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Digital Systems

7.1 Platforms & Digital Business Models, including API's

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Digital Platforms

Digital Platforms

❖ A digital platform is a business model that creates value by facilitating interactions between two or more interdependent groups, usually consumers and producers.

Source: https://thumbor.forbes.com/thumbor/960x0/https%3A%2F%2Fblogs-images.forbes.com%2Fpeterbendorsamuel%2Ffiles%2F2018%2F03%2FDigital-Platform-Strategy-913629568.jpg

Digital Platforms

"…facilitates commercial interactions between at least two different groups…"

❖ What are some core functions of a platform?

- Audience Building

- Matchmaking

- Providing Core Tools & Services

Source: https://thumbor.forbes.com/thumbor/960x0/https%3A%2F%2Fblogs-images.forbes.com%2Fpeterbendorsamuel%2Ffiles%2F2018%2F03%2FDigital-Platform-Strategy-913629568.jpg

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Digital Platforms

❖ Examples of Digital Platforms

- Uber

- Ebay

- Airbnb

Source: https://thumbor.forbes.com/thumbor/960x0/https%3A%2F%2Fblogs-images.forbes.com%2Fpeterbendorsamuel%2Ffiles%2F2018%2F03%2FDigital-Platform-Strategy-913629568.jpg

Digital Platforms

❖ **What are the benefits of digital platforms?**

- For Companies?

- For Consumers?

- For Industry?

Source: https://www.arup.com/-/media/arup/images/perspectives/themes/cities/how-can-cities-benefit-from-becoming-digital-platforms-2000x833.jpg

Digital Platforms

❖ **What are the benefits of digital platforms?**

- Make it easier for companies to find customers (and vice versa)

- Reduce transaction costs

- Reduce barriers to entry for many smaller companies to coexist with the "big fish"

- Reduce Search costs

- Monetize underutilized assets

Source: https://www.arup.com/-/media/arup/images/perspectives/themes/cities/how-can-cities-benefit-from-becoming-digital-platforms-2000x833.jpg

Network Effects

What is the impact of Network Effects on the different types of platforms?

Source: https://www.snapsuites.com/wp-content/uploads/2017/05/o-SMARTPHONE-NIGHT-facebook.jpg

Source: https://g.foolcdn.com/image/?url=https%3A%2F%2Fg.foolcdn.com%2Feditorial%2Fimages%2F428448%2Fthe-network-effect-getty.jpg&w=700&op=resize

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Platform Business Models

❖ **Proprietary vs. Shared**

- Examples?

- Advantages?

- Disadvantages?

Open Source or Proprietary Software what is best for your Business?

Source: https://www.esds.co.in/blog/wp-content/uploads/2018/04/OPEN-SOURCE-OR-PROPRIETARY-SOFTWARE.png

API: Application Programming Interface

API's: Application Programming Interface

What is an API?

❖ Connect computer software components

❖ Contract for Data Interaction

- Facilitates interactions between front & backend IT systems (Web API's)

❖ Can you think of any examples???

- Hint…think smartphones and IoT.
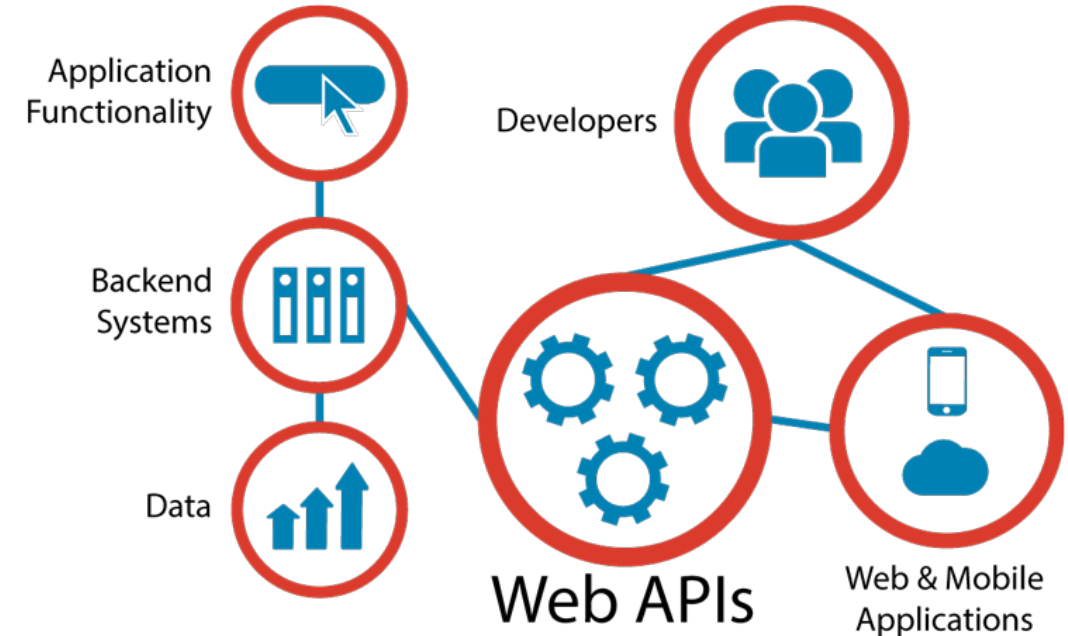
Source: https://www.apiacademy.co/assets/2015/04/Web-APIs-v5_0.png

