conda install -c r r-xml

Problem Statement

1. Estimate the bus arrival at a certain timing by analysing past few days data, compare with scheduled bus arrival
2. Estimate where and when is the next faulty traffic light to improve preventive maintenance
3. Predict carpark lots availability by analysing data over past weeks
4. Estimated travel time application
5. Predict passenger volume at train or bus station at a future time
6. ERP Analysis
7. Recommend a COE Price

Bicycle Parking

Returns the bicycle parking locations within a radius.

#### Bus Arrival

Returns real-time Bus Arrival information for Bus Services at a queried Bus Stop, including: Estimated Time of Arrival (ETA), Estimated Location, Load info.

#### Bus Routes

Returns detailed route information for all services currently in operation, including: all bus stops along each route, first/last bus timings for each stop.

#### Bus Services

Returns detailed service information for all buses currently in operation, including: first stop, last stop, peak / offpeak frequency of dispatch.

#### Bus Stops

Returns detailed information for all bus stops currently being serviced by buses, including: Bus Stop Code, location coordinates.

#### Carpark Availability

Returns no. of available lots for HDB, LTA and URA carpark data. The LTA carpark data consist of major shopping malls and developments within Orchard, Marina, HarbourFront, Jurong Lake District.

#### ERP Rates

Returns ERP rates of all vehicle types across all timings for each zone.

#### Estimated Travel Times

Returns estimated travel times of expressways (in segments).

#### Facilities Maintenance

Returns pre-signed links to JSON file containing facilities maintenance schedules of the particular station

#### Faulty Traffic Lights

Returns alerts of traffic lights that are currently faulty, or currently undergoing scheduled maintenance.

#### Geospatial Whole Island

Returns the SHP files of the requested geospatial layer.

#### Passenger Volume by Bus Stops

Returns tap in and tap out passenger volume by weekdays and weekends for individual bus stop.

#### Passenger Volume by Origin Destination Bus Stops

Returns number of trips by weekdays and weekends from the origin to destination bus stops.

#### Passenger Volume by Origin Destination Train Stations

Returns number of trips by weekdays and weekends from the origin to destination train stations.

#### Passenger Volume by Train Stations

Returns tap in and tap out passenger volume by weekdays and weekends for individual train station.

#### Road Openings

Returns all planned road openings.

#### Road Works

Returns all road works being / to be carried out.

#### Taxi Availability

Returns location coordinates of all Taxis that are currently available for hire. Does not include "Hired" or "Busy" Taxis.

#### Taxi Stands

Returns detailed information of Taxi stands, such as location and whether is it barrier free.

#### Traffic Images

Returns links to images of live traffic conditions along expressways and Woodlands & Tuas Checkpoints.

#### Traffic Incidents

Returns incidents currently happening on the roads, such as Accidents, Vehicle Breakdowns, Road Blocks, Traffic Diversions etc.

#### Traffic Speed Bands

Returns current traffic speeds on expressways and arterial roads, expressed in speed bands

#### Train Service Alerts

Returns detailed information on train service unavailability during scheduled operating hours, such as affected line and stations etc.

#### VMS / EMA­S

Returns traffic advisories (via variable message services) concerning current traffic conditions that are displayed on EMAS signboards along expressways and arterial roads.