CHAPTER 1

Making a Map

Plotly is an open-source data visualization library for Python, R, and JavaScript. It allows for interactive plots, including geographical maps. In this brief example, we will learn how to create a simple annotated map using Plotly in Python.

To start, you need to install Plotly. In Python, you can do this via pip:

```
pip install plotly
```

Once installed, you can create a map with annotations as follows:

```python
import plotly.graph_objects as go

fig = go.Figure(data=go.Scattergeo(
    lon = [-75.789],
    lat = [45.4215],
    text = ['Ottawa'],
    mode = 'text',
))

fig.update_layout(
```

```
title_text = 'Annotated Map with Plotly',
showlegend = False,
geo = dict(
    scope = 'world',
    projection_type = 'azimuthal equal area',
    showland = True,
    landcolor = 'rgb(243, 243, 243)',
    countrycolor = 'rgb(204, 204, 204)',
),
)

fig.show()
```

This code creates a world map and places a text annotation at the geographic coordinates for Ottawa. The 'go.Scattergeo' function is used to define the geographical scatter plot (i.e., the annotation), while the 'update_layout' function is used to define the appearance and the properties of the map itself.

In this example, you can replace the latitude, longitude, and text with the values corresponding to your desired location.

Answers to Exercises

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