Online Management Of Enterprise Resource Planning (ERP) For Gurukul Application (Omega)

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Abstract—This Online Management of Enterprise Resource Planning for Gurukul Application is mainly designed for the overall development and management of the class. The features which are included in this application are as follows: attendance, remarks, time-table, notices, and study material, information of the students, Sending messages, and result history of the students. This application maintains a database at the server which will be accessed from the cloud. The features of this application provides an easy hand for the teachers as well as it will help in improving the performance of the students as there will be interaction between the teachers and the parents of the ward. In the movement of Digital India this is a step forward to make the management of the college digitized.

Keywords—android; attendance; remarks; timetable; study materials; notice; messages; information; result;

I. INTRODUCTION

World is moving toward digitization in this growing world of technology and the use of internet it has become very important that we move our concern toward the management of the college. For an instance a person may forget their wallet but can never forget to check their phones. Taking the advantage of this fast growing attraction towards the Android Applications we have designed an application that will not only be user friendly but the most beneficial for the students, teachers and the parents. The fast growing technology is somewhere affecting the behavior of the students and ultimately their career and the kind of human being they become. The fast growing educational institutions has now made the career path easy and opportunistic but at the same time it has some where affected the values and the ethics of the students. The students at very small age go away from their homes and parents to gain education this is no doubt good but at that age the nurturing of the students is also very important. The teachers cannot always keep an eye on each and every student as to whether they are on the right path or also it is not possible for the parents to call up the staff daily and ask about their wards where about. To make this whole problem simplified, OMEGA is the answer which manages the class and the students very properly and accurately and the most important thing is it provides the interface between the teachers and parents. This application will make the college go online as it will provide all things right from the notices to the result online.

In our project we have proposed an Android based application which will be handling all the college affairs and the data will be stored in the server which will be accessed through the cloud. This application will be user friendly as well as it will provide high level of security. Internet connection is must for some features but the rest can be managed offline. This application will store all the database of the students which will allow them to get an easy access on their data also this will help the Training and Placement department for managing the placement in better manner.
II. LITERATURE SURVEY

Many systems are developed before for managing the class but all had some or the other flaws. Teacher kit application was developed in 2014 which was user friendly and had features of marking the attendance and giving the remarks to the students but other things like the study material and notices and also the university data like the results were not provided by this application. This application was although good but it did not manage the class entirely. It was basically meant for the attendance management of the class. Other system was actually like a software which managed the attendance online but the staff has to fill in the records everyday it was only saving a little of the paper work but nothing more than that. Another application was the class DoJo app which had many extra features but it did not have the attendance module. Also it provided the interface between the teacher and the parents but the students were not able to contact with teachers and so this ultimately did not help the students improvise their performance.

The application developed so far did not provide the information like the fee structure, time table, details about the result, stationary fees, notices also for everything there was a different application in our proposed application we are providing all the facility in the same application. OMEGA is like all the things at one place on a click.

III APPLICATION OVERVIEW AND DESIGN

This application is the answer to all the problems faced by an institution in managing the class room. This application is an android app and it provides all the features in the same application. The students database will be created by them by filling up one form which will contain all the personal details this form will be stored in the database and the application will this data as and when required. The students, teachers and the parent’s first need to download this application using the APK files developed for their android handset. The students and the teacher’s first need to sign up and they will get a login id and a password which will be used to authenticate the user. The parent’s will get the login id depending on the database of their ward. Once they login they will get access to various features but only the authenticated user can access the respective features. This application is a complete package to manage the class.

IV. SYSTEM OVERVIEW

The application we designed is for managing the class room it will be useful to the students staff and the parents. It will also easy the work of the office department. The one who wants to use this application needs to first download its APK file on their android handset. After installing the application the user will get two options like sign in and sign up. Every new user has to sign up first. Once the user selects the sign up option they will be redirected to fill up a form where they will enter all their personal details and depending upon whether they are student, staff or office member they will be given a user id and password. This will be used by them later to log in to the application. Once the user logs in they will get access to various features like attendance, remarks, messages, report, uploading and downloading, notices, reviews and blogs. There will be complete interaction between the teacher parents and the students. Everything will become very easy than before also this will save lots of time and energy.

V. SYSTEM DESIGN

OMEGA application is a class manager application which is a client server based application the main challenge is maintaining the database up to date and integrating the hardware and the software properly.

5.1. Application Module
3.1.1. Database.

5.2. Software Architecture
The database handles the back end of the application and it is to be regularly updated. For our application we are using php MySQL. Updating the database using php is easy and fast. The database is made of number of tables which stores the data of the entire user, this bid data can be handled properly using MySQL. MySQL is easy, fast and efficient and requires a little configuration.

3.1.2. Application Program. : The application program is developed in Android SDK using Eclipse framework. Android is open source and programming in android is simple, user friendly and android offers excellent data connectivity.

3.1.3. Cloud Server. : We are using cloud as a server.

3.2. Hardware Architecture
The main hardware required for OMEGA is an Android handset on the client side where the application will be downloaded. A personal computer is required on the server side for maintaining the database and a cloud server for handling the application.

VI. METHODOLOGY AND FLOWCHARTS
Security is an important factor in any application. Here in OMEGA the most important thing is authentication. Only authorized user can have access to the features provided to them. The user will be authenticated using the user id and password given to them based on their department and the type of user they are. OTP facility is used while sign in to validate the details provided by the user.

After the user starts the application they will get options like home, staff, students, contact and about us. The institute using this application can put their institutions URL in the home module. The contact section will contain the contacts off the institution. About us section contains the information on the application and the developers. If the user is a staff member they will be asked for the user id and password. Once they log in correctly, they will get access to the features like marking the attendance the report of the attendance will be generated automatically by the application and this can be sent to the student, parents and the HOD, remarks where they can give remark to any student, uploading the study material, uploading the notice, the message facility provides with the provision to contact the parents of any student, the time table will provide the staff an easy way to update the time table and also make changes easily as and when required. The students will have access like viewing their attendance and remarks they can also view the notice and download the study material. The parents will get an access to the wards attendance report and remarks. They can also contact the staff by using the message and call facility. The office section can upload the notices also they can upload the fees structure and the results.

Following flow chart explains the complete flow of the application:
VII. ACKNOWLEDGMENT
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CONCLUSION
The Online Management for Enterprise Resource Management of Gurukul Application (OMEGA) is
a standalone application which will give a soft hand to staff, students and even parents to access the
information easily. The app consist different features including the attendance management, remarks
facility, notices, time-table, study material; information using which the staff and students can
utilizes their time effectively. The app also gives an upper hand to parents to view their wards
performance.

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