sdmay19-18: Real time Route Optimization

Report 4

March 1 - March 8

Team Members

Junjie Wen — Backend Developer; Data Analytics Lead

Zhanghao Wen — Web Developer

Yuhang Xie — Web Developer; UI Lead

Xinhe Yang — Web Developer

Tianhao Zhao — Communication Leader; Technical Writing

Summary of Progress this Report

- By review and analyze the meeting record, we built a better understanding of client's requirement and their exception of this project.
- We import the real history date to the aws server and create api for front engineer to access it.

Past Week Accomplishments

During the past week, we get data from client's website and upload it to our aws server.

```
mimestamp,Hanover Park IL TGS - ESN (),Hanover Park IL TGS - Reflector_url (),Hanover Park IL TGS - Reflector_status (),Hanover Park IL TGS - GPS_g s (meter_per_sec),Hanover Park IL TGS - Conveyor_RPM (),Hanover Park IL TG s - Longyor_RPM (),Hanover Park IL TG s - Liq_GPM (gal/min),Hanover Park IL TGS - Pressure (psi),Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec),Hanover Park IL TGS - Liq_GPM
transformed (gal/min)
                                      '2019-02-20T15:01:21.357759Z",
"2019-02-20T15:01:21.357675Z",
 2019-02-20T15:01:16.355347Z",
 2019-02-20T15:01:16.355265Z".
                                       ,"","{""alt"":257.285,""lat"":41.99004897,""lng"":-88.15815919}","","","","","",""
"2019-02-20T15:01:11.368825Z"
                                      ",6.903,"","","","","",",9.
","","","","","",0.0,"",
                                                    "","","",9.13994,"
"2019-02-20T15:01:11.368738Z"
 '2019-02-20T15:01:10.619757Z"
                                          '2019-02-20T15:01:06.365087Z"
                                      ',7.372,"","","","",9.60894,"
 2019-02-20T15:01:06.364999Z".
```

After that, we import it into our database:

```
1. ubuntu@ip-172-31-33-147: ~ (ssh)

y use realRecord

show collections

record

db.record.find()

{ ".id" : ObjectId("5c802320b39e173aefc8fff6"), "timestamp" : "2019-02-01T05:59:57.847886Z", "Hanover Park IL TGS - ESN ()" : "", "Hanover Park IL TGS - Reflector_url ()" : "", "Hanover Park IL TGS - Reflector_status ()" : "", "Hanover Park IL TGS - GPS_gs (meter_per_sec)" : "", "Hanover Park IL TGS - Conveyor_RRM ()" : "", "Hanover Park IL TGS - Liq.GPM (gal/min)" : "", "Hanover Park IL TGS - Conveyor_RRM ()" : "", "Hanover Park IL TGS - Liq.GPM (gal/min)" : "", "Hanover Park IL TGS - Liq.GPM (gal/min)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - Conveyor_RRM ()" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - transformed (meter_per_sec)" : "", "Hanover Park IL TGS - GPS_gs - tr
```

And we also built apis for frontend engineer to access the data:

http://ec2-18-191-255-122.us-east-2.compute.amazonaws.com/realrecord



Pending Issues

- Need implement api for searching data based on time
- Need create index for db to increase the searching speed.

Plans for Upcoming Reporting Period

- 1. Try to build program to search real data based on time, and also create apis.
- 2. Improve the database effectiveness by creating index

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Junjie Wen	Imported data and built api	10	40
Zhanghao Wen	Re-draw architecture diagram and concept diagram based on new features from both front-end and back-end	11	32
Yuhang Xie	The front-end receives the data of the back-end and analyzes and organizes the data.	10	44
Xinhe Yang	Make sure the front-end can receive data correctly and save in the right format.	11	42
Tianhao Zhao	Learn frontend coding styles, learn conditional changes.	8	36