Spatial Data Visualization and Analytics (Course Material)

A modern introduction to working with spatial datasets

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Contents

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Working with pandas

pandas isa great library.

```
import os
import pandas as pd
```

```
home_dir = os.path.expanduser('~')
print(home_dir)
```

```
/Users/ujaval
```

```
filename = 'worldcities.csv'
folder = 'Downloads/python_geospatial/'
path = os.path.join(home_dir, folder, filename)
print(path)
```

```
df = pd.read_csv(path)
df.head()
```

```
df.shape
```

```
india_df = df[df['country']=='India'].copy()
india_df.shape
```

```
%run ./distance.ipynb
```

```
india_df['distance'] = india_df.apply(lambda row: haversine_distance((77.56, 12.97),
india_df['distance'] = india_df['distance'].apply(lambda x: '%.2f' % x)
display(india_df)
```

```
output = os.path.join(home_dir, 'Downloads', 'output.csv')
print(output)
india_df.to_csv(output, index=False)
```

```
# pip install geopy
from geopy import distance
```

```
india_df['great_circle'] = india_df.apply(lambda row: distance.great_circle((12.97,77
display(india_df)
```

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