Android Application for Efficient Management of Transport System

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Abstract
The construct behind our plan is to implement an android application for the economical management of college bus system. Hence by developing an application like this the overhead along with Bus Management System can get a larger relief. Thus, this application will provide information regarding the whole details of the bus system like Bus Root, Bus Number, Student details, bus Time etc. by storing onto an information. And also this can provide an extra feature of message delivery system for the users (in case if there is delay for the bus) as well as for the management over some circumstances, in addition to that bus locating facility for the passengers. The key advantage is seems to be a gift of modern way of practice which is not common at present.

Keywords -*SpotMyRide, JSP, HTML, SRS*

INTRODUCTION
In today's life, we have so many deadlines to fulfill. We are busy with our daily activities. We have no patience in waiting for anything. There is always a wish to do certain activities computerized rather than manually.

The SPOTMYRIDE was developed to provide user friendly software that helps us to track the college bus in real time. This application is intended to provide information to the staffs, students and guests regarding their bus details includes the time at which bus reaches each stops, about route etc. in a much easier way via internet. Making advantage of internet facility storage and retrieval of data can be done from anywhere.To develop a fully functionally centralized and computerized bus management system that will show the location of the college bus and predict time when the bus reach our place.
It handles 3 different type users like staff, student and guest. This application is developed to avoid the users waiting for the college bus for long time. It makes them easier to know the location of the bus and access this application faster.

The SpotMyRide application is developed for making easier access for the college bus. This application is indented to support different levels of users like staff, student and guest. Since the system application is password protected, there is a high level of data security is assured.

LITERATURE SURVEY
Android is a relative new platform. It is produced by Google, Inc, and its first release was presented in 2007. Android is installed on many different mobile devices and its users can download Android apps and other content through Google Play service, which replaced the old android Market.

Google claims that android powers millions of phones, tablets and other devices phones and tablets are mobile devices that can have android applications installed on them. These applications are written in java programming language and

they are called mobile device applications or apps. Development techniques for apps are structured sets of java code focused on implementing particular tasks that provides content for a mobile device application although java programming includes a broad variety of topics.

Many authors describe android application development fundamental which include setting up android development environment on the machine. Android Manifest.xml file, activities, intense and XML layouts. Jackson (2011) outlines" three major components of an Android Development environment: Java, Eclipse, Android" and provides instructions on how to download and install necessary files to establish this environment. Felker does not explicitly state the components but rather points out that Java JDK, Android SDK, Eclipse IDE and Android ADT need to be installed and configured on a machine. The steps provided by these two authors are standard.Ableson, King and Sen present "four primary components of android applications": Activity, Service, Broadcast Receiver and content Provider. It is noted that "a particular android application might not contain all of these elements, but will have at least one of these elements, but will have at least one of these elements". Since Activity "displays a UI and responds to system and user initiated events", it is used very frequently for Android applications. These activities are declared in AndroidManifest.xml file, which provides "the foundation for any android application".

Activities present their views through XML Layouts and "communicate" with each other through intents. Clear understanding off these concepts and java programming language is a prerequisite to start implementing the development techniques used in Android applications.

Both Uber and Ola track taxi and provide relevant information to the end user .Both companies share many things in common. They have real time tracking of their cabs which help the user in spotting them. These applications also have a notification system which notifies the user when the taxi is nearby. These applications allow any user to book their taxi and assign a location for their pickup on a map.

EXISTINGSYSTEM
There are many systems for tracking vehicles. Eg: Indian Railway. In case of road there are uber, ola etc… In the colleges there are no possible mechanism to track the college bus. Normally the staffs, students and guests make use of the college bus. The staffs and students may miss the college bus and sometimes they have to keep waiting long for the college bus. And also if the current route of the college bus changes by chance due to any reason, the users will not be aware of it.

System Overview
A SRS may be a complete description of behavior of the system to be developed. It includes a group of use cases that describes all interactions the user can have with the software's. Use cases additionally referred to as practical needs. Additionally to the employment cases, the SRS additionally contains nonfunctional (or supplementary) needs. Non-functional needs are needs that are constraints on style implementation (such as performance engineering, quality commonplace or style constraint).

The SRS totally describes what the software system can do and the way it'll be expected to perform. It's a comprehensive description of the supposed purpose and therefore the atmosphere for software system below development.An overview of the practicality of the merchandise. It describes the informal needs and is employed to determine a context for the

technical demand specification. The necessities specification section, of this document is primarily for the developers and describes in technical terms the detail of the practicality of the product. It's an online primarily based android application, aims to produce complete services for its users like staffs, students and guests. The management of the net server remains within the hands of administrator and therefore the management of the robot application remains within the hand of the users.

SpotMyRide is a web based android application basically aims at tracking the college bus in real time. The staffs and students can use SpotMyRide by registering to this application. The guest need not have to register to make use of this application. Administrator then confirms their registration. Then the users can make use of this application.

PROPOSEDSYSTEM
Features of existing system and additional features are included to introduce an application called SpotMyRide. It is an easy to use android application. We can track the College Bus in Real Time using this application.

Feasibility study is not solve the problem, but to determine whether the problem is worth solving.This to decide whether to proceed with the paper or not.The feasibility study concentrates on the following area.
1. Operational Feasibility
2. Technical Feasibility
3. Economic Feasibility

Operational Feasibility
Operational feasibility study tests the operational scope of the software to be developed. The proposed software must have high operational feasibility. The usability will be high for the targeted users.

Technical Feasibility
Technical feasibility is one of the first studies that must be conducted after the paper has been identified.This paper is technically feasible.

Economic Feasibility
The feasibility study is an evaluation and analysis of the potential of a proposed paper. It is based on extensive investigation and research to support the process of decision making.This paper is economically feasible.

TECHNOLOGY SPECIFICAION
JAVA SERVER PAGES (JSP)
Java server pages (JSP) is a technology for developing web pages that support dynamic content which helps developers insert java code in HTML pages by making use of special JSP tags, most of which start with <% and end >.A java server pages component is a type of java Servlet that is designed to fulfill the role of a user interface for a java web application. Web developers write JSPs as text files that combine HTMLor XHTML code, XML elements, and embedded JSP actions and commands.Java server pages often serve the same purpose as programs implemented using the common gateway interface (CGI) .But JSP offer several advantages in comparison with CGI.

Performance is considerably higher as a result of JSP permits embedded Dynamic parts in html pages itself rather than having a separate CGI files.JSP are invariably compiled before it's proceed by the server in contrast to CGI /perl which needs the server to load an interpreter and therefore the target script on every occasion the page is requested. Java server pages are engineered on high of java servlets API, therefore like servlets, JSP conjointly has access to all or any the powerful enterprise java apis, together with JDBC,JNDI,JAXP etc.JSP pages is employed in combination with servlets

that handle the business logic, the model supported by java servlet example engines.

CONCLUSION AND FUTURE WORK

The system has been developed with much care that it is free of errors and at the same time it is efficient and less time consuming. The important thing is that, this is new concept and less expensive when compared to other existing software. It goes through the phases of software development cycle. So product is accurate.The great learning experience comes from the work carried out using JSP and MY SQL. In the future SpotMyRide will get ported to other operating systems. SpotMyRide can be useful for all other colleges and can be successfully integrated or can be replaced with their existing systems. Bus fees structures will be provided within the app. Bus fee payment through an online payment gateway also be added in the future.

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