre-ES6 Features Covered in COM5961

1. Variable data type (e.g. number, string, boolean)
2. Prompt/Alert (i.e. Popup for simple input and output)
3. Conditionals (if/then/else {})
4. Loop (for/while {})
5. Array (e.g. [1,2,3,4,5] which is equivalent to Python List)
6. Object (e.g. { "id": "1111", "name": "Ming Chang" } which is equivalent to Python Dictionary)
7. Simple JS Function and Event Listener
8. Use of selectors (e.g. getElementById(selector) or querySelector(selector))
9. HTML Form handling in JavaScript (e.g. input validation)
10. Place content in between <div></div> tags.

ES6 (ECMAScript 2015) and other Adv. JS Features Covered in COM5940

1. Callback (ES5 feature)
2. Temperate Literal (i.e. Backtick)
3. Arrow function
4. Class, Constructor and Super (i.e. parent class)
5. Import and Export Modules
6. High order functions (foreach,map,filter,reduce,sort)
7. JSON stringify and parse functions
8. Fetch and Async/Await (Promise)

**Let's learn `ES6` together with some
additional visual tools.**

! NEW FEATURE: You can now create a gradient out of 3 colors!



Beta

ColorSpace

NEW

PALETTES

GRADIENT

3-COLOR-GRADIENT

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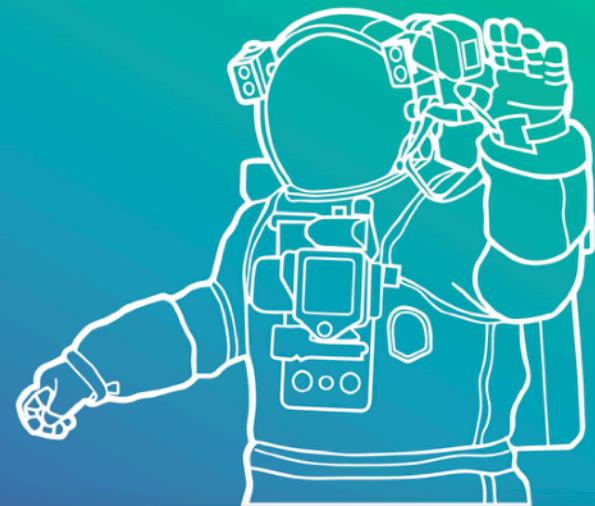
