Amazon CloudFront is a web service for content delivery. It integrates with other Amazon Web Services to give developers and businesses an easy way to distribute content to end users with low latency, high data transfer speeds, and no commitments.

Amazon S3 is storage for the Internet. It is designed to make web-scale computing easier for developers. Amazon S3 provides a [simple](http://aws.amazon.com/s3/) web services interface that can be used to store and retrieve any amount of data, at any time, from anywhere on the web. It gives any developer access to the same highly scalable, reliable, secure, fast, inexpensive infrastructure that Amazon uses to run its own global network of web sites. The service aims to maximize benefits of scale and to pass those benefits on to developers.

ArcGIS is a [geographic information system](#Geographic_information_system) (GIS) for working with maps and geographic information. It is used for: creating and using maps; compiling geographic data; analyzing mapped information; sharing and discovering geographic information; using maps and geographic information in a range of applications; and managing geographic information in a database. The system provides an infrastructure for making maps and geographic information available throughout an [organization](http://en.wikipedia.org/wiki/ArcGIS), across a community, and openly on the Web.

CartoCSS is a stylesheet renderer for [Mapnik](#Mapnik). It's an evolution of the [Cascadenik](https://github.com/mapnik/Cascadenik) idea and language, with an emphasis on speed and flexibility. You can find an online reference here <http://mapbox.com/carto/api/2.1.0/>

[GDAL2Tiles](http://www.klokan.cz/projects/gdal2tiles/) is a command line tool that allows easy publishing of raster maps on the Internet. The raster image is converted into a directory structure of small tiles which you can copy to your webserver.

Geographic data describe our world allows for [city planning](http://en.wikipedia.org/wiki/City_planning), [flood](http://en.wikipedia.org/wiki/Flood) prediction and relief, emergency service routing, environmental assessments, wind pattern monitoring and many other applications. Geographic data is processed with [geographic information system](http://en.wikipedia.org/wiki/Geographic_information_system) ([GIS](#GIS)) software which can, as one aspect of its functioning, produce [maps](http://en.wikipedia.org/wiki/Maps).

GeoTIFF is a [public domain](http://en.wikipedia.org/wiki/Public_domain) [metadata](http://en.wikipedia.org/wiki/Metadata_(computing)) standard which allows [georeferencing](http://en.wikipedia.org/wiki/Georeference" \o "Georeference) information to be embedded within a [TIFF](#TIFF) file. The potential additional information includes [map projection](http://en.wikipedia.org/wiki/Map_projection), [coordinate systems](http://en.wikipedia.org/wiki/Coordinate_system), [ellipsoids](http://en.wikipedia.org/wiki/Ellipsoid), [datums](http://en.wikipedia.org/wiki/Datum_(geodesy)" \o "Datum (geodesy)), and everything else necessary to establish the exact spatial reference for the file.

Geographic information system, GIS, is a system designed to capture, store, manipulate, analyze, manage, and present all types of [geographical data](http://en.wikipedia.org/wiki/Geographic_data).

Latitude is a [geographic coordinate](http://en.wikipedia.org/wiki/Geographic_coordinate) that specifies the north-south position of a point on the Earth's surface. . It is an angular measurement, usually expressed in [degrees](http://en.wikipedia.org/wiki/Degree_(angle)) and denoted by φ.

Leaflet is a modern open-source JavaScript library for mobile-friendly interactive maps. Leaflet is designed with simplicity, performance and usability in mind. It works efficiently across all major desktop and mobile platforms out of the box, taking advantage of HTML5 and CSS3 on modern browsers while still being accessible on older ones. It can be extended with many [plugins](http://leafletjs.com/plugins.html), has a beautiful, easy to use and [well-documented API](http://leafletjs.com/reference.html) and a [simple](http://leafletjs.com/), readable [source code](https://github.com/Leaflet/Leaflet) that is a joy to [contribute](https://github.com/Leaflet/Leaflet/blob/master/CONTRIBUTING.md) to. You can find it here <http://leafletjs.com/reference.html>

Longitude  is a [geographic coordinate](http://en.wikipedia.org/wiki/Geographic_coordinate_system) that specifies the east-west position of a point on the Earth's surface. It is an angular measurement, usually expressed in [degrees](http://en.wikipedia.org/wiki/Degree_(angle)) and denoted by λ.

MapBox is a company that creates different tools for styling and deploying maps as well as providing services for hosting maps. Many of these tools use [OpenStreetMap](#OpenStreetMap) data and involve large open-source efforts and MapBox is also a main [contributor](http://wiki.openstreetmap.org/wiki/MapBox) to the [Mapnik](#Mapnik) renderer project.