API's: Application Programming Interface

❖ **API's Key Considerations**

- Extract more value from existing assets

- Drive new innovations

- Easier access across multiple ecosystems

- API's are Products – "building blocks"
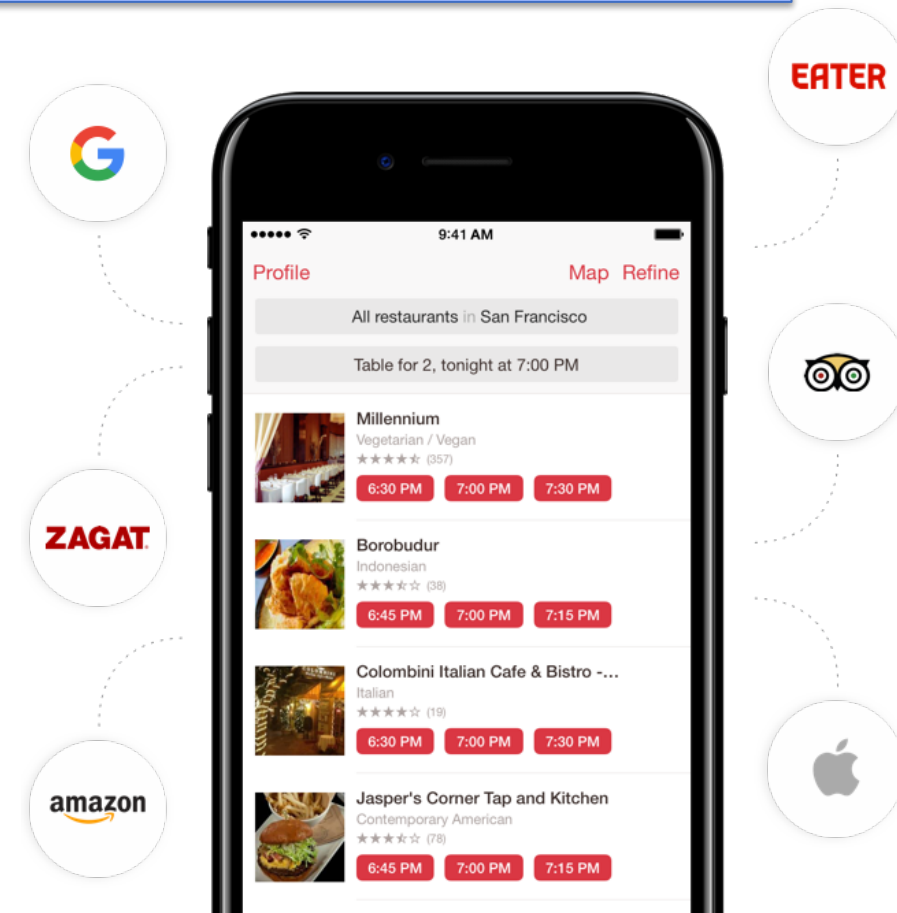
  ✓ "live beyond any one project"

