



# COM5940: NEW MEDIA BUSINESS MODEL & INNOVATION ENTREPRENEURIAL MINDSET FOR DIGITAL INNOVATION

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# **Quick Recap**

# Comparison Between COM5961 and COM5940

	<b>COM5961</b>	<b>COM5940</b>
<b>Competency</b>	Individual mastery	Team project management
<b>Methodology Process</b>	Design/Computational Thinking, UX Evaluation	Lean Canvas, Agile Product Development & Growth Hacking
<b>CRISP-DM Development</b>	Web and Mobile Dataviz Prototyping	Cloud and API Services/ Machine Learning Models
<b>Requirement Analysis</b>	Product	Market, Product, Business
<b>Front-end/ Back-end</b>	Front-end: HTML/CSS/JS	Back-end: PHP/Python/SQL/NOSQL
<b>Application Focus</b>	Content Acquisition/ Management	Community Formation/E-Commerce/KOL-Commerce

- 1. General comments of COM5961 final projects.**
- 2. Python workshop recap.**

# **General Comments of COM5961 Final Projects**

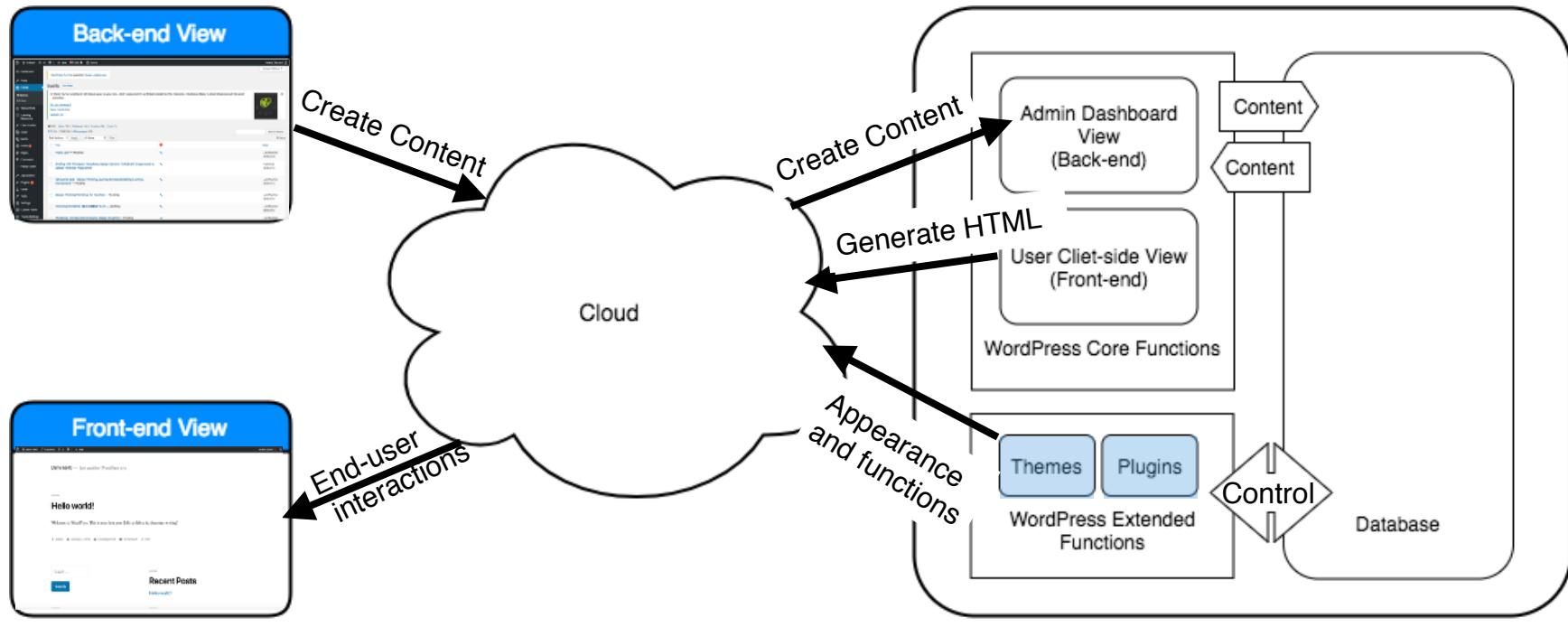
- 1. Responsive design testing.**
- 2. Ease of use in navigation.**
- 3. Unnecessary new tab created.**
- 4. Use of map.**
- 5. Use of chart.**
- 6. Use of Airtable features.**
- 7. Page loading time.**

# **Python Workshop Recap**

- 1. Use of conditionals**
- 2. Functional decomposition**
- 3. Saving to and retrieving from CSV file.**
- 4. Python as an all purpose and automation tool.**

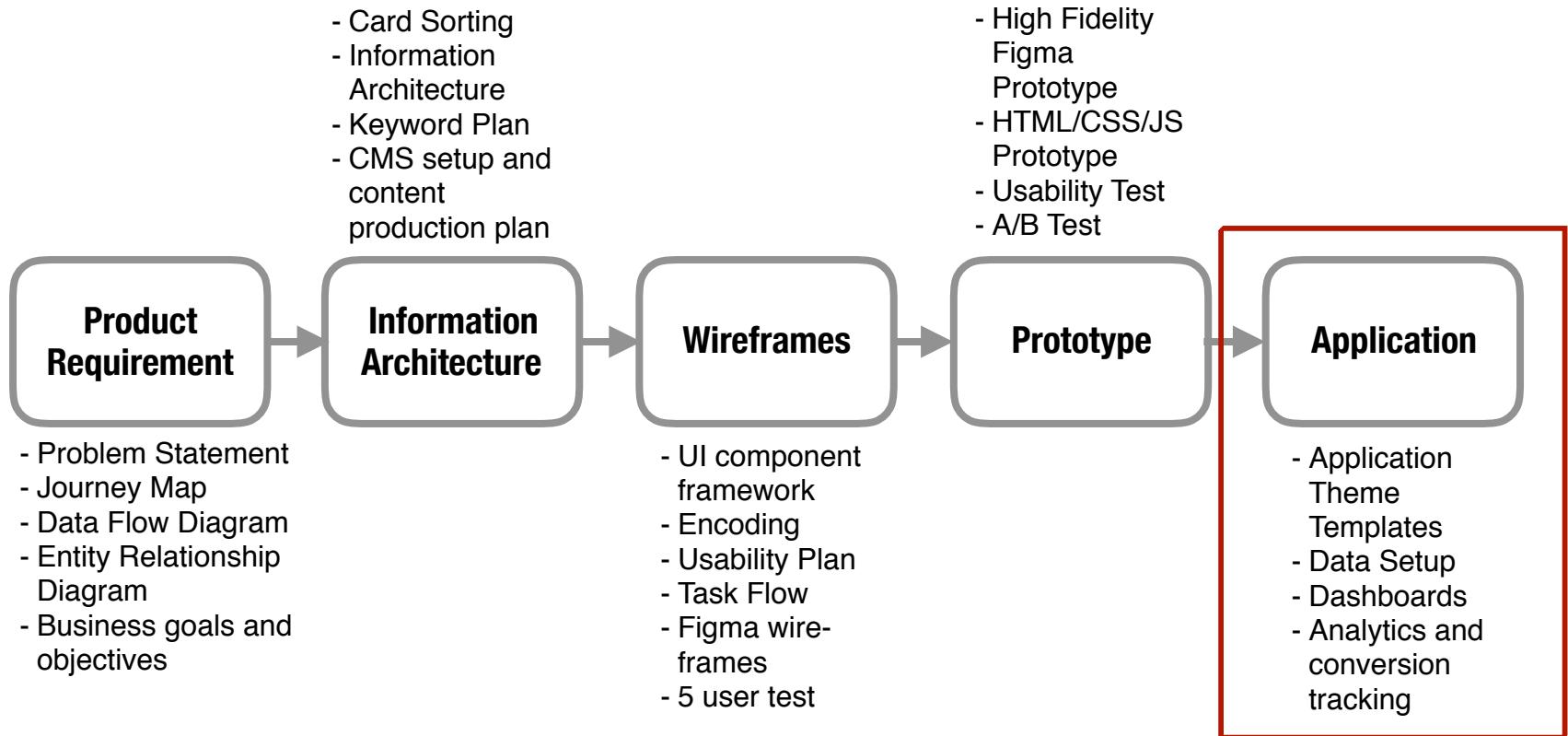
# **Today's Agenda**

- 1. 3C (content, community, commerce) development as basic operational requirements.**
- 2. The ABCD digital infrastructure moving to the cloud with big 4 (AWS, Azure, GCP, Alibaba) leading the pack.**
- 3. The Lean Startup Approach with the use of MVP and MVA for innovation and new product development.**
- 4. Assessment criteria, team formation and project management**



