

Theme: NMT Carpool Project
Group Name: Algo

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1 Background

There's a fair amount of Techies who don't have vehicles of their own. Many students have to rely solely on their friends and luck to get rides to places they need to be, many of whom are trying to get to ABQ to visit family or friends, there are even some out-of-state students who have hope that one of their friends will have the time to drive them to the airport to get home during school breaks. There are also even students who live off campus, in Socorro, that struggle to get to class on time without a reliable vehicle. On the flip side of this, there are students who are commuting every day from ABQ to get to campus, and they'd most likely appreciate the opportunity to save money on gas in exchange for offering some other students a ride. All in all, this service could really benefit our community and could even help off campus students develop new friendships around campus. This could also help with Tech's constant lack of parking spots if students with rides of their own decide to carpool with someone else, and in that case it'd also somewhat help us be a greener campus by reducing some carbon emissions.

2 Website Analysis

2.1 5 Similar Websites

The 5 websites we chose are as follows:

- <https://www.uber.com/>
- <http://www.bandwagon.io/>
- <https://www.v3cube.com/university-ride-sharing-clone/>
- <https://www.zimride.com/>
- <https://carpooltoschool.com/>

Most of the websites we found mainly rely on apps to implement their features, which makes sense as users are more likely to use ride-ordering services when the only device they have on them is their phone. Most of the features of each site are very similar, clearly emulating each other.

2.2 Desired Website Functions

The functions we aim to implement and how we derived them are as follows:

- v3cube's service seemed the most interesting/relevant to our site. They have an almost pyramid-scheme like setup where there's a driver, passenger, and admin. The passenger searches for a ride, the driver lists how many seats they have and what fare they want, once the two reach an agreement, the admin makes sure the ride went well, and takes a cut of whatever the driver earned. We'd mainly like to implement the agreement system, and the driver's listings for seats as well as their desired price.
- Uber's ride search feature, you can find a ride on Uber by location and destination. Though we'd limit the scope of what locations you can request from. Ideally we'd be able to show the nearest ride available.
- Carpool World has a social media-ish profile setup, where users can set profile pictures, describe their typical routes, and give a description of how flexible they are as a driver. We'd like to emulate that profile setup, with additional sections about their major at Tech, whether they're an undergrad or graduate, and an expanded description of what they're like as a person. Uber also does this more expanded profile management.
- We'd like to authenticate our user-base by only allowing people with authenticated @student.nmt.edu or other nmt associated emails to join the site. Zimride also tries to implement this kind've authentication, though they do it through creating networks especially for each university they serve.
- Unlike these example websites, our site wouldn't require any payment throughout the whole process. The idea would mainly be to allow people who need to carpool to meet other students who are willing to carpool. Any type of payment would be agreed upon between the users individually, our site would just allow them to meet and talk. Which means we'll either have a messaging service as part of the site, or would allow students to share emails on their profile.
- Each of the services we've looked at all have a responsive map, that centers around the users given location. We'd try to use an api to implement this, and we'd display a map of NM showing all the routes students are taking/want to take.
- Car Pool to School has a calendar feature to handle all reminders and plans for carpool rides, we'd like to emulate this, ideally we'd be able to implement a calendar setup that could send reminders to a students email, so ideally students wouldn't be left forgotten after a set ride.

2.3 Progress Table

	Our Website	Uber	Bandwagon	v3cube	Zimride	Car Pool to School
Ride Search	v	v	x	v	x	v
Social Media Profiles	v	v	x	v	x	v
NMT authentication	v	x	x	x	x	x
Messaging Service	v	v	x	v	x	v
Interactive Map	v	v	x	o	v	v
Scheduling/Calendar	v	v	x	x	v	v
Flexible Agreement System	v	x	x	v	x	x

3 StoryBoard

3.1 Two users

The two main users of this website would be NMT students/faculty who need a ride to NMT, and NMT students/faculty who can offer a ride to NMT. The notes in red on our storyboard will help explain how each would experience the website.

3.2 Storyboard Desktop



Welcome to NMT's Carpool Service



Find a Ride!

(Registration Required)

What is this service?

This service was created specifically for students struggling to commute to campus everyday, in the hopes that you can connect with other students whom you can rely on for making your commute easier.

Note: This is the homepage, only users who are logged in will be able to see the other pages. Clicking "Find a Ride" will bring you to the login page.

How Was This Made?

This service was created through implementing google location api's, specifically the Places API for location tracking, and the maps API for displaying locations. We also used a mysql database for our backend along with bootstrap css for our frontend.

Questions? Concerns?

Contact us at:

Julian.garcia@student.nmt.edu

or

Saugat.sharma@student.nmt.edu



Carpool Login

Email:

Password:

[Register Here](#)



Define Your Profile

Select Profile Picture:



Enter your full name:

Ex: "John Smith"

Enter Your NMT Email:

Ex: "j.smith@nmt.edu"

Enter Your Password:

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Note: Each of these will be verified. (No numbers in name, email verified as NMT, password must be longer than 5 characters and must have a capital letter, at least one number, and at least one special character.)

Describe Yourself:

Ex: "I'm a sophomore CS student at NMT, I'm very friendly and just want a ride..."

→Next: Define Your Ride



Define your ride:

Enter start address:

EX: 304 College Ave, Socorro

Note: This is a dropdown list of locations associated with NMT, such as EMRTC, or the Observatory

Select Where you want to go:

NMT Main Campus ▼

Describe when your ride must happen

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Select Role:

Rider Driver

Submit

See how many people are around:

Note: Map will display circles of 0.5 mile radius to indicate where users are.



Note: On click, 'I am a Driver' Pulls up a popup that has user enter number of seats. Also selected option is highlighted.

