

User Interface Development – Laboratory

CARZONE PROJECT DOCUMENTATIONS

Group 4-D

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Task 2 Context of Use Description

Our problem is all exactly about needs of people who have a problem about cars. Our purpose is that to solve in numerous field such as emergency help; guides for simple problems; finding nearest mechanic, petrol station.

In fact, our potential users are those who have a car. If we look in more detail, it appeals to those who want to solve their problems related to the vehicle in a practical way. Our considering is that unexperienced people are the biggest part of the potential users. In addition, interval of age is so important because the people who don't have driving licence and under the age of 18 shouldn't use.

Our interview questions about Carzone.

1. Do you drive a car or usually passenger in the car?

(For taking different ideas and elicit different positions of car owners. Someone who doesn't have a car right now is likely to be in the future.)

2. Which color comes your mind when we say "car"

(Majority color will be used in User Interface Design.)

3. What would/do you do when you have a car accident ?

(To learn accident experience of potential users.)

4. What would/do you do when the car breaks down ? Such as tire blast or engine failure.

(To learn what will he/she do in simple problem.)

5. Do you know how to keep records when the car crashes?

(Keeping record is important thing without making mistake. According to answers, we will help on this problem.)

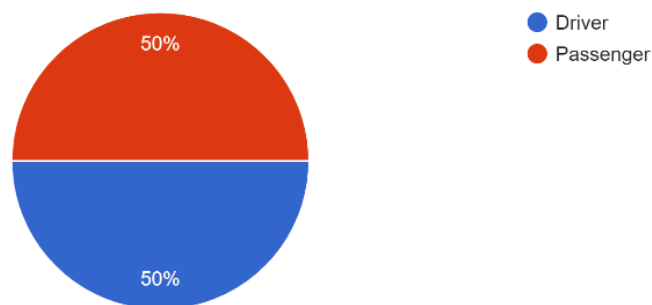
6. How do you find the place you need if you are running out of fuel or need something urgent about the car?

(Result can be predictable but we have to ask this for adding this feature to the application.)

Interview results.

Do you drive a car or usually passenger in the car

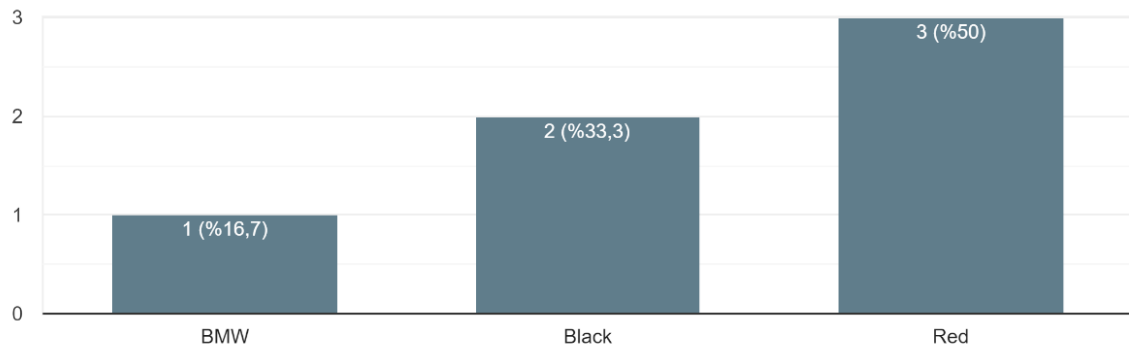
6 yanıtl



(We have a wrong answer here :) but red is most color associated with car.)

Which color comes your mind when we say "car"

6 yanıt



(According to answers, most of the users needs a help on any possible accident.)

What would/do you do when you have a car accident ?

6 yanıt

Talk with the other guys and taking report. Not knowing taking report.

Call the police

Call police

Colling a reiation

I call the police

Taking report

(Repairing a simple problem or getting help is half-and-half.)

What would/do you do when the car breaks down ? Such as tire blast or engine failure

Call my dad

2 yanıt

solving problem own my own

1 yanıt

Trying to own their own

1 yanıt

I repair that car

1 yanıt

Call to brother

1 yanıt

(Majority do not know how to keeping a record.)

Do you know how to keep records when the car crashes?

No

4 yanıt

yes

1 yanıt

Yes

(Every potential users using a digital help for finding a place.)

How do you find the place you need if you are running out of fuel or need something urgent about the car?

Google

2 yanıt

Use navigator or ask somebody

1 yanıt

e-maps or asking somebody.

1 yanıt

I use a maps

Our research with potential users is that when they come across to the problems, they prefer their own methods or asking for help to a relation to solve the problem without receiving paid support. When they don't solve the problem they are in need to receiving paid support for example tow truck. Therefore if the problem is simple we'll help them to solve their own problems otherwise we'll direct them to the professional support.

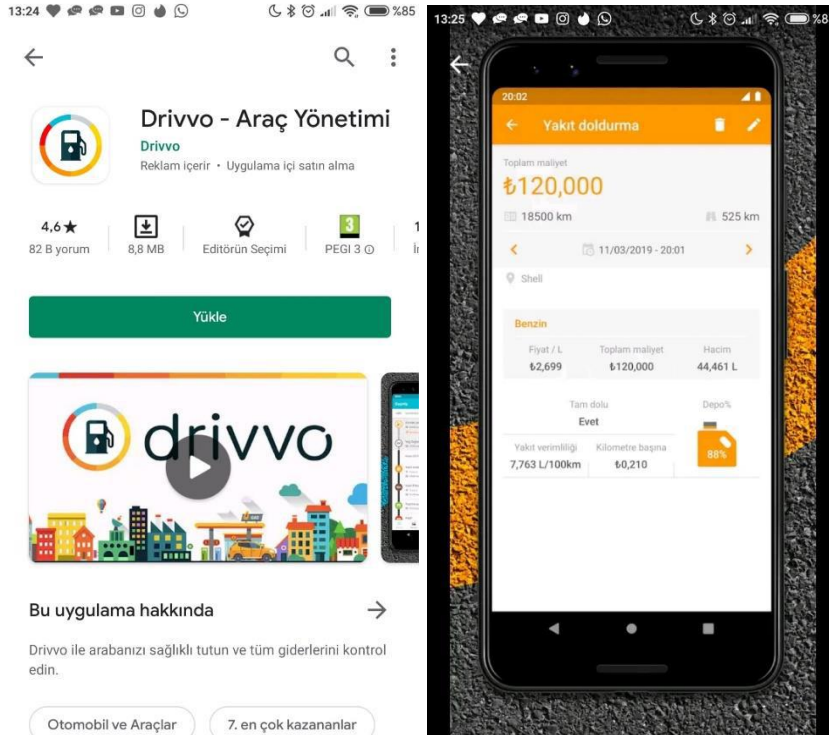
We are deciding to use red and black colors mostly in user interface design. Because these colors is the most associate colors with cars according to our questionnaire.

