



Computing for Social Good

Agromovil

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Included Files

1. **APK**
The app that you can download and demo on your phone
2. **Code Package (Agromovil-master)**
A copy of our github repository
The github repository can be found at www.github.com/therandomcode/avocado
3. **Research Report**
From the research team in Colombia
4. **Flowcharts**
Several iterations of paper flowcharts for both the farmer and the transporter
The “Pink” wireframes that we based most of our final prototype on
5. **Wireframes**
An set of digital wireframes (HTML file with accompanying img folder)
6. **Screenshots from the app**
Selected stills for you to use in your presentations
7. **Poster from Demo Day**
A copy of the poster we showed at demo day, in both .JPG and .PDF formats
8. **Photos**
A couple of photos of our process work from the semester
9. **Early check points + demos**

Code

Table of Contents

1. Installing the APK
The app that you can download and demo on your phone
2. Done, almost done and future work
3. Databasing

Installing the APK



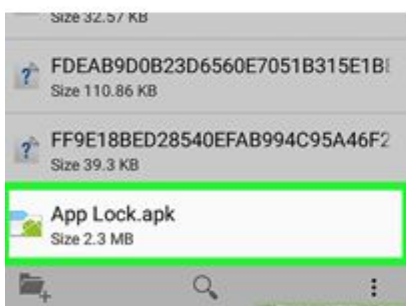
1. Download the APK onto your Android phone.
You may have to agree to allow downloads from unknown sources.



2. Open File Manager



3. Locate the APK. It will likely be in your Downloads folder.



4. Tap the APK



5. Tap 'Install'

Done, almost done & future work

Done:

- Basic signup/login sequence
- UI for all farmer and transporter pages
- Backend (databasing) for edit profile, view profile, view history, choose transporters, select transporter, set availability

Almost Done:

- using database for viewing open farmer requests (on the transporters messages screen)
- using database for view schedule
- using database to accept requests
- status updates throughout journey (leaving now, on my way, running late, etc.)

Future:

- using geocoder to turn LatLng coordinates to addresses and vice versa
- push notifications
- rating system
- best match algorithm
- pricing
- banking
- insurance
- storing images in database
- dashboard for the D.C. team

Databasing

- Used mySQL database to store data on farmers, transporters, and transaction information
- employed a relational database structure in which transaction table has holds a key to identify which farmer was part of the transaction as well as a key to identify which transporter was a part of the transaction
- these two keys, known as foreign keys, are used to index into the farmers/transporters table to get more information about the parties involved in the transaction

Farmer Table

- the transactions and deliveries fields are designed to hold JSON objects
- these objects hold key value pairs with the necessary information to describe transactions and deliveries
- they stay in the table until the delivery is completed at which point they become a transaction

Field	Type	Length	Unsigned	Zerofill	Binary	Allow Null	Key	Default	Extra	Encoding	Collation	Comment
firstname	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
lastname	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
phonenumber	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRI		None	↕ UTF-8	↕ utf8_general_ci ↕	
pass	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
address	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
city	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
postalcode	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
country	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
transactions	LONGTEXT	↕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
deliveries	LONGTEXT	↕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
ratings	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	

Transporters Table

Field	Type	Length	Unsigned	Zerofill	Binary	Allow Null	Key	Default	Extra	Encoding	Collation	Comment
firstname	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
lastname	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
availability	LONGTEXT	↕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
address	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
city	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
postalcode	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
country	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
pass	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
phonenummer	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRI		None	↕ UTF-8	↕ utf8_general_ci ↕	
carmake	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
capacity	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
licenseplatenum...	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
requests	LONGTEXT	↕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
ratings	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
deliveries	LONGTEXT	↕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	

- similarly for transporters, availability, requests, and deliveries are JSON objects

Transactions Table

Field	Type	Length	Unsigned	Zerofill	Binary	Allow Null	Key	Default	Extra	Encoding	Collation	Comment
firstname	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
lastname	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
availability	LONGTEXT	↕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
address	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
city	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
postalcode	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
country	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
pass	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
phonenumber	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRI		None	↕ UTF-8	↕ utf8_general_ci ↕	
carmake	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
capacity	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
licenseplatenum...	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
requests	LONGTEXT	↕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	
ratings	VARCHAR	↕ 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		NULL	None	↕ UTF-8	↕ utf8_general_ci ↕	
deliveries	LONGTEXT	↕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			None	↕ UTF-8	↕ utf8_general_ci ↕	

- transactions table is a relational table with keys into the farmers table and transporters table
- the field phonenumberfarmer can be used to find the farmer who made that transaction in the farmers table
- the field phonenumbertransporter can be used to find the transporter who made that transaction in the transporters table