

# Bus Yatri Travel Guide

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**Abstract-** With the growing demand for public transportation in urban regions, bus scheduling apps have come to be popular equipment to offer real-time information on bus schedules and locations. The intent of our application is to serve a facility to general public of Pune a source of information on bus transportation in Pune. It will help people to get timings and schedules of buses in Pune city. It is a app which gives schedule of buses and give a brief idea about stops in between your source and destination. It will be really helpful for those who are new in city and will also be able to tell them about location they may visit along their journey. People will save a lot of effort after using the app when planning a city trip. The application will have a very user-friendly interface.

**Keywords-** Transit, Powerapps, Planning, Schedule.

## I. INTRODUCTION

Bus yatri is the concept of creating an application for the well-being of recently arrived people in the city of Pune.

This is a guide application that informs people about bus schedules and timetables on their mobile devices. Bus yatri is a powerapp based application that allows users to select origin and destination as well as display available buses and times. People can clearly see the travel itinerary.

The bus timetable has been a major issue for public transportation management. The manual method of using graphics and voice to communicate schedules has long been obsolete. Mobile applications have replaced manual processes these days and everyone prefers them. Previous studies have been conducted on other cities and served as successful models. Basically, the service itself is provided by other applications, but the applications are too complex for ordinary people to handle. The user interface is grouped by machine and not very user friendly with very advanced options and running with a lot of bugs that haven't been fixed yet.

Railways have been following railway scheduling models since very long time but not very much research

was done for buses. Primarily buses have tracking apps not scheduling apps. Our application suggests a timetable and route and in addition serves a future scope for Global Positioning System (GPS) or other methods of tracking. Overall, our findings suggest that bus scheduling applications have the potential to improve the experience of public transportation users, by providing real-time information, and reducing the uncertainty and stress associated with commuting. Future work could focus on further improving the accuracy and reliability of the app's real-time information, and expanding the application's coverage to include other modes of transportation, such as trains, subways, and ferries.

## II. METHODOLOGY/EXPERIMENTAL

### A. Algorithm

The power apps is the major tool used in our project. Powerapps is a Microsoft powered toolkit which enables anyone to build an application without hassle of complex codes. It used mathematical formulas to build logical operators instead of complex code as done in other app builders. It is a paid service build on Microsoft framework with lots of capabilities.

PowerApps comes with build in packages of features like SharePoint, Microsoft 365, Dynamics 365, SQL Server. Along with these PowerApps shows support for all the APIs provided by Microsoft and can be used in projects with just a API key and which is also provided by Microsoft for free. Environments is an exclusive feature to have dynamic data among applications built on PowerApps.

MS Excel is the data source we used to keep data, timetable of buses and bus routes. It is world's most used data management software used to manage and use data anywhere user requires it. We used Excel to keep data of our buses, their routes and their timings. Excel provided us ease to change data as per requirements of situation with ease.

Some of our most used algorithms and formulas:

`DataSourceInfo([@Table1],DataSourceInfo.DisplayName,"Bus_x002f_Time")`

`'Microsoft.Map.RouteOptimization'.Time`

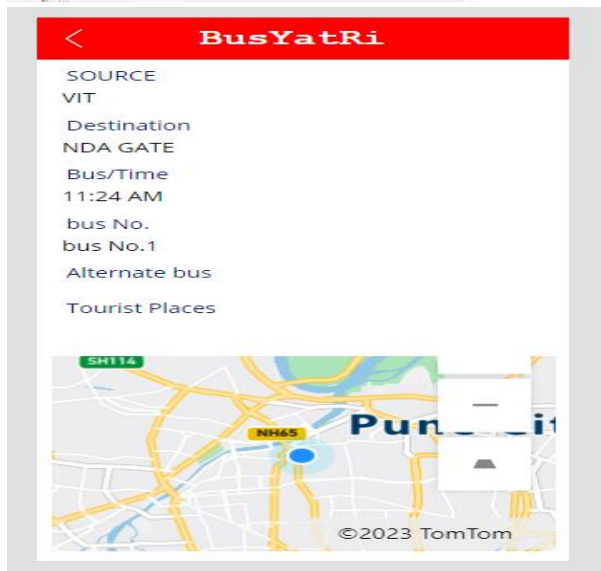
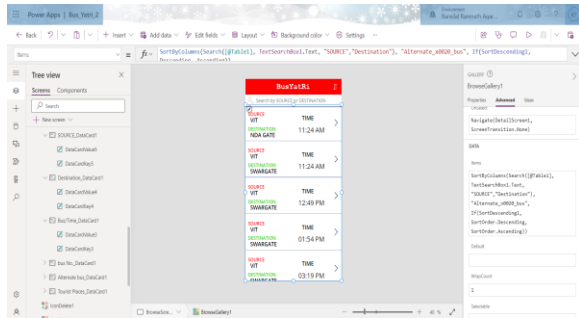
`SortByColumns(Search([@Table1],`

`TextSearchBox1.Text, "SOURCE","Destination"),`

`"Alternate_x0020_bus", If(SortDescending1,`

`SortOrder.Descending, SortOrder.Ascending))`

`Navigate(BrowseScreen1).`



### III. TESTING

The app can be ran on powerapps in build simulation and we could see Realtime changes made in the bus schedules made in app. For testing we have chose a short path so that we can complete the prototype in given period of time and we were able to show the required data successfully.

### IV. RESULTS AND DISCUSSIONS

The outcome was to make a app which provided user friendly interface and we were able to achieve a prototype of app on a short route of our test made by our group. We were successfully able to make a portal in which entry of data will be easy. Data updating was a big challenge because buses timing are not as stable as of trains so to solve that we uploaded data on a excel sheet and then linked it to powerapps so that when required one can change the data on changed timing of buses.

### V. CONCLUSION

This app will help new people in pune or if extended the scale any city in traveling via bus a cheap public transport preferred by most of the people. This app will be a handy tool to ease people's daily life, and it will definitely help people who have to use the bus every day because it shows the bus timetable. It will be a useful tool and will change the lives of many people. Students will also benefit from this application as they are those who change cities for study and need a bus to get around.

### VI. . ACKNOWLEDGMENT

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