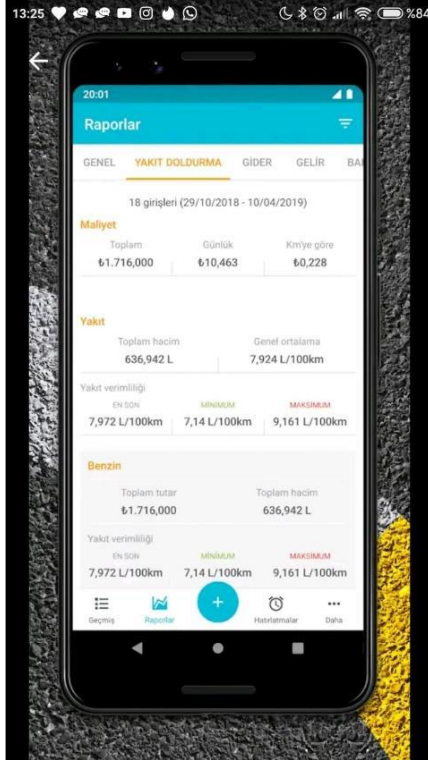
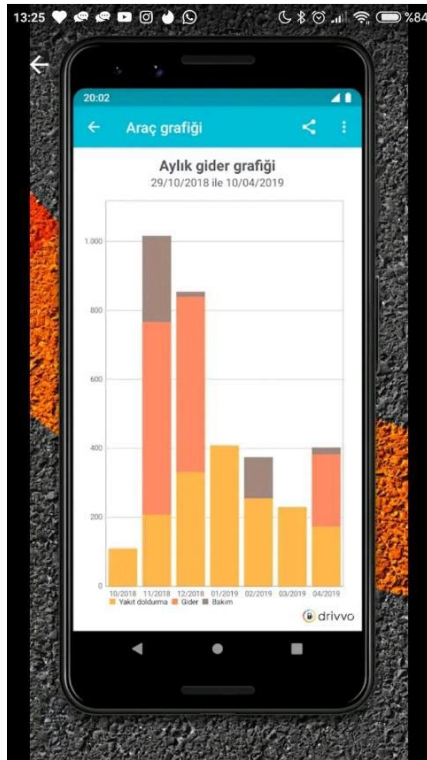
We keep adding fields to solve problems according to the requests of potential users.

Task 3 Conclusions from the competition heuristic examination

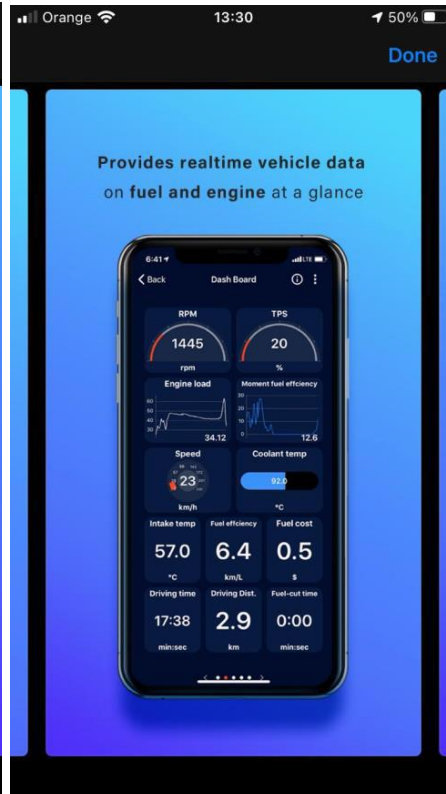
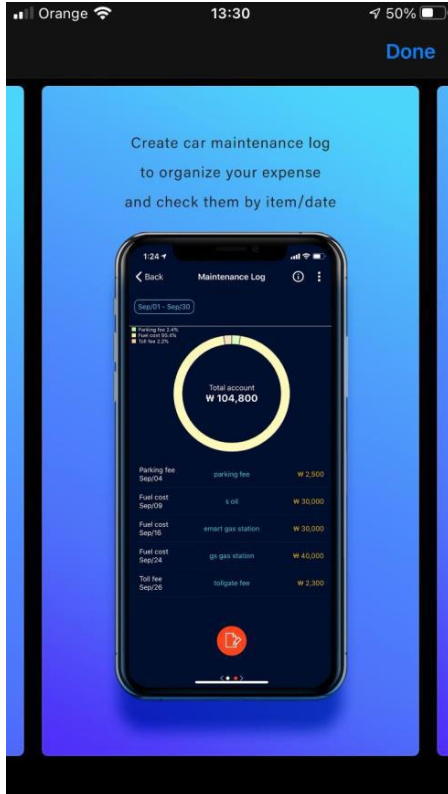
This is a conclusion from the competition heuristic examinations of some applications. Competitors are Drivvo and InfoCar-OBd applications. Our relations with them is direct competition (same customer + same problem + same solution). Our users are usually drivers and they always expect us to usable applications which means that they want combining of usable things in one application.

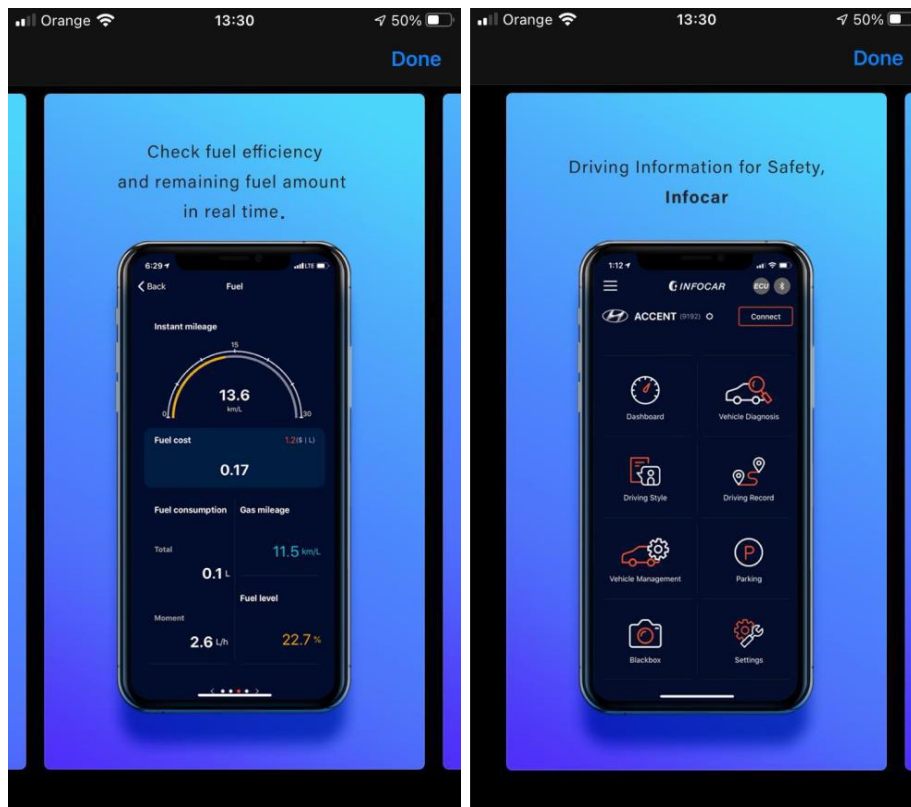
-DRIVVO – MANAGING OF CAR





-INFOCAR – OBD





As a result of our exchange of ideas and research, we decided that the two mobile applications had some similar features and could become competitive applications. They are

1. DRIVVO – MANAGING OF CAR
2. INFOCAR – OBD

In the class we did heuristic analyze of these applications as using some concrete criterias. And these applications have some and bad features as well. In addition, having good or bad traits, especially bad traits, always means they are open to improvement.

CONCLUSION

As we can see one of the most important thing is that “Consistency and Standards” because when someone wants to use application firstly looks name of application and then may start thinking of what is the purpose of using this app. The purpose of using app and name of app should have contact each other.

The second criteria is “Aestehic and Minimalist Design”. Applications should not contain irrelevant content. Every extra unit of information in a applicaton competes with the relevant units of information and diminishes their relative visibilty.

The third criteria is “Flexibility and Sophistication”. This is also important too because designer of applications should submit useful and simple things to user. The design should

definitely not tire the user and should be clear. In this way, the user can comfortably perform the desired action

The fourth one is "Help and Documentation". Every application should exactly have this part. Because user don't have to know how to use app or what should do when want to do something for example intermediate steps required in something he wants to do, ie the process.