Mapnik is an open source toolkit for [rendering](http://wiki.openstreetmap.org/wiki/Rendering) maps. Among other things, it is used to render the four main [Slippy Map](http://wiki.openstreetmap.org/wiki/Slippy_Map" \o "Slippy Map) layers on the [OpenStreetMap](#OpenStreetMap) website. It supports a variety of geospatial data formats and provides flexible styling options for designing many different kinds of maps.  It can read ESRI [shapefiles](#shapefile), [PostGIS](#PostGIS), [TIFF](#TIFF) rasters, [.osm](http://wiki.openstreetmap.org/wiki/.osm) files, and any GDAL or OGR supported formats.

MapProxy is an open source geospatial [tile proxy](http://wiki.openstreetmap.org/wiki/Tile_proxy) that supports reprojection. Mapproxy is a [python](#Python) proxy server for geospatial images. It can read data from WMS, tiles, mapserver and [mapnik](#Mapnik), and cache and serve that data as [WMS](http://wiki.openstreetmap.org/wiki/WMS),[WMTS](http://www.opengeospatial.org/standards/wmts/),[TMS](http://wiki.openstreetmap.org/wiki/TMS) and [KML](http://wiki.openstreetmap.org/wiki/KML). It can also do reprojections between different coordinate reference systems.

MapTiler is graphical application for [online](http://www.maptiler.org/) map publishing. Your map can create overlay of standard maps like Google Maps, Yahoo Maps, Microsoft VirtualEarth or [OpenStreetMap](#OpenStreetMap) and can be also visualized in 3D form by Google Earth. Only thing you have to do for publishing the map is to upload the automatically generated directory with tiles into your webserver.

MBTiles provides a way of storing millions of tiles in a single [SQLite](#SQLite) database making it possible to store and transfer web maps in a single file. And because [SQLite](#SQLite) is available on so many platforms, MBTiles is an ideal format for reading tiles directly for serving on the web or displaying on mobile devices.

OpenLayers is an [open source](http://en.wikipedia.org/wiki/Open_source) [JavaScript](http://en.wikipedia.org/wiki/JavaScript) library for displaying map data in web browsers. It provides an [API](http://en.wikipedia.org/wiki/API) for building rich web-based geographic applications similar to [Google Maps](http://en.wikipedia.org/wiki/Google_Maps) and [Bing Maps](http://en.wikipedia.org/wiki/Bing_Maps). The library was originally based on the [Prototype JavaScript Framework](http://en.wikipedia.org/wiki/Prototype_JavaScript_Framework). OpenLayers is used by the [OpenStreeMap](#OpenStreetMap) project for its "Slippy Map" map interface. You can find the documentation here <http://docs.openlayers.org/>

Open source software (OSS) is [computer software](http://en.wikipedia.org/wiki/Computer_software) with its [source code](http://en.wikipedia.org/wiki/Source_code) made available and licensed with an [open source license](http://en.wikipedia.org/wiki/Open_source_license) in which the [copyright](http://en.wikipedia.org/wiki/Copyright) holder provides the rights to study, change and distribute the software for free to anyone and for any purpose. Open source software is very often developed in a public, [collaborative](http://en.wikipedia.org/wiki/Collaborative_software_development_model) manner. Open source software is the most prominent example of [open source](http://en.wikipedia.org/wiki/Open_source) development and often compared to (technically defined) [user-generated content](http://en.wikipedia.org/wiki/User-generated_content) or (legally defined) [open content](http://en.wikipedia.org/wiki/Open_content) movements.

OpenStreetMap, OSM, is a [collaborative project](http://en.wikipedia.org/wiki/Virtual_community) to create a [free](http://en.wikipedia.org/wiki/Free_content) editable [map](http://en.wikipedia.org/wiki/Map) of the world.

PostGIS is a spatial database extender for [PostgreSQL](http://postgresql.org/) object-relational database. It adds support for geographic objects allowing location queries to be run in SQL.

