

HIPER Automotive - Data Engineering Final Round Task

Objective To read required data from the PINGS which are json files given in 'dsm_api' folder
Populate them in an SQL table (on your local system)

Candidate should submit python script and SQL Table by **29th August 10 AM (Monday)**

Description

The below screenshot is data contained in each 'PING' from which data needs to be read and fed into our SQL table
Each json file will have several pings. **Only pings present in the below format needs to be considered and processed.**
Other pings should be neglected



Data present in 'text' and 'ts' needs to be read, decoded and fed into the SQL table, details of which are mentioned below

Table Name: pings (device_id)			
Source	Headers	Data Size	Datatype in SQL
From 'text'	private_key	8	varchar (8)
	ping_type	2	tinyint unsigned
	rtc	6	timestamp
	ses_tim	5	int
	lat	9	float
	longi	10	float
	data_size	2	tinyint unsigned
From 'ts'	data	data_size	varchar (50)
	ping_time		timestamp

Take from **device_regn** table given in the excel_sheet
Each device_id should have a separate SQL Table
No of bytes in 'text' that should be considered for this parameter
Latitudes will be in ddmm.mmmm format d - degrees, m-minutes.
Should be converted into decimals in degrees (dd.dddd)
Longitudes will be in ddmm.mmmm format d - degrees, m-minutes.
Should be converted into decimals in degrees (dd.dddd)

SQL Table Structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	id	int			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/> 2	time_at_server	timestamp			No	None			Change Drop More
<input type="checkbox"/> 3	type	tinyint			No	None			Change Drop More
<input type="checkbox"/> 4	rtc	timestamp			No	None			Change Drop More
<input type="checkbox"/> 5	session_time	int			No	None			Change Drop More
<input type="checkbox"/> 6	lat	float			No	None			Change Drop More
<input type="checkbox"/> 7	longi	float			No	None			Change Drop More
<input type="checkbox"/> 8	data_size	tinyint			No	None			Change Drop More
<input type="checkbox"/> 9	data	varchar(50)	utf8mb4_0900_ai_ci		No	None			Change Drop More

FAQs

What if the private key doesn't exist?

Ignore those pings

What if any of the parameter is zero?

Consider them as zero