Source: Adapt from TECH LIMINAL

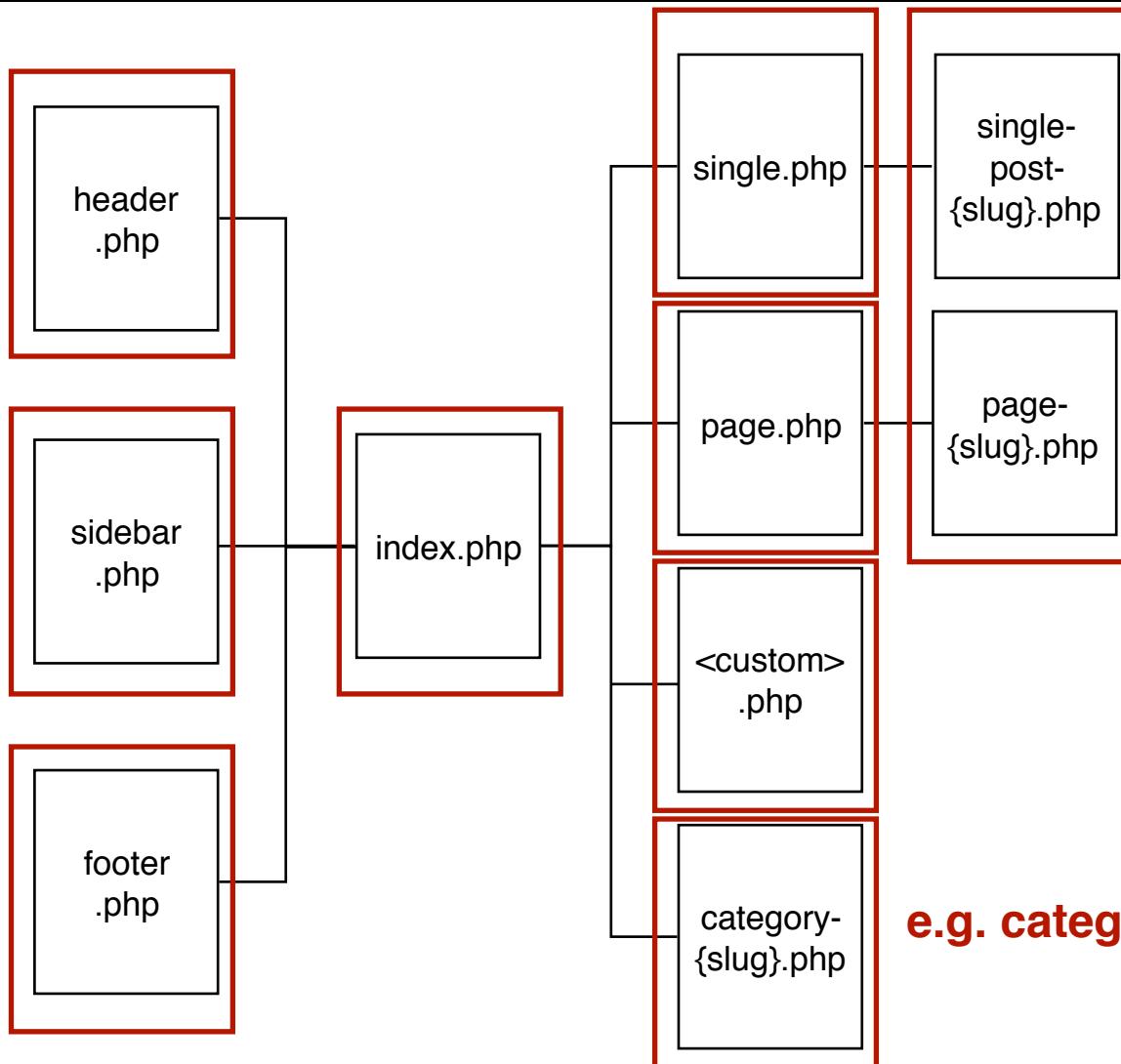
**WordPress is built on HTML/CSS/JS (Front-end),  
PHP and MySQL (Back-end).**



**Transform HTML/CSS/JS Prototype into  
WordPress Theme**

**Why do we need to transform? Can we just present the HTML/CSS/JS files as the finished work?**

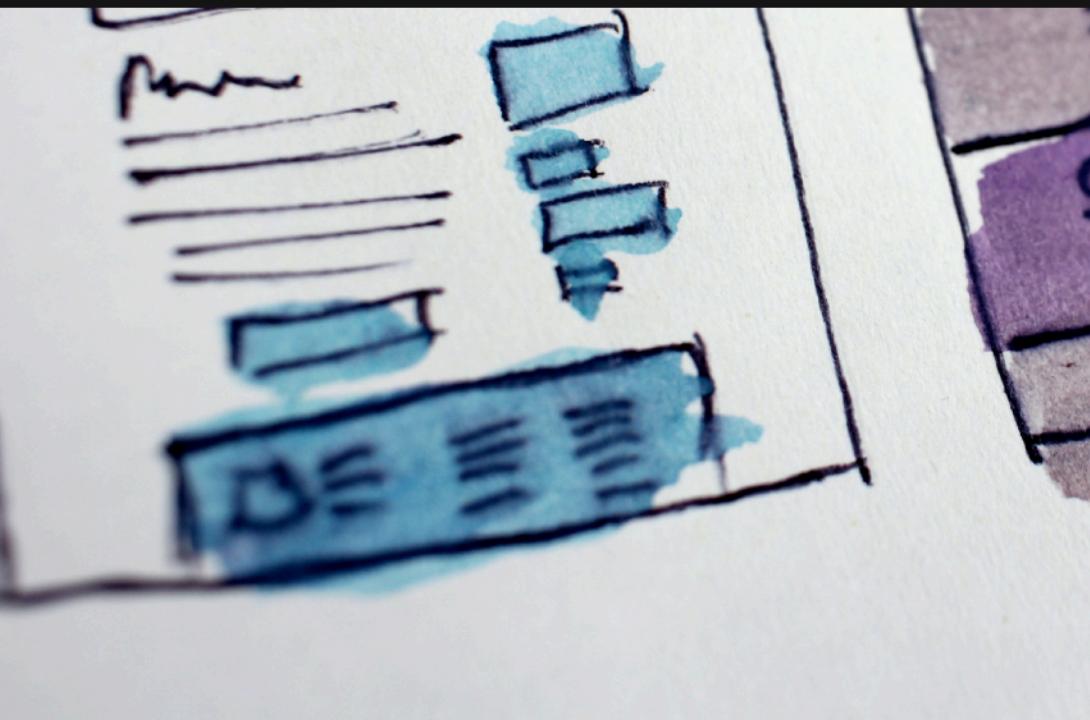
1. Ongoing content production requires **separation of duties** and separation of **data from layouts**.
2. Make it **flexible** to change the look and layout.
3. **Data entry staff** no need to know how to **design or code**.
4. **Membership system** for tracking conversion.



e.g. **category-favorite.php**



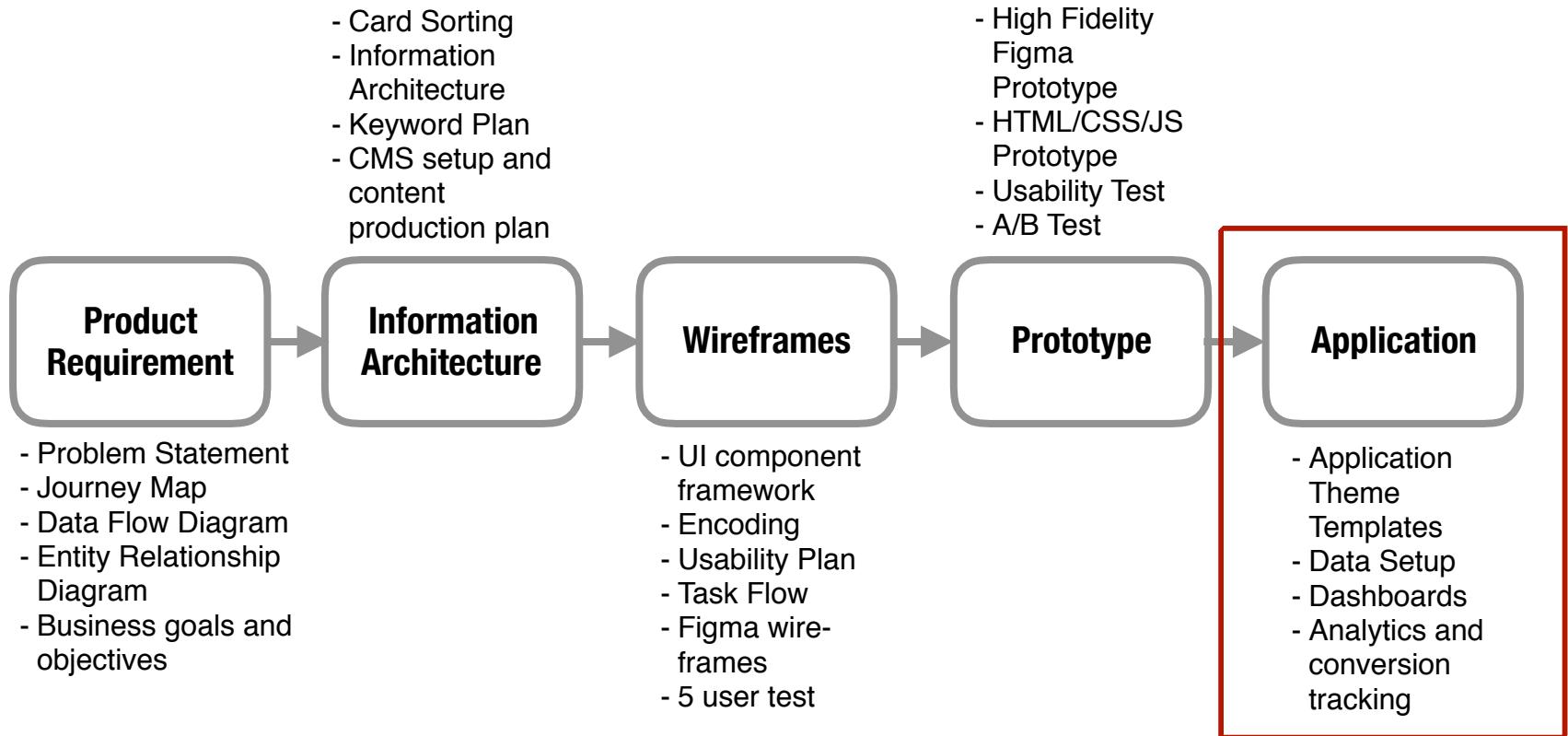
Home Sample Page Special Page Privacy Policy Dashboard My Favorite Posts