The last but not least is "Match between system and the real world". Because users are human and application should have contact with real-world. In this way, number of users and their interest can increase as well. Because application is in the phone or computer. If it is not about real-world after start using most probably number of users may decrease.

Compare of each competitive applications (from 1 to 5)

1. DRIVVO – MANAGING OF CAR

- Consistency and Standards -> 1
- Aestehic and Minimalist Design -> 3
- Flexibility and Sophistication -> 1
- Help and Documentation -> 5
- Match between system and the real world -> 1

2. INFOCAR – OBD

- Consistency and Standards -> 4
- Aestehic and Minimalist Design -> 3
- Flexibility and Sophistication -> 3
- Help and Documentation -> 4
- Match between system and the real world -> 5

In our comparison the second application has more good features more than first application. And these criteria are valuable analysis for us to improve our own applications and do better.

Task 4 Personas and User Stories

Mehmet, Intercity Salesman in Turkey

Mehmet's Story:

Mehmet is marketer man in a place that sells spare parts . He works north side of Turkey and tries to sell the materials in wholesale. He has a family, but his life passes on the roads. He likes his job.

Event of his :Mehmet was going from Istanbul to Trabzon to sell spare parts by his car. When he is on the road, his vehicle overheated, and he had to stop. The water in his car radiator has gone and he did not realize it. Actually it was very simple problem, but he didn't think, and he had to find car tow. Finally he found a number of car tow in internet and called it. They did their job, but they wanted too much money because he got stuck and he was far from home.



Goals: He is very close to the cars and tries to fix it if he encounters problem. As a result, it solves technical problems, sometimes on its own, sometimes with professional help. Taking professional support is difficult. He has to search and find them but finding nearest, cheapest, qualified support is hard to find. Also he should be leery about taking professional support because he can get laid. In summary he wants to solve technical problems as soon as possible.

Expectation : The user's expectation is repairment guide. For example detailed instructions for handling simple problems such as blowout or adding wiper fluid. Also he may needs a professional support. For example big problem which he cannot handle it on his own such as car crash or engine failure and so on.

Psychographic Attributes

- Social behavior offline or online : offline
- Social media preferences : Facebook
- Level of digital fluency : 3/5
- Profession and industry : Marketing auto parts.
- Content preferences and consumption habits : Standard Turkish family contents.
- Personality type : Persuasive.
- Level of energy/activity : 4/5
- How long they take to buy : It takes not long time.
- Attention span : Good enough.
- Introvert or Extrovert : Extrovert.
- Spender or penny-pincher? : Spender
- Someone who shares or hoards? : Shares.
- Cultural preferences (Music, movies, books etc.) : Watching tv and listening radio.
- Activity preferences (hiking, walking, eating out, reading) : Walking, eating.

Demographic Identifiers

- Age : 41
- Gender : Male
- Title : Salesman
- Degree : mid-school graduate.
- Salary range : 6000₺
- Geographic location : Turkey
- Marital status : Married
- Type of neighborhood they live in : Quiet Istanbul neighborhood.
- Car they drive : Average company car (sedan).

Goals & Motivations

- To meet new people and testing his persuasion.
- A quiet job , quiet time spending.
- Having a family.
- Driving alone.

Their Roadblocks & Challenges

- Family longing.
- Dealing with rude people.
- Irregular working hours.

Sales Objections

- Cost too much
- Poor perceived quality
- Not understanding what they're getting
- Perceives a similar benefit from free/cheap alternatives

Ewa, The Biotechnonology Student of Politechnika Wroclawska



Ewa's Story:

Ewa has been studying for 2 years in Politechnika and also living here. She's from Poland but another city which is called Warsaw. She usually borrows a car from an application and drives. She also goes another city because she likes exploring things new. Due to she goes another cities that she needs some information about car because she doesn't know anything. Something can happen any time she doesn't expect. For these reasons, the user expects the application to have what the user needs at critical moments.

EVENT OF HER : While she was going to Kraków with her own car, the wiper water ran out and did not know how to fill it. The glass was getting dirty and could not see the road clearly. For this reason, it fell into a pit and a tire burst. He pulled his vehicle over and didn't know what to do as he hadn't changed tires before. He could not find any help phone and signaled to passing cars for hours and waited for someone to help. Eventually someone stopped and helped but this incident was really devastating for him.

GOALS : Her goal is to feel safe going somewhere. Because the problems with the car, even if they are small or big, can cause her all kinds of trouble if she does not have much information.

EXPECTATIONS : For these reasons, the user expects the application to have what the user needs at critical moments. For example, she thinks where to look for when the car is stuck on the road, what to do when the wiper breaks down in rainy weather or needs equipment to do simple things(that means finding close places about necessity) and so on.

Real Quote:

“I usually drive a car and it’s going to be part of my life. So if I know something about car before I drive or go somewhere, that might make me feel better and it can reduce my anxiety.”

Psychographic Attributes

- Social behavior offline or online : online
- Social media preferences : Instagram and tinder
- Level of digital fluency : 5/5
- Profession and industry : Student
- Content preferences and consumption habits : Simple things to prepare and me.
- Personality type : Funny.
- Level of energy/activity : 5/5
- How long they take to buy : It takes long time.
- Introvert or Extrovert : Extrovert.
- Spender or penny-pincher? : Have to be spender
- Someone who shares or hoards? : Balanced.
- Cultural preferences (Music, movies, books etc.) : Music, Driving a car.
- Activity preferences (hiking, walking, eating out, reading) : Walking.

Demographic Identifiers

- Age : 20
- Gender : Female
- Title : Student
- Degree : University(still).
- Salary range : 0
- Geographic location : Poland
- Marital status : Not married
- Type of neighborhood they live in : students.
- Car they drive : Sedan and Jeep.

Goals & Motivations

- Learning new places that is not explored yet
- Professional driver and can handle it everything she need
- Feeling free and living alone are my source of motivation

Their Roadblocks & Challenges

- Not having job makes a little difficult because there is no salary
- Being woman makes it a little bit difficult because of aspect of people

Sales Objections

- Too much cost
- Not necessary things that app includes



Ali, International Truck Driver

Ali's Story:

Ali is the truck driver from Turkey, and he carry various things international. He has a own truck and he has been interested in trucks since his childhood. When he comes home he stays with his father and mother .He enjoyed his job a lot. He also made friends from abroad and he likes to meet new kind of people.

EVENT OF HIS :

This event happened one year ago, and he was on the travelling through to Bulgaria. He reached there but that was the first time he was in the Bulgaria which means he does not know anywhere. Before he arrived the Bulgaria he knew that there are some useful things (car accessories) for his truck and that is why he wanted to buy them such as carpet etc. He started looking place where he could buy but he couldn't find because he also couldn't talk people because of difference of language. So this process was very painful for him. He started looking each of streets to find and that took very long time.

Goals:

He likes to buy new thing in his truck such as accessories. To buy new accessories abroad, he has to find a shop where truck parts and truck accessories are sold. Also if he needs a mechanic, he can find mechanic with least effort.

He also needs emergency notification because he spends too much time on the roads and he sees to many accidents among other vehicles especially in bad weather conditions. If he can do this job quickly, It will be good for everyone. Because he cannot help everyone and every situation, he needs to make an emergency call for accident.

Expectations:

To sum up the user's expectation is finding places about trucks such as mechanic, accessory dealer. He needs quick emergency notification for accidents .

Psychographic Attributes

- Social behavior offline or online : Online
- Social media preferences : YouTube
- Level of digital fluency :5/5
- Profession and industry : Truck driver.
- Content preferences and consumption habits : Generally prepared foods
- Personality type : Honest
- Level of energy/activity :5/5
- How long they take to buy : Short time.
- Attention span : Very good.
- Introvert or Extrovert : Extrovert
- Spender or penny-pincher : Spender.
- Someone who shares or hoards : Loves sharing
- Cultural preferences : Music.
- Activity preferences : Beautify his truck.

