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MASTER IN CITY & TECHNOLOGY
DIGITAL TOOLS AND BIG DATA
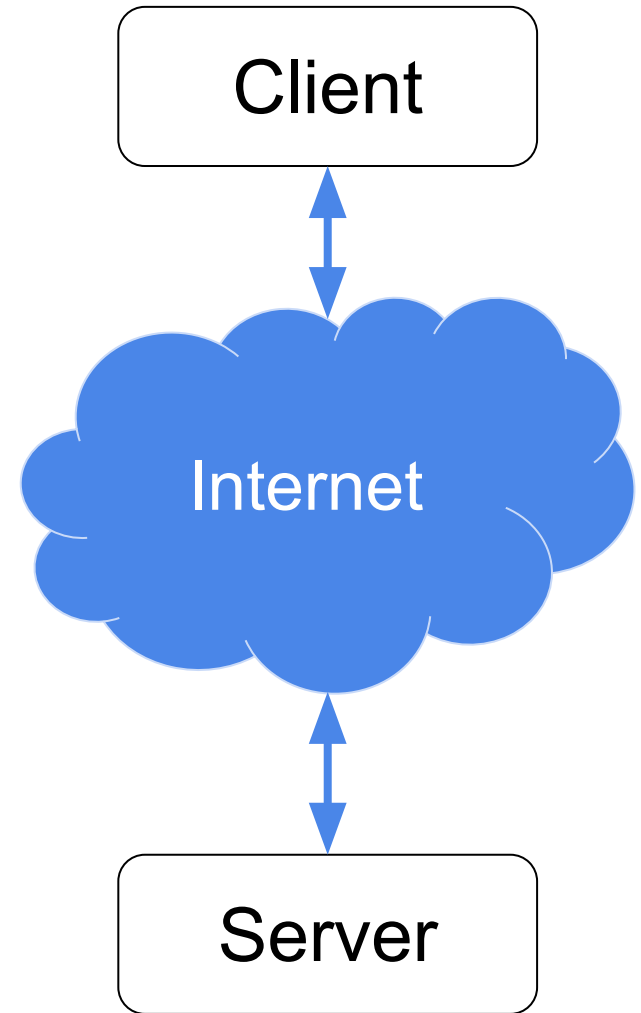**2020/2021**

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Web Services

Avoiding (sometimes missing) files to access data

A web service a piece of software designed to support interaction and interoperability of machines across networks and the internet.

Web services relies on machine-processable format usually defined by standards (e.g., WSDL, WMS, WFS, REST).

Client

Internet

Server

A simple description is available here: https://en.wikipedia.org/wiki/Web_service

Web Map Server:

Pros:
Light and fast
Ready for visualisation
Web enabled

Cons:
No access to raw data
Pre-define symbology

Maps and Orto-photos Barcelona:

DTM Barcelona:
http://geoserveis.icgc.cat/icgc_mdt2m/wms/service

Ortophotos Barcelona:
http://geoportal.amb.cat/arcgis/rest/services/Cartografia/Orto1965_ETRS89/MapServer/WMTS
URL: http://geoserveis.icgc.cat/icc_ortohistorica/wms/service?

Barcelona Province WMS:
https://www.diba.cat/web/idebarcelona/serveis-de-mapes-wms

WMS

Web Feature Server:

Pros:
Access to raw data

WFS services generalitat de Catalunya

Cons:
Heavy, plain text transmitted
GIS software is needed
Demands styling for visualisation

Source: https://www.ogc.org/standards/wfs

WFS

Catalog service for the web

An advanced service for accessing, indexing and querying web services.

This is meant for general data (web service) management and access.

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RESTful services and API's are endpoints designed for automatic and iterative access to data.

They demand clients and (sometimes) libraries integrated to scripts or computer programs to grant access. Authentications are usually needed.

They require additional programming skills and dedicated languages (Python among others).

Example for Catalunya: https://www.idescat.cat/dev/api/?lang=es

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