  ✓ "reusable assets"
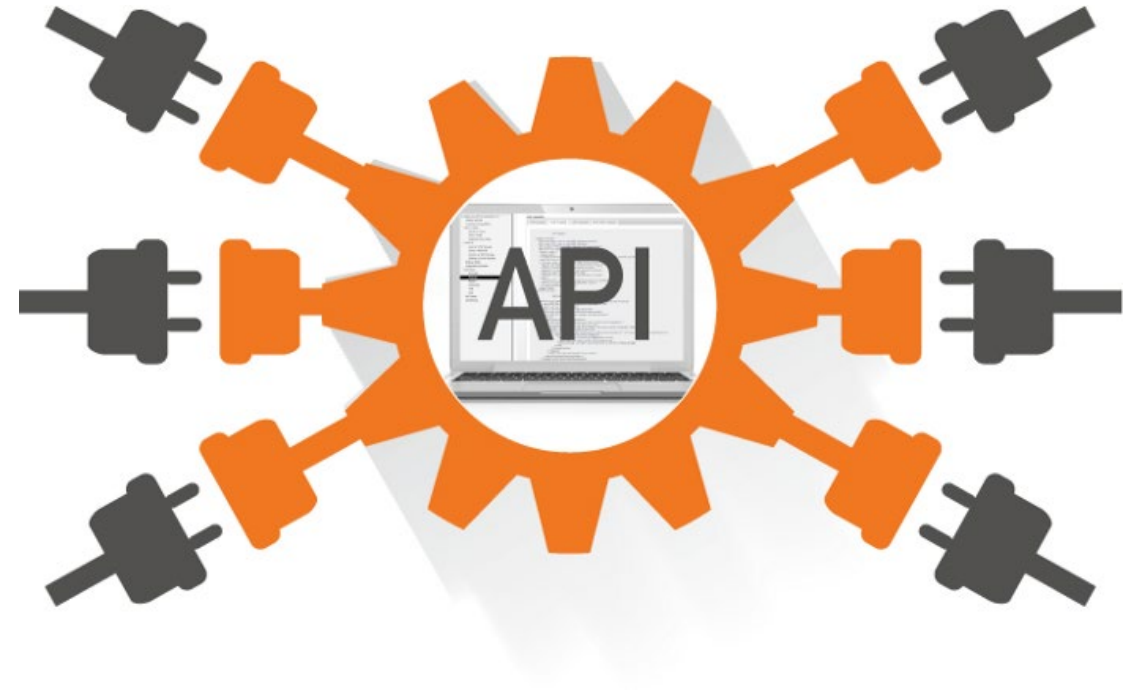
Source: https://miro.medium.com/max/700/1*6K4eQYf0R7cPCzukMCtu7Q.png

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API's: Application Programming Interface

❖ **API Case Study: OpenTable**

- What happens when you search for a restaurant?

- What types of data is being retrieved?
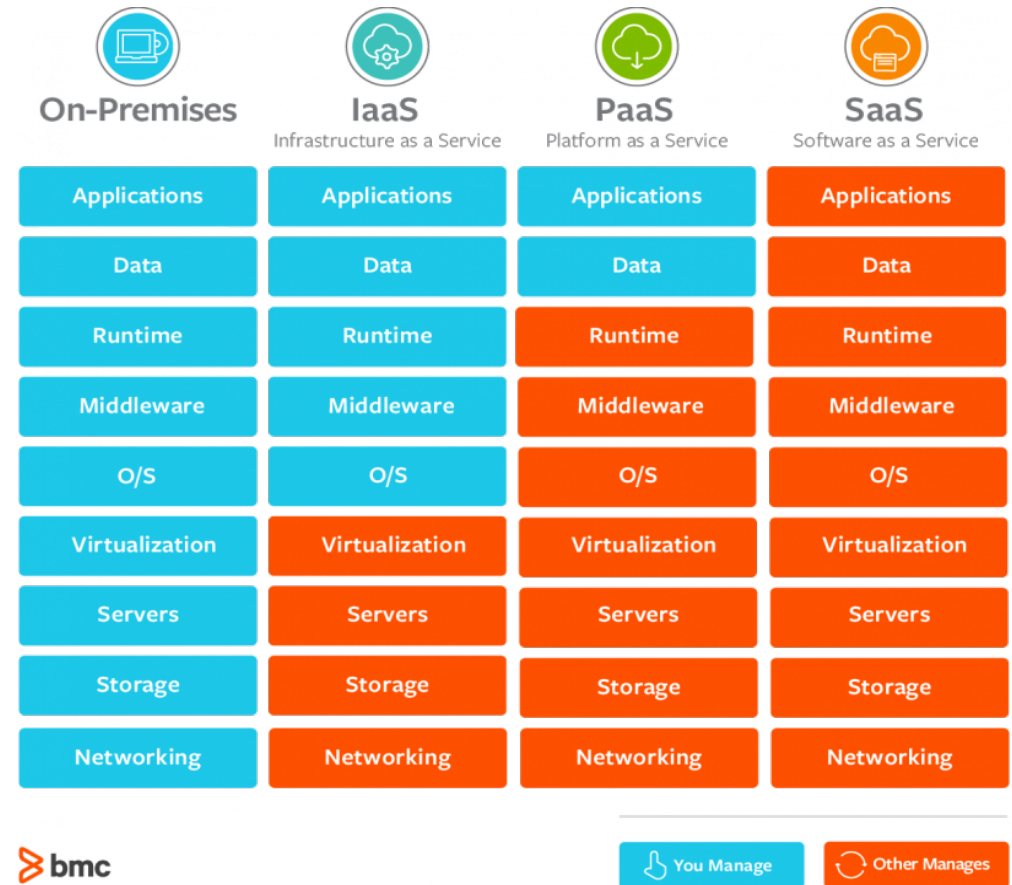
Cloud Computing

Cloud Computing

❖ **2 Basic Service types to Consider**

✓ Infrastructure as a Service (IaaS)

- • Provide an example?

