**Bus Tracking Application**

**CONTENT**

1. Abstract
2. Introduction
3. Requirements
4. Flow Chart
5. E-R Diagram

**ABSTRACT**

The present generation requires the information time to time. The use of technology have been increasing day by day. So, we are planning for the combination of present technology with the requirement of information transmission, we planned for the creative approach of “Bus Tracking System”.

To overcome the drawbacks of the previous methods of paper which is based on a hardware device that works inappropriately. In this project we introduce tracking a vehicle using Mobile GPS System, because now a days everyone is using a smart phone which contains basic sensors like GPS sensor, Accelerometer sensors. This Vehicle Tracking System can also be used for Tracking System and many more, by just making few changes in hardware and software and widely in tracking Cabs/Taxis, school/colleges buses etc.

**INTODUCTION**

Generally, when we are about to travel by a bus we search in internet for location of the bus. Sometimes we may not get the location of bus, because the hardware system provided in the may damage. So, in this project we are going to track the Bus driver mobile by an android application. Now a days everyone is using a smartphone which is having basic sensors like GPS sensor, accelerometer sensor. our application uses the GPS location of the bus driver to show for the customers who needs the location of the bus.

**Requirements & platforms**

Microsoft Windows 10

Android Studio 2020.3.1

Visual Studio 2019.16.10

Java 1.8.0\_281

MySQL 8.0

**Hardware Components**

Processor -i5

Hard Disk -1TB

RAM -8GB

**Flow Chart:**

A picture containing text, electronics

Description automatically generated

**E-R Diagram**

Text

Description automatically generated

**Use Case Diagram**

Diagram

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**Wireframe Design**

A screenshot of a computer

Description automatically generated with medium confidence

**Code Implementation**

**Main.dart**

import 'package:bta\_desin\_one/viewbusses.dart';  
import 'package:flutter/material.dart';  
import 'busses\_list.dart';  
import 'package:bta\_desin\_one/form.dart';  
import 'viewbusses.dart';  
  
void main() {  
 runApp(MyApp());  
}  
  
class MyApp extends StatefulWidget {  
 const MyApp({Key? key}) : super(key: key);  
  
 @override  
 \_MyAppState createState() => \_MyAppState();  
}  
  
class \_MyAppState extends State<MyApp> {  
 @override  
 Widget build(BuildContext context) {  
 return MaterialApp(  
 home: SafeArea(  
 child: Scaffold(  
 appBar: AppBar(  
 title: Center(child: Text('BTADesignOne')),  
 ),  
 body: viewbusses()  
 ),  
 ),  
 );  
 }  
}

**viewbusses.dart**

import 'package:flutter/material.dart';  
import 'package:bta\_desin\_one/busses\_list.dart';  
class viewbusses extends StatefulWidget {  
 const viewbusses({Key? key}) : super(key: key);  
  
 @override  
 \_viewbussesState createState() => \_viewbussesState();  
}  
  
class \_viewbussesState extends State<viewbusses> {  
 @override  
 Widget build(BuildContext context) {  
 return Container(  
 child: new SingleChildScrollView(  
 child: Column(  
 children: [  
 Card(  
 borderOnForeground: true,  
 shadowColor: Colors.*blueGrey*,  
 elevation: 30.0,  
 color: Colors.*white*,  
 child: Padding(  
 padding: const EdgeInsets.all(16.0),  
 child: TextButton(  
 child: Text('Add Vehicle'),  
 onPressed: () {  
 setState(() {  
 busses.add(  
 Card(  
 borderOnForeground: true,  
 shadowColor: Colors.*red*,  
 elevation: 30.0,  
 color: Colors.*white*,  
 child: Padding(  
 padding: const EdgeInsets.all(16.0),  
 child: Expanded(  
 child: Row(  
 children: [  
 Image.asset(  
 'images/buspic1.png',  
 scale: 5.0,  
 ),  
 Column(  
 children: [  
 Text('Bus Number Ap05BB8116'),  
 Text('Start Kakinada'),  
 Text('Destintion Vijayawada'),  
 Text('Travel Time 5hr 30min'),  
 ],  
 )  
 ],  
 ),  
 ),  
 ),  
 ),  
 );  
 });  
 },  
 )),  
 ),  
 Column(  
 children: busses,  
 )  
 ],  
 ),  
 ),  
 );  
 }  
}

**busseslist.dart**

import 'package:flutter/material.dart';  
  
List<Widget> busses= [  
  
 Card(  
 borderOnForeground: true,  
 shadowColor: Colors.*blueGrey*,  
 elevation: 30.0,  
 color: Colors.*white*,  
 child: Padding(  
 padding: const EdgeInsets.all(16.0),  
 child: Expanded(  
 child: Row(  
 children: [  
 Image.asset('images/buspic1.png',scale: 5.0,),  
 Column(  
 children: [  
  
 Text('Bus Number Ap05BB8116'),  
 Text('Start Kakinada'),  
 Text('Destintion Vijayawada'),  
 Text('Travel Time 5hr 30min'),  
  
 ],  
 )  
 ],  
 ),  
 ),  
 ),  
 ),  
];

**Result**