Demographic Identifiers

- Age : 26
- Gender : Male
- Title : Truck driver
- Degree : High school.
- Salary range : 6000- 7000₺
- Geographic location : Turkey
- Marital status : Single
- Type of neighborhood they live in : Quiet Ankara districts.
- Car they drive : He has a own truck.

Goals & Motivations

- Travelling new places.
- Owning a truck.
- Being excited person and always want to explore something is his motivation
- Not like being in crowded places, he always alone in truck. That's also nice for him

Their Roadblocks & Challenges

- He must focus his own way because long travelling is always difficult for drivers.
- Also sleeping problem and being alone make this situation worst. Because changing driver for long travelling is always nice.

Sales Objections

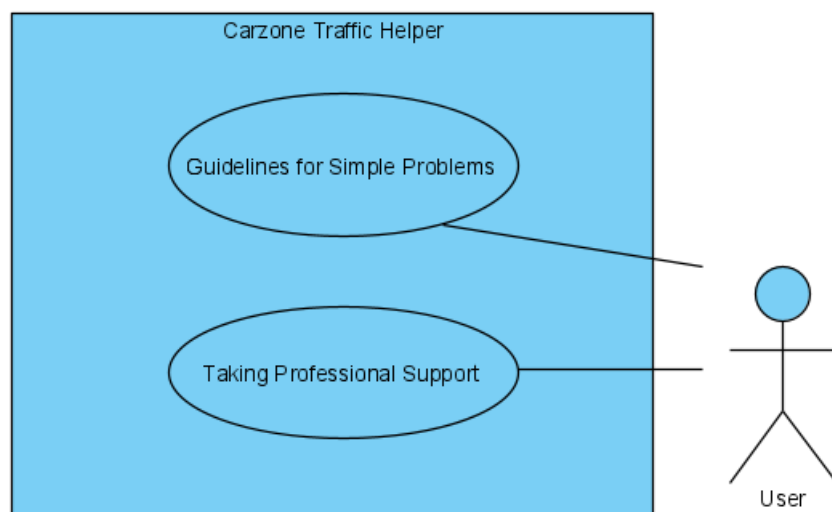
- He might not like details of app because most people doesn't like details
- Think that too much cost to buy something

Task 5 user stories and use cases

Use Case 1: Mehmet- Salesman – User

Guidelines for Simple Problems (Do it yourself): In this use case, there are some detailed and illustrated information prepared by developer. User can use this information to handle simple problems which is drivers encounter.

Taking Professional Support (Emergency Calling): In case of emergency or support, the user will be directed to get the support they need.

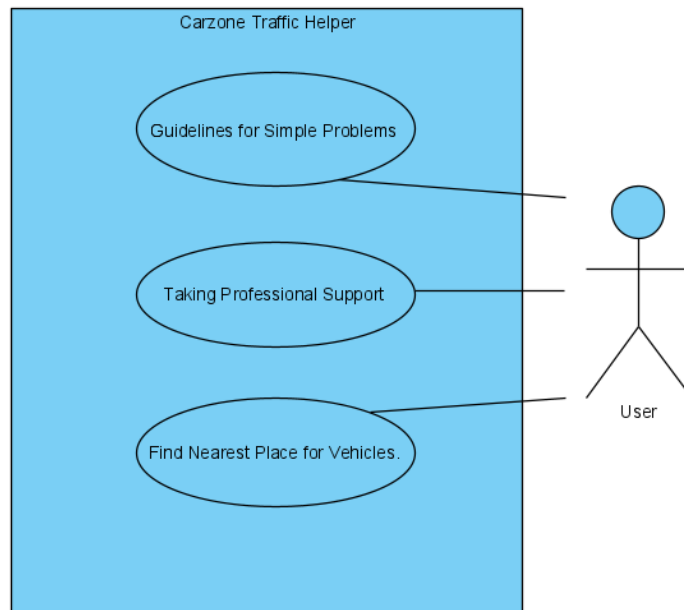


Use Case 2: Ewa- Student– User

Guidelines for Simple Problems (Do it yourself): In this use case, there are some detailed and illustrated information prepared by developer. User can use this information to handle simple problems which is drivers encounter.

Taking Professional Support (Emergency Calling): In case of emergency or support, the user will be directed to get the support they need.

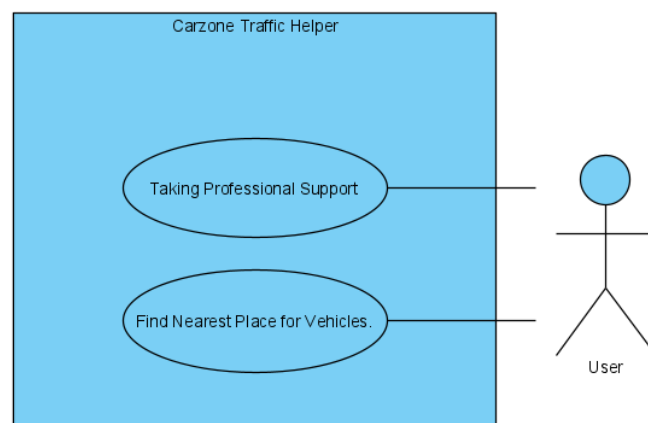
Find Nearest Place for Vehicles: This use case contains nearest places which is related to cars, vehicles with different subcategories.



Use Case 3: Ali- Truck Driver– User

Taking Professional Support (Emergency Calling): In case of emergency or support, the user will be directed to get the support they need.

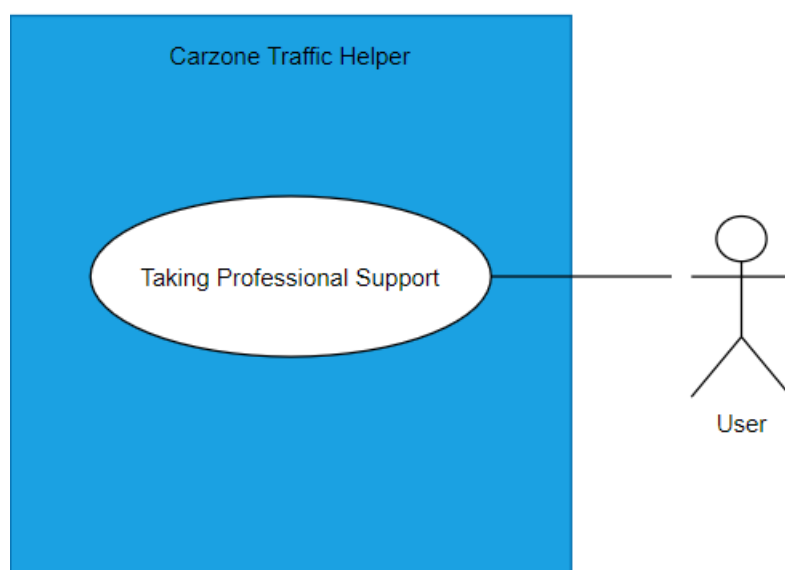
Find Nearest Place for Vehicles: This use case contains nearest places which is related to cars, vehicles with different subcategories.



Use Case 4: Bartek- Security of Student Dormitory– User

(Story reminder: Bartek wants to call tow truck and take it to a reliable mechanic to repair his car. Because he is going to Poznan from Wroclaw now and there is a malfunction in the car's transmission.)

