

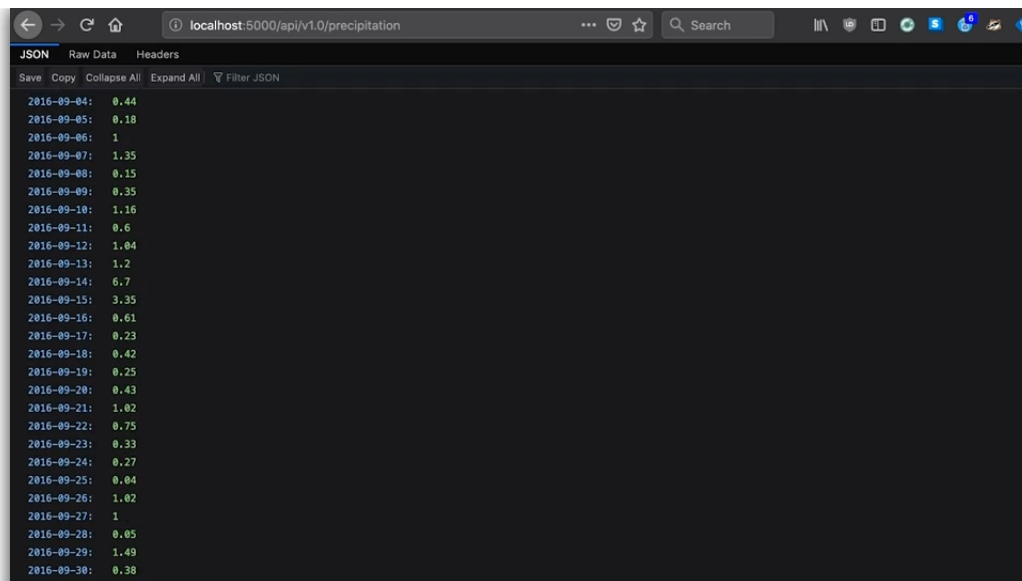
9.4.1

Incorporate Flask into Data Analysis

You're having breakfast with W. Avy the day before the big presentation. Your analysis is sound, the eggs are fluffy, and there are birds chirping outside. All is well with the world! Suddenly, W. Avy starts to look concerned: "I know this code works, you know it works, but how will we show it to my board of directors? I doubt they even know what GitHub is, much less how to use it."

You pause to think. W. Avy has a point; the board of directors probably doesn't really care about the mechanics of the code you've written. They just want to be able to access the results. You respond, "I got this, W. Avy. Just leave it to me. I'll use Flask, which will let me display my results in a webpage. All you have to do is provide your board with the URL."

You're now going to add a new tool to your data analysis toolbox: Flask. Watch the following video to learn more about this web framework.



The screenshot shows a web browser window with the address bar displaying 'localhost:5000/api/v1.0/precipitation'. The browser's developer tools are open, showing a JSON response. The JSON data is a list of 27 objects, each representing a date in 2016 and a corresponding precipitation value. The data is displayed in a dark-themed editor with syntax highlighting.

Date	Precipitation
2016-09-04	0.44
2016-09-05	0.18
2016-09-06	1
2016-09-07	1.35
2016-09-08	0.15
2016-09-09	0.35
2016-09-10	1.16
2016-09-11	0.6
2016-09-12	1.04
2016-09-13	1.2
2016-09-14	6.7
2016-09-15	3.35
2016-09-16	0.61
2016-09-17	0.23
2016-09-18	0.42
2016-09-19	0.25
2016-09-20	0.43
2016-09-21	1.02
2016-09-22	0.75
2016-09-23	0.33
2016-09-24	0.27
2016-09-25	0.04
2016-09-26	1.02
2016-09-27	1
2016-09-28	0.05
2016-09-29	1.49
2016-09-30	0.38

Flask allows you to create Python applications and then share the results of those applications with others via a webpage, making it a powerful tool for data analysis and visualization.

NOTE

Flask is also helpful when it comes to the job search. You can share your work in a web interface which is simple and effective, rather than viewing code on GitHub. Many employers will want to see your code, but more importantly, they want to see what it can do.

Your audience is a key factor when it comes to data visualization. There may be people in your audience who are not interested in the code itself, but rather what the code can do. Flask makes it possible to summarize the key ideas of your code in a way that allows people who don't have as much coding experience to understand the results of your code. We'll create a Flask application that will allow us to share our findings in an easy-to-interpret way.

Let's get started by connecting our database so that we can set up our Flask application. We'll also create a new Python file for the application.

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