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An Android App for Gate Pass Management System

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A B S T R A C T

Education is an essential element in our life in order to build a better future for young generations. A school must have a better communication platform between teachers and parents to ensure collaboration in monitoring the children's education. Due to time confinement and restrictive schedule, parents nowadays are not able to monitor their children's progress accordingly in terms of school activities and student performance. Not even able to make time for children's school visits. Furthermore, instructions from the teachers to the parents were not delivered properly. These are caused by multiple factors such as the inability to deliver messages correctly due to young age. Therefore, this app proposes an online guest system. The guest app will be built into the mobile application system. There are a few features in the guest app involved such as taking teacher appointments via app. This system is specifically designed for primary school students. The rapid Application Development (RAD) cycle is chosen as a methodology to develop this guest app. By having this guest app, parents and teachers can meet and collaborate to monitor the students' performance.

Keywords:Android, Firebase, Gate Pass, Teacher-Parent Appointment

1. INTRODUCTION

In the current school/college system parents and teacher meetings are done manually. Just like if a parents want to meet a teacher then on parents' meeting day parent can meet. Even on another day then parents need to enquire a lot. So overall this process is traditional and time-consuming. So to overcome this we need to make this process faster and that can be done digitally.

Here we are developing an android app that will arrange a meeting between parents and teachers. Here 2 apps are developed one for teacher and another for a peon. When a parent arrives at school/college to meet a specific teacher then peon takes a photo of the parents and adds details like the parent's name, the reason for the meeting, date, time, and more. All this information is sent to the particular teacher with whom the parent wants to meet.

The teacher receives the request of the parent sent by the peon. The teacher has two options to accept the request or reject the request. If the teacher accepts the request then that gets notified to peon and then parents meet with the teacher. So overall this process is digital and the same it keeps records in a real-time database too. As each can check anytime on which date individual parent come to visit and for what purpose and all. So overall this makes the meeting process simple and traceable.

2. METHODOLOGY

This application aims to connect the teacher and parent. The objective of the project is to build an application that will allow fixing an online appointment with the teacher. The online system for booking an appointment responds to the current needs of the institute. The purpose of the application is to create a software product that will help as many users as possible.

Fig. 1– Use case Diagram

3. PROJECT TRACKING

This application aims to connect the teacher and parent. The objective of the project is to build an application that will allow fixing an online appointment with the teacher. The online system for booking an appointment responds to the current needs of the institute. The purpose of the application is to create a software product that will help as many users as possible.

Proposed System

The current system of school system works manually and is quite time-consuming. The main objective of this project is to develop an android application so that parents can book the appointment online directly from their smartphones and receive a message on their own phones. Thus the process of meeting teachers will become easier and less time-consuming. Just to make the current system easier and more effective we are developing an android application. In this application, the parent will send an appointment request to the teacher. If a teacher is free he will approve the parent's request else he will reject the request

System Analysis

Android Studio and Firebase are used for developing our project which is available everywhere. It provides the technical guarantee of accuracy, reliability, and security. The current system development is technically feasible with all the resources needed for the development of the apps as well as the maintenance of the same is easy,

Requirement Analysis

- ✓ **Hardware requirements –**
  Processor: 2.2 GHz CPU
  RAM: 8 GB
  Device: Android Phone
- ✓ **Software Requirements –**
  Development Tool: Android Studio
  Android O.S: Kit Kat & Above

4. TOOLS AND TECHNOLOGIES

A. Hardware used in PC
  1. System type – 64-bit OS
  2. Installed memory - 4 GB and more ram

B. Software Tool Used
  1. Microsoft windows 7 or above.
  2. Android Studio
  3. Firebase Database
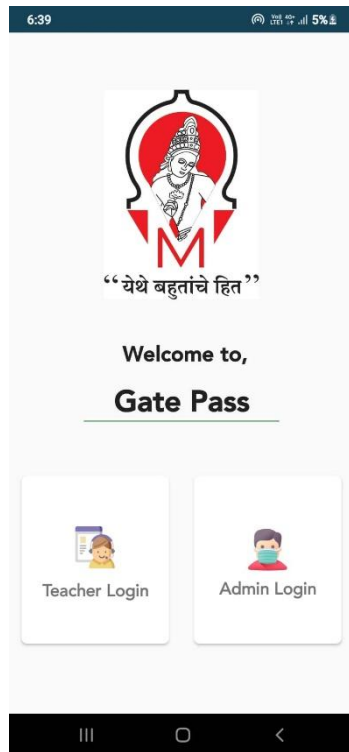 4. Java Development Kit

