NOTE: can you grade the local version instead of the app version please

What are [migrations](https://docs.djangoproject.com/en/3.1/topics/migrations/)? Include your summary as part of your writeup.

When you change your model, to update what your model is, you make a migration. This is useful because it saves all of your data so that you don’t have to update all of your data each and every time you make a small alteration to your model. If you add a new field for information, you don’t have to manually enter a new empty field for all of the people that you have already inputted into your database, the migration will automatically add this for you.

In your write up, include what your customizations for your site are

Our customizations for our site include adding a separate link to create a ride so that it is separate from the link to find a ride. Both of these links can be found on our home page. When you create a ride and submit it, we customized the site to then automatically take you to the rides page where you can see the available rides and check to ensure that your ride has been added. On every page there is also a link that you can click in the top right corner that will bring you back to the home page for convenience. On the page where rides are created, we added to the information that is specified in the ride so that they are more customizable as this makes it easier for the customer to find the ride with the specific features that they are looking for. Some of this information includes: car make, if the car is electric, the range of the car, if it is a premium car, the blood type of the passenger and if they have a dnr (good to know in case of an emergency), their social security number, if they are a smoker, if they’re a convicted felon, if they’re blind, what their prefered music is, how many pets they have and the amount of kids that will be present in the car. It is important to be able to pick these kinds of preferences when choosing a ride so that our users can be as comfortable as possible, especially if they are going to be taking an extended ride in this car.

Describe the major shortcomings of using a standard WWW browser as a client for this kind of application. (10pts)

One major shortcoming is that it is difficult to make changes to the source code. You need to do a lot more to update it rather than running it locally and being able to update it right away. Another disadvantage is if the web app becomes large, the performance is going to decrease significantly in the speed that it takes to run. The security is also going to be an area that falters with a web application. We are taking very personal information of the users on our WWW browser and there isn’t a very effective way to protect this personal information. Lastly, WWW browsers are dependent on internet and this can be a major shortcoming if users are trying to find a ride when they are in a low internet area.

In your ideal app, what additional models would you introduce that would be helpful to building your version of a ride sharing app. (10 pts)

One additional model we would implement would be one that creates a map so that users are provided with a visual representation of the rides in their area. This way they can understand which ride is going to be the most efficient for them to take. This model would need to include both event locations and their time and individuals' housing and where they are intending to leave from in order to merge the two parts of the data to most easily connect riders to one another. This prevents the riders from having to manually look through the database and instead we will be able to recommend rider pairs based on locations. We would also like to add a model that can track the rides in order to implement a payment system that is based on the distance traveled and therefore gas used. This model would be the basis for our monetization system.

The current webapp doesn’t implement any user authentication. Part of the reason why is because implementing safe login requires countermeasures against Cross-Site Request Forgery (CSRF). You may have noticed the csrf-token in the new ride form. What is CSRF and how would you explain it to my 5 year old niece? (5pts)

CSRF is an attack targeted at individuals currently logged into a website where by clicking a URL (where this attack commences), it causes an individual to do an action that they wouldn't normally do. To explain to a 5 year old, I would explain the following situation. If you are currently logged into Facebook and you get a message from another user with a link attached to it, you click the link and all of a sudden you have added them as a friend and therefore they can see all of your personal information. You did not mean to add them as a friend and give them this kind of access to your profile but CSRF allows this friendship to be formed as you had already logged into Facebook.