

Cement transportation - tracking app

Quick brief to get the discussions going:

We would like to develop an android based mobile application to track some key events that our trucks experience on a day to day basis. Some of these events are listed in the table below. The input would come from the driver and the notifications would be received by the controllers sitting in a central office. Notification/reminder for delays based on pre-defined deadlines would have to be sent to the drivers in the form of device alerts and to the controllers in the form of device/sms/email alerts.

The interface for the driver app would have to be simple with fail safe's in place to avoid them from pressing wrong buttons.

This is not a GPS tracking application as we already have those installed in our vehicles. Therefore, the standard track & tell functionality is not needed.

We would like to develop 2 mobile apps for this and 1 web interface as given below:

1. Driver or truck android app
2. Controller android app
3. Controller Web interface

Cost of the hosting does not have to be included

Listing on playstore is not required

Order	Sequential Events	Input Type	Reminder to driver	Notification to controller
1	Plant In	Button Push		
2	Plant out	Button Push		
3	Arrival at dump	Button Push		
4	Unloading start	Button Push		

5	Torn bags	Number entry		
6	Departure from Dump	Button Push		
7	Arrival at Plant	Button Push		
Order	Parallel events	Input Type	Reminder to driver	Notification to controller
=0	Breakdown start	Auto date/time selection		
=1	Breakdown type	Dropdown		
=2	Breakdown stop	Auto date/time selection		
+0	Rest/Sleep start	Auto date/time selection		
+1	Rest/Sleep stop	Auto date/time selection		

*2 parallel events are mentioned which would be on the screen at all times for the driver to be able to activate - breakdown & rest cycle.

We will have to define the working hours of the dumps as if the vehicles are reaching at night, the working hours/days will have to be taken into account while sending reminders/alerts etc.

What kind of input do we want to allow the driver to give? How simple can we make the interface for him?

The driver will forget to press the buttons at the right time? Then what will we do? Based on the previous event completed, can we setup reminders for the next event. This reminder can come on the device itself

The controller should receive update of all events and also for delays in sequential events based on time of completion of previous event

We dont need this tool to be listed on the play store

What to do a driver presses a wrong button? How to do a reset of the same?

Questions:

- ☐ Do we need a gateway to send sms's & emails?
- ☐ How expensive would it be to integrate location tracking?
- ☐ 2 versions of the app - truck version and the office version. Would developing a web UI cost extra?
- ☐ Any API's or services which need to be used from Google or similar services which will incur a recurring charge?
- ☐ Do we need to have a dedicated server to optimal performance?

Future work:

Can this be integrated with location?

Do we need a support to be recorded at any of the above stages? Images or location?

If delays are beyond a certain limit, we can send out notifications to customer email addresses as well - For eg, if the vehicle is not unloaded for more than 4 hours after reaching during the working hours of the dump, then an email should go out to the concerned company personnel.