C. Platform
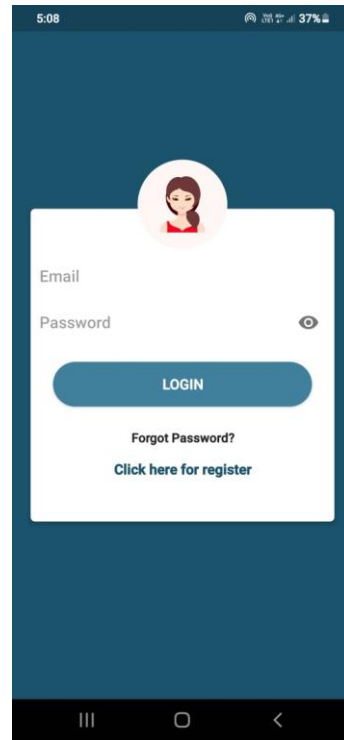 1. Android Phone

Fig 1Select Login page

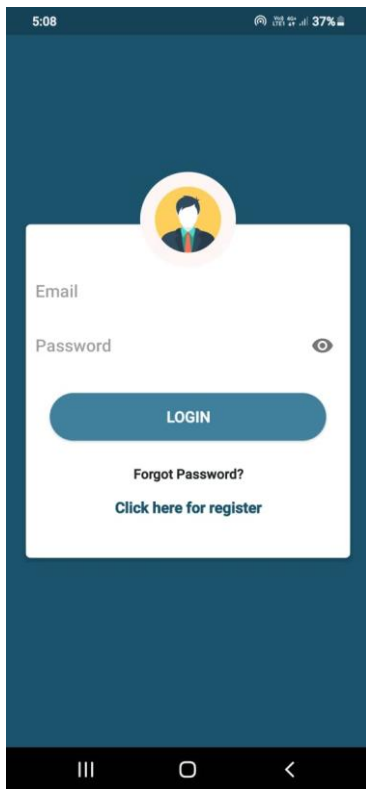

Fig 2Teacher Login page
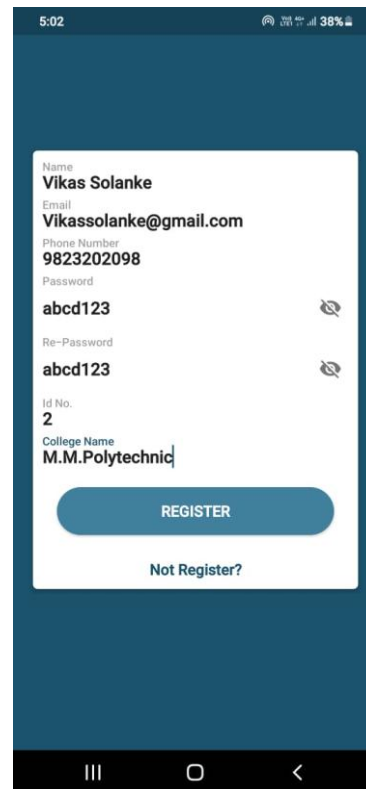
5. SCREENSHOTS OF APPLICATION
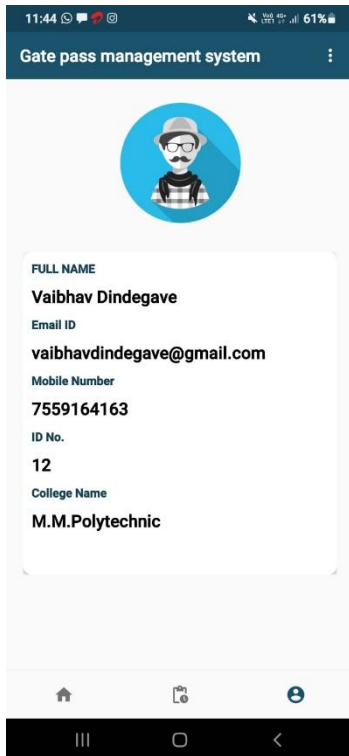

