

## **sdmay19-18: Real time Route Optimization**

Week 6 Report

October 20 - October 26

### **Team Members**

Junjie Wen — *Core Software/Algorithm Developer*

Zhanghao Wen — *Product Manager/App Developer/Tester*

Yuhang Xie — *Backend Developer*

Xinhe Yang — *Web Developer*

Tianhao Zhao — *App Developer/Communication Leader*

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### **Summary of Progress this Report**

- Refine the data field in simulator created for talking from backend to frontend.
  - Login web application interface for company use.
  - Multiple data about individual truck can be displayed on map once clicking on truck's icon.
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### **Past Week Accomplishments**

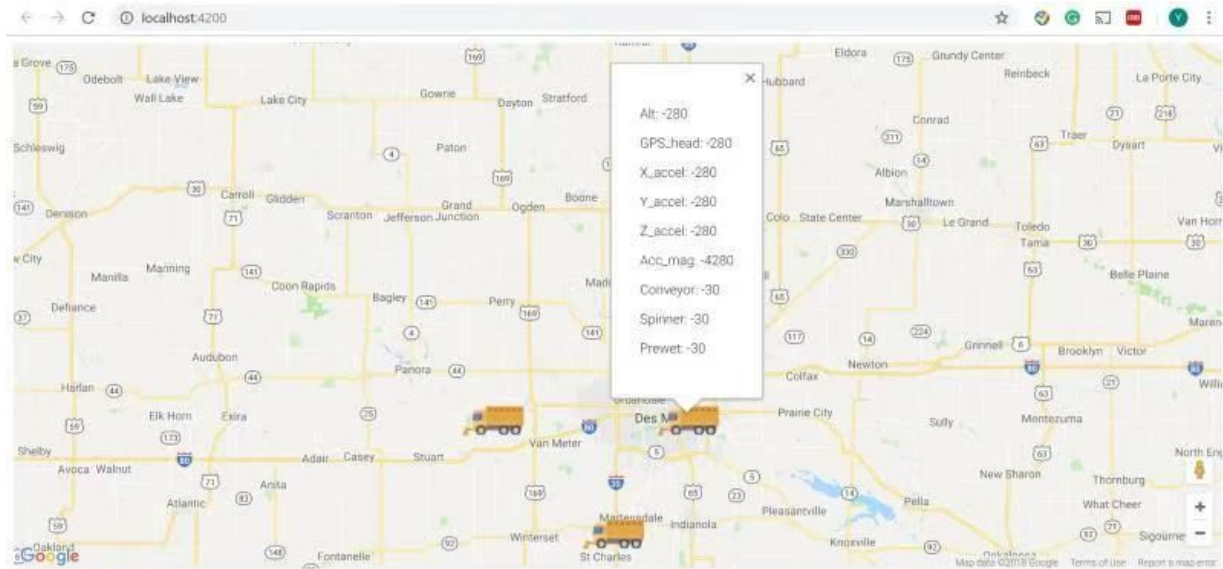
We add some data field of simulator which is capable of generating fixed size of data that matches sample data give from client. We will be provide more data record of truck movement on AWS server. Since our project is a front-end based information management system, it is necessary to have backend information connectable with the DOT department's real data format.

Micro server simulator with Node.js backend framework Express is using nginx as proxy.

Currently, the simulator can generate simulating data for a truck's information:

```
{"time":"2018/10/25","Lat":50,"Long":-87,"Alt":148,"GPS_head":0,"X_accel":148,"Y_accel":148,"Z_accel":148,"Acc_mag":548,"Conveyor":48,"Spinner":48,"Prewet":48}
```

In addition, front-end will update the UI accordingly based on those data simulated.



The above figure is what we implemented this week. Once we click the truck's icon, truck's information can be displayed on the web application.

In addition, we are doing a login page on web which allow user to create an account and log in to the page where has access to view the above map. The user account and password are stored in our SQL database as well.

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## Pending Issues

1. Showing multiple dynamic vehicles in web base front page.
2. Record and represent the path that each truck goes through in one operation and store paths along with data into database.
3. Login information for 3 different groups of users: public, member/driver, full access/manager/dispatcher.

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## Plans for Upcoming Reporting Period

We will improve the simulator to make the simulated data makes more sense. And, we will offer some API to front-end for setting the simulator. Speeding up our pace on overall aspects of documentation on the project.

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## Individual Contributions

<b>Team Member</b>	<b>Contribution</b>	<b>Weekly Hours</b>	<b>Total Hours</b>
Junjie Wen	Create a simulator for front-end testing purpose	9	47
Zhanghao Wen	Consider possible scenarios about project, assign tasks to group members, re-write project plan, weekly report, update group website, and manage Trello.	18	59
Yuhang Xie	Web UI for displaying truck and its data.	9	50
Xinhe Yang	Build a Login interface for web application and connect to the server/database	6	47
Tianhao Zhao	MoM recorder, meeting with client, help with project	5	42

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## Gitlab Activity Summary

Code is committed to members' local repository.

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