VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"JNANA SANGAMA", BELAGAVI - 590 018

A MINI PROJECT REPORT

on

"STUDENT ACTIVITY APPLICATION"

Submitted by

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In partial fulfillment of the requirements for the VI semester

MOBILE APPLICATION DEVELOPMENT

of

BACHELOR OF ENGINEERING

in

INFORMATION SCIENCE & ENGINEERING

Under the Guidance of

Mr. Ganaraj K

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at

SAHYADRI

College of Engineering & Management

Adyar, Mangaluru - 575 007

2021 - 22

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CERTIFICATE

This is to certify that the **Mini Project** entitled **"Student Activity Application"** has been carried out by **Shrikanth (4SF19IS099)** and **Swaroop (4SF19IS111)**, the bonafide students of Sahyadri College of Engineering & Management in partial fulfillment of the requirements for the VI semester **Mobile Application Development (18CSMP68)** of **Bachelor of Engineering in Information Science & Engineering** of Visvesvaraya Technological University, Belagavi during the year 2021 - 22. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The mini project report has been approved as it satisfies the academic requirements in respect of mini project work.

Mr. Ganaraj K	**Dr. Shamanth Rai**
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External Practical Examination:

Examiner's Name	Signature with Date
1.	.....
2.	.....

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DECLARATION

We hereby declare that the entire work embodied in this Mini Project Report titled **"Student Activity Application"** has been carried out by us at Sahyadri College of Engineering and Management, Mangaluru under the supervision of **Mr. Ganaraj K** as the part of the VI semester **Mobile Application Development (18CSMP68)** of **Bachelor of Engineering** in **Information Science & Engineering**. This report has not been submitted to this or any other University.

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Abstract

A student activity application is a data management software that helps the students to digitize and efficiently manage their day-to-day activities. Application designed for managing student data come with various unique features that helps in reducing the workload of student. Student activity mobile application software consists of student related tasks such as easy time table management, exam schedules and grade calculator. The app also includes additional features such as a student can organize virtual copies of the notes according to the subject and manage them easily. The application therefore saves precious time of students in managing their virtual copies of the notes . The student can upload the soft copies and retrieve whenever they want. Calculator feature in this app will enable the student to access to different types of calculators , which will be help full to their education life. It also enables the students to customize the features according to their needs.

Acknowledgement

It is with great satisfaction and euphoria that we are submitting the Mini Project Report on **"Mini Project Title"**. We have completed it as a part of the VI semester **Mobile Application Development (18CSMP68)** of **Bachelor of Engineering** in **Information Science & Engineering** of Visvesvaraya Technological University, Belagavi.

We are profoundly indebted to our guide, **Mr. Ganaraj K**, Assistant Professor, Department of Information Science & Engineering for innumerable acts of timely advice, encouragement and We sincerely express our gratitude.

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Chapter 1

Introduction

The main purpose of education is the integral development of a person.Education means studying in order to obtain a deeper knowledge and understanding of a variety of subjects to be applied to daily life.Student Activity android application is a android based application system. In the current system all the activities are done manually. It is very time consuming and costly. This application reduces the manually taking the notes and managing the hard copy of the notes. The application has mainly three modules. The appliction manages the activities proposed by students. All the data inserted by student will be saved in the database.This student activity mobile application has helped to take notes in a relevant way. No users needs to spend time taking notes.It's a very easy way to take notes. Any kind of user can upload their notes at what time they want. Its takes very less time to open the "Student Activity Application".Due to the very easy design of these apps, students can also use this app to take their notes inefficient manner. The application has a calculator as an addition feature which helps the stduents to calculate the grades and basic calculator operation.

1.1 Purpose

The main purpose of Student activity application for students that can keep students organized and on track.This is useful app for students to collect, manage and upload the notes which is already in the system.Here students can store all notes and important information digitally.The addition feature of this application includes calculator.The student can calculate grades such as SGPA and CGPA and also can perform normal calculator operation.