## O my friend

Would I could describe these conceptions,  
could impress upon paper all that is living so  
full and warm within me, that it might be the  
mirror of my soul, as my soul is the mirror of  
the infinite.

[Take me there](#)





# 530 Error

## Site is frozen

Site is frozen

This site was frozen due to inactivity. To unfreeze the site, the site owner must visit [dashboard.pantheon.io](https://dashboard.pantheon.io). If the site has already been unfrozen, try again in 2 minutes.

# **From Front-end to Back-end**

# **PLATFORM (平台)**

**DEVELOPMENT/STAGING**

开发平台

**DEPLOYMENT/PRODUCTION**

发放营运平台

兼容和整合考虑



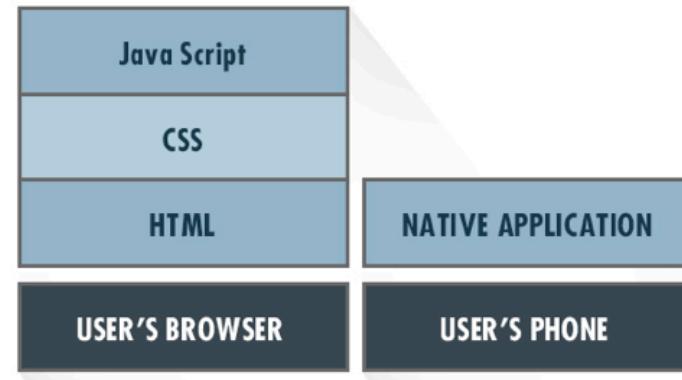
**BACK-END TECHNOLOGY**  
后台

## WHAT IS YOUR “CLOUD” AND “STACK” STRATEGY? 云架构及前端和后端的全栈策略

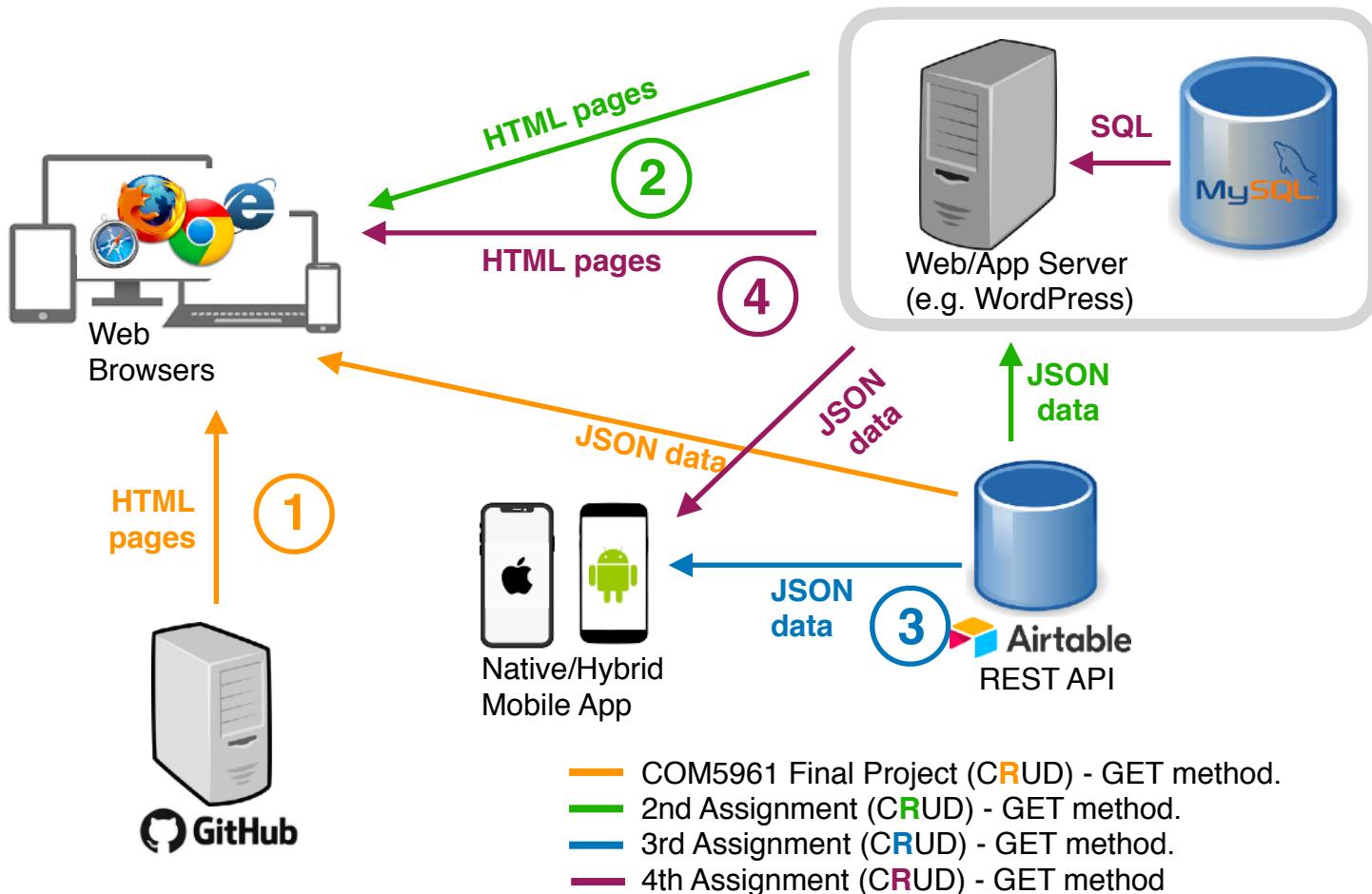
**REST API**  
**{ JSON }**



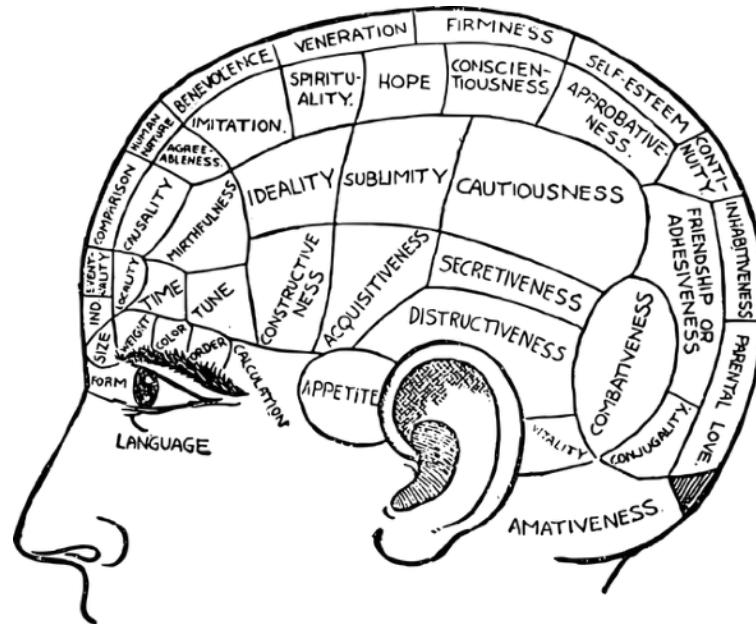
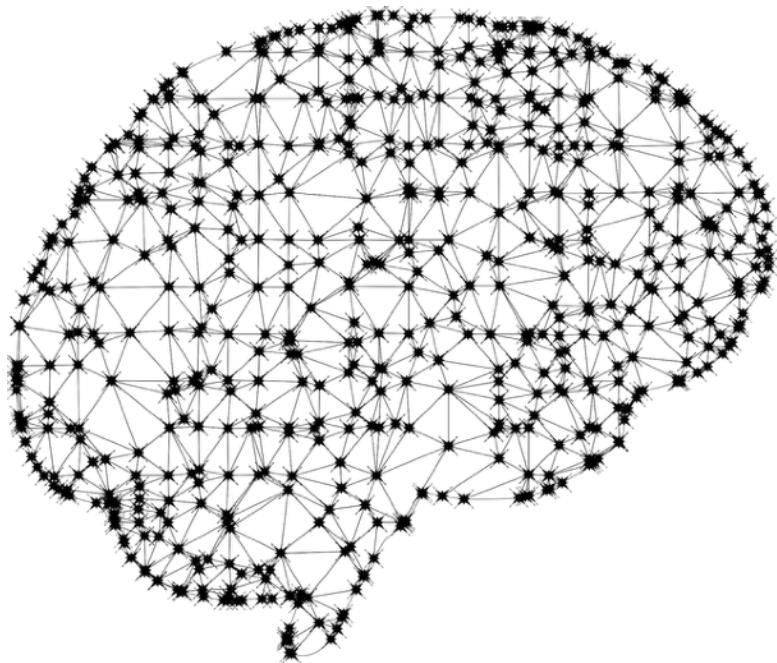
THE INTERNET



**FRONT-END TECHNOLOGY**  
前台



# **The “ABCD” Digital Infrastructure for Future Full Stack Development**

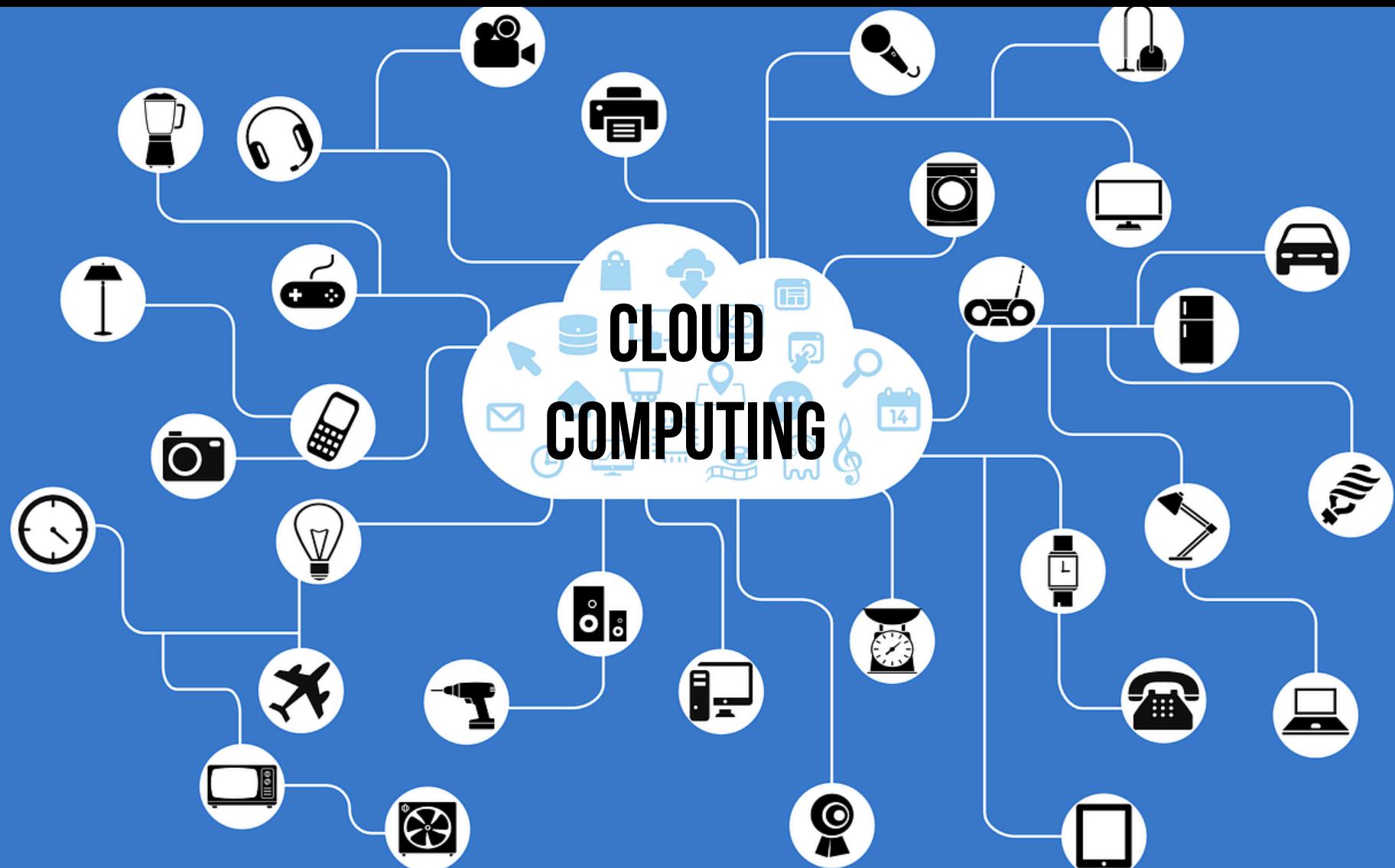


