API

An Introduction to the How and Why

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What?

Application programming Interface is used to share data between two unrelated systems.
Advantages:

Retrieve data to complete an action without the user leaving your site
Text/data mining for other applications or analysis
REST:
Means that all information is contained within the request itself
Common HTTP Verbs Used:
GET → Request record
PUT → Update record
POST → Create record
DELETE → Delete record
Data:

JSON and XML
Languages:

Python
Javascript
Ruby
PHP
C#
Data Science

Collecting, querying, consuming and cleaning data extracted from a source or set of sources

Tool used for demo: Anaconda Python Distribution

https://www.anaconda.com/distribution/
Anaconda: https://docs.continuum.io/_downloads/Anaconda_CheatSheet.pdf

Python: https://s3.amazonaws.com/assets.datacamp.com/blog_assets/PythonForDataScience.pdf

Numpy: https://s3.amazonaws.com/assets.datacamp.com/blog_assets/PythonForDataScience.pdf

Pandas: https://s3.amazonaws.com/assets.datacamp.com/blog_assets/PandasPythonForDataScience.pdf

Matplotlib: https://s3.amazonaws.com/assets.datacamp.com/blog_assets/Python_Matplotlib_Cheat_Sheet.pdf

Scipy: https://s3.amazonaws.com/assets.datacamp.com/blog_assets/Python_SciPy_Cheat_Sheet_Linear_Algebra.pdf

Bokeh: https://s3.amazonaws.com/assets.datacamp.com/blog_assets/Python_Bokeh_Cheat_Sheet.pdf
Practice Resources - demo

https://github.com/LibraryOfCongress/data-exploration/blob/master/LOC.gov%20JSON%20API.ipynb

https://github.com/CrossRef/rest-api-doc/blob/master/demos/crossref-api-demo.ipynb

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Thank You
Tutorials & Examples

https://www.learnpython.org/

https://www.codecademy.com/learn/learn-python


Resources


https://www.python.org/about/gettingstarted/

https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=WSM14025USEN

https://libraries.mit.edu/scholarly/publishing/apis-for-scholarly-resources/

Python for Data Science. Provided through Ulearn