Python is a [general-purpose](http://en.wikipedia.org/wiki/General-purpose_programming_language), [high-level programming language](http://en.wikipedia.org/wiki/High-level_programming_language) whose design philosophy emphasizes code [readability](http://en.wikipedia.org/wiki/Readability). Python's syntax allows programmers to express concepts in fewer [lines of code](http://en.wikipedia.org/wiki/Lines_of_code) than would be possible in languages such as [C](http://en.wikipedia.org/wiki/C_(programming_language)), and the language provides constructs intended to enable clear programs on both a small and large scale. Python supports multiple [programming paradigms](http://en.wikipedia.org/wiki/Programming_paradigm), including [object-oriented](http://en.wikipedia.org/wiki/Object-oriented_programming), [imperative](http://en.wikipedia.org/wiki/Imperative_programming) and [functional programming](http://en.wikipedia.org/wiki/Functional_programming) styles. It features a fully [dynamic type](http://en.wikipedia.org/wiki/Dynamic_type) system and automatic [memory management](http://en.wikipedia.org/wiki/Memory_management).

Quantum GIS, QGIS, is a user friendly Open Source [Geographic Information System](#Geographic_information_system) ([GIS](http://en.wikipedia.org/wiki/GIS)) licensed under the [GNU General Public License](http://www.gnu.org/licenses/gpl.html). QGIS is an [official](http://www.qgis.org/) project of the [Open Source Geospatial Foundation](http://www.osgeo.org/) (OSGeo). Provides data viewing, editing, and analysis capabilities, and supports numerous vector, raster, and database formats and functionalities.

[Rackspace](http://www.rackspace.com/" \o "Rackspace) is a global web host known for their high end managed hosting and dedicated services. The company delivers enterprise-level managed services to businesses of all sizes and kinds around the world.

Shapefile, is a popular [geospatial](http://en.wikipedia.org/wiki/Geospatial) [vector](http://en.wikipedia.org/wiki/Vector_graphics) data format for [geographic information system](#Geographic_information_system) [software](http://en.wikipedia.org/wiki/Shapefile). It is developed and regulated by [Esri](http://en.wikipedia.org/wiki/Esri" \o "Esri) as a (mostly) [open specification](http://en.wikipedia.org/wiki/Open_standard) for data interoperability among Esri and other software products. Shapefiles spatially describe features: [points](http://en.wikipedia.org/wiki/Point_(geometry)), [lines](http://en.wikipedia.org/wiki/Polyline), and [polygons](http://en.wikipedia.org/wiki/Polygons), representing, for example, [water wells](http://en.wikipedia.org/wiki/Water_well), [rivers](http://en.wikipedia.org/wiki/Rivers), and [lakes](http://en.wikipedia.org/wiki/Lake). Each item usually has [attributes](http://en.wikipedia.org/wiki/Attribute_(computing)) that describe it, such as name or temperature.

SpatiaLite is an open source library intended to extend the [SQLite](#SQLite) core to support fully fledged Spatial SQL capabilities.

SQLite is a software library that implements a [self-contained](http://www.sqlite.org/selfcontained.html), [serverless](http://www.sqlite.org/serverless.html), [zero-configuration](http://www.sqlite.org/zeroconf.html), [transactional](http://www.sqlite.org/transactional.html) SQL database engine. SQLite is the [most widely deployed](http://www.sqlite.org/mostdeployed.html) SQL database engine in the world. The source code for SQLite is in the [public domain](http://www.sqlite.org/copyright.html).

[UTFGrid](http://mapbox.com/mbtiles-spec/utfgrid/) is a standard, scalable way of encoding data for hundreds or thousands of features alongside your map tiles. The UTFGrids are invisible “ASCII Art” and attribute data embedded in json. They sit “behind” your map tiles (they are not rendered visually) and allows quick attribute lookups without going back to the server. This allows a high degree of real-time map interactivity in an HTML web map - something that has typically been the strong point of plugin-based maps.

TIFF (originally standing for Tagged Image File Format) is a file format for storing [images](http://en.wikipedia.org/wiki/Raster_graphics), popular among graphic artists, the publishing industry, and both amateur and professional photographers in [general](http://en.wikipedia.org/wiki/TIFF).

Tiled rendering is a technique for subdividing (or tilling) large images in pieces (tiles).

TileMill is a [design](http://wiki.openstreetmap.org/wiki/TileMill) environment developed by [MapBox](#MapBox) for cartography, constituting [Mapnik](#Mapnik) as a renderer, [Carto](#CartoCSS) as a stylesheet language, and a locally-served web interface with node.js as a server and based on Backbone.js for the client. TileMill can load [shapefiles](#shapefile) or connect to a [PostGIS](#PostGIS) database for rendering. Raster data such as [GeoTIFFs](#GeoTIFF) can also be rendered. By default TileMill renders to an [MBTiles](#MBTiles) file, an [SQLite](#SQLite) bundle of tile images that enables compression and faster transfers. PNG and PDF output is also supported for static maps.