Fig 3 Admin Login Page

Fig 4Registration Page

Fig 5Teacher profile

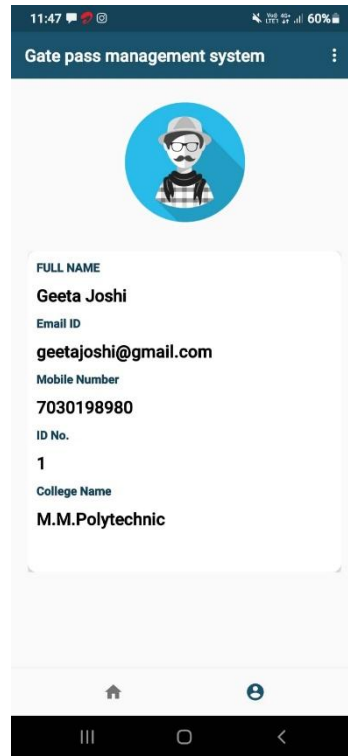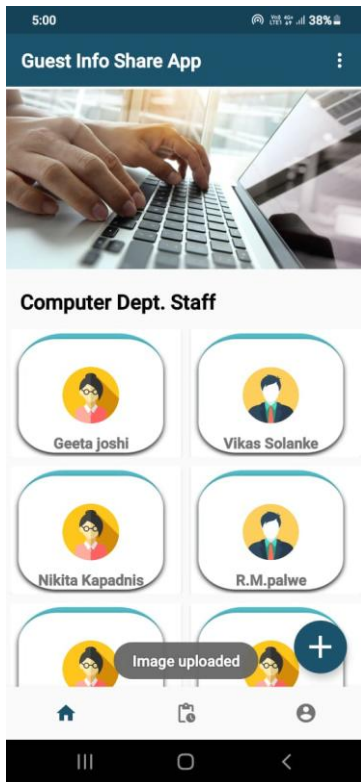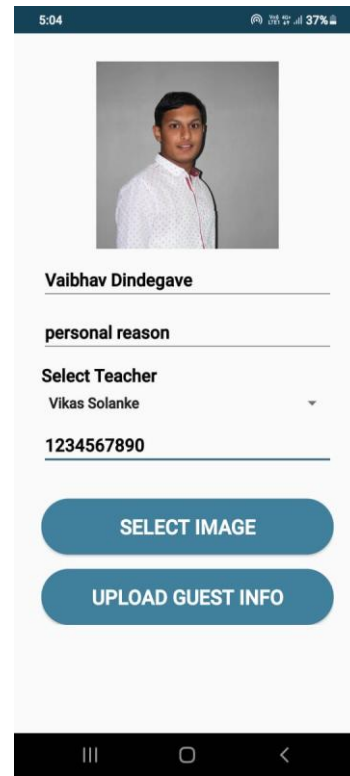Fig 6Admin Profile Page
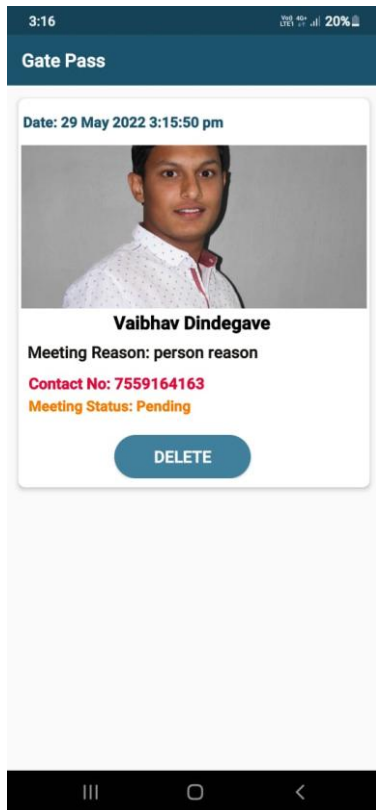

