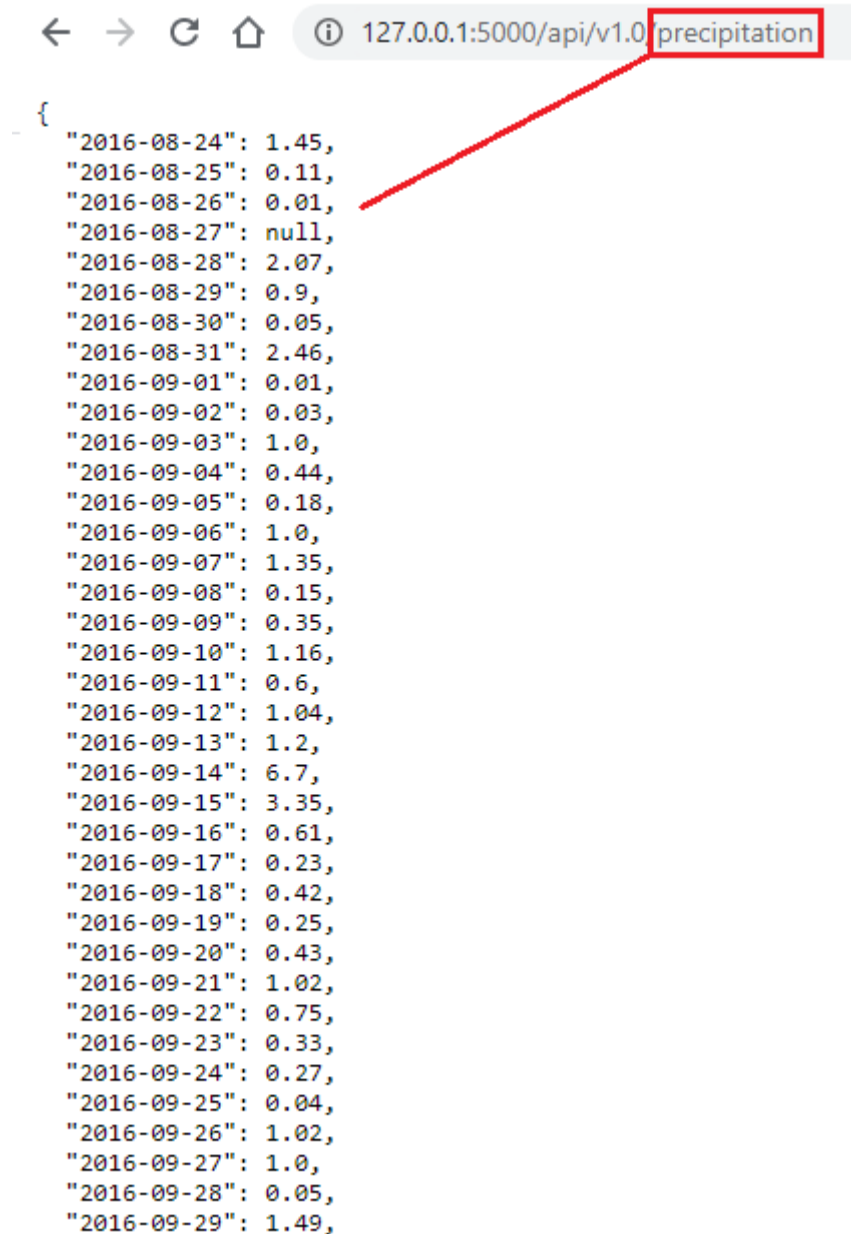


Resolved feedback-issues of SQL Alchemy challenge:

- Flask application connects to the SQLite database, but first three API routes are not providing the results.

Resolved: first three routes are working



← → ↺ 🏠 ⓘ 127.0.0.1:5000/api/v1.0/stations

```
[
  "USC00511918",
  "USC00513117",
  "USC00514830",
  "USC00516128",
  "USC00517948",
  "USC00518838",
  "USC00519281",
  "USC00519397",
  "USC00519523"
]
```

← → ↺ 🏠 ⓘ 127.0.0.1:5000/api/v1.0/tobs

```
[
  77.0,
  80.0,
  80.0,
  75.0,
  73.0,
  78.0,
  77.0,
  78.0,
  80.0,
  80.0,
  78.0,
  78.0,
  78.0,
  73.0,
  74.0,
  80.0,
  79.0,
  77.0,
  80.0,
  76.0,
  79.0,
  75.0,
  79.0,
  78.0,
  79.0,
  78.0,
  78.0,
  76.0,
  74.0,