Users

Sort by: Distance

Filter by: Available Seats

View Drivers View Riders

Note: This column will disappear if a rider is viewing other riders or if a driver is viewing other drivers



John Doe

From: ABQ, NM
To: NMT

1.2 Miles Away

4 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Request pool



John Doe

From: ABQ, NM
To: NMT

4 Miles Away

1 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Pool Denied



John Doe

From: ABQ, NM
To: NMT

5 Miles Away

3 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Pool Accepted



John Doe

From: ABQ, NM
To: NMT

6 Miles Away

4 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Pool Pending



John Doe

From: ABQ, NM
To: NMT

10 Miles Away

5 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Request pool



John Doe

From: ABQ, NM
To: NMT

10 Miles Away

6 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Request pool

Note: Clicking a user will bring up all of their details in a popup/modal card.



List of Drivers

**John Doe**From: ABQ, NM
To: NMT1.2 Miles
Away
4 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

**John Doe**From: ABQ, NM
To: NMT4 Miles
Away
1 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

**John Doe**From: ABQ, NM
To: NMT5 Miles
Away
3 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

**John Doe**From: ABQ, NM
To: NMT6 Miles
Away
4 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

**John Doe**From: ABQ, NM
To: NMT10 Miles
Away
5 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

**John Doe**From: ABQ, NM
To: NMT10 Miles
Away
6 Seats

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Note: if you are a Driver you will not have a request column for drivers, only for riders. In this example user is a driver, so they can only send requests to Riders.

List of Riders

**John Doe**From: ABQ, NM
To: NMT1.2 Miles
Away

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

**John Doe**From: ABQ, NM
To: NMT4 Miles
Away

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

John DoeFrom: ABQ, NM
To: NMT5 Miles
Away

Description of user schedule

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

3.3 Storyboard Mobile



Select this icon to view a list of site pages: Such as Login, Registration, Find a Ride, Users, or Profile.

Welcome to NMT's Carpool Service



Find a Ride!

What is this service?

This service was created specifically for students struggling to commute to campus everyday, in the hopes that you can connect with other students whom you can rely on for making your commute easier.

How Was This Made?

This service was created through implementing google location api's, specifically the Places API for location tracking, and the maps API for displaying locations. We also used a mysql database for our backend along with bootstrap css for our frontend.

Questions? Concerns?

Contact us at:

Julian.garcia@student.nmt.edu

or

Saugat.sharma@student.nmt.edu

Mobile Mockup

ANY TEXT WRITTEN IN RED IS ONLY A NOTE



Carpool Login

Email:

Password:

[Register Here](#)

This page can
stay the same
fundamentally,
just displayed
smaller.

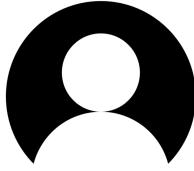
Mobile Mockup

ANY TEXT WRITTEN IN RED IS ONLY A NOTE



Define Your Profile

Select Profile Picture:



Enter your full name:

Ex: "John Smith"

Enter Your NMT Email:

Ex: "j.smith@nmt.edu"

Enter Your Password:

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Describe Yourself:

Ex: "I'm a sophomore CS student at NMT, I'm very friendly and just want a ride..."

→Next: Define Your Ride

Note: This page scales well enough to just shrink.

Mobile Mockup

ANY TEXT WRITTEN IN RED IS ONLY A NOTE



Define your ride:

Enter start address:

EX: 304 College Ave, Socorro

Select Where you want to go:

NMT Main Campus ▼

Describe when your ride must happen

Ex. "I only need rides MWF before 9am, and I need to return by 7pm."

Select Role:

Rider Driver

Submit

Users

View Drivers View Riders

Sort by: Distance

Filter by: Available Seats



John Doe

From: ABQ, NM
To: NMT

1.2 Miles
Away

Request pool



John Doe

From: ABQ, NM
To: NMT

4 Miles
Away

Pool Denied



John Doe

From: ABQ, NM
To: NMT

5 Miles
Away

Pool Accepted



John Doe

From: ABQ, NM
To: NMT

6 Miles
Away

Pool Pending



John Doe

From: ABQ, NM
To: NMT

10 Miles
Away

Request pool



John Doe

From: ABQ, NM
To: NMT

10 Miles
Away

Request pool

Desktop Mockup

ANY TEXT WRITTEN IN RED IS ONLY A NOTE



List of Drivers

[Sort by: Distance](#)[Filter by: Seats Available](#)

John Doe
From: ABQ, NM
To: NMT

1.2 Miles
Away
4 Seats



John Doe
From: ABQ, NM
To: NMT

4 Miles
Away
1 Seats



John Doe
From: ABQ, NM
To: NMT

5 Miles
Away
3 Seats



John Doe
From: ABQ, NM
To: NMT

6 Miles
Away
4 Seats



John Doe
From: ABQ, NM
To: NMT

10 Miles
Away
5 Seats



John Doe
From: ABQ, NM
To: NMT

10 Miles
Away
6 Seats

Note: if you are a Driver you will not have a request column for drivers, only for Riders. In this example user is a driver, so they can only send requests to Riders.

List of Riders

[Sort by: Distance](#)[Filter by: Request Accepted](#)

John Doe
From: ABQ, NM
To: NMT

Pool Accepted



John Doe
From: ABQ, NM
To: NMT

Pool Accepted



John Doe
From: ABQ, NM
To: NMT

Pool Accepted

Note: In this example, user has filtered Riders by if their request was accepted, user can also filter by if request is pending, or denied.

Mobile Mockup

ANY TEXT WRITTEN IN RED IS ONLY A NOTE