

Cab Services Management System

Abstract—Transportation is the basic service in todays evolving world. With growing population transportation has become a hectic task to be managed. Everyone may not have their own vehicle and it would be difficult to travel at a new place and manage long drives. With the growing importance of fast transportation for people an online car services could be a great help. The system allows the user to pre-book according to his requirements and plan his journey accordingly. We have many features to make it user convenient. Two different types of users are handled including taxi driver and the end system user. This system allows the user to rent his car when not in use. The system extends its functionalities from booking car, driver, taxi to booking different cars based on occasions like airport service, wedding cars and tourist cars making it user friendly. The system allows a user to view his current trip, manage his/her accounts and also to check his/her previously booked car services. The system also includes providing security to user by sending mail to his/her saved emergency contact when necessity.

I. PROBLEM STATEMENT

In today's growing world which is busy and looks for budget friendliness the need for quick and quality transportation is important than ever. It is always difficult to travel if you are at a new place being unaware of the services available. Even with growing population the transportation services may not always be available to all range of users. Everyone doesn't have their own vehicle and booking offline is always tough compared to online. The safety is also a necessary measure where live tracking and sharing location is available in online system. Not many are able to access the transportation services and with the growing traffic and less availability of transport services to satisfy all range of users a renewed cab services is necessary. With online car services the accessibility to users is increased and services are increased according to particular occasions. Online service makes it user friendly, quick to access and book at all times.

A. Key challenges and contribution in work

- To fulfill the requirements at all times of the user for booking cars whenever required
 - Renting your own car and booking a car for selfdrive
 - Booking taxis and drivers on your own based on the ratings of taxis and drivers
 - Autocomplete places using google apikey for locations while booking
 - Display of the route map from location to destination location
 - Booking wedding cars and tourist cars for each particular tourist place
 - Airport cab services to avail cab services from and to airport
 - Display of current trips, giving rating to the taxis at the end of the trip

