

Final Year Project

Transit Pakistan

Smartest Way to Ride Karachi Busses

BSE – 7A Students Group
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Abstract

Karachi is the biggest city of Pakistan, whose population is about 14,500,000 inhabitants with more than 2 million people commute through public transport each day. Yet vast majority of these commuters have obscure information about public transport routes. We believe that people should have access to all transport information for their destination. Transit will enable people's access to public transportation information like bus routes along with other cost-effective travel options like cab service. This will empower commuters and increase the reach of urban transport.

Acknowledgement

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1. Introduction

1.1 Motivation

Everyday 2 Million residents of Karachi uses public transport. There are a number of options available to these commuters including Buses, Mini Buses, Coaches, Chingchis, Rickshaws & Taxies. Yet an average commuter still wastes around 20 minutes per day waiting at the bus stop doing absolutely nothing which amounts to wasting 10 days per year. Moreover, vast majority of these commuters have obscure information about public transport routes.

1.2 Scope of Project

Transit will enable people's access to public transport information like bus routes along with other cost-effective travel options like cab service. The project will cover public transport routes, ride options, cost effective route & ride option, average time for each route along with a responsive highlighted visual representation of route on Map.

1.3 Benefits

With access to all transport information, people will be more likely to choose the best option available to them to travel to their destination. This will empower commuters of Karachi to be more reliable on public transport which in return will enhance the reach of public transport too.



Figure 1 - Buses of Karachi

2. Software/Hardware

2.1 Transit Tool

Transit Tool is the main tool that is used to create the backend structure. Transport information is feed into this tool which in turn formats this information to XML markup & file based database. Transit Tool is developed on Visual Studio format using C# Programming language.

2.2 Information Processing Server (Online)

These XML markup files are incorporated into API on transipt.pk's online information processing server. This server comprises of combination of MySQL Database & File Based Database. This will provides API access to database via PHP.

2.3 Android App

Transit App will be a mobile application develop for Android Smartphones. Users will enter their Starting Point & Destination Point details in the app which will send the query to online server at Transit.pk via its API. The Information processing server at Transit.pk will process the information & apply its algorithms. The results of these processes will be sent back to user on his/her smartphone. Android app will be developed on Android Studio using Java Programming language & XAML.

