



MAKING AN API WITH PYTHON

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Agenda

01

What is an Api?

02

General Concepts

03

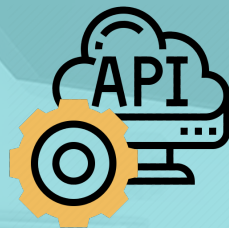
SQLAlchemy

04

Serialization and Deserialization

05

Tools



What is an Api?

“API is the acronym for Application Programming Interface, which is a software intermediary that allows two applications to talk to each other”

Advantages of an Api

01

Separate the Client and Server

Separate the interface of user from the server and data storage

02

Visibility, Reliability, Scalability

It is possible to perform a migration from one server to another or carry out changes on the database at any time. Front and back can therefore be hosted on different servers, which is a significant management advantage

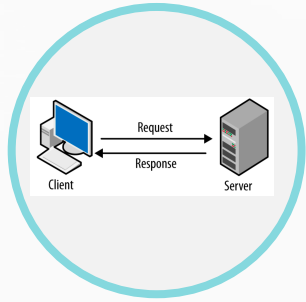
03

Independent of the platform

Liberty to change or test environment of development

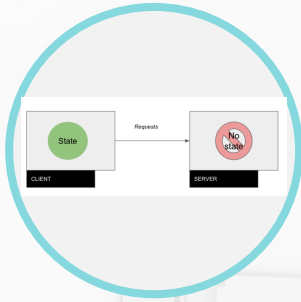
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Key architectural guidelines to using REST APIs



Client - Server

The client and server should be able to evolve independently from each other



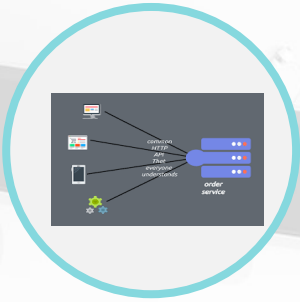
Stateless

The interaction should not rely on any pre-defined context on the server



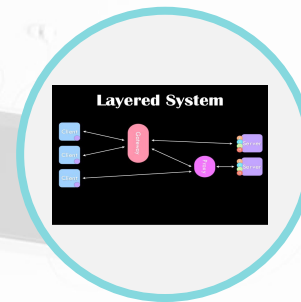
Cacheable

Saving in cache can eliminate the necessity of some interaction between client and server



Uniform Interface

REST API from one application can communicate in the same way to an entirely different application.



Layered System

Layers of the system are encapsulated and accessed through one interface



Code on Demand

The server can extend its functionality by sending the code to the client to download.

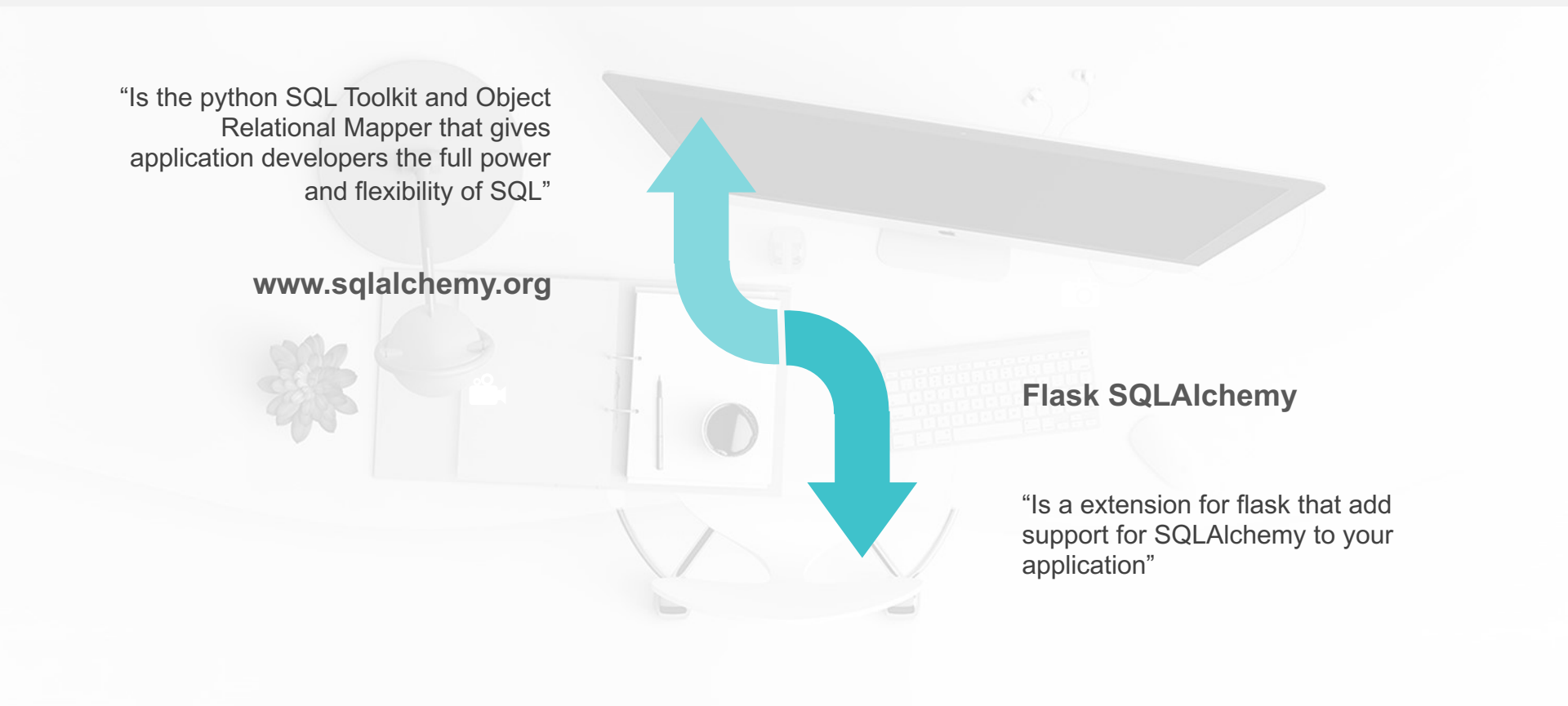
SQLAlchemy

“Is the python SQL Toolkit and Object Relational Mapper that gives application developers the full power and flexibility of SQL”

www.sqlalchemy.org

Flask SQLAlchemy

“Is a extension for flask that add support for SQLAlchemy to your application”



Serialization and Deserialization



Serialization

Serialization is the process of converting app-level objects to primitive types, such as dictionary, text, string, Etc. Then can be rendered to a JSON Format by example

Deserialization

The reverse process of serialization, in which data, typically dictionaries or JSON objects, are converted back into app-level objects.

Tools

Spyder

Ide for python development.



SQLite

Light Database.



Postman

For easy testing of your api



DB Browser for SQLite

For easy work with the database



Your Api



Demo Time



Thank you