

To implement the Backend Server which interacts with the HPI D-School Building API and serves the Frontend with processed data you must follow the following steps:

1. Move into the “csc3003s-capstone-project-solarviz/solarviz-back-end” directory.
2. Run the “APIHandler.py” class then your server will be up and running.

For local data fetching from the server while it is running, we have multiple paths which will return you APIs for the different requested data in a Json format that is interpretable with our front end.

The API calls supported by our server are the following with explanation (Variable <powerUnits> is a redundant variable which will serve a very good role in the project once one decides to modify it the future):

1. To fetch hourly data for Live Energy Generation you fetch from:

<http://127.0.0.1:8081/hourlyData/<day>/<hourNum>/<powerUnits>>

Variable <day> being the place holder for the day whose hourly data you want to fetch in the format “yyyy-mm-dd”.

Variable <hourNum> being the place holder for the respective hour of the day you want to fetch going from hour 0 to hour 23.

This method will return data for “hourNum” and day “day” in intervals of 5 minutes.

2. To fetch daily data for Live Energy Generation you fetch from:

<http://127.0.0.1:8081/dailyData/<day>/<powerUnits>>

Variable <day> being the place holder for the day whose hourly data you want to fetch in the format “yyyy-mm-dd”.

This method will return data for day “day” in hourly intervals.

3. To fetch weekly data for Live Energy Generation you fetch from:

<http://127.0.0.1:8081/weeklyData/<weekSunday>/<powerUnits>>

Variable <weekSunday> being the place holder for the day whose data you want to fetch.

This method will return data for day “weekSunday” in daily intervals.

4. To fetch monthly data for Live Energy Generation you fetch from:

<http://127.0.0.1:8081/monthlyData/<month>/<powerUnits>>

Variable <month> being the place holder for the month whose data you want to fetch in the format “yyyy-mm”.

This method will return data for month “day” in daily intervals.

5. To fetch monthly data for Live Energy Generation you fetch from:

<http://127.0.0.1:8081/yearlyData/<year>/<powerUnits>>

Variable <year> being the place holder for the year whose data you want to fetch in the format “yyyy”.

This method will return data for day “day” in daily intervals.

The above is the standard method to fetch rest of the data with just different paths.