# ARTIFICIAL INTELLIGENCE

# BLOCKCHAIN



# CLOUD COMPUTING



A large, swirling pile of books forms a vortex, with the words "BIG DATA" overlaid in white.

**BIG DATA**

# **Moving the Server to the Cloud**

# Difference between IaaS, PaaS and SaaS

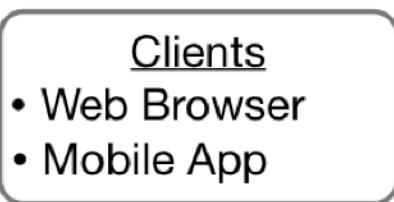
On-Premises	IaaS	PaaS	SaaS
Applications	Applications	Applications	Applications
Data	Data	Data	Data
Runtime	Runtime	Runtime	Runtime
Middleware	Middleware	Middleware	Middleware
O/S	O/S	O/S	O/S
Virtualization	Virtualization	Virtualization	Virtualization
Servers	Servers	Servers	Servers
Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking

Source: SimplyLearn

Managed by you

Managed by Vendor

# 云计算的三层架构



Software (软件)



Platform (平台)



Infrastructure(基建)

(Full Stack Developer  
由全栈工程到全栈创业)

Public(公共)/Private(私人)/Hybrid Clouds(混合)

# **The Major Players**

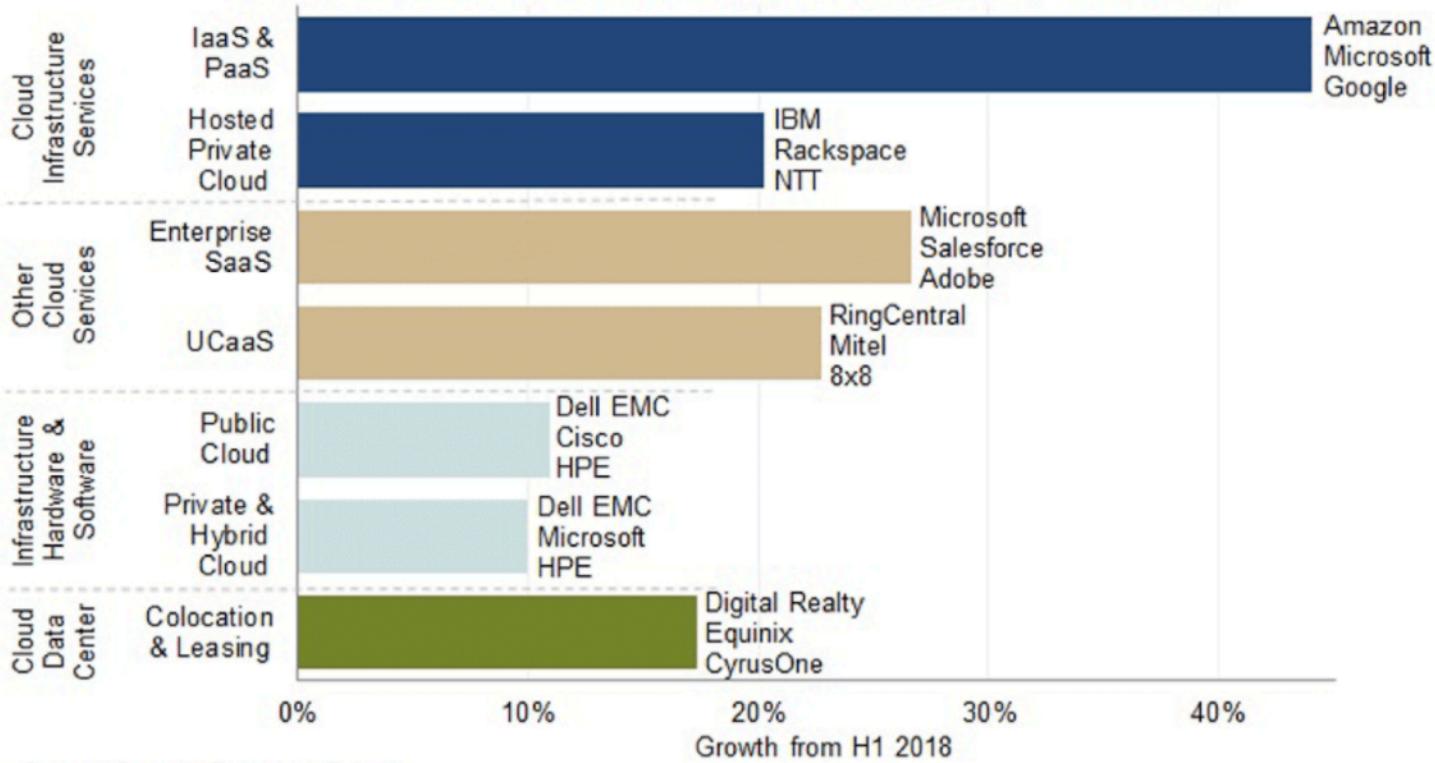
**Worldwide cloud infrastructure spending and annual growth**  
Canalys estimates, Q4 2019

