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SGP E-ATTENDANCE: A DIGITAL ATTENDANCE SYSTEM OF STUDENTS

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ABSTRACT

The SGP E-Attendance App is an android application specifically designed for re-liability of students in college. In this application their will be three login credentials for the convenience of user, one for the admin, one for student and rest for the parent. The admin login will be for teachers to upload the new data or delete the data. The student login is only for students so they can direct to the new page where they are able to see their attendance, the course material, they are also able to give feedback to the faculties, they can see their academic calendar, syllabus, new instructions from faculties (notices), and the last parent's login is for parent's convenience so they can easily get updated about their Childs overall performance. The reason behind putting the login is to increase the reliability of user so they can head over directed where they want or where they supposed to be, and to reduce the redundancy and make it clear for the user.

This app is based on android using Java language. All college related activities are going to reflect in this app. The reason behind choosing the java language is that it is object-oriented language, it has powerful development tools and have the huge community support, and it is independent and compatible platform.

This app is created for the help of students especially for the new students which are unaware of curriculum activities, course material, their attendance status, their academic progress status important notices and many more all at one place so it gets easy for the student to get this data only by entering their roll no or enrollment number, the student are also able to give feedback to the teachers by using this app anonymously due to which they can give their honest feedback. All the daily attendance or course materials and overall important things will be uploaded by the admin/teachers. This app is beneficial not only for students but also for their parents to know their children's daily status by knowing their attendance status, marks and overall performance by entering only enrollment number of the particular student.

.Keywords: Sanjay Ghodawat Polytechnic (SGP), Android app

1. INTRODUCTION

This app is based on android using Java language. All college related activities are going to reflect in this app. This app is created for student, parents, and teachers/admin. In this app we create login credentials one for student, for teacher/admin there will be website through which admin can retrieve the data and they have access to overall data related to the application ,which can be modified by them.

Benefits of making this app are:

- 1. It is useful for students to see their attendance, academic progress.
- 2. Parents can see their children's attendance, academic progress.
- 3. Teachers can add student attendance, study materials.

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In this application there is a login screen where the new users are directed at first glance, the new users have to register / to create new account. After student logged in student can fill their personal data, academics progress, they can also see the study materials, academic calendar, important notice, attendance. In teacher login / admin credentials teacher can login to this app. Teacher can login using their email id and password. After teacher logged in teacher can fill students regular daily attendance. They can also add study materials, important materials. For this we use SGP cloud as

database for storing and retrieving data. In parent login credentials parents can login to this app. Parent can login using student enrolment no, students name. After parent logged in parent can see their children attendance, academic progress, so that the parents get aware of there children's academic progress, many times, they are unaware of their child's student activities due to which leads to carelessness of students towards there academics, and many times they lose their year, therefore it important that parents are aware of academic progress of their child.

This application is developed for betterment and reliability of student and their parents.

2. LITERATURE REVIEW

The final project product will be an application based on android using Java language. All college related activities are going to reflect in this app. As we a computer science engineering students we have faced many problems when we were new in college in case of curricular activities. Such as students doesn't have any organized platform to get any college related activities at one place. They cannot get clear overview about their on going curricular activities' of the important or common problems are as follow:

- 1. The first scenario comes on the college attendance system, it totally opaque and normally students are unaware of their daily attendance. Due to this and as they are unaware some students keeps on being absent for long period of time. This leads to there lack of attendance, due to which they face many academic loses. If some- thing happens and they can see there daily, weekly, monthly attendance then there is chance to get that problem be sorted.
- 2. The next important fact that student can't find study materials at one organized place to that they can get that easily at one place.
- 3. Students often didn't know their academic progress, curriculum activities, important notices, due to which the face many further problems.
- 4. The teachers cannot showcase the student's daily attendance, academic progress through there marks, remarks and they can track their records at one place.
- 5. The parents also face a problem like this parent can't see their child's attendance, academic reports daily, so they are unaware of their child's student activities due to which leads to carelessness of students towards there academics.

So we thought that there should some facility which can take over this all problems, so we decided to create this app so one can face any problem like further. Therefore we decided to make this app to students can't face problems that we face previously. If we create this app student can see their daily, monthly, weekly attendance. They can also find study materials in this app. They can also see their academic progress, curriculum activities, important notices, and many more all at one place so it gets easy for the student to get this data only by entering their roll no or enrollment number. Students can also give feedback to the teachers by using this app anonymously due to which they can give their honest feedback.

If we create this app teacher can store students attendance, academic progress, students personal information, curriculum activities, important notices, study materials in one location. And also show the students attendance, academic progress in one document to parents. If we create this app parent can see their child's daily, monthly, weekly attendance, academic reports. Parents can also call to teachers if they want to discuss about their child's academic progress.