II. METHODOLOGY

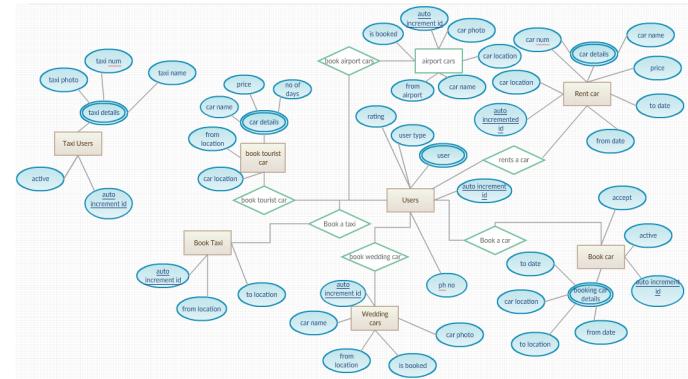


Fig. 1. use case diagram

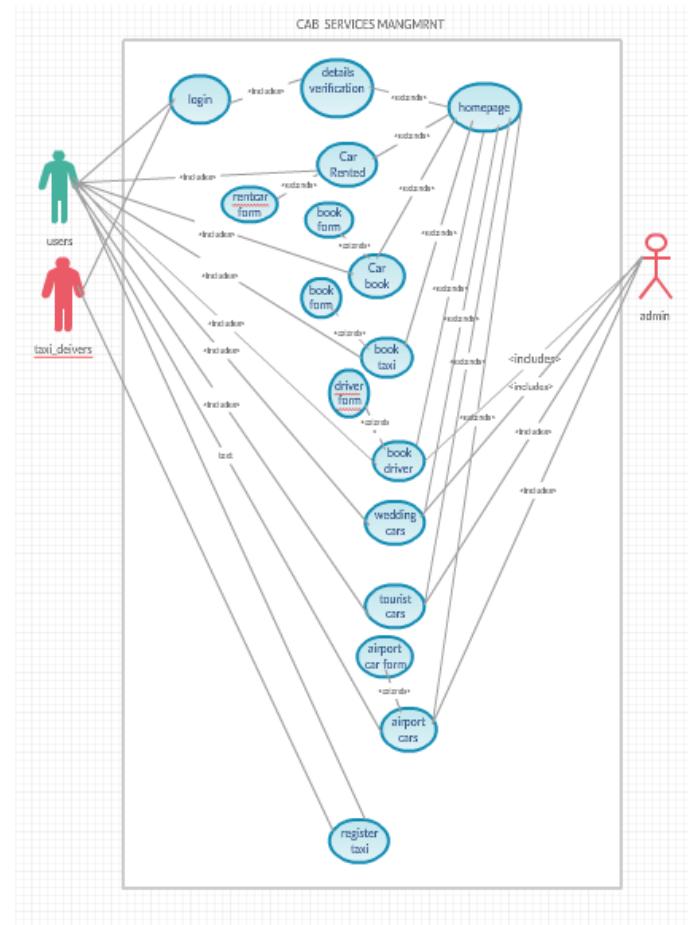


Fig. 2. use case diagram

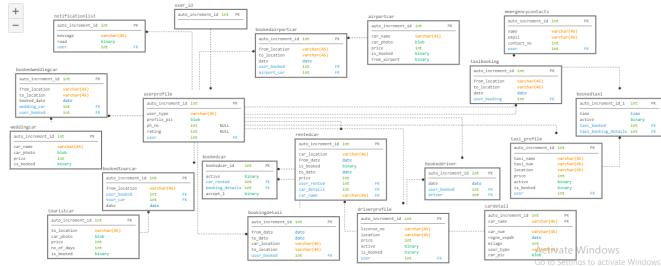


Fig. 3. use case diagram

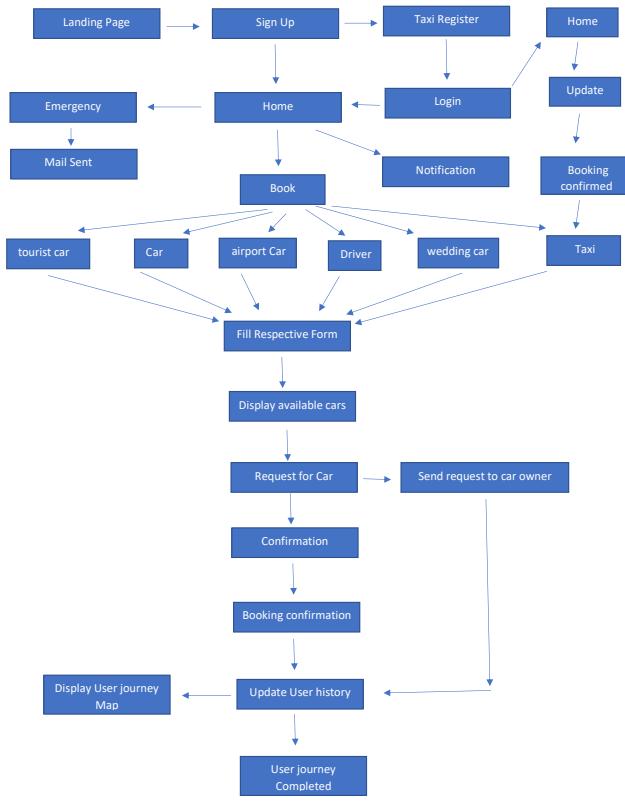


Fig. 4. history

A. Tools used

Mysql and django framework tools are used for backend and frontend

B. Explanation of modules

- views: The functions in the python which takes request as a web page and also returns a web response. They can even fetch details from objects for a particular query.
 - URLs: it takes up a normal expressions and matches it with the URL in the browser to a specific module in your django project

- models:It's basically an object which is mapped to the specific database.If a model is created, the django itself creates a table which is corresponding to the created model in the database
 - admin:A user who is a superuser ,basically an account which has the control over the site completely.
 - forms:we basically tell django the model which we wanted to use for forms and specify the fields we use in class Meta
 - static files: The files which are static throughout the project.Generally the include css, js and images files which are always static
 - templates: Its simply a text file .Template engine recognizes intrepets the template
 - database migrations :Whenever there is a change in the models these migrations come into play to change the corresponding tables in the database

III. RESULTS

A complete functioning of the features has been done with mysql database.An initial page of all the services provided by the website are displayed in clear.A sign up and login pages are included.In case of sign up there are two types of users who can sign up, a user and a taxi user with different functions for each type of user.Based on the user the functions are differentiated.In case of taxi user he also need to add his taxi details to complete his sign up.The taxi details include his taxi name, taxi number.When registration is done successfully they are redirected to login page



Fig. 5. login

When a user is logged in based on their corresponding details are redirected to their corresponding home pages when they can avail all the functionalities. A user can rent his own car by filling a form which displays by clicking a button rent car which is in the homepage. After filling the form user will be directed to display of available cars which displays the cars whose from and to date of the car are matched with the from and to date of the user give in the form.