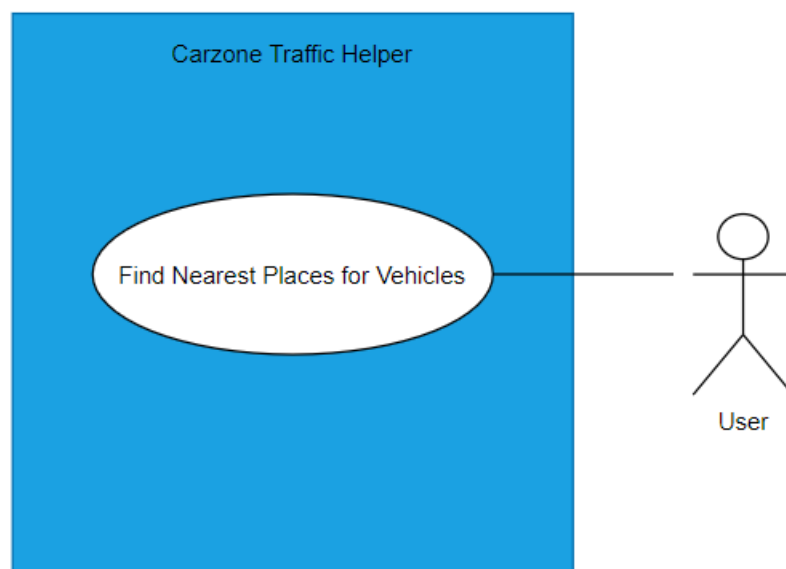
Taking Professional Support (Emergency Calling): In case of emergency or support, the user will be directed to get the support they need.



Use Case 5: Mario-Computer Science Student of Politechnika Wroclawska– User

(Story reminder: Mario was travelling East Europe with his car. The headlights bulbs of the car broke down on the way to Prague. Mario wants to find place where vehicle electronic are sold for change headlight bulbs.)

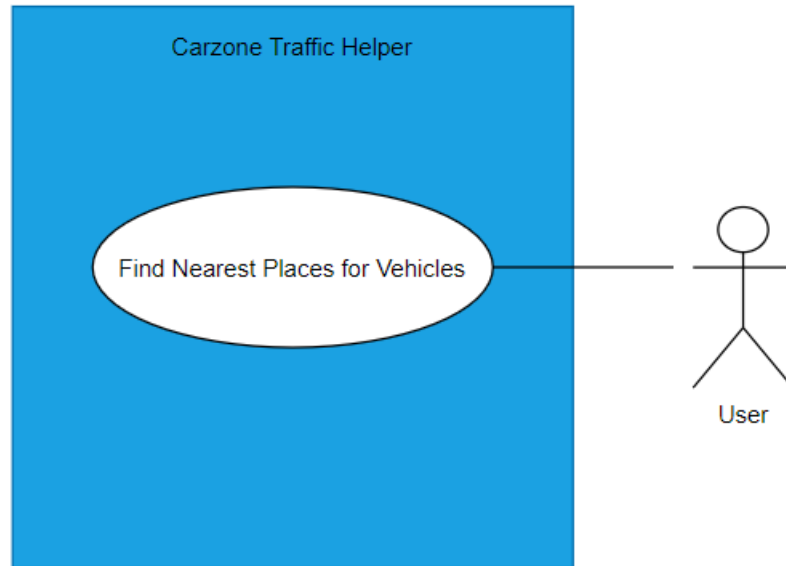
Find Nearest Place for Vehicles: This use case contains nearest places which is related to cars, vehicles with different subcategories.



Use Case 6: Sofia- Manager of Student Dormitory– User

(Story reminder: Sofia was going to meeting between managers and her car's tire was running low. She had to find and go to car tire dealer because the meeting place was a little far away.)

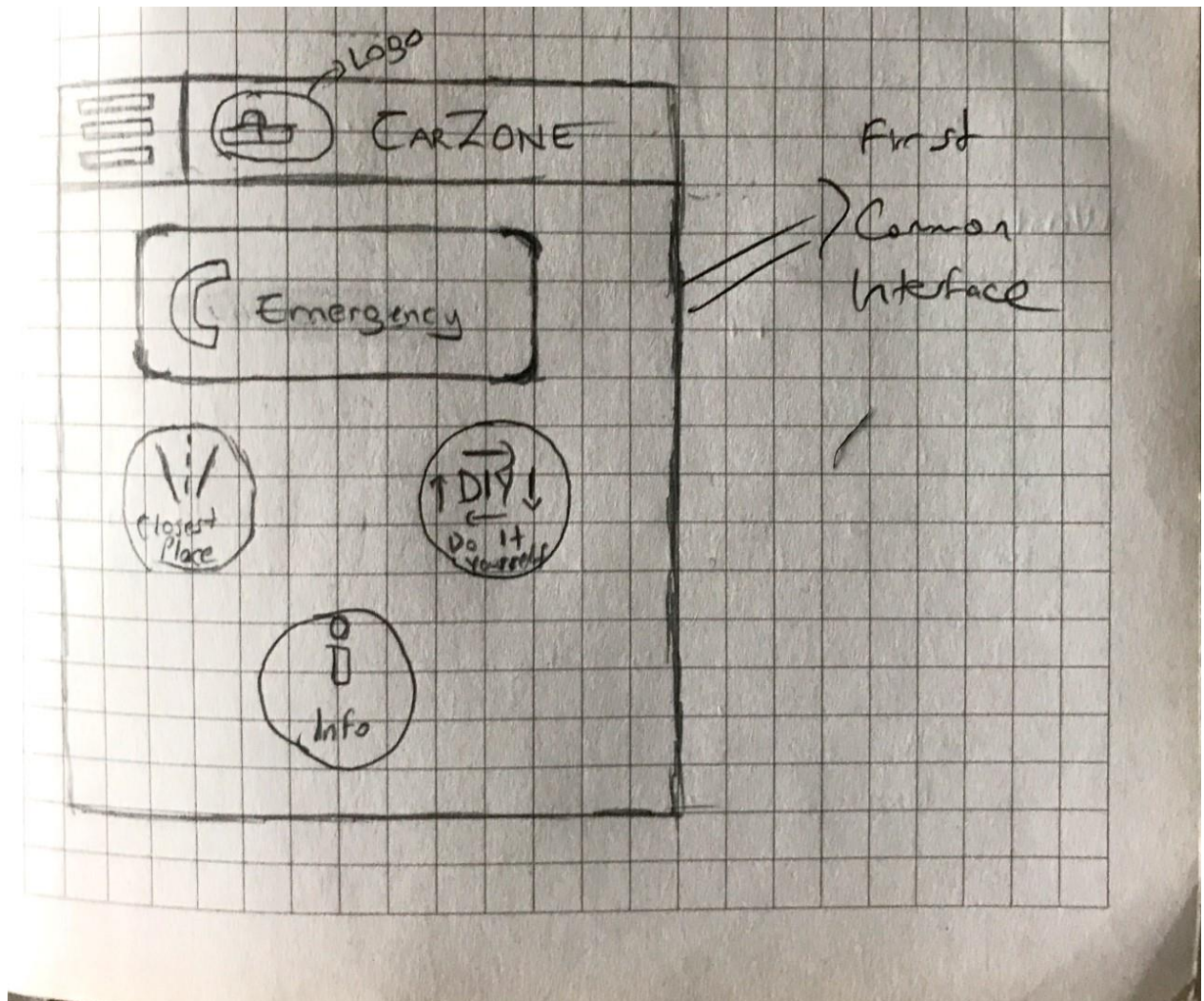
Find Nearest Place for Vehicles: This use case contains nearest places which is related to cars, vehicles with different subcategories.



Task 6 Paper Prototype

Our first common interface.

We chose second one because second one is more simple and more suitable to Fitts' Law.

