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## Quick Start Guide

The recommended python version for this exercise is  $\geq 3.6$ .

We will provide a requirements.txt in the **Starter Kit**. If you do not have experience with this file, here are the commands to get you started:

Unzip contents of the starter\_kit into a new folder and navigate inside the new folder.

Run (please check your pip version!):

```
pip3 install -r requirements.txt
```

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## Starter Kit

### *starter\_kit.zip*

This zip file will contain a short dataset for you to explore, along with helper tools to load the dataset and floorplans. It also contains a jupyter notebook for parsing & visualizing the data.

URL:

[https://junction-2021.s3.eu-west-1.amazonaws.com/starter\\_kit.zip](https://junction-2021.s3.eu-west-1.amazonaws.com/starter_kit.zip)

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## Challenge Category 1 and 2

### *site\_x.zip*

Each site refers to an indoor space of a building where motion sensors have been installed. Every zip file contains 3 files:

site\_x.zip/

| - site\_x.png

| - site\_x.json

| - site\_x.pkl

- The PNG file contains the blueprint of the floorplan.
- The JSON file contains the device coordinates in (x, y) format. You can use any plotting library to visualize the locations of the devices. Sample code using Plotly is provided in the **starter\_kit**.
- The PKL file is a pickle file with compressed time-series data of events. The dataset format is ['deviceid', 'timestamp']. The timestamps are in UTC, and the deviceids map to the JSON file.

URLs:

[https://junction-2021.s3.eu-west-1.amazonaws.com/site\\_1.zip](https://junction-2021.s3.eu-west-1.amazonaws.com/site_1.zip)

[https://junction-2021.s3.eu-west-1.amazonaws.com/site\\_2.zip](https://junction-2021.s3.eu-west-1.amazonaws.com/site_2.zip)

[https://junction-2021.s3.eu-west-1.amazonaws.com/site\\_3.zip](https://junction-2021.s3.eu-west-1.amazonaws.com/site_3.zip)

[https://junction-2021.s3.eu-west-1.amazonaws.com/site\\_4.zip](https://junction-2021.s3.eu-west-1.amazonaws.com/site_4.zip)

[https://junction-2021.s3.eu-west-1.amazonaws.com/site\\_5.zip](https://junction-2021.s3.eu-west-1.amazonaws.com/site_5.zip)

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## Challenge Category 3

### ***audio\_data.zip***

This zip file contains floorplan of the garage from where audio data was recorded. It contains the locations of both motion and audio sensors, along with 1.pkl containing occupancy events and 4 .wav files containing audio data with the name of the file corresponding to the device.

URL:

[https://junction-2021.s3.eu-west-1.amazonaws.com/audio\\_data.zip](https://junction-2021.s3.eu-west-1.amazonaws.com/audio_data.zip)