After selecting the car from the given cars user will be displayed with a car details and button which send a request to the owner that the user is ready to book his car. Then the owner will receive the request and he can either accept the request decline it depending on his will. User can use the

Fig. 6. rentcar form

booked car only if the owner accepts the users request. The history both the user and owner will get updated if the owner accepts the request. The history contains the previous booked cars along with the maps which gives the route from source to the destination.A user can even book a taxi by filling a form which has from and to location of the user. Then user will be directed to the page which displays all the cars based on the given from and to location of the user. User can select the taxi from the displayed cars and the conformation message will be sent to the user. These messages are sent to the user using MYSQL-triggers.

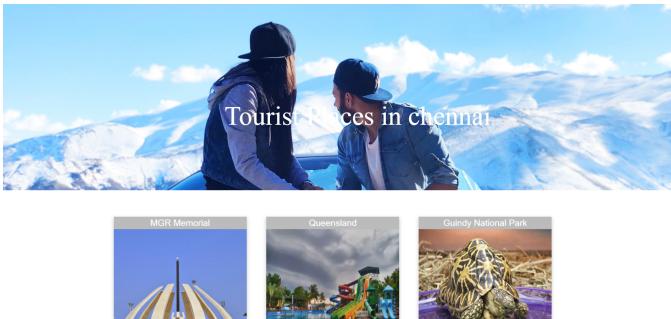


Fig. 7. touristplaces

The history page of both the user and taxi driver will be updated. The history page contains maps which gives the route from source to the destination. After reaching the destination user will be provided with a button to end his trip and user will get a option to rate the taxi. User can give ranting.

Our website even provides the user with more services like wedding cars booking, tourist cars and airport cars. Airport cars even divided into to parts like to airport and from airport cars. Since our website is restricted only to Chennai tourist car services work only in Chennai. It also has wedding cars section where decorated wedding cars are displayed and by clicking on book button he can get the car after payment. Again these all sections have history pages where the history of booked cars and details are updated respectively. Users can also book drivers if they need. Drivers are provided by the

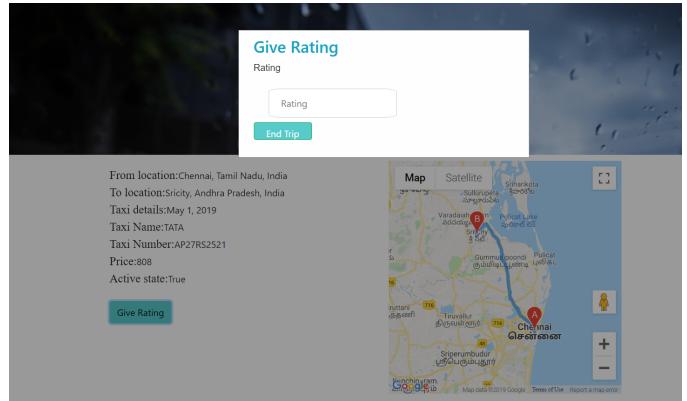


Fig. 8. current trip details

administrator at the backend. There is a emergency button at the top of the home page. If the user is in danger, he can click the emergency button. Just by clicking he can send a mail to his or her family/friends whom he added in his emergency contacts list in the website. There is also a notification button beside the emergency button. A user can be notified if he gets any requests or messages.

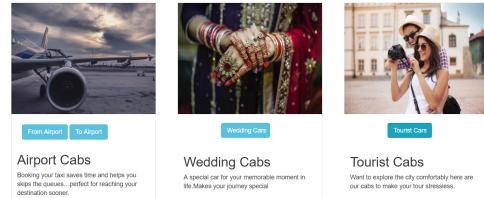


Fig. 9. cards

IV. CONCLUSION

Our website is mainly about making rental services and taxi booking online and available to everyone. In our website users can book a car by rent car when he is not using it .by our website.By our website user can even book a driver if he is not feel well or unable to drive the train in any case.By our website even employment will even be increased and countries economy will increase. Not only the employment but also cars which are kept unused by the owners can be used in a efficient way and the owner can even earn money. .Finally we are able to make a car rental management system successfully, in which user can rent a car, register a taxi, book a taxi, book a car in different occasions like wedding, tours, airport and etc. With increase in population there will be a lot of scope for transport services and better online services can full fill these requirements.