

BMTC CASE STUDY

ABOUT:

Bangalore Metropolitan Transport Corporation is a government agency that operates the public transport bus service in Bengaluru, India. It has the highest number of Volvo buses operated by a public transport company in India.

Finally, Bangalore BMTC (Bangalore Metropolitan Transport Corporation) Bus route search is made Simpler, Swifter and Smarter. With the most unique Bus route search features, [BMTC](#) mobile application is one of the best available web BMTC bus routes search engines. We are proud of our latest innovation in Bangalore bus routes search service. It provides you the bus route search information that is better than other sites.

THE REQUIREMENT:

BMTC wanted a team/organization that can help build an application in order to help and serve the commuters in Karnataka, mainly Bangalore with bus routes and plan their travel anywhere within the city, providing fares for the destinations and so on. The below points were the main requirements for the application:

1. Find Nearby Bus Stops (Geo-location based or Text Search)
2. Around the Bus Stop
3. Estimated Time of Arrival (ETA) of the Bus at the Bus Stop
4. Estimated Time of Arrival (ETA) to Destination
5. Route Planner
6. Fare Calculator
7. Timetable
8. Favorites (Commuter's favorite route and bus stops)
9. SMS App

THE SOLUTION:

As BMTC wanted an end-to-end communication platform, a user friendly mobile application wherein commuters will be able to instantly access and receive information of all the buses in the city and be able to track buses that travel to the desired destination, we came up with a crisp application that covered all their requirements. The application captures data such as ETA (Estimated Time of Arrival) and STA (Standard Time of Arrival) having integrated Google Maps to the application, all the stops near your location or the surrounding proximity along with the bus routes, number of stops, bus numbers and the fares of the respective routes. The buses include all the regular BMTC buses and the ones that travel to the airport. Until today, we update these details every day, if there is a new bus or a new stop or there is a change in the time table or the bus routes due to certain reasons or a bus delay. The app helps travelers plan their trip/route for the day or that particular time. Apart from this, one other important option is Chartered Bus Services. These buses are the ones with a specific bus route number

that are meant for office goers or so. The goal was to provide a very well-defined infrastructure of the app that is customizable and easy to access information anywhere anytime through any device, be it Android, Windows or an IOS (iPhone).

The technology used to develop the website was **Codeigniter framework-PHP 5.4v** MySQL (backend), with REST API, hosted using Ubuntu 14.04.5v LTS, Apache 2.4.7v and MySQL 5.6.33v. The technology used to develop BMTC mobile application was Android Studio 3.4.1v for android and for iOS xCode with language objective- C. These above mentioned technologies helped create a responsive and user-friendly mobile application.

- Frequent updates for users.
- Supports native code and faster deployment of fresh builds-Android and iOS(application)
- Android Studio is optimized for all Android devices and configures builds without limits.
- The data security used is MD5 which is one of the most secure cryptographic algorithms.
- REST API is used as an interface between HTTP or HTTPS to share data securely from PHP to the mobile application.

THE RESULT:

- Redundancy and duplication of data eliminated.
- Manual work has been reduced to 50%.
- The data is always updated and the user response is within or less than 10 seconds.
- It is equally very informative and helps track a bus with the accurate or approximate time of arrival to either the stop or the destination, thus the user is able to plan his/her arrival to the destination accordingly.
- Of the above, the most helpful ones have been the airport buses as they function round the clock, so anyone traveling from the airport to the city can always access the bus and the routes along with the bus numbers are always updated and uploaded on the app. The user will have to enter the start and the destination location and he gets the necessary details required for him.