

# Mapbox

**Mapbox is the location data platform for mobile and web applications. We provide building blocks to add location features like maps, search, and navigation into any experience you create.**

**Currently, apps such as Shopify, Facebook, Pinterest, Foursquare, DHL, DPDgroup, Grubhub, Instacart, and Airbnb are all powered by Mapbox.**

# Google Maps vs Mapbox

- Google Map and Mapbox APIs are providing great features and functionalities to the users,
- Mapbox API is clearly ahead of Google maps API in terms of performance and customization.
- Google Map API is the leader in the area as it is operating for years and is more reliable,
- Mapbox API is not far behind and is providing great rendering performance and customization with reasonable pricing

# Mapbox Map Layers in Python

How to make Mapbox maps in Python with various base layers, with or without needing a Mapbox Access token.

# Mapbox Maps vs Geo Maps (Plotly supports two different kinds of maps:)

**Mapbox maps** are [tile-based maps](#). If your figure is created with a `px.scatter_mapbox`, `px.line_mapbox`, `px.choropleth_mapbox` or `px.density_mapbox` function or otherwise contains one or more traces of type `go.Scattermapbox`, `go.Choroplethmapbox` or `go.Densitymapbox`, the `layout.mapbox` object in your figure contains configuration information for the map itself.

**Geo maps** are outline-based maps. If your figure is created with a `px.scatter_geo`, `px.line_geo` or `px.choropleth` function or otherwise contains one or more traces of type `go.Scattergeo` or `go.Choropleth`, the `layout.geo` object in your figure contains configuration information for the map itself.

# How Layers Work in Mapbox Tile Maps

Mapbox tile maps are composed of various layers, of three different types:

1. `layout.mapbox.style` defines is the lowest layers, also known as your "base map"
2. The various traces in data are by default rendered above the base map (although this can be controlled via the below attribute).
3. `layout.mapbox.layers` is an array that defines more layers that are by default rendered above the traces in data (although this can also be controlled via the below attribute).

# Base Maps in `layout.mapbox.style`

The accepted values for `layout.mapbox.style` are one of:

- "white-bg" yields an empty white canvas which results in no external HTTP requests"
- "open-street-map", "carto-positron", "carto-darkmatter", "stamen-terrain", "stamen-toner" or "stamen-watercolor" yield maps composed of *raster* tiles from various public tile servers which do not require signups or access tokens
- "basic", "streets", "outdoors", "light", "dark", "satellite", or "satellite-streets" yield maps composed of *vector* tiles from the Mapbox service, and *do* require a Mapbox Access Token or an on-premise Mapbox installation.
- A Mapbox service style URL, which requires a Mapbox Access Token or an on-premise Mapbox installation.
- A Mapbox Style object as defined at <https://docs.mapbox.com/mapbox-gl-js/style-spec/>