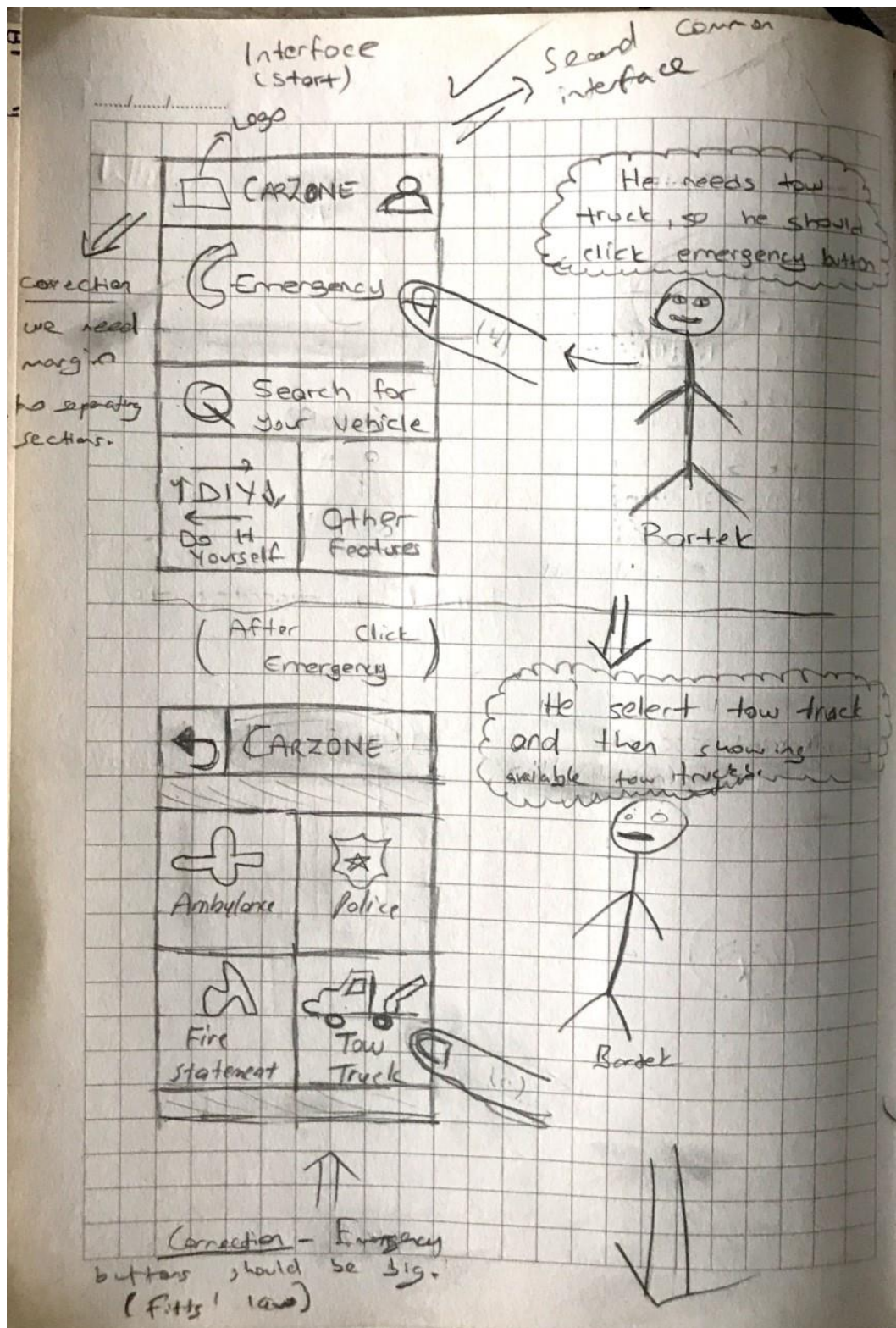


Second common interface.

We have corrections according to Barek (User name).

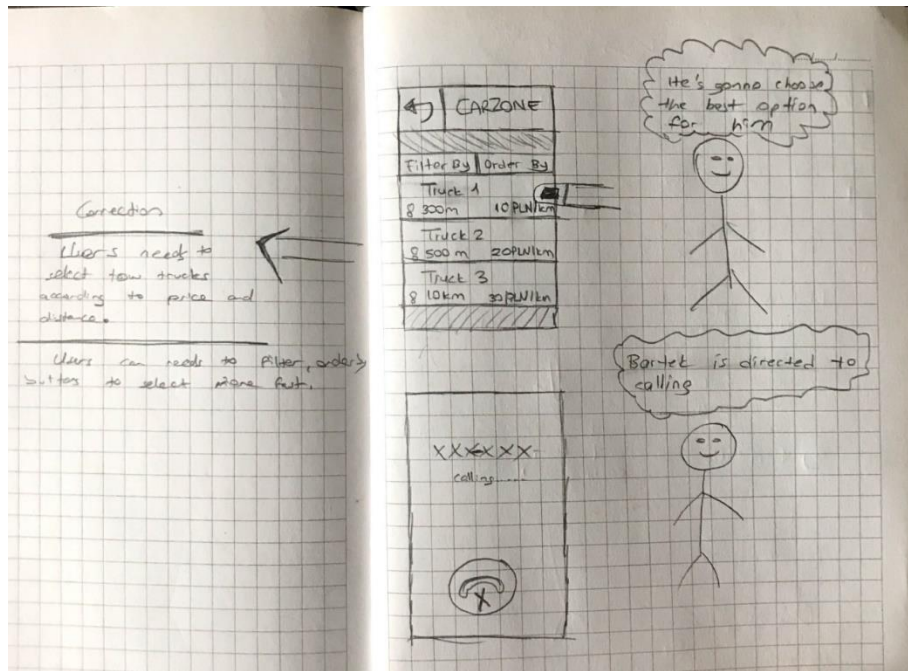
Correction 1: Simple theme for easy access to application content.

Correction 2: Emergency buttons should be bigger than other operations. (Fitts' Law)



Correction 3: Users needs to select tow trucks according to price and distances. We should show them these properties.

