```
In [7]:
        import os
        import json
        import time
        from collections import namedtuple
        import heapq
        import uuid
        import pandas as pd
        import s3fs
        import pyarrow.parquet as pq
        endpoint_url='https://storage.budsc.midwest-datascience.com'
        # s3 = s3fs.S3FileSystem(
              anon=True,
               client_kwargs={
                   'endpoint_url': endpoint_url
               }
        # )
        acceleration_columns = [
             'offset',
             'id',
             'ride_id',
             'uuid',
             'x',
             'y',
             'Z',
        Acceleration = namedtuple('Acceleration', acceleration_columns)
        def read_accelerations():
            df = pq.ParquetDataset(
                 'bdd/accelerations'
            ).read pandas().to pandas()
            df = df[acceleration columns].sort values(by=['offset'])
            records = [Acceleration(*record) for record in df.to_records(index=False)]
            return records
        accelerations = read accelerations()
        location columns = [
             'offset',
             'id',
             'ride_id',
             'uuid',
             'course',
             'latitude',
             'longitude',
             'geohash',
             'speed',
             'accuracy',
        Location = namedtuple('Location', location_columns)
        def read_locations():
```

```
In [3]: import os
import json
from pathlib import Path
data_dir = Path('bdd/accelerations/t=000.0')
full_df = pd.concat(
    pd.read_parquet(parquet_file)
    for parquet_file in data_dir.glob('*.parquet')
)
#full_df.to_csv('csv_file.csv')
```

In [5]: | accelerations

```
4865a7995', x=-1.167, y=0.04300000000000003, z=-0.156),
Acceleration(offset=26.696912529556645, id='85c61911b7fe2ced1000c33c9e93270
6', ride_id='6760ffa3f41908695d1405b776c3e8d5', uuid='dad7eae44e784b549c8c5a3
aa051a8c7', x=-1.086, y=0.002, z=-0.01),
```

Acceleration(offset=26.70506088652284, id='58682c5d48cad9d9e103431d773615b f', ride_id='c9a2b46c9aa515b632eddc45c4868482', uuid='19b9aa10588646b3bf22c9b 4865a7995', x=-0.761, y=0.1430000000000002, z=-0.027),

Acceleration(offset=26.716912529556648, id='85c61911b7fe2ced1000c33c9e93270 6', ride_id='6760ffa3f41908695d1405b776c3e8d5', uuid='dad7eae44e784b549c8c5a3 aa051a8c7', x=-1.0050000000000001, y=0.033, z=0.01300000000000001),

Acceleration(offset=26.72506088652284, id='58682c5d48cad9d9e103431d773615b f', ride_id='c9a2b46c9aa515b632eddc45c4868482', uuid='19b9aa10588646b3bf22c9b 4865a7995', x=-0.9530000000000001, y=0.042, z=-0.151),

Acceleration(offset=26.736912529556648, id='85c61911b7fe2ced1000c33c9e93270 6', ride_id='6760ffa3f41908695d1405b776c3e8d5', uuid='dad7eae44e784b549c8c5a3 aa051a8c7', x=-1.045, y=-0.021, z=0.0),

Acceleration(offset=26.74506088652284, id='58682c5d48cad9d9e103431d773615bf', ride_id='c9a2b46c9aa515b632eddc45c4868482', uuid='19b9aa10588646b3bf22c9b4865a7995', x=-1.077, y=0.085, z=-0.017),

Acceleration(offset=26.755912529556646. id='85c61911b7fe2ced1000c33c9e93270