Digital Systems 7.1

AJ's Additional Slides

FOX MIS

Digital Platforms Definition

- From the reading: "Digital platforms are online businesses that facilitate commercial interactions between at least two different groups—with one typically being suppliers and the other consumers."

- Think of it as an on-line place for interactions: a marketplace or a place to gather together

- Examples: eBay, Instagram, TikTok, Facebook Marketplace, large parts of Amazon. But *not* regular online retail

APIs defined and described

- An API is a digital service that is provided through the internet. Usually by another company, but a lot of organizations also develop APIs for internal use. Some APIs are free, many of them have to be paid for.

- Example: you manage a restaurant and you want the website to have a clickable map that shows your restaurant's location. You could build the map yourself, but instead you ask Google Maps for that service. And it is free. You simply add a line of code to your webpage with some instructions, and your address. Whenever a customer looks for the location, that line of code calls the Google Maps API, and Google provides the map.

- Another Example: You have taken a ride with Uber. At the end of the ride, Uber has to get the payment from you, using the credit card information you provided. Uber does not process that payment itself. Instead it sends a request to the company Braintree, which takes the information and processes the payment. Uber pays Braintree a fee for this.

- The benefit to Uber is that it can focus on its core competency: matching drivers and passengers. It does not have to write the code for processing the payments.

APIs defined and described, part 2

- API stands for Application Programming Interface. It specifies the format in which you can request a service from the software behind the API, and it lets you know what kind of data you will get back from the service (e.g. a payment confirmation in a particular format). These days, API refers to both the interface and the software behind it. So for instance, the Weather Underground API is not just the format in which you request weather data, but it is now also the service itself.

- Using APIs saves companies a lot of time and effort as they develop their applications. They usually have to pay for the services provided by the APIs, but that is still much cheaper than doing it themselves, and it allows them to focus. For instance, Uber's core capability is matching up riders and drivers. There is no other company with a convenient API that will do it for them.

- APIs have become so popular that some companies have now reorganized some of their applications so that they can be accessed as APIs for internal use. For instance, they might have an old but still important database. Instead of rebuilding it they can add some code to it so that it acts as an API and can easily be used in any application that needs it.

API's: Application Programming Interface

API Case Study: OpenTable

- What happens when you search for a restaurant?

- What types of data is being retrieved?
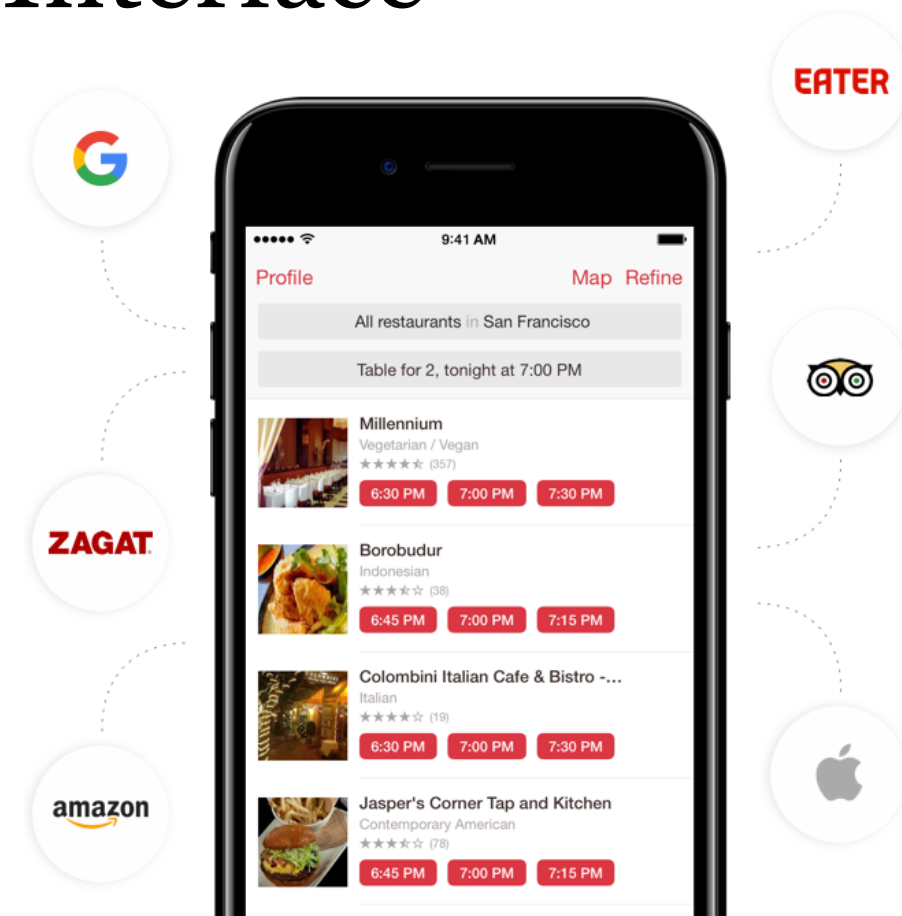
What Is Cloud Computing?

- Simply put, cloud computing is the delivery of computing services—including servers, storage, databases, networking, software, analytics, and intelligence—over the Internet ("the cloud") to offer faster innovation, flexible resources, and economies of scale. You typically pay only for cloud services you use, helping you lower your operating costs, run your infrastructure more efficiently, and scale as your business needs change.

- You can use commercial, public clouds like AWS, Microsoft Azure, and Google Cloud. Or you can run your own private cloud.

https://azure.microsoft.com/en-us/overview/what-is-cloud-computing