IS813: Gen AI - Implementation
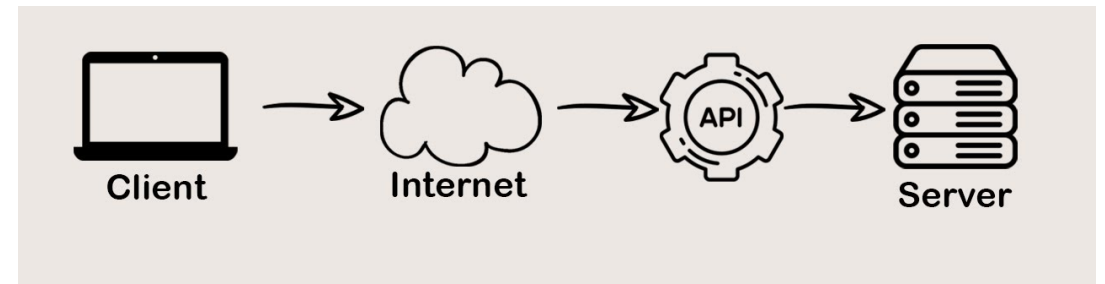
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Using APIs

What is an API?

An Application Programming Interface (API) establishes a
"contract" or *"glue"* that allows multiple pieces of software to
communicate.

- Standardizes software development.
- Allows integration with online services.
- Is generally well-documented.

CodeWithMazn

LLM APIs

APIs that provide access to LLMs:

- You send a query/request (e.g., a prompt or a sentence)
- You get a response (e.g., a summary or a translation)

Why LLM APIs (vs. in-house)?

- Pros?
    - Less memory and compute resources needed.
    - Abstraction in terms of maintenance and updates.
    - Security?

- Cons?
    - Less control.
    - Maybe slower.
    - Cost.
    - Privacy.

OpenAI API

- [Documentation](#)
- [Playground](#)
- [Guide](#) ([notebook](#))
- [Pricing](#)

Cloud Computing

What is Cloud Computing?

The technology that allows us to access computing resources over the internet (as opposed to purchasing our own resources).
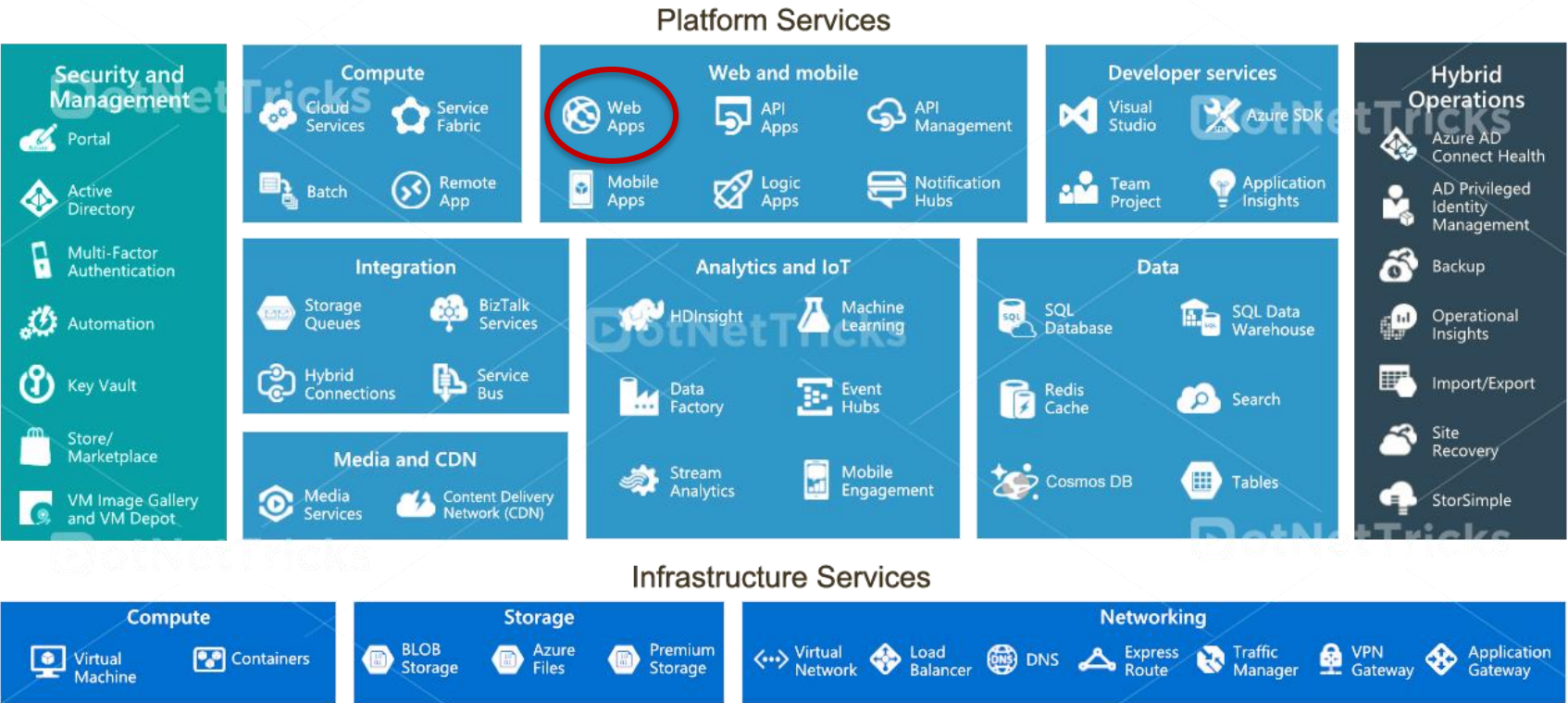
Subscription vs. Buying

