

How can I easily create heatmaps in Python?

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April 16, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I easily create heatmaps in Python?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=136126>

Creating heatmaps in Python can be easily done using the Matplotlib library. Heatmaps are graphical representations of data where the values are represented by different colors. In order to create a heatmap in Python, one can use the Matplotlib function 'imshow()' which allows for the visualization of 2-dimensional arrays as heatmaps. This function can be customized to adjust the color scheme, labels, and other visual elements. Additionally, libraries such as Seaborn and Plotly also offer simple and efficient methods to create heatmaps in Python. By utilizing these tools, one can easily generate informative and visually appealing heatmaps for data analysis and visualization purposes.

Easily Create Heatmaps in Python

Suppose we have the following dataset in Python that displays the number of sales a certain shop makes during each weekday for five weeks:

```
import numpy as np
import pandas as pd
import seaborn as sns

#create a dataset
np.random.seed(0)
data = {'day': np.tile(, 5),
'week': np.repeat(, 5),
'sales': np.random.randint(0, 50, size=25)
}

df = pd.DataFrame(data,columns=)
df = df.pivot('day', 'week', 'sales')
```

**view first ten rows of dataset
df**

week 1 2 3 4 5

day

Fri 3 36 12 46 13

Mon 44 39 23 1 24

Thur 3 21 24 23 25

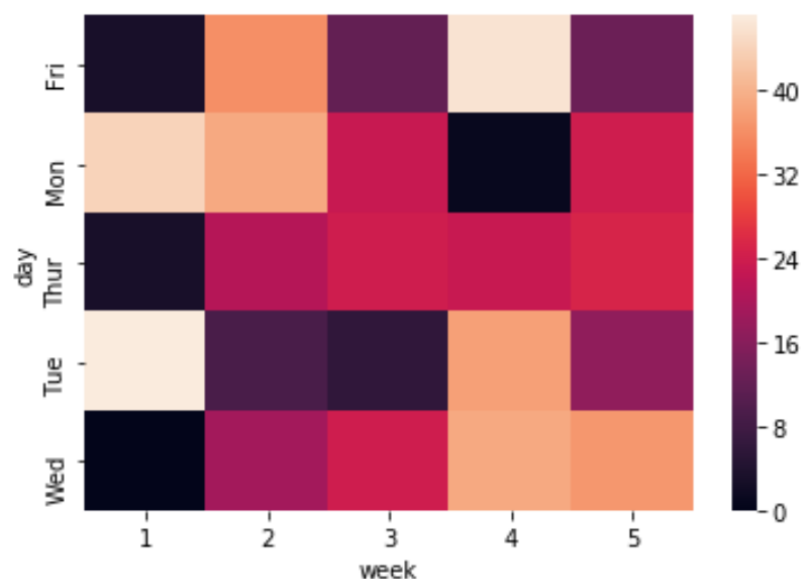
Tue 47 9 6 38 17

Wed 0 19 24 39 37

Create Basic Heatmap

We can create a basic heatmap using the `sns.heatmap()` function:

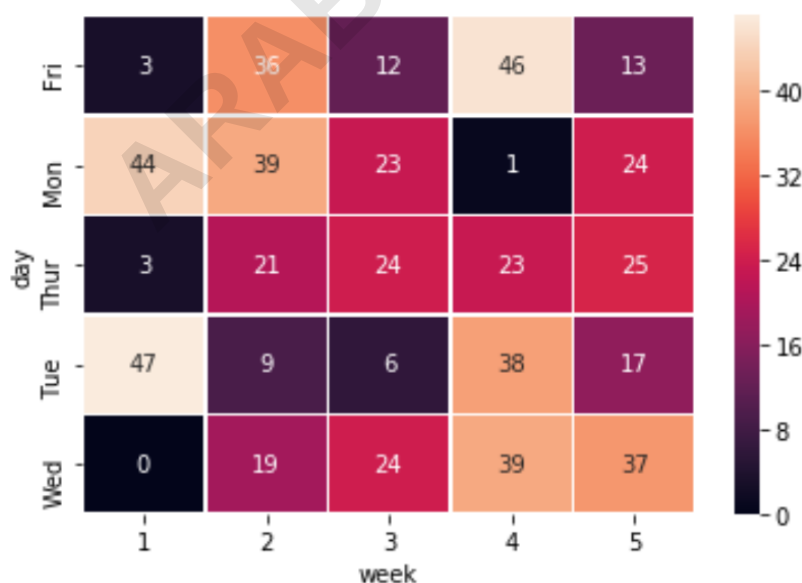
`sns.heatmap(df)`



Add Annotations to Heatmap

You can also add annotations to the heatmap using the `annot=True` argument:

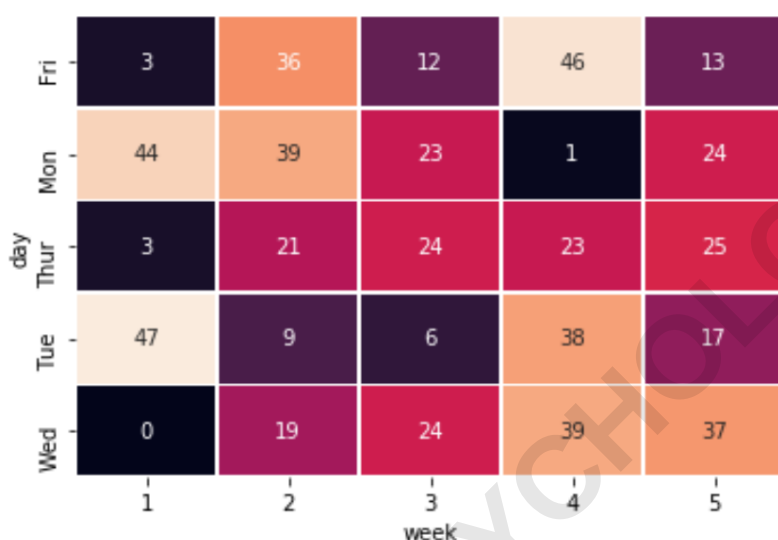
`sns.heatmap(df, linewidths=.5, annot=True)`



Hide Colorbar from Heatmap

You can also hide the colorbar entirely using the `cbar=False` option:

```
sns.heatmap(df, linewidths=.5, annot=True, cbar=False)
```



Change Color Theme of Heatmap

You can also change the color theme using the `cmap` argument. For example, you could set the colors to range from yellow to green to blue:

```
sns.heatmap(df, cmap='YlGnBu')
```