Team/ Instructor VLOG #2

Team Apollo
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Yilin Ren
Zhuo Zhou
Ziwen Tan

VLOG date

Second VLOG 10/23

To be continue…

Team member (re)introductions

Kecheng Yu
 -Responsible for UI and some backend programming and AI vehicle counter algorithm
Yilin Ren
 -Responsible for front-end developers and team Scrum management
Zhuo Chen
 -Responsible for front-end development and AI vehicle counter algorithm
Ziwen Tan
 -Responsible for backend development

Project Activities

Met with mentor at Oct 13th: Kecheng, Ziwen and Zhuo (discussed about assumption)

Group meeting at Oct 14th: Yilin (Frontend) Ziwen(Backend) Kecheng (research for AI alternative) Zhuo(research for hardware alternative)

Group meeting at Oct 21st: All member attended (made decision)

Status description

- Green

MVP 1 in progress: Frontend and backend

Met with team mentor

Project issues

Met with mentor and discovered our original assumption issue.

Original assumption: Every user ONLY uses our application to book parking lots. (Not realistic)

Project changes

Current solution: Using AI algorithm and camera to count the number of vehicles entering and leaving the parking place

AI Developers: Zhuo Chen and Kecheng Yu

Project/technology demo

Frontend

- Implement background management interface.
- Validate the possibility to embed Google Maps in the frontend.
- Validate the possibility to get the coordinates of the current click position in the map.

Backend

- insert, delete, update and query the database through Mybatis plus.
- Determine whether the account number and password are correct by comparing the user input data with the database data.If it is correct, a token is generated and sent to the previous segment.

Sensor & Camera Vehicle Detect

We chose to use cameras to detect vehicles.

Why camera?

- AI technology usage
- More cost-efficient
- Focusing on software developing

Why not sensor?

- Budget constraint
- Time constraint
- Intermediate electronic knowledge constraint

AI Vehicle Detection & Counting Technology Verification

Through our research, AI technology is feasible in our project and can achieve the goal we want.

It can count the number of vehicles entering the parking lot, as well as the number of cars leaving the parking lot, which is all we need the cameras to do.

Next up

We will:

- Start investigating on AI algorithm
- Continue working on MVP 1 (frontend and backend)
- Integrate frontend and backend functionalities

Team reflection

In good status

Started smoothly with MVP 1 (frontend and backend development)

Time conflict might occur in the later stage