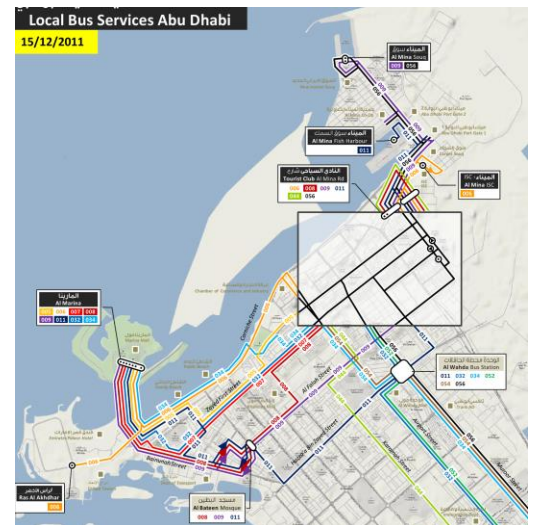
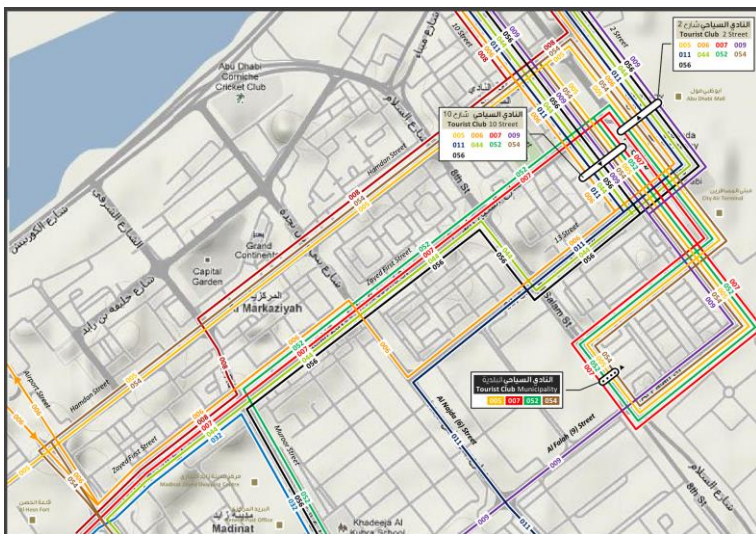


# HappiBus

- 1) In this project I am going to address the problem of traffic congestion in cities and the decrease of popularity of public transportation.
- 2) This idea came to my mind long time ago. During my life I lived in many different cities in more than 5 different countries. Many of them were big cities that exceeded the population of 1 million people. In all these cities I have found one common problem, and this problem is traffic congestion. No matter how many roads are built, what policies are implemented, the problem still exists. Currently I am a computer science student in a multi-national university and I asked people from different countries about the situation with public transportation in their cities. I was not surprised to hear, that all big cities are not able to provide a reliable and easy way to use public transportation system. You might have noticed that I am changing the topic from congestion to public transportation. And there is a reason for this: I believe that congestion in the cities can be decreased by introducing a better and more convenient public transportation system.
- 3) Nonetheless in my application I am targeting Abu-Dhabi as a starting point, this is a general problem. Therefore I built a system which can be easily deployed in any city. Just to give you a gist about the problem I am going to address, take a look at some of the maps for public transportation in Abu-Dhabi.



These maps are just small parts of the routes in the city. But it is really hard to understand what bus do you have to take and where is it going. Other things which contributes to the problem are:

- bus drivers do not know Arabic and their English is really bad, so there is almost no chances to get help from them
- people who are in the bus do not know the route (they just know where is their stop), so they can't be helpful either
- there are frequent changes in time of operation

I want to mention that buses in Abu-Dhabi are really new and bus stops are in the excellent condition. Moreover the crime rate in the city is the lowest I have seen so far. But still, the public transportation is not popular even among people who do not have a car (they prefer a taxi).

4) During this project I engaged with a lot of people. Mostly with the help of questionnaires I asked people's opinion about the current state of the transportation system in their country and in Abu-Dhabi. For people who found it inconvenient I was asking for their main reasons to think so (the same reasons for people who find it convenient). It was not my primary goal to make a survey, so I was able to ask only small amount of people (270). Most of my respondents were students of (18-27 age) from different countries and background. 83% of them found public transportation in Abu-Dhabi as inconvenient (92% found it inconvenient in their home country). Out the group of people who found the system inconvenient, more than 60% gave two reasons to support their opinion: unreliability and inability to predict arrival time. My application is going to address these issues.

5) For this project I have started to work on the web application. It is not completed and actually I do not believe that any application can be viewed as complete. I think that the application can be finished and marked as complete only when no one is using it anymore and it is basically dead. Otherwise application has to constantly evolve to meet and exceed customers' expectations. I am attaching video, where you can view the current state of the application. First 5:22 seconds is just an explanation about the problems I am going to address, so if you want to view just an app, please feel free to skip this part.

The key design elements of my application are: simplicity, minimalism and ease of use. On the first stage of my application I was just analysing the existing transportation routes and was looking for a way to input them easy in my system. During the later stages (after the launch of application) I will take advantage of the following analysis:

- a) statistical information about the number of people taking using the transport from one particular point to another in a specific time frame. This will allow the system to predict were to allocate transport in a particular time frame.
- b) b) statistical information about the time needed to travel from one bus stop to another one. This will allow the system to predict arrival time and also give user an estimated time of arrival.

So currently my application allows people to find the routes, and gives a possibility to tack public transport in a real time.

6) Please find a link to a video: <https://vimeo.com/66907559> or <http://www.youtube.com/watch?v=NCM4DAk7Hvs>. In this video I am showing the work of my application. If you like my idea, please feel free to upvote it here:

Here is the starting draft: <http://technicity.osu.edu/who-are-you-and-where-are-you-from/connect-transportation-system-to-an-end-customer>

7) I worked on this project by my own.