Cloud service provider	Q4 2019 (US\$ billion)	Q4 2019 market share	Q4 2018 (US\$ billion)	Q4 2018 market share	Annual growth
AWS	9.8	32.4%	7.3	33.4%	33.2%
Microsoft Azure	5.3	17.6%	3.3	14.9%	62.3%
Google Cloud	1.8	6.0%	1.1	4.9%	67.6%
Alibaba Cloud	1.6	5.4%	1.0	4.4%	71.1%
Others	11.6	38.5%	9.3	42.4%	24.4%
<b>Total</b>	<b>30.2</b>	<b>100.0%</b>	<b>22.0</b>	<b>100.0%</b>	<b>37.2%</b>



Note: percentages may not add up to 100% due to rounding  
Source: Canalys Cloud Channels Analysis, January 2019

## Cloud Market Growth & Segment Leaders - H1 2019



Source: Synergy Research Group

— Cloud market growth and segment leaders (Image source: Synergy.com)

# **The Lean Startup Approach**

# Lean StartUp 精益创业

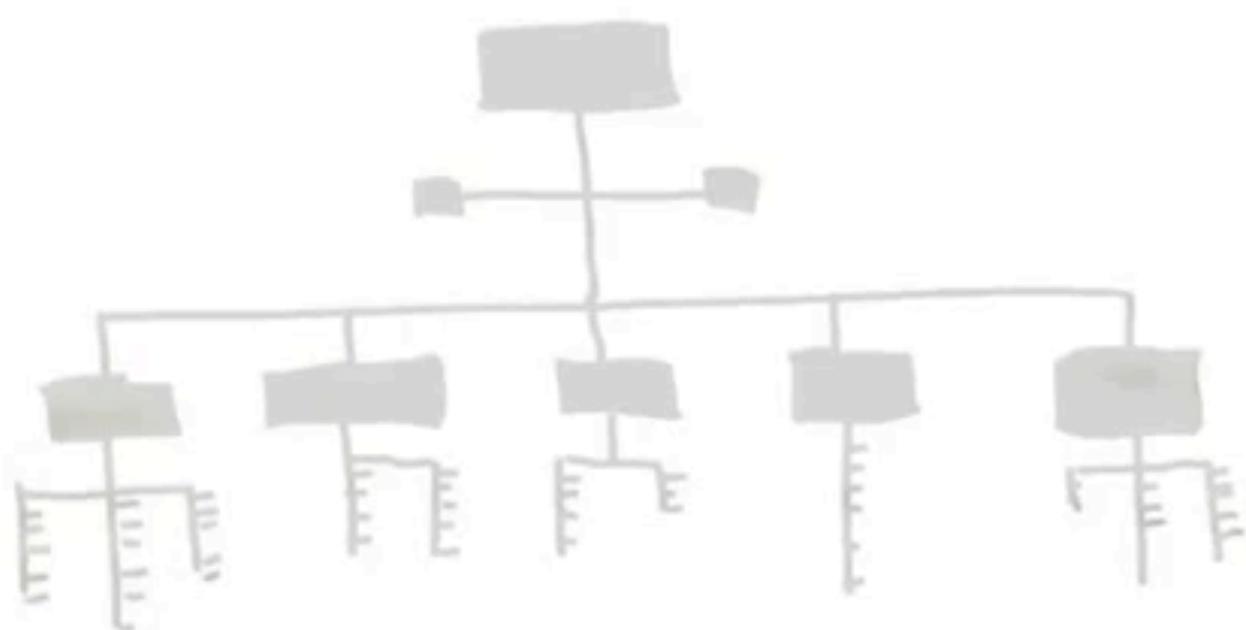


# **THE LEAN APPROACH: THE MINIMUM VIABLE PRODUCT**

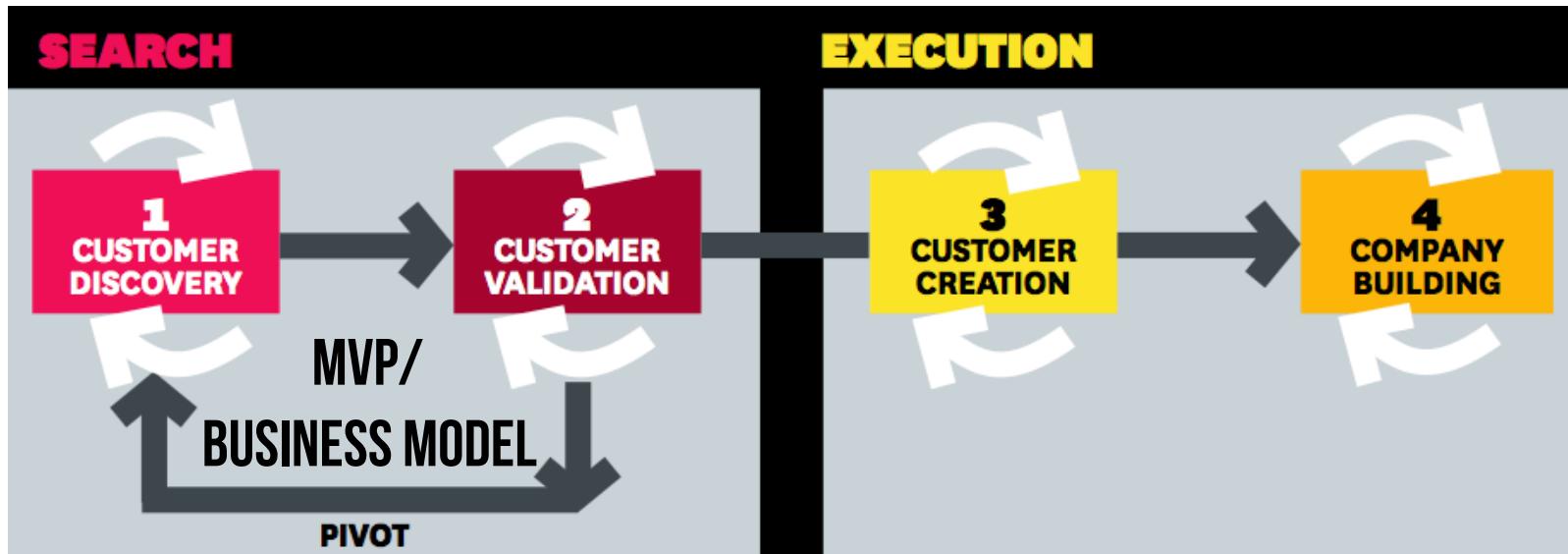


# **What Distinguishes a Startup from a Corporation?**



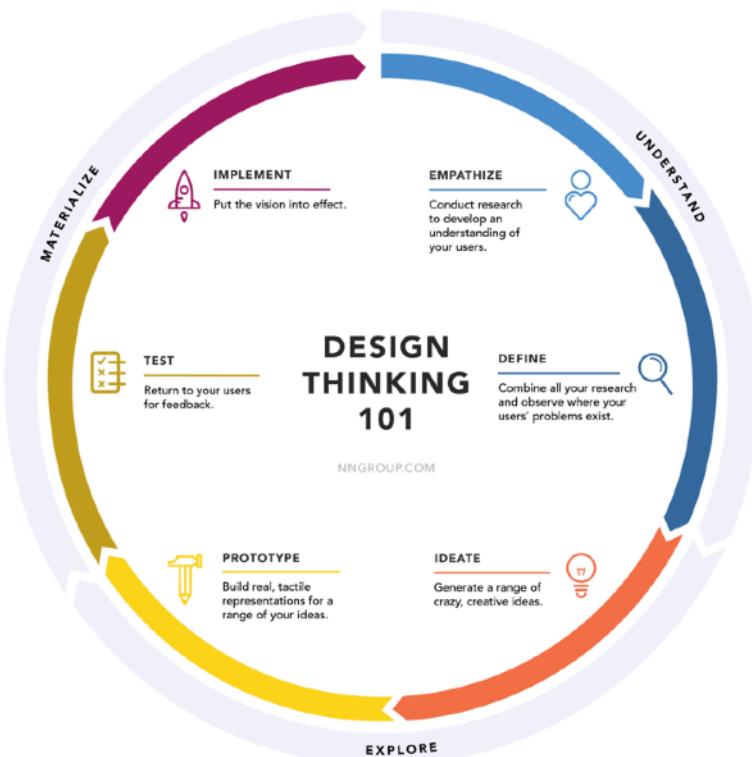


# BUILD-MEASURE-LEARN CYCLE IN SEARCH OF PRODUCT-MARKET FIT

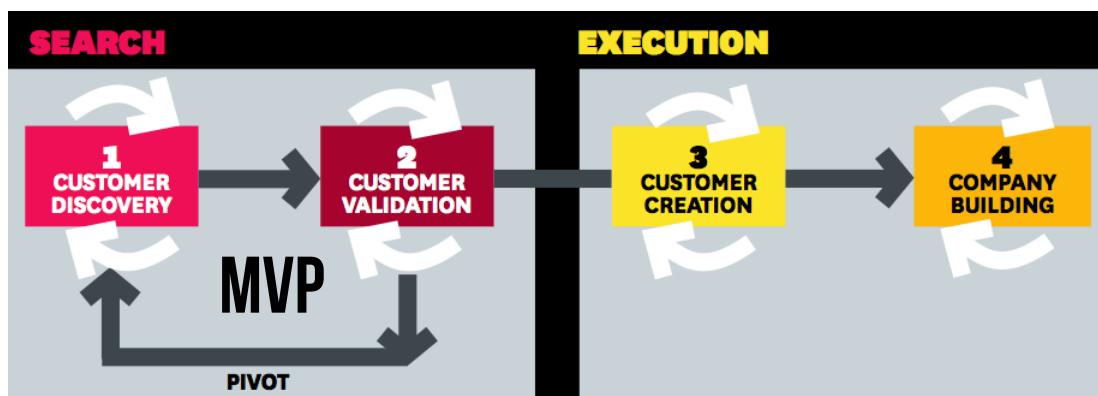


