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.

Rather than the map itself, the data generated by the OpenStreetMap project are considered their primary output. The data are then available for use in both traditional applications, like their usage by [Craigslist](http://en.wikipedia.org/wiki/Craigslist) and [Foursquare](http://en.wikipedia.org/wiki/Foursquare) to replace [Google Maps](http://en.wikipedia.org/wiki/Google_Maps), and more unusual roles, like replacing default data included with [GPS](http://en.wikipedia.org/wiki/GPS) receivers. These data have been favorably compared with proprietary datasources, though data quality varies worldwide.

The initial map data were collected from scratch by volunteers performing systematic ground surveys using a handheld [GPS](http://en.wikipedia.org/wiki/GPS) unit and a notebook, digital camera, or a voice recorder. These data were then entered into the OpenStreetMap database.

More recently, the availability of [aerial photography](http://en.wikipedia.org/wiki/Aerial_photography) and other data sources from commercial and government sources has greatly increased the speed of this work and has allowed land-use data to be collected more accurately by the process of [digitization](http://en.wikipedia.org/wiki/Digitization). When especially large datasets become available, a technical team manages the conversion and import of the data.

OpenStreetMap provides an [OpenLayers](http://en.wikipedia.org/wiki/OpenLayers" \o "OpenLayers) based [slippy map](http://wiki.openstreetmap.org/wiki/Slippy_Map" \o "openstreetmap:Slippy Map) interface, displaying map tiles rendered by the [Mapnik](http://wiki.openstreetmap.org/wiki/Mapnik" \o "openstreetmap:Mapnik)rendering engine, and tiles from other sources including OpenCycleMap.org and [MapQuest Open](http://en.wikipedia.org/wiki/MapQuest_Open).

OpenStreetMap uses a [topological](http://en.wikipedia.org/wiki/Topology) [data structure](http://en.wikipedia.org/wiki/Graph_(mathematics)), with four core elements (also known as data primitives):

* Nodes are points with a geographic position, stored as coordinates (pairs of a [latitude](http://en.wikipedia.org/wiki/Latitude) and a [longitude](http://en.wikipedia.org/wiki/Longitude)) according to [WGS 84](http://en.wikipedia.org/wiki/WGS_84). Outside of their usage in ways, they are used to represent map features without a size, such as [points of interest](http://en.wikipedia.org/wiki/Point_of_interest) or mountain peaks.
* Ways are ordered lists of nodes, representing a [polyline](http://en.wikipedia.org/wiki/Polyline" \o "Polyline), or possibly a [polygon](http://en.wikipedia.org/wiki/Polygon) if they form a closed loop. They are used both for representing linear features such as streets and rivers, and areas, like forests, parks, parking areas and lakes.
* Relations are ordered lists of nodes and ways (together called "members"), where each member can optionally have a "role" (a string). Relations are used for representing the relationship of existing nodes and ways. Examples include turn restrictions on roads, routes that span several existing ways (for instance, a long-distance [motorway](http://en.wikipedia.org/wiki/Motorway)), and areas with holes.
* [Tags](http://en.wikipedia.org/wiki/Tag_(metadata)) are key-value pairs (both arbitrary strings). They are used to store [metadata](http://en.wikipedia.org/wiki/Metadata) about the map objects (such as their type, their name and their physical properties). Tags are not free-standing, but are always attached to an object: to a node, a way, a relation, or to a member of an relation. A recommended [ontology](http://en.wikipedia.org/wiki/Ontology_(computer_science)) of map features (the meaning of tags) is [maintained on a wiki](http://wiki.openstreetmap.org/wiki/Map_features).