* Perform tasks using new Python libraries and modules.
* Retrieve and use data from an API "get" request to a server.
* Retrieve and store values from a JSON array.
* Use try and except blocks to resolve errors.
* Write Python functions.
* Create scatter plots using the Matplotlib library, and apply styles and features to a plot.
* Perform linear regression, and add regression lines to scatter plots.
* Create heatmaps, and add markers using the Google Maps API.

Project Plan

Here's an outline of your project plan:

* **Task:** Collect and analyze weather data across cities worldwide.
* **Purpose:** PlanMyTrip will use the data to recommend ideal hotels based on clients' weather preferences.
* **Method:** Create a Pandas DataFrame with 500 or more of the world's unique cities and their weather data in real time. This process will entail collecting, analyzing, and visualizing the data.