< Previous

Next

Types of APIs

Medium

While this course will focus on Web APIs, it is important to know that "API" can apply to a broad range of interfaces.

- ✦ **Hardware APIs**

  Interface for software to talk to hardware.

 *Example: How your phone's camera talks to the operating system.*

- ✦ **Software Library APIs**

  Interface for directly consuming code from another code base.

  Example: Using methods from a library you import into your application.

- ✦ **Web APIs**

  Interface for communicating across code bases over a network.

  Example: Fetching current stock prices from a finance API over the internet.

Multiple API types may be used to achieve a task. For example, uploading a photo to Instagram makes use of various APIs:

1. Hardware API for the app to talk to your camera

2. Software library API for the image to be processed with filters

3. Web API for sending your image to Instagram's servers so your friends can like it!

Architectures
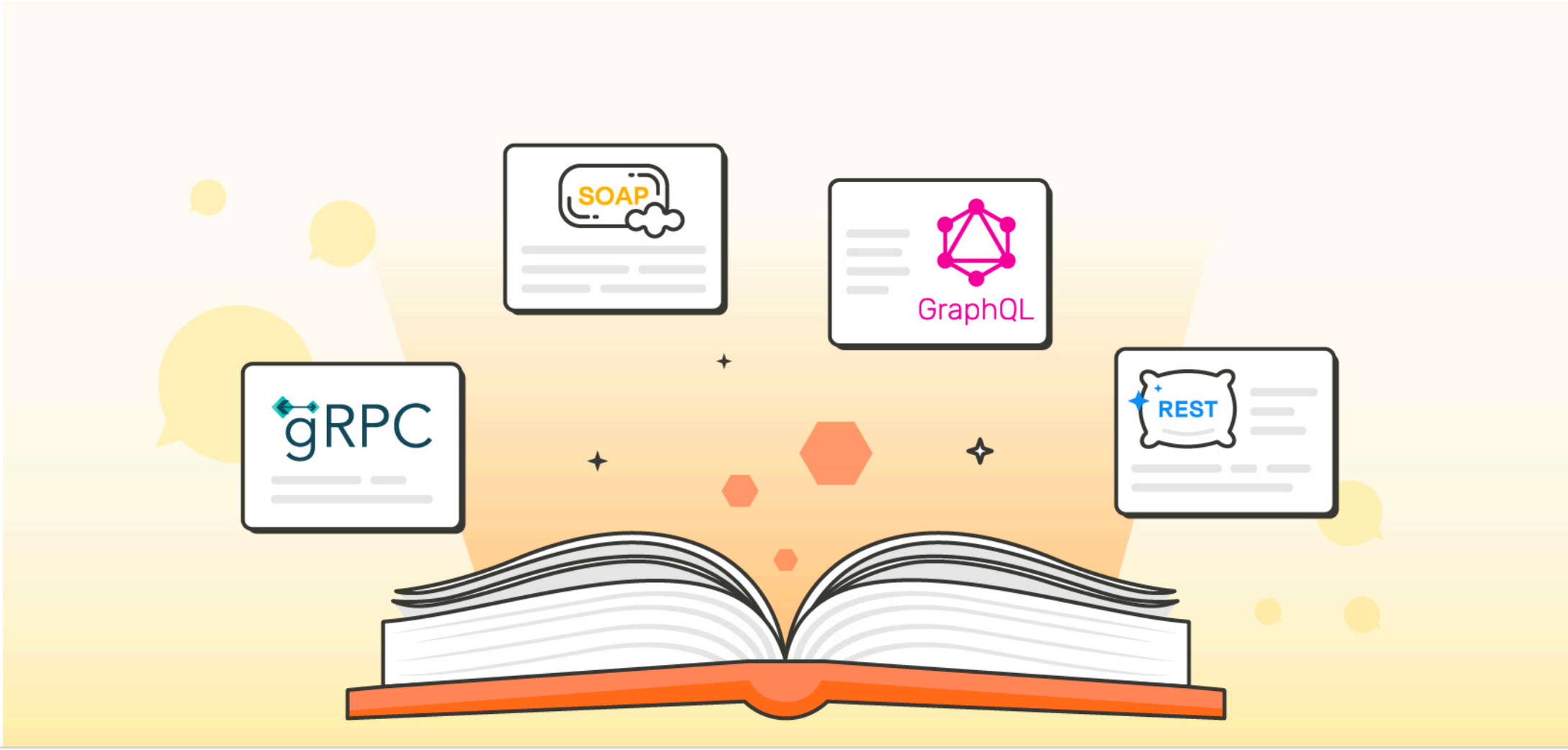
There is more than one way to build and consume APIs. Some architecture types you may come across are:

- ✦ REST (Representational State Transfer)
- ✦ GraphQL
- ✦ WebSockets
- ✦ webhooks
- ✦ SOAP (Simple Object Access Protocol)
- ✦ gRPC (Google Remote Procedure Call)
- ✦ MQTT (MQ Telemetry Transport)

😱 Don't worry about knowing all of these! **This course will focus on REST APIs** since this is the most widely adopted API architecture.

REST APIs
Some traits of REST APIs include not storing session state between requests, the ability to cache, and the ability to send and receive various data types. Still confused? Don't worry; we will learn hands-on very soon in this course!

Access

APIs also vary in the scope of who can access them.

- ✦ **Public APIs (aka Open APIs)**

  Consumed by anyone who discovers the API

- ✦ **Private APIs**

  Consumed only within an organization and not made public

- ✦ **Partner APIs**

  Consumed between one or more organizations that have an established relationship

The API we will use in this course will be a **Public, REST, Web API** 👀.

You can read more about types of APIs on the Postman Blog.