Fig 7Teacher Staff

Fig 8Sending request to teacher

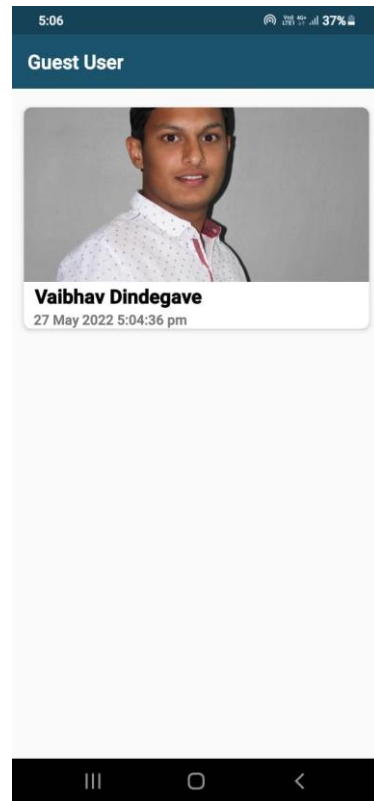Fig 9 Teacher side request
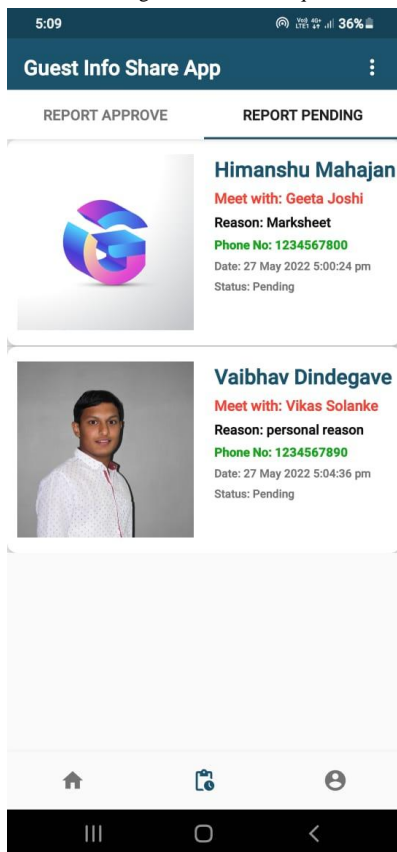

Fig 10 Admin side Staff data
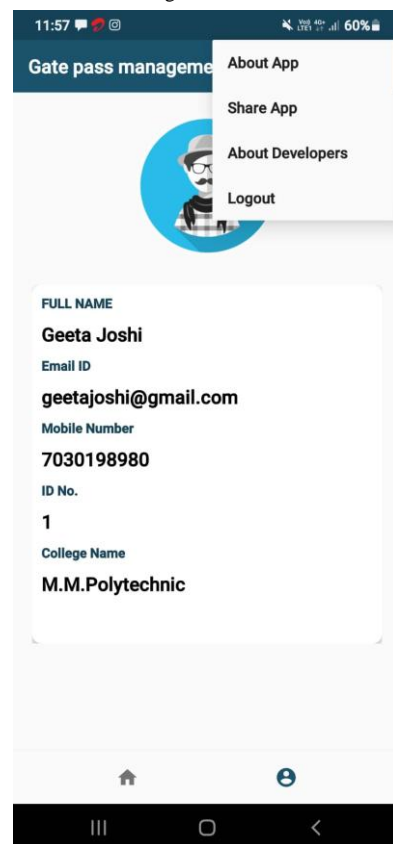

Fig 11 Admin side Approve pending report
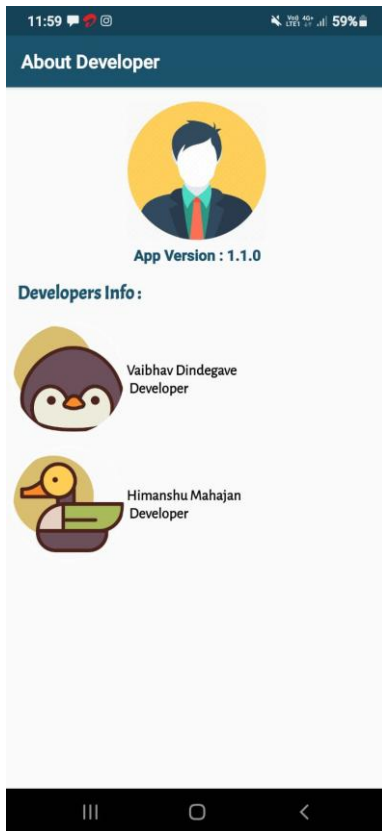

Fig 12 Menu Bar

Fig 14 About developer page

6. CONCLUSION

This application will simplify the process of parents-teacher meetings, The app will allow peon to send parent requests to teachers and teachers will be having the full privilege to accept requests or decline requests. The app also contains full records of which parents met which specific teacher and why parents visited and at which date, and time parents visited. Overall this app will connect parents' and teachers' meetings in an effective way.

The app has a backup that keeps a record, as in the backend of the app firebase real-time database is used to store data and provide security to data. So overall app is fully secured and data is processed in real-time. This app is completely useful to teachers and parents for arranging a meeting.

7. ACKNOWLEDGEMNTS

Perserverance, Inspiration & Motivation have always played a key role in the Success of any venture. At this level of understand it is difficult to understand the wide spectrum of Knowledege without proper Guidance and Advice, hence we take this to express our Sincere Gratitude to our respected project guide Mr.R.M..palwe who as a guide Evolved an interest in us to work and select an entirely new idea for project work.

<div align="right">Vaibhav Rajkumar Dindegave
Himashu Neharu Mahajan</div>

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