**CHAPTER 4**

**4.1 Project Purpose and Scope**

**4.1 Purpose:**

The main purpose of the project is to find the best and short route of the bus which the users selects. We propose the application in android which is a handheld device and being used by many people. We used Google Map for the map view for both driver and user. And the location service which is prebuild with Android phones. We propose a tracking mechanism which displays the live location of the diver and the user. This helps the user to track the bus efficiently.

**4.2 Project Scope:**

The necessary hardware is the android phone which is being used by more people. This means that our solution is low cost and easy to deploy. It supports the “Bring your own Device” paradigm; users only need to install an app on the device they already own. From the user viewpoint, enabling the mobile data and location service is enough to fully utilize the application. The same applies for the driver side. The application works well even when user wants to see the status of the two different buses at the same time.

**4.3 System Features:**

We implemented JSON to store our GPS location of the Bus Driver Application. Our library is designed to run well on different android version and provides a better user interface.

**4.4 Design and Implementation Constraints**

**4.5.1 Constraints in Analysis**

* Constraints as Informal Text
* Constraints as Operational Restrictions
* Constraints Integrated in Existing Model Concepts
* Constraints as a Separate Concept
* Constraints Implied by the Model Structure

**4.5.2 Constraints in Design**

* Determination of the Involved Classes
* Determination of the Involved Objects
* Determination of the Involved Actions
* Determination of the Require Clauses
* Global actions and Constraint Realization