Example: Microsoft Azure
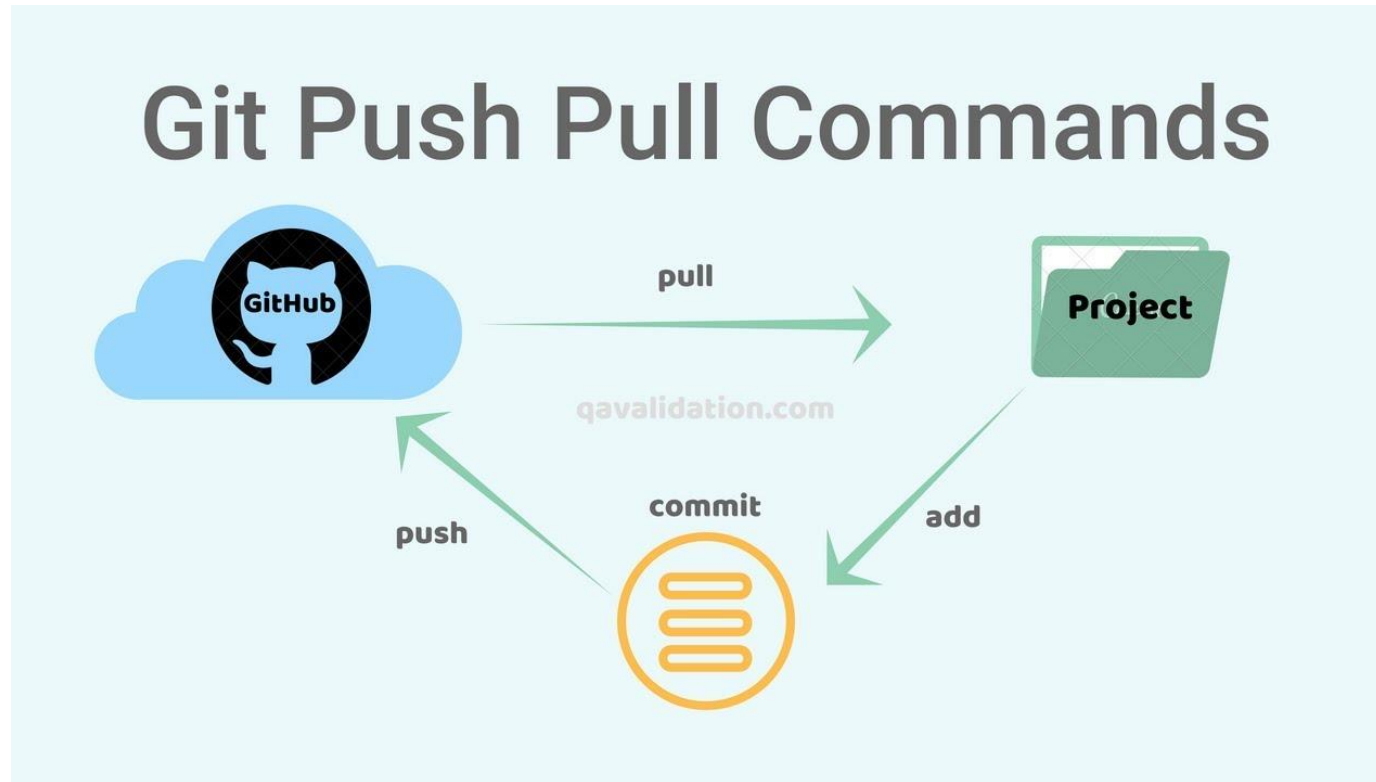
Code Development Tools

BOSTON
UNIVERSITY

GitHub

Widely used.

- Helps with team collaborations.
- Tracks code change history.
- Can automate tasks such as deployment.
- Allows multiple versions of the code (e.g., for different features).

The Git Workflow

In-Class Work