**Bus Notification System**

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**Abstract**

Our project is a bus mobile application specialized for students and bus drivers to track each other’s when students are going to school in the morning.

As this application notify a bus driver if the next student is ready for going to school or not, also this application notify the student if the bus is near or not and get his location using GPS.

* 1. **Introduction**

In this time in our days in morning when students go to their schools by busses they face a problem that they don’t know where the bus is and the bus driver doesn’t know if the next student he should take is ready or not, that leads to make a bus and students to be late for their school, so this application allow bus driver and students to know if they ready to go and their locations by using GPS and Google maps.

* 1. **Problem Statement and Significance**

1. Students are late usually because of the bus
2. The bus driver doesn’t know if the student are going to the school until he go to his home and it make a late in time to go to school.
   1. **Proposed Solutions**

Design a mobile application that can access location of the bus driver to allow students to know where the bus is and make them ready for going to school. Also to notify a bus driver if the next student is going or not to the school in this day that provide a lot of time to the driver to go to the school.

One extra thing for this application that we can make is notify the school department with more information about the school bus location in the current time.

* 1. **objectives**

1. Design effective application for bus deliver, students, and for the school department.
2. Provide Information for the bus location.
3. Notify the bus driver if the next student is going to school or not.
4. Notify students with the current bus location.
5. Notify the school department with the current bus location.
   1. **Project Domain and Limitations**

This application will cover the students that are going to school by bus to know the current bus location, also will cover the bus driver to allow him to know if the next student are ready to go to the school or he will not go, and this application will cover the school department to get notification about the current location for the bus and a notification if the bus changed his way, This application covers the Riyadh region.

* 1. **Motivation**

The survey has shown that students and bus drivers are interested in the planned project. For optional activities, the project team plans the following motivational tools:

* We will organize a meeting with the students and bus drivers and show the benefits of the application.
* Make a monthly prize for a student who will react and use the application a lot for providing information.
  1. **Methodologies**

Our methodologies to achieve the specified objectives states earlier in the project first, We will use iterative waterfall model and collect information from many resources, such as Google maps and GPS to get children location, also we will use interview and questionnaire. Analysis the requirements of the data using Entity relationship diagram (ERD), use case diagram and class diagram, Also, we will design the system modules, interface and data to satisfy specified requirements using flowcharts and then implement the project by using Google maps and GPS to set up the application.