✓ Software as a Service (SaaS)

- • Provide an example?

Source: https://blogs.bmc.com/wp-content/uploads/2017/09/saas-vs-paas-vs-iaas-810x754.png

Cloud Computing

❖ **Pros**

- Collaboration

- Scalability

- Cost

- Ease of use

Source: http://blog.ionixxtech.com/wp-content/uploads/2017/09/Image_1-2.jpg

Cloud Computing

❖ **Cons**

- Security

- Data Integrity

- Availability

- Privacy

Source: http://blog.ionixxtech.com/wp-content/uploads/2017/09/Image_1-2.jpg

IaaS (Infrastructure as a Service)

❖ **Case Study: AWS and Capital One**

- Run any application anywhere

- Bring products to market quickly

- More resilient architecture around systems

- Design for customer needs

- Protect customer assets

Source: https://d1.awsstatic.com/case-studies/US/Capital%20One%20Cafe.bb6b7a7a133a573f381e9bb4e6860f68c00fea8c.jpg

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SaaS (Software as a Service)

❖ **Case Study: G Suite**

- Third Party Provider

- Subscription based

- OS-agnostic

- Runs its software on its own servers in the cloud,

- Reduced risk of piracy

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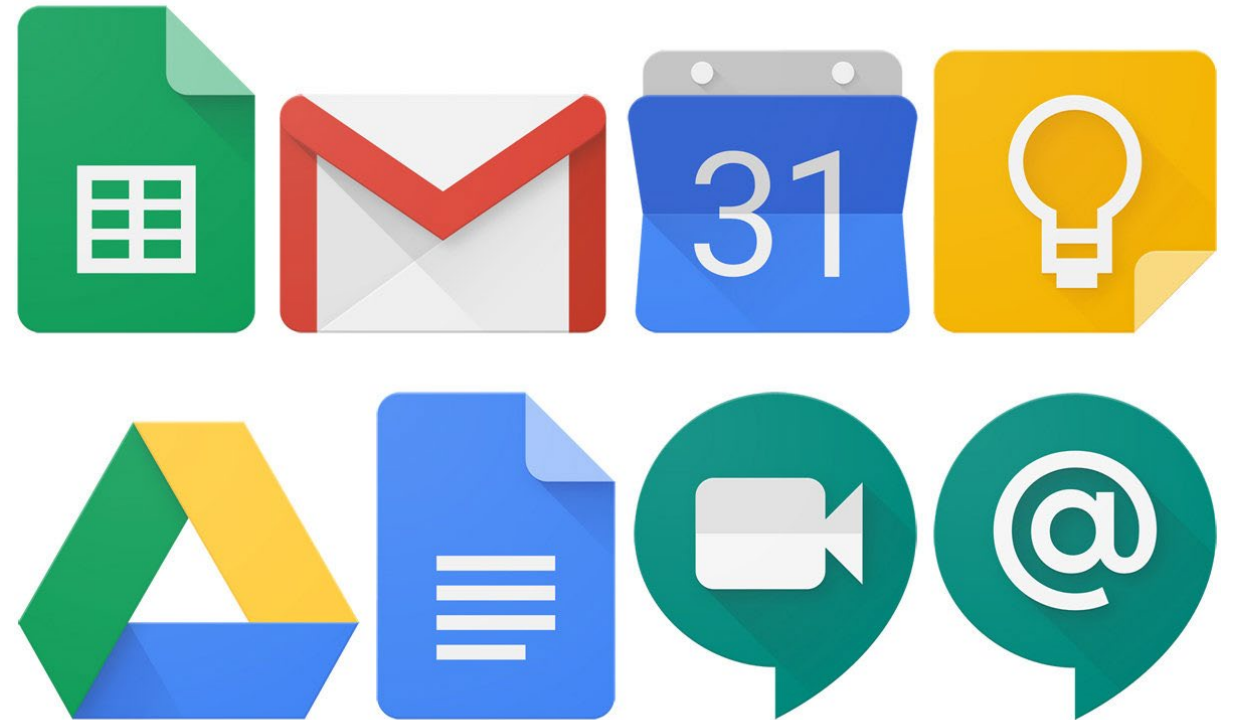
More to Come

Prepare with Readings & Videos before our next class!!!