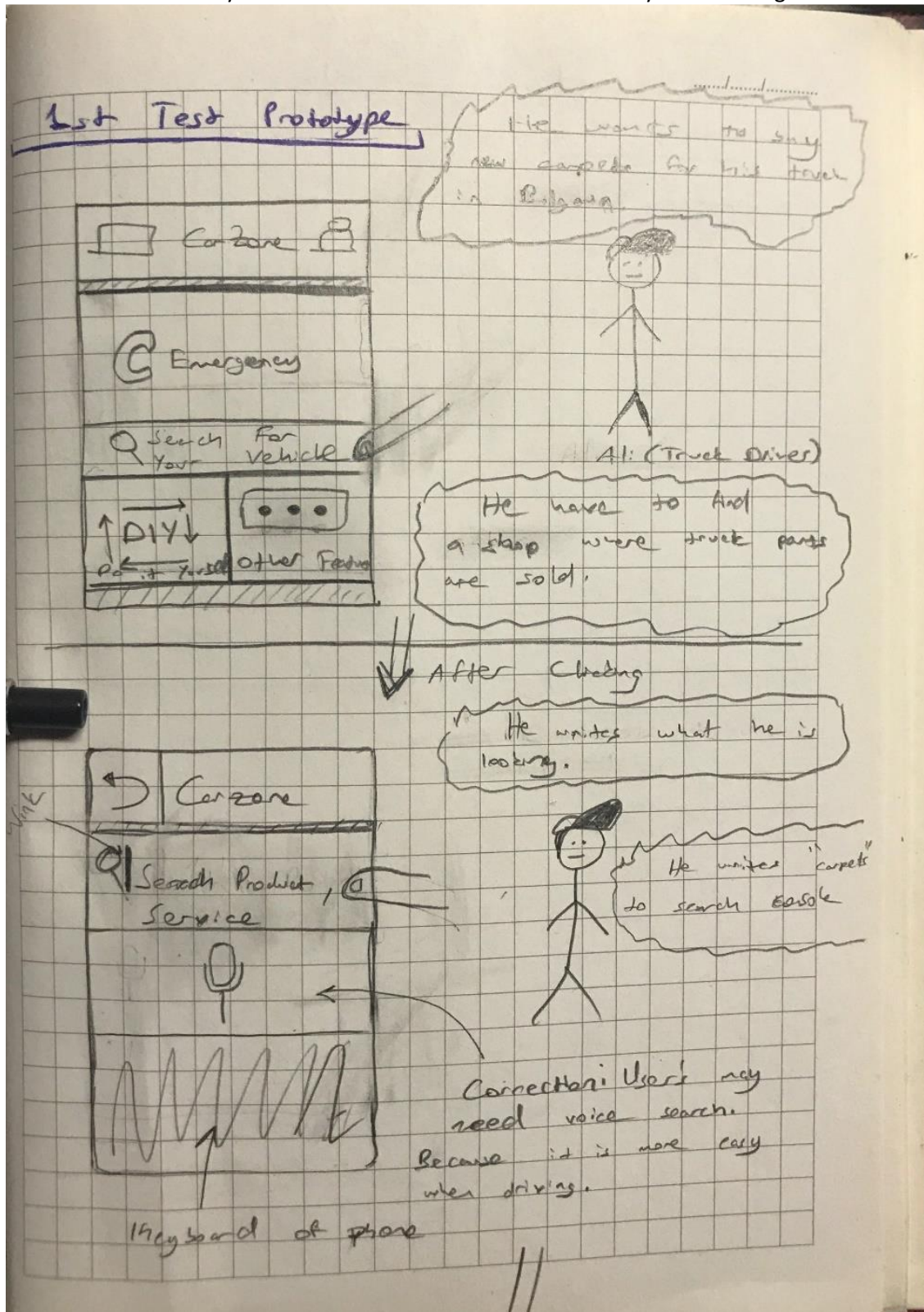
Correction 4: Users can needs to filter, order by buttons to select faster.



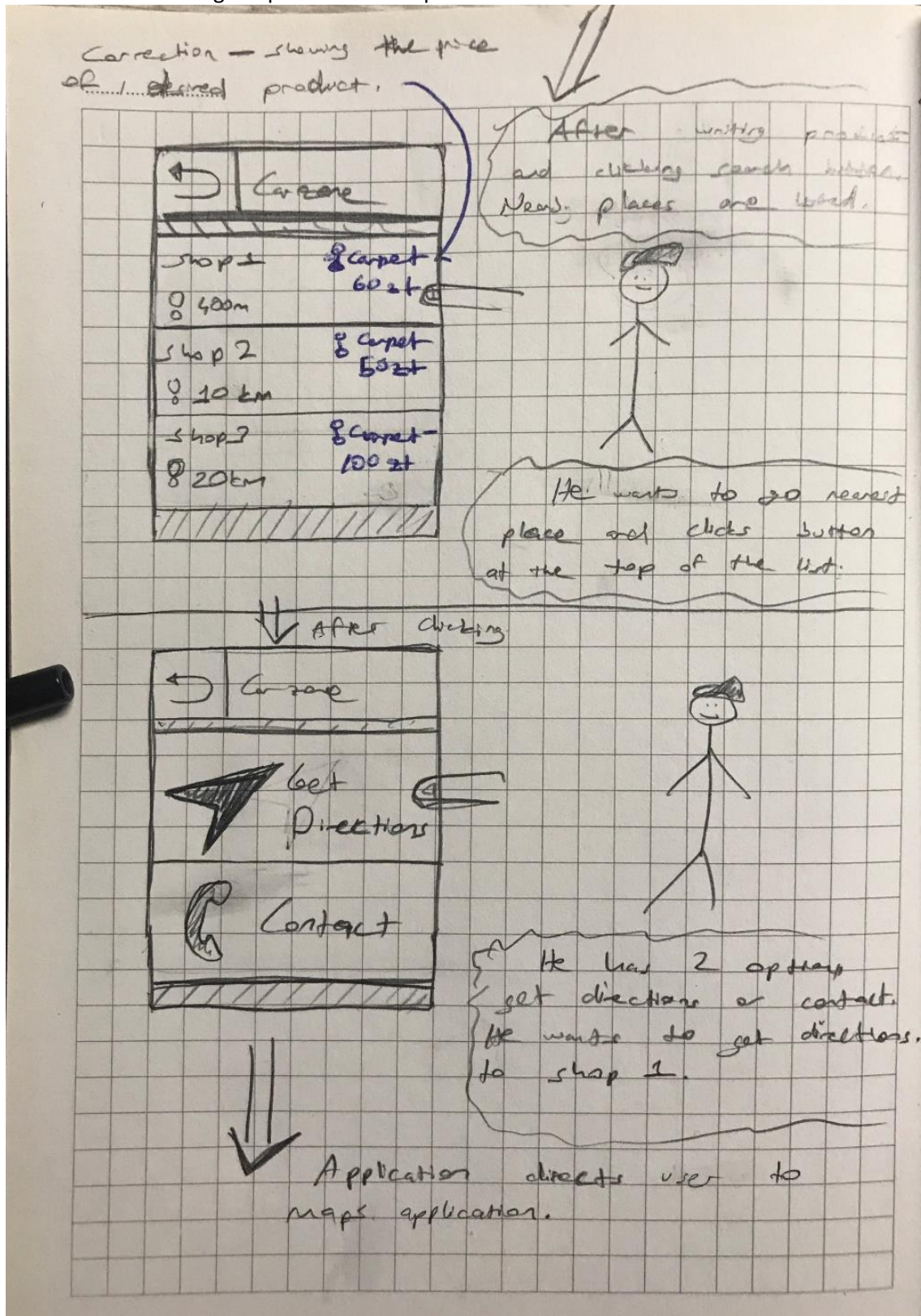
FIRST ONE

We have corrections according to the Ali (User name)

Correction 1 : User may need voice search. Because it is more easy while driving.