Source: “Why Lean Start-up Changes Everything” by Steve Blank, Harvard Business Review May 2013

# **Can Design Thinking and the Lean Method Work Together?**

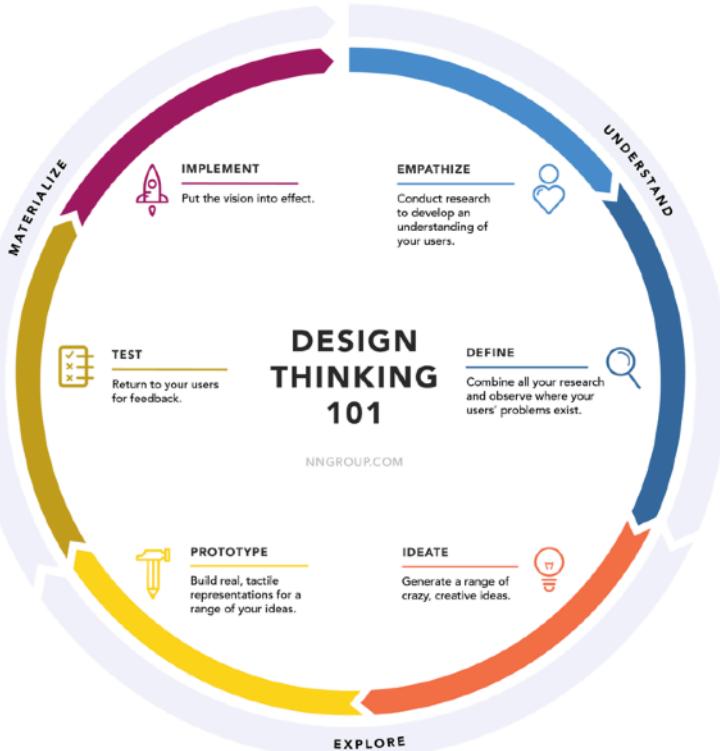


Source: Sarah Gibbons,  
Design Thinking 101  
Nielsen Norman Group



Source: “Why Lean Start-up Changes Everything” by Steve Blank, Harvard Business Review May 2013





# USE DESIGN THINKING TO SUPPLEMENT MVP ITERATION



Source: “Why Lean Start-up Changes Everything” by Steve Blank, Harvard Business Review May 2013

Source: Sarah Gibbons,  
Design Thinking 101  
Nielsen Norman Group

# **LEAN CANVAS: How does it work?**

**The LEAN method is used to test out the hypothesis hidden in the business model.**



## Which Business Model and How to Test It ?

Adapted from Alex Osterwalter

# 最小化可行产品 MVP(Minimum Viable Product)



验证甚么？



这个有人买吗？



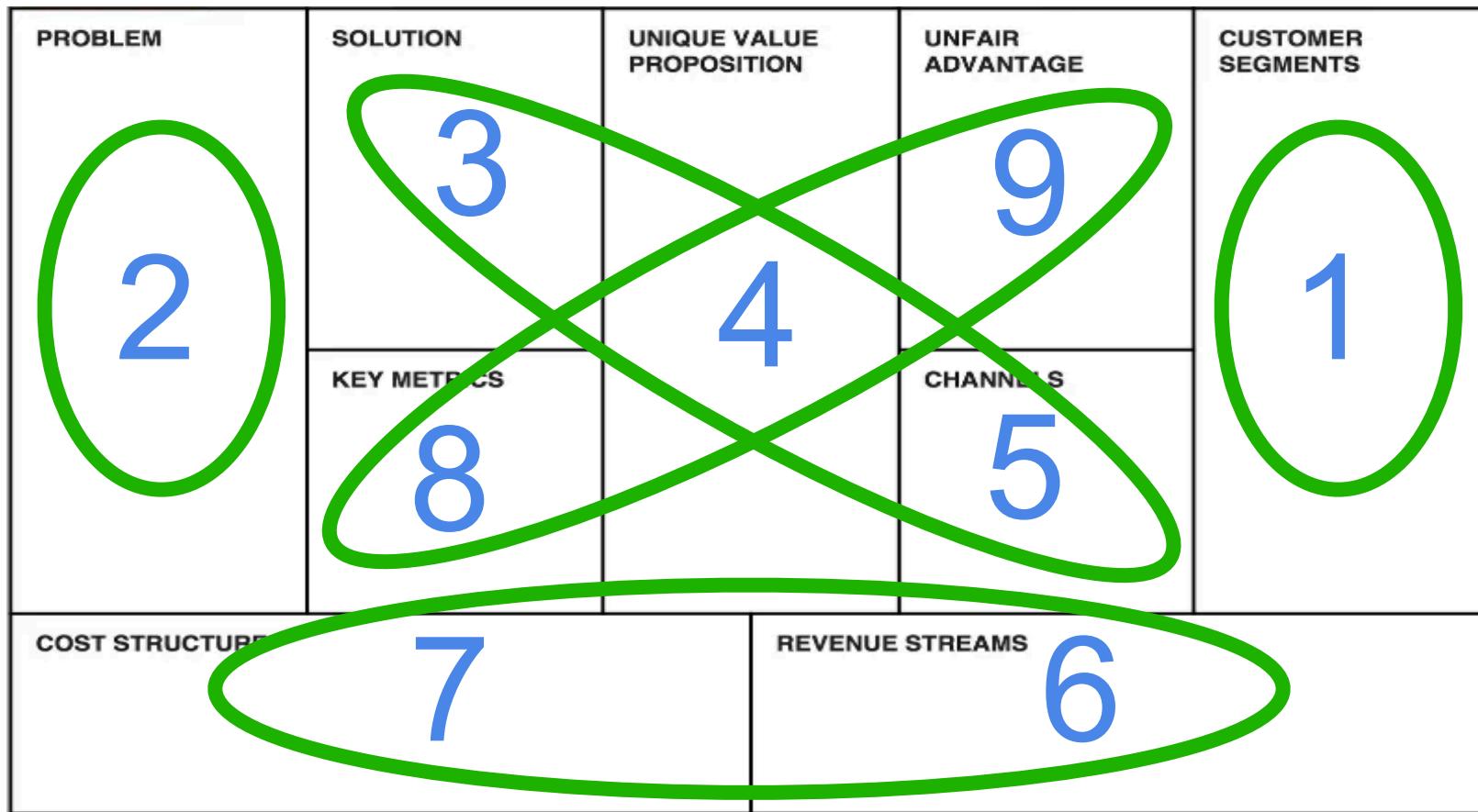
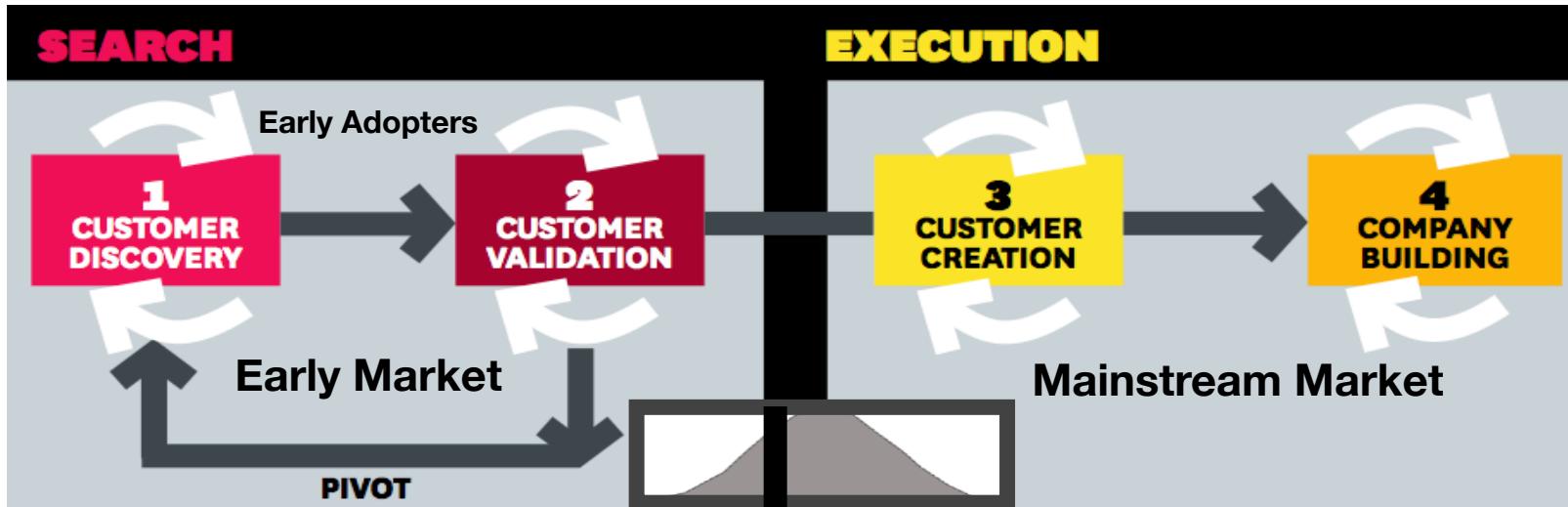
# HYPOTHESIS TESTING

