**ABSTRACT**

* People don't have time to invest in waiting for transport. Waiting time for transport in such crowded cities leads to less productivity on a whole. People face this problem in their daily life where they have no idea about the current status of their transport.
* To solve the problem of passengers in convenience in getting public transport vehicle on time bus tracking system is need to implement every where.
* In addition for managing bus system is useful in managing and controlling vehicles by tracking them and getting their status. It is implemented on bus station and in vehicles.
* Passengers faces many problems like to waiting for bus at bus station without knowing the timing of the bus. Also they don’t know the route of the bus.
* Women’s where facing many problems at late night, inspite of they can use this app to monitor. Working peoples also affecting and students also affecting.
* This system will help to detect the position of a bus. So, in case of a failure of a bus, the help could be provided in minimum time and this system will also provide you with the end user required to view the schedule, route and track the current GPS location of the bus in real time through a user-friendly app
* It will help the user to check out the current location of the bus and also will help the user to know how much time and cost of the bus will take to reach the current location of the user.
* A vehicle tracking system is very useful for tracking the movement of a vehicle from any location at any time. In this work, real time Google map and GPS based vehicle tracking system is implemented.
* To give the user the exact location of the selected bus with respect to the user location.
* To give approximate distance and time of the bus from the user location using distance matrix API.
* Give a list of bus numbers for particular source and destination.
* The application provides the live location of the bus to the user. The commuters can not only fetch the bus location but also know estimate time taken by bus to reach its destination.
* The system allows a user to track their bus from the android app. With the help of tracking user can see how far the bus is this allows user to plan their route and travel plan accordingly.
* App will also give the approximate time and distance of the bus. This will reduce the wait time increased willingness to pay and customer satisfaction.

**BENEFITS**:

1. Reduced anxiety for the passengers.
2. Easy monitoring.
3. Time consumption will be less.
4. Less rush in the buses will be expected since they came to know how many buses are available for particular location.
5. Notification will be sent to the users when the bus crosses their stop and also two stops before their stop if they marked the particular bus.