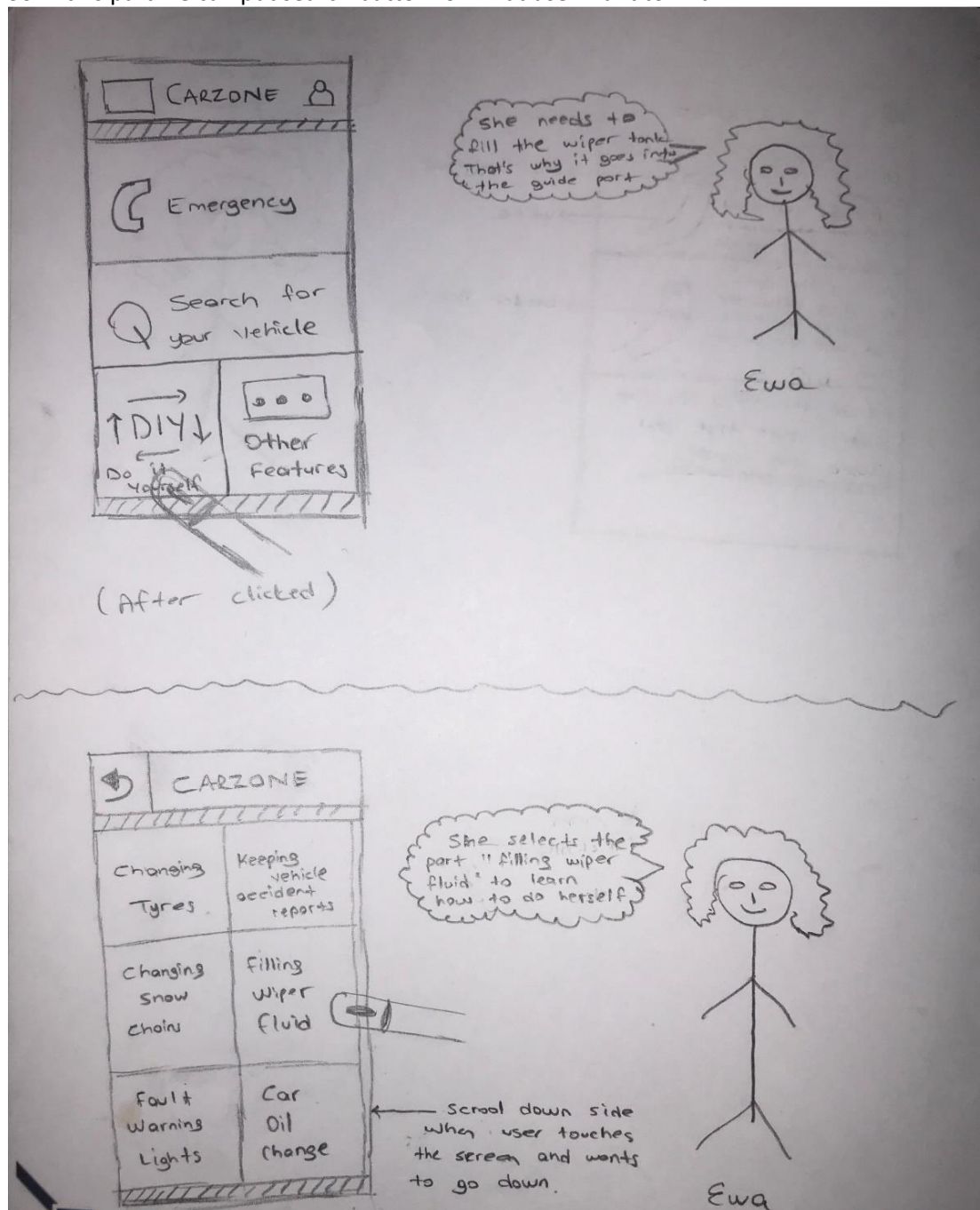
Correction 2 : Showing the price of desired product



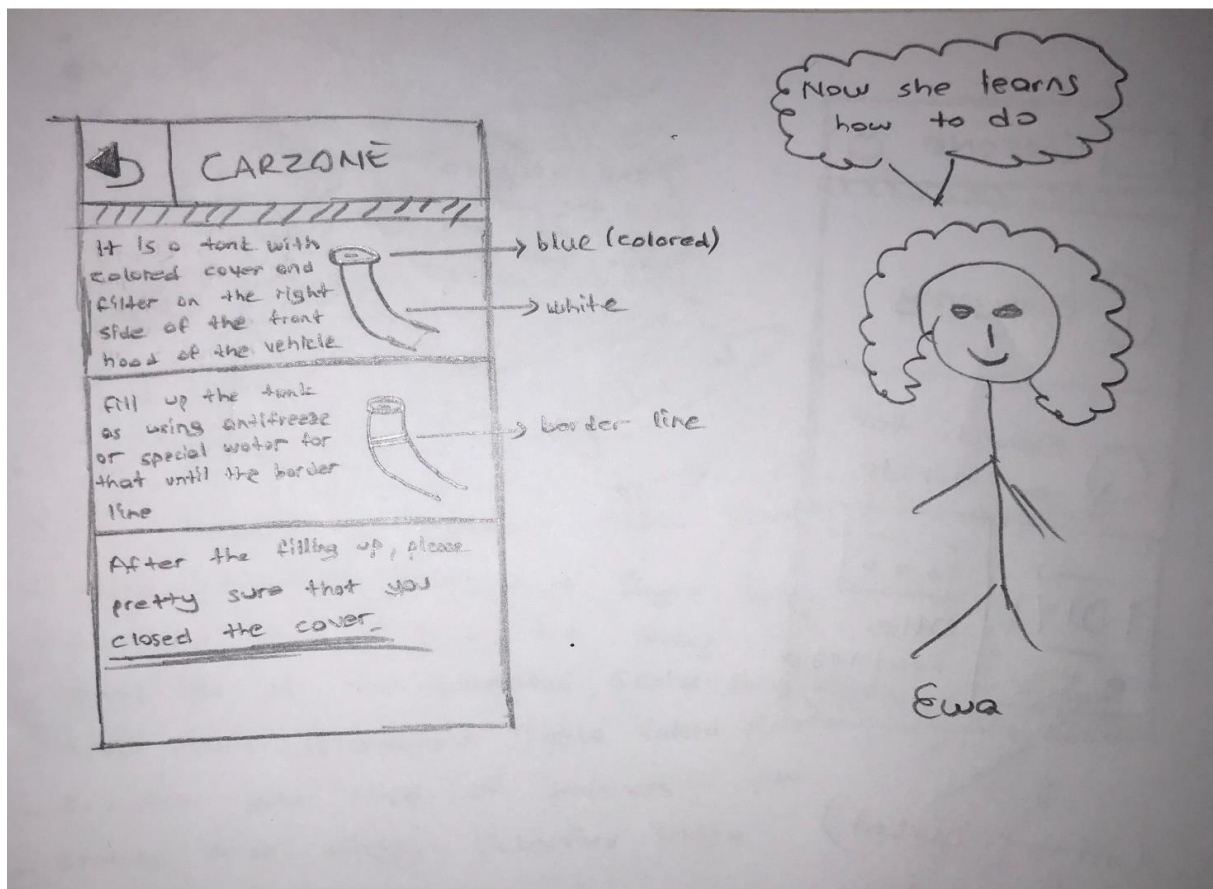
SECOND ONE

We have corrections according to the Ewa (User name)

Correction 1 : After the click of the button , next page contains lots of things. It's difficult to search.
So in this part we can put search button for what user want to find



Correction 2 : Maybe some parts may need video narration for easier understanding in addition to illustrated narration.



Task 7 :Report from II research

Name	Emergency	Searching Location	Do It Yourself	Grades
Andres Nortes Velasco				58%
Meltem Kale				60%
Alejandro Jose Torralba Raga				58%

Andres Nortes Velasco :
 You need to change text
 part of searchig shops, it
 should be more
 representative. / You
 should add filter and order
 by to search shops./ Add
 more detail to do it
 yourself pages.

Meltem Kale :
 You should add detail
 page on truck list. / add
 availablity sign of the
 shops-add details on
 shops, you should get
 vehicle brand and model,
 when searching a shop
 remove filter option / ;)

Alejandro Torralba:
 You need to change text
 part of searchig location, it
 should be more
 representative. Add
 details to shop list// Add
 details to truck list and
 estimate arrival time. //
 Add videos to do it
 yourself part.

Task 8 : Report from III tests of the digital prototype

Name	Emergency	Searching Location	Do It Yourself	Grades
Joaquin				100%
Gianluca Barmina				88%
Thomas				66%
Mr. Maciej Piasecki				50%

Joaquin	Change button names, Examine => Get Details, Get Contact => Select Button
Gianluca Barmina	Add some website to increase number of options, Add compare trucks part depends on some features
Thomas	Add compare trucks part depends on some features, Add more website and change the name from 'Examine' to like Details, button color may be different
Mr. Maciej Piasecki	Add Model Year to Sign up page, Order the Do It Yourself Page, Change the truck page to extendible sections, Prepare additional page.