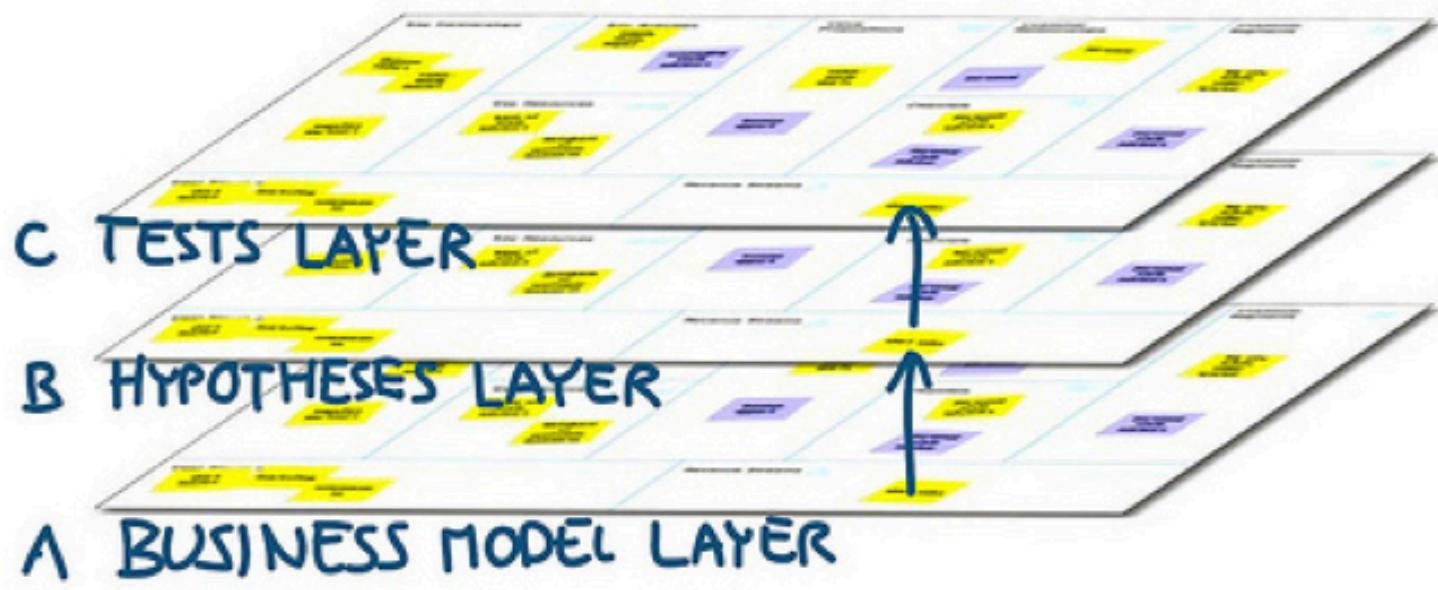
## 验证假设



## Which Business Model and How to Test It ?

Adapted from Alex Osterwalter





## Which Business Model and How to Test It ?

Adapted from Alex Osterwalter

# 最小化可行架构 MVA (Minimum Viable Architecture)



**甚麼是MVP?**

**“Minimum Viable Product”**

**最小化可行产品**

**那么MVA?**

**“Minimum Viable Architecture”**

**最小化可行架构**

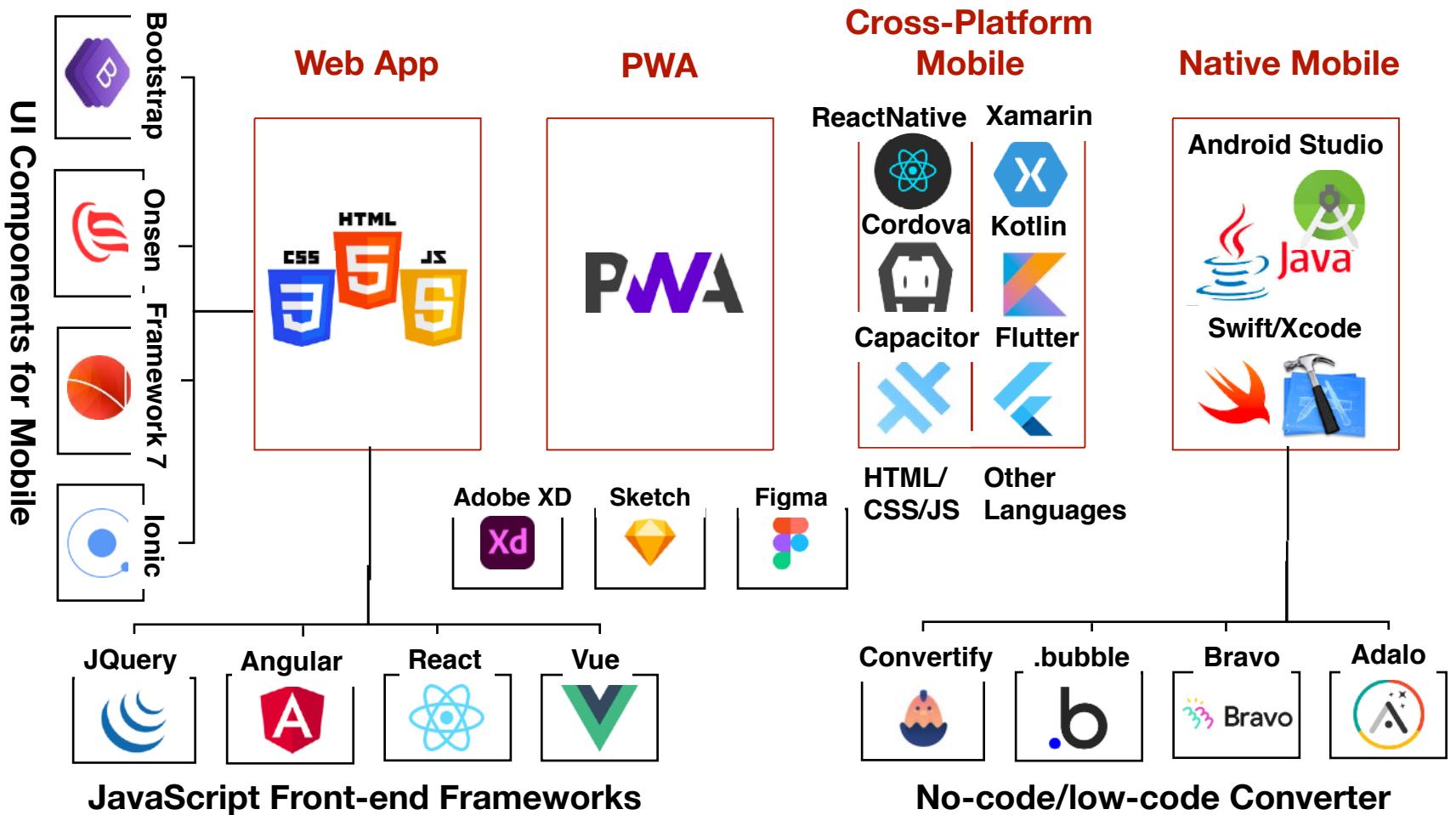
为什么要從最小化可行产品开始?