```

- Following are a couple of things that need to be rectified (fixed):
 - In "Part-1" you need to sort the data frame for "precipitation" plot analysis
Resolved: the data frame for "precipitation" plot analysis is sorted

The screenshot shows a Jupyter Notebook with the following code and annotations:

```
print("Measurement Reference:", (measureent_ref))

Station Reference: <class 'sqlalchemy.ext.automap.station'>
Measurement Reference: <class 'sqlalchemy.ext.automap.measurement'>

Precipitation Analysis

In [5]: # Design a query to retrieve the Last 12 months of precipitation data and plot the results

prec_data_last_12m = engine.execute('SELECT measurement.date, measurement.prcp FROM measurement WHERE measurement.date > "2016-08-01"')
prec_data_last_12m_df = pd.DataFrame(prec_data_last_12m)
prec_data_last_12m_df.columns = ['date', 'prcp']
prec_data_last_12m_df = prec_data_last_12m_df.sort_values(by='date') # Sorted DataFrame for "precipitation" plot analysis
prec_data_last_12m_df_summed_days = prec_data_last_12m_df.set_index('date') # Indexed DataFrame by "date"
print('Data of the 12 Months year')
display(prec_data_last_12m_df_summed_days)
fig, ax = plt.subplots()
prec_data_last_12m_df_summed_days.plot(figsize = (10,10), rot = 90, ylabel = 'Inches', xlabel = "\nDate", ax = ax)
ax.legend(["Precipitation"], loc = 'upper left');
```

- API static routes are not working
Resolved: all the API static routes are working

The screenshot shows a web browser with the address bar set to `127.0.0.1:5000`. The page content includes:

Welcome to Home page!

Note: Date range is between 2010-01-1 and 2017-08-23. Date must be entered in YYYY-MM-DD format.

Available routes:

- /api/v1.0/precipitation
- /api/v1.0/stations
- /api/v1.0/tobs
- /api/v1.0/start
- /api/v1.0/start/end

← → ↻ 🏠 ⓘ 127.0.0.1:5000/api/v1.0 precipitation

```
{
  "2016-08-24": 1.45,
  "2016-08-25": 0.11,
  "2016-08-26": 0.01,
  "2016-08-27": null,
  "2016-08-28": 2.07,
  "2016-08-29": 0.9,
  "2016-08-30": 0.05,
  "2016-08-31": 2.46,
  "2016-09-01": 0.01,
  "2016-09-02": 0.03,
  "2016-09-03": 1.0,
  "2016-09-04": 0.44,
  "2016-09-05": 0.18,
  "2016-09-06": 1.0,
  "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": 1.0,
  "2016-09-28": 0.05,
  "2016-09-29": 1.49,
```

← → ↻ 🏠 ⓘ 127.0.0.1:5000/api/v1.0 stations

```
[
  "USC00511918",
  "USC00513117",
  "USC00514830",
  "USC00516128",
  "USC00517948",
  "USC00518838",
  "USC00519281",
  "USC00519397",
  "USC00519523"
]
```

← → ↻ 🏠 ⓘ 127.0.0.1:5000/api/v1.0/tobs

```
[
  77.0,
  80.0,
  80.0,
  75.0,
  73.0,
  78.0,
  77.0,
  78.0,
  80.0,
  80.0,
  78.0,
  78.0,
  78.0,
  73.0,
  74.0,
  80.0,
  79.0,
  77.0,
  80.0,
  76.0,
  79.0,
  75.0,
  79.0,
  78.0,
  79.0,
  78.0,
  78.0,
  76.0,
  74.0,
]
```

← → ↻ 🏠 ⓘ 127.0.0.1:5000/api/v1.0/2010-01-01

```
{
  "Avgrage Temperature": 73.09795396419437,
  "Maximum Temperature": 87.0,
  "Minimum Temperature": 53.0
}
```

← → ↻ 🏠 ⓘ 127.0.0.1:5000/api/v1.0/2010-01-01/2017-01-01

```
{
  "Avgrage Temperature": 73.01624538796189,
  "Maximum Temperature": 87.0,
  "Minimum Temperature": 53.0
}
```