3. OBJECTIVE AND SCOPE OF PROJECT

3.1 Objective of Project

- The developed App will be a friendly user, which can be used by the students, faculties as well as parents.
- All the college related activities are going to reflect in this app.
- This App has created for the ease of student, so they can get clear overview of their curriculum and they will be in track of their activity status, due to this they can change or improve themselves.
- Mainly this App is developed for students, here students can easily overview on unaware curriculum activities, course materials, attendance status, etc.
- Also with the help of this app parents can keep overview on their child's activities, attendance, studies due to which they can keep track on them and so the student will be safe from their academic loses etc.
- Even faculties can change back-end details, attendances, academic progress and add new study materials to the app so they can easily
 provide essentials to students.
- Anyone can easily take an overview of all the student personal information, important notices, study materials of different subjects, curriculum, academic calendar, academic progress and all other things at one location.

All the information of college, faculties, different farms, records, and all other important details are stored in database so it is get easy to
faculties to get those.

3.2 Scope of project

SGP Student instructor is developed for the easy access for each and every person related to college. It is specially developed for the students of college and it is easy to access with the help of internet connection. As well the parents can also access this app. The students are also able to give feedback to the teachers by using this app anonymously due to which they can give their honest feedback. One can keep easily track of each details of any student at one place. The various data can be stored in this app by using data-base. It is open app where students can share or give feedback related to each faculties and app. This is a friendly user app, where all the details can be access after proper login.

This app is temporally created for our college but as it is useful for all students and parents and there betterment this project can be scaled up all can be useful for all students learning in an institute.

All tables should be numbered with Arabic numerals. Every table should have a caption. Headings should be placed above tables, left justified. Only horizontal lines should be used within a table, to distinguish the column headings from the body of the table, and immediately above and below the table. Tables must be embedded into the text and not supplied separately. Below is an example which the authors may find useful.

4. METHODOLOGY

4.1 Module 1: Main Page

After logging to this application, main page is derived. All the details about the college is given in this module. User can open this application and see the details about college, personal details of student, attendance and all other. All the updates are given of college through this application to all. All the database is handled by admin credential. In this page four main modules will their:

- Home
- Profile
- Attendance

4.2 Module 2: Home

Home page will be same as a main page. Little bit thing are changed and deep details are given in this module. User can see all the information about college, campus, infrastructure, trustees and all the staff members. Even user will able to see the person desk of admission process, fee structure, different domains, and campus (tie-ups) with different companies. By this module user can go to personal module.

4.3 Module 3: Profile

In this module user can see all the personal details of his/her which he fill up will login. Even some details he/she can edit here. As it is important for college students can edit updated data in this module by edit option. After editing update button is able so all changes will updated immediately. Even user can see academic progress in this module. Subject's wise progress is necessary for all the users (students as well as parents too). So academy progress is mentioned in this module. At last logged out options is given to the user. By clicking log out user will logged out and directed to login page.

4.4 Module 4: Attendance

In this module user will be able to see attendance of particular students. As per the semester user can see the subject wise attendance mentioned by the particular faculty. Even user is able to Q/A to the particular faculty by Q/A options given in this module. User is also able to see three different ways of attendance:

- Daily Attendance
- Weekly Attendance
- Monthly Attendance

By this user will be very clear regarding to his/her attendance and even get sincerely to this point. It will keep updated each and every day by admin.

4.5 Module 5: Study Material

In this module all the study materials will available for the users. User is able to collect course related study materials in this module. User can get all the pamphlets regarding particular subject, topic by their faculties or admin so the user can notify that immediately. Even some GR's are also able to see in this module.

5. FLOWCHART





6. SYSTEM CONFIGURATION

4.1 Hardware Requirement

- Android Device
- RAM 1 GB (min)
- Processor

- Version Android 9 and above
- Wi-Fi or Internet connection
- 6.2 Software Requirement
- Operating System Windows 7 and above, Android
- Languages Java, XML
- Tool Android Studio
- HTML , CSS , JavaScript
- Browser -Chrome, Firefox, Opera , UCBrowser ,etc.
- 6.3 Database Requirement
- Firebase

7. ARCHITECUTRE



Figure 6.2.1 Architecture

8. USE CASE DIAGRAM



6.1.1 Use Case Diagram



6.1.3 DFD Level 1

10. RESULT OF PROJECT

7.1 SNAPSHOTS OF PROJECT





PROFILE

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Snapshot 7.1.3 Profile

Snapshot 7.1.6 Reference

video

Snapshot 7.1.1 Login



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1 1 Comment	Dislike C TechSoft 02K subscribe	Share	Save	Report	BE ¢

Snapshot 7.1.2 Registration

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jdkd	dfgt		
Jurra	idkd		
	Junta		
scc	SCC		

SGP Instructor



Snapshot 7.1.5 Teacher reference Snapshot 7.1.10 Youtube Snapshot 7.1.9 Subject and Attendance

API: Desi

Bhasha Ma

Snapshot 7.1.10 Attendance Report

11. CODE OF MODULES



11.1 Login module

package com.dataflair.sgu.Model;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.media.MediaPlayer;

import android.net.Uri;

import android.os.Bundle;

import android.view.WindowManager;

import android.widget.VideoView;

import com.dataflair.sgu.MainActivity;

import com.dataflair.sgu.R;

public class Entry extends AppCompatActivity {

private MediaPlayer mediaPlayer;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

576

setContentView(R.layout.activity_entry);

 $getWindow(). setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN, WindowManager.LayoutParams.FLAG_FULLSCREEN); \\$

getSupportActionBar().hide();

