Web Applications and Services

Objectives

- To learn about the different web services that are available

- To learn about the functions of all the web services

- Introduction Micro services

- Expansion on cloud services

- Expansion on the blockstack ecosystem

- Intoduction on the Internet of things

Lessons

To learn about the the web services

What are web services?

> ### https://www.cleo.com/blog/knowledge-base-web-services

There is more than one way to answer, "What is a web service?" But, essentially, web services include any software, application, or cloud technology that provides standardized web protocols (HTTP or HTTPS) to interoperate, communicate, and exchange data messaging – usually XML (Extensible Markup Language) – throughout the internet.

In other words, web services are XML-centered data exchange systems that use the internet for A2A (application-to-application) communication and interfacing. These processes involve programs, messages, documents, and/or objects.

- Google

- Facebook

- Azure

What are Microservices?

> https://aws.amazon.com/microservices/

Microservices are an architectural and organizational approach to software development where software is composed of small independent services that communicate over well-defined APIs. These services are owned by small, self-contained teams.

Microservices architectures make applications easier to scale and faster to develop, enabling innovation and accelerating time-to-market for new features.

- Amazon
- Netflix
- Uber
- Netflix

What is a blockchain ecosystem?

> https://www.youtube.com/watch?v=SSo_EIwHSd4

> https://blog.heyonuoha.live/why-does-web-30-exist-web3-oversimplified

Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An *asset* can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved.

What is IOT, and how does it work?

The Internet of Things (IoT) is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers

and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

- Fridges
- Smart Speakers
- Smart Camers

Challenge

Aa Name	≡ Tags
Hosting	What is hosting? and what makes it an integral service on the web
Microservices	Netflix. Give me 5 services that it offers
File Storage Services	Give me an example of a file storage service, and what can you do with it
Smart Ecosystem	Give me 5 examples of those devices? and how accessible are they to the masses
Cloud services	Give me an example of 5 services that the cloud services can offer
Youtube	What makes youtube the biggest streaming platform
Authentication	Give me an example of an authentication service, and what does it do
Payment Gateway	What makes it so powerful? Provide a company that uses a payment gateway
Music Streaming Platforms	How related is it to a standard streaming service
Play Services	Where do you find those services, and what do they offer?
Google Firebase	What is it? and how does it make it easier for developers
Self Managed Services	Find out 3 different types of self managed services

File Storage Services: https://www.pcmag.com/picks/the-best-cloud-storage-and-file-sharing-services

Smart Ecosystems: https://www.thoughtworks.com/insights/topic/iot

Cloud Services: https://www.thoughtworks.com/insights/topic/iot

Authentication: https://www.techtarget.com/searchsecurity/definition/authentication

Payment Gateway: https://www.hostinger.com/tutorials/what-is-payment-gateway

Music Streaming Platforms: https://www.cnet.com/tech/services-and-software/best-music-streaming-service/

Play Services: https://developers.google.com/android/guides/overview

Google Firebase: https://en.wikipedia.org/wiki/Firebase

Azure: https://azure.microsoft.com/en-us/overview/what-is-azure/?cdn=disable