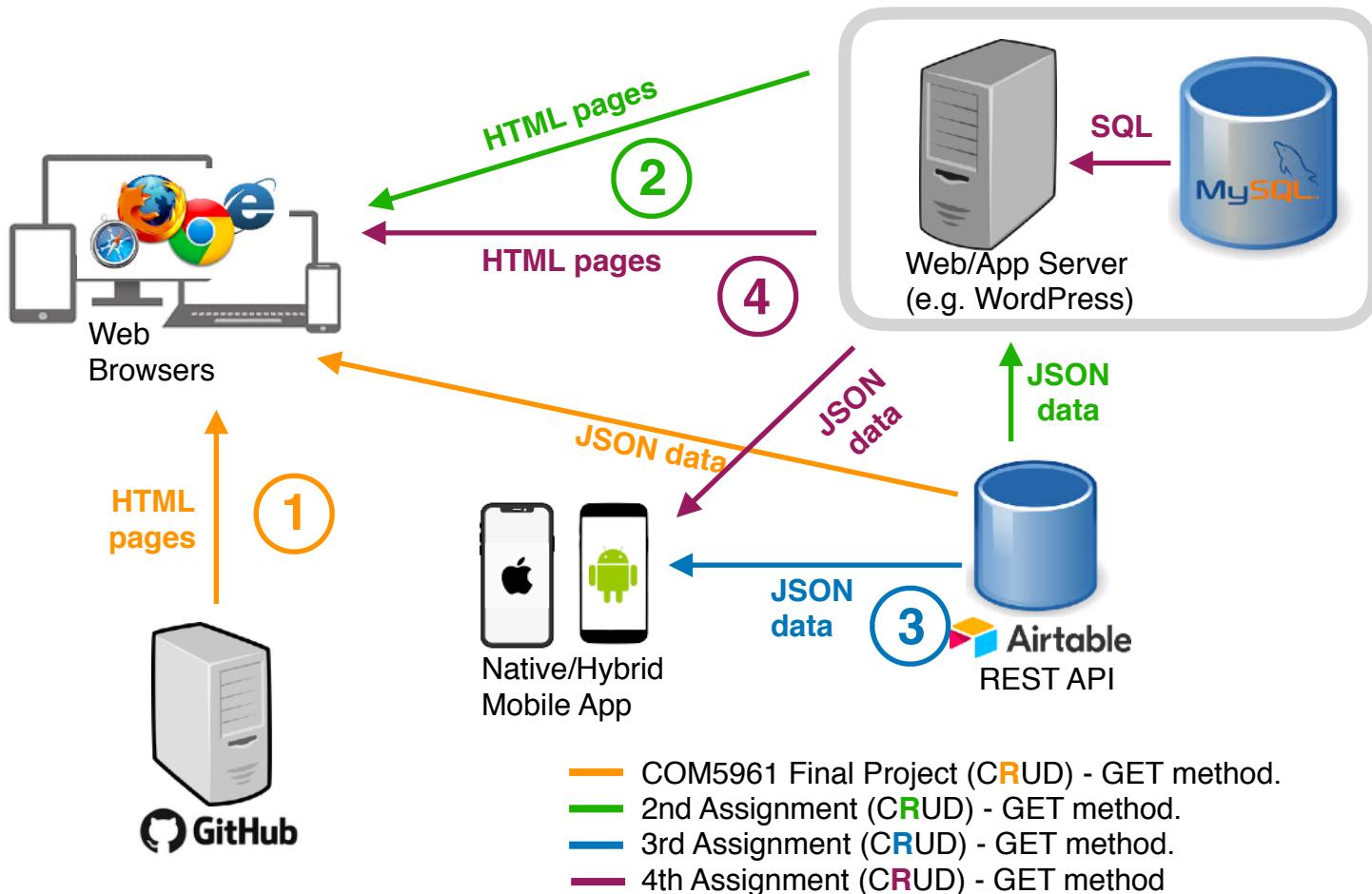
用來验证用户体验

# 为何要有最小化可行架构?

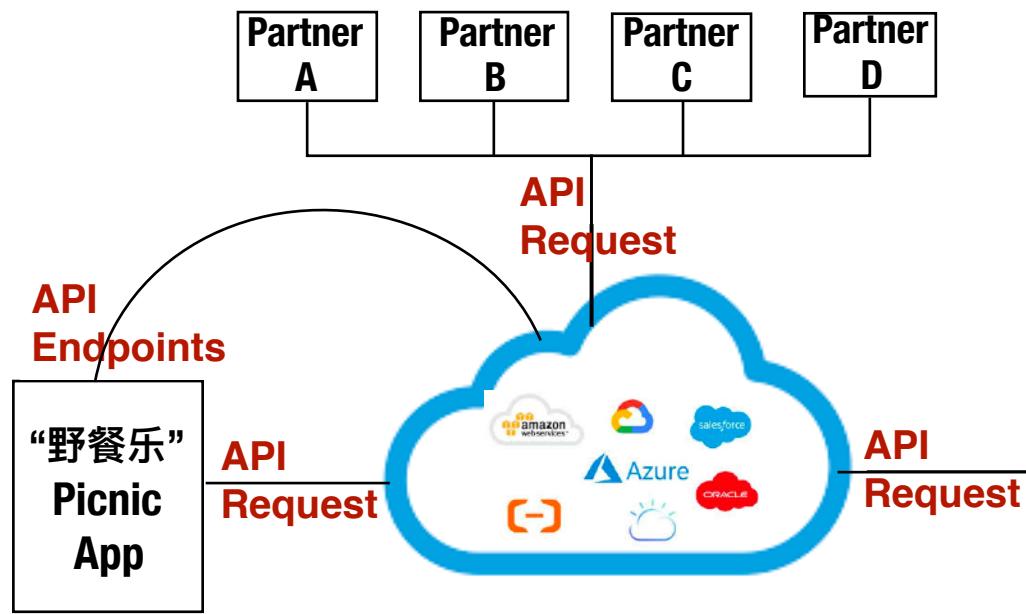
以最低成本支援验证

**Develop the most basic Infrastructure for validating  
the market and **deploying the MVP** (**surely github is  
not enough**).**



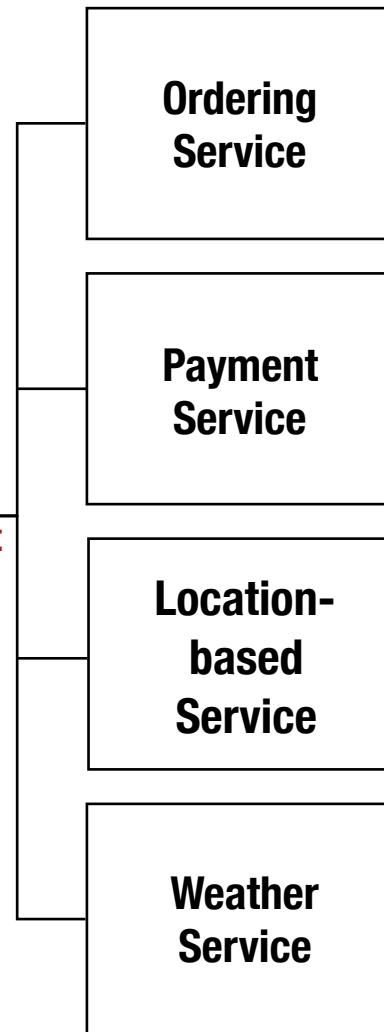


**Business partners requesting your services through API requests.**



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

**Micro-services**



和风天气

# **Assessment Criteria**

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	Students organized into teams will present their final project in the form of a pitch deck complemented with a MVP + written project progress report based on a real business problem.	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 related to SQL, PHP, and Python.	20%

**THANK YOU FOR YOUR TIME!**