3. Diagrams

3.1 How Transit Works

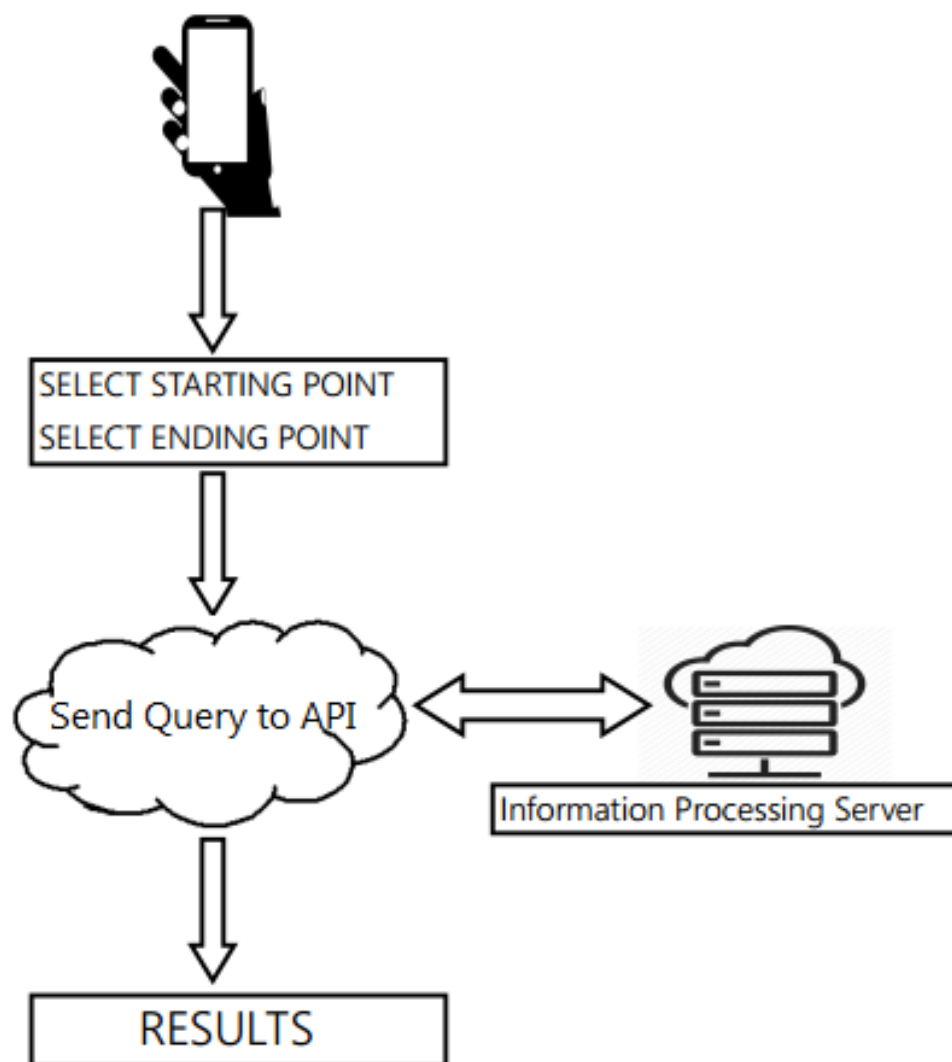


Figure 2 - Figure Illustrating Transit's Process

3.2 Work Breakdown Structure

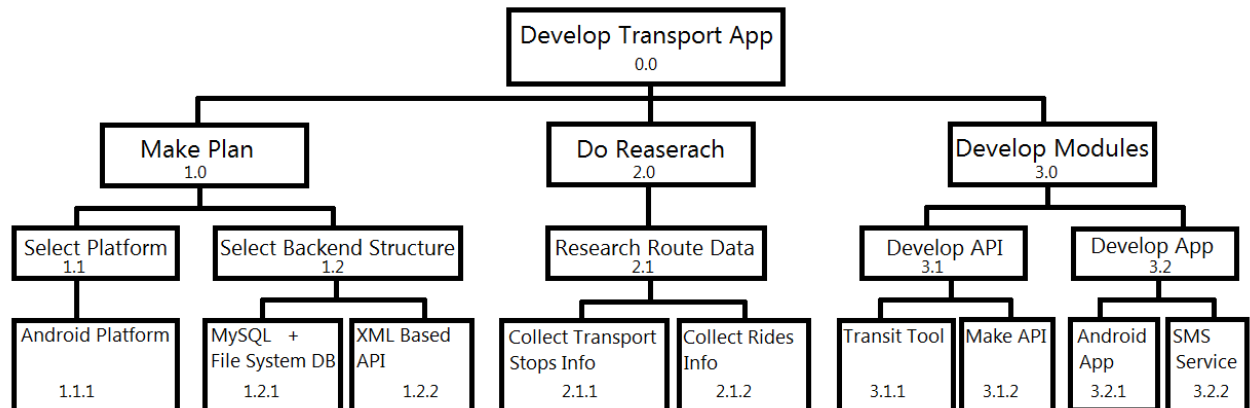


Figure 3 - Figure Illustrating Work Breakdown Structure of Transit

3.3 Gantt Chart

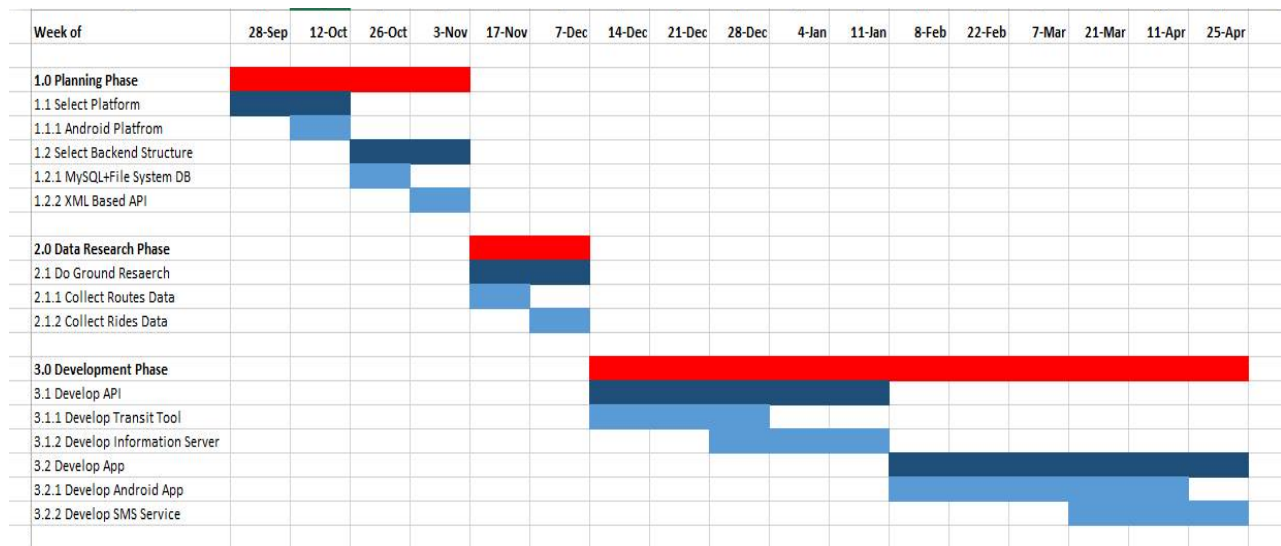


Figure 4 - Project Gantt Chart

4. Conclusion

Transport is the backbone behind the largest GDP generating city Karachi, so the problems faced by 2 million of its commuters need to be addressed. Transit will play an important role in minimizing the problems related to informations of routes & rides. Not only will this enhance the people's reliability on public transport but it will also increase the reach of public transport.