VideoView videovideo= findViewById(R.id.videoView);

Uri video = Uri.parse("android.resource://"+ getPackageName() +"/" + R.raw.ssgp);

videovideo.setVideoURI(video);

videovideo.start();



11.2 Register module

videovideo.setOnCompletionListener(new MediaPlayer.OnCompletionListener() {

@Override

public void onCompletion(MediaPlayer mp) {

startActivity(new Intent(Entry.this, MainActivity.class));

finish();

}

});

package com.dataflair.sgu.Activity;

import androidx.annotation.NonNull; import androidx.appcompat.app.AppCompatActivity; import androidx.fragment.app.Fragment;

import android.os.Bundle; import android.view.Menu; import android.view.MenuItem; import android.widget.FrameLayout; import android.widget.Toast;

 $import\ com. data flair. sgu. Fragments. Attendance Fragment;$

import com.dataflair.sgu.Fragments.CreateClassFragment;

import com.dataflair.sgu.Fragments.ProfileFragment;

 $import\ com. data flair. sgu. Fragments. Student Fragment;$

import com.dataflair.sgu.Fragments.student;

import com.dataflair.sgu.R;

 $import\ com.ete barian.meowbottomnavigation.MeowBottomNavigation;$

import com.google.android.material.bottomnavigation.BottomNavigationView;

import java.util.ArrayList;

import java.util.List;

public class Student_MainActivity extends AppCompatActivity {

FrameLayout frameLayout;

MeowBottomNavigation bnv_main;

// SNavigationDrawer sNavigationDrawer;

// Class FragmentClass = CreateClassFragment.this;

public static Fragment fragment;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity_student___main);

//Assigning framelayout resource file to show appropriate fragment using address

//Assigining Bottomnavigaiton Menu

// sNavigationDrawer = findViewById(R.id.navigationDrawer);

//Menu add

List<MenuItem> menuItems = new ArrayList<>();

- // menuItems.add((MenuItem) new com.shrikanthravi.customnavigationdrawer2.data.MenuItem("News",R.mipmap.ic_launcher));
- // menuItems.add((MenuItem) new com.shrikanthravi.customnavigationdrawer2.data.MenuItem("Feed",R.mipmap.ic_launcher));
- // menuItems.add((MenuItem) new com.shrikanthravi.customnavigationdrawer2.data.MenuItem("Ok",R.mipmap.ic_launcher));
- // menuItems.add((MenuItem) new com.shrikanthravi.customnavigationdrawer2.data.MenuItem("Go",R.mipmap.ic_launcher));
- // sNavigationDrawer.setMenuItemList(menuItems);

bnv_main= findViewById(R.id.StudentBottomNavigationView); bnv_main.add(new MeowBottomNavigation.Model(1, R.drawable.home_icon)); bnv_main.add(new MeowBottomNavigation.Model(2, R.drawable.attendance_icon)); bnv_main.add(new MeowBottomNavigation.Model(3, R.drawable.profile_icon)); //Setting the default fragment as HomeFragment

//Calling the bottoNavigationMethod when we click on any menu item

bnv_main.setOnShowListener(new MeowBottomNavigation.ShowListener() {

@Override

public void onShowItem(MeowBottomNavigation.Model item) {

Fragment fragment= null;

switch (item.getId()){

case 1:

fragment = new student();

break;

case 2:

fragment = new StudentFragment();

```
break;
                           case 3:
                                   fragment = new ProfileFragment();
                                   break;
                  }
                  loadFragment(fragment);
          }
});
          bnv_main.show(2,true);
          bnv_main.setOnClickMenuListener(new MeowBottomNavigation.ClickListener() {
                  @Override
                  public void onClickItem(MeowBottomNavigation.Model item) {
                          Toast.makeText(getApplicationContext(),"OK", Toast.LENGTH_SHORT).show();
                  }
          });
          bnv_main.setOnReselectListener(new MeowBottomNavigation.ReselectListener() {
                  @Override
                  public void onReselectItem(MeowBottomNavigation.Model item) {
                          Toast.makeText(getApplicationContext(),"OK", Toast.LENGTH_SHORT).show();
                  }
          });
  }
 private void loadFragment(Fragment fragment) {
          get Support Fragment Manager (). begin Transaction (). replace (R.id. Student Fragment Container, fragment). commit (); the set of the set of
  }
```

12. ADVANTAGES AND DISADVANTAGES OF PROPOSED SYSTEM

12.1 Advantages

}

- It is easy to check all the college updates by using this application.
- Students as well as parents can also see the attendance of particular student through attendance module.
- All study materials will available in PDF format, so students can easily get study material by this application.

• All the unaware notices, curriculum activities, academic progress report and all other details of particular student will get at one place only.

12.2 Limitations

- All time internet connection is required.
- Ensuring the security of metering data.

13. CONCLUSION

This application is for betterment of students for their academic purpose. While doing this project we realized different problems occurring regarding to the students, we are trying to solve those problems through this application. While doing such a things are learning a lot of different things, technologies which are upskilling us. If is found useful then this application can be upscaled to different institutes and solving their problem as well.

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