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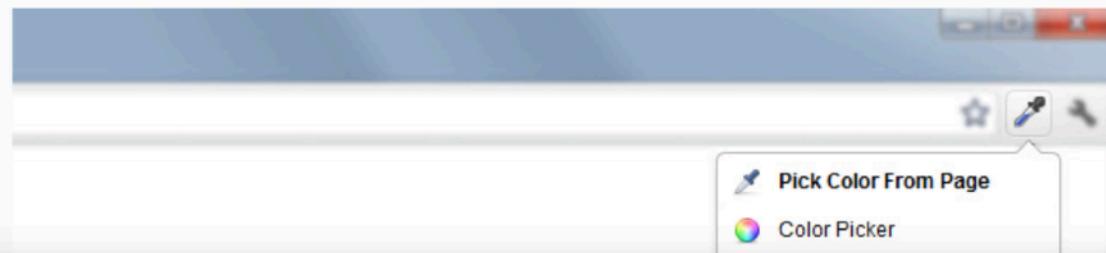
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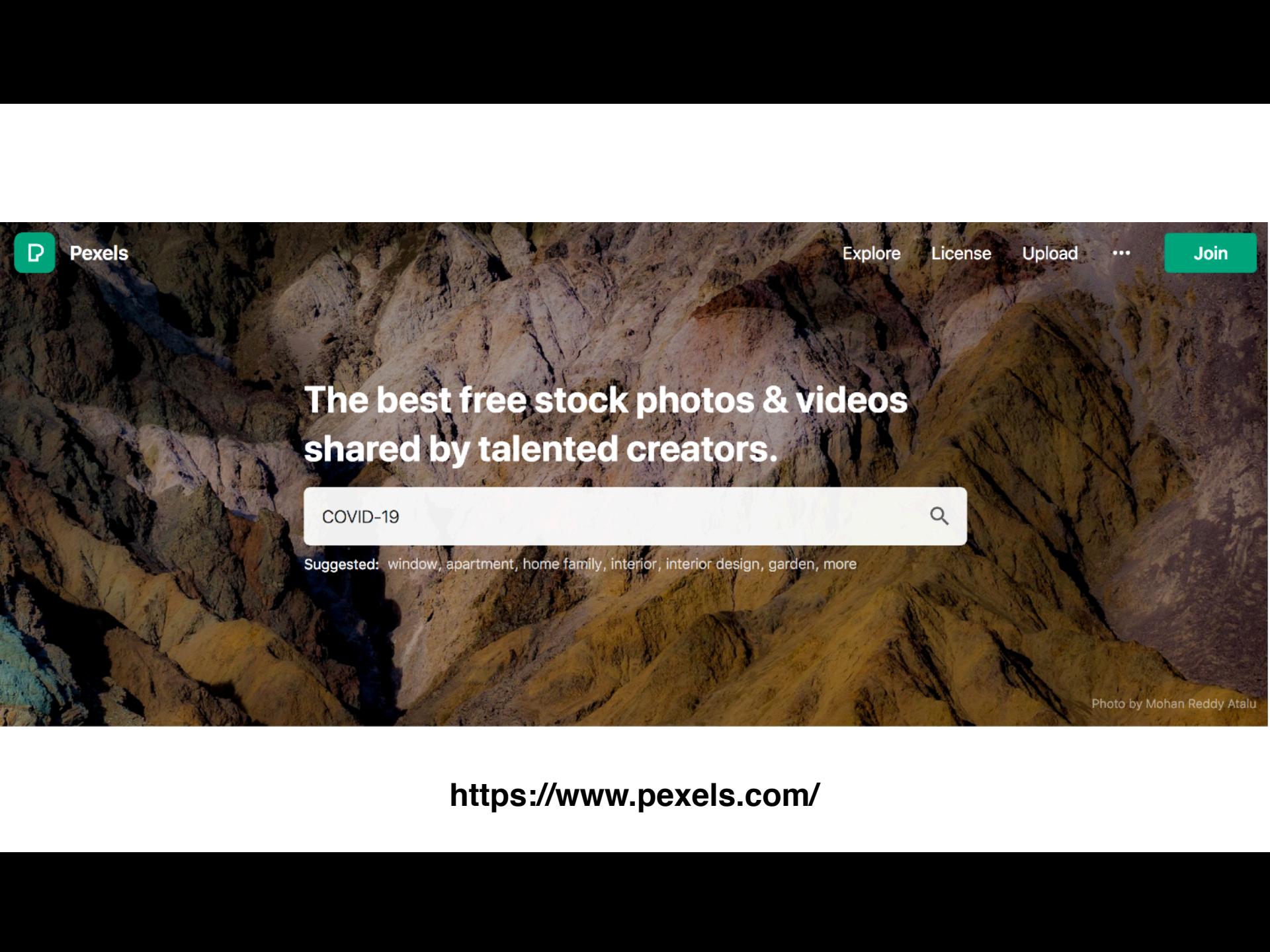
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- 1. Team formation has to be finalised before the beginning of lesson 3.**
- 2. Each team cannot have less than four people and not more than 6 people.**
- 3. Each team has to elect a representative as main contact person (Help to arrange meetings with me).**
- 4. Each team should have at least one Cantonese speaking member.**
- 5. A 2 page preliminary project proposal has to be submitted at the beginning of lesson 4.**

Project proposal should consist of the following:

- 1. A tentative title for the project (can be changed later).**
- 2. A name for your team.**
- 3. A topic with a tentative problem statement.**
- 4. The market being targeted can be based in Mainland China or Hong Kong SAR but user and customer research must be conductible locally.**
- 5. Preliminary secondary research summary related to the topic and problem statement.**
- 6. All the full names of the team members with student ID.**



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Thank you for your time!