6.0.2

## **Module 6**

## **Looking Ahead**

In this module, you'll practice your analysis, visualization, and statistical skills by retrieving and analyzing weather data for a hypothetical travel company, PlanMyTrip. Successfully completing the tasks will draw on your knowledge of Python, decision and repetition statements, data structures, Pandas, Matplotlib, and SciPy statistics.

## What You Will Learn

By the end of this module, you will be able to:

- · 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.

## **Planning Your Schedule**

Here's a quick look at the lessons and assignments you'll cover in this module. You can use the time estimates to help pace your learning and plan your schedule.

- Introduction to Module 6 (1 hour)
- Generate Random Coordinates of World Cities (1-2 hours)
- Retrieve, Collect, and Clean Weather Data (1–2 hours)
- Plot Weather Data (1–2 hours)

- Determine Correlations (2-3 hours)
- Use a Google API to Create Heatmaps (2–3 hours)
- Application (5 hours)

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