1.2 Scope

The application is not only limited to manage the notes but also helps in uploading the required notes in to the database.The application also contains the basic, sgpa and cgpa calculators.This application is user friendly and also easy to understand to the students.This application will reduce the workload by storing the notes digitally.

1.3 Overview

As the name itself suggest, Student activity mobile application is to manage the essential information necessary for a student in a more efficient way. The application plays major role in managing and uploading the notes into the database as well as attempts to free the student as much as possible with the burden of manual calculation. Students can also use this app to take notes in efficient manner.

Chapter 2

Requirements Specification

2.1 Hardware Specification

- Processor : AMD Ryzen 5 5500U with Radeon Graphics 2.10 GHz
- RAM : 8GB
- Hard Disk : 512GB
- Input Device : Standard keyboard and Mouse
- Output Device : Monitor

2.2 Software Specification

- Programming Language :Java and XML1.0
- IDE :Android Studio
- Database: MySQL

Chapter 3

System Design

3.1 Architecture Diagram

The architecture diagram of the application is as shown in the below figure:

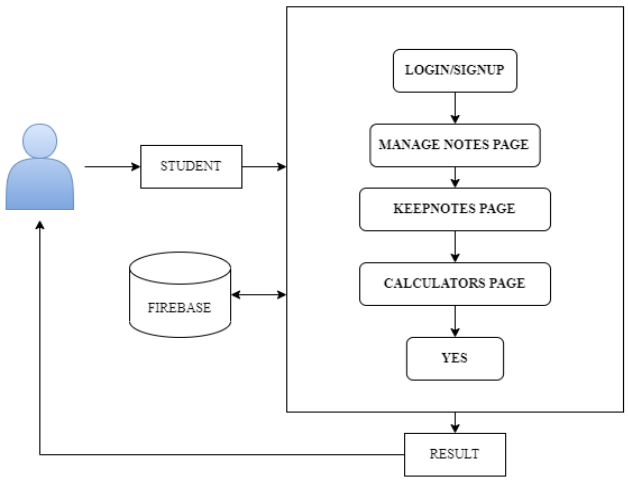

Figure 3.1: Architecture Diagram for Student Activity Application

First the student needs to register in sign up page and then the student can login to the application. Once logged in, the student will be able to access the features of the application such as managing the notes , taking notes and different types of calculators. The student can access three types of calculators such as sgpa ,cgpa and normal basic calculator. The student will be able to upload the virtual copies of notes to the firebase database using manage notes feature and also take note feature will enable to save short notes by giving title and discription.

Chapter 4

Implementation

The above code snippet of the login page retrieves the email and password from the user and compares it with the list of emails and passwords in the database. The firebaseauth is a class which is used to authenticate the users using email and password.

```
package com.example.edutrack;

import ...

public class Login extends AppCompatActivity {
    Button callSignUp , loginBtn;
    TextInputLayout email, password;
    FirebaseAuth firebaseAuth;
    TextView logoname;
    Animation topAim;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);
        getSupportActionBar().hide();
        firebaseAuth=firebaseAuth.getInstance();
        topAim= AnimationUtils.loadAnimation( context: this,R.anim.top_animation);
        logoname=findViewById(R.id.logo_name);
        logoname.setAnimation(topAim);
        callSignUp =(Button) findViewById(R.id.signup_screen);
        callSignUp.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new Intent( packageContext: Login.this, SignUp.class);
                startActivity(intent);
            }
        });

        email=findViewById(R.id.sig_email);
```

Figure 4.1: Pseudo code of login

The above code snippet will insert data to the database such as title and description of a note.The data which is inserted to the database can be deleted and modified.

```
package com.example.edutrack;

import ...

public class AddMarks extends AppCompatActivity {
    TextInputLayout edu_class,edu_mark;
    Button saveBtn,backBtn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_add_marks);
        edu_class =findViewById(R.id.edu_class);
        edu_mark=findViewById(R.id.edu_class_mark);
        saveBtn=findViewById(R.id.edu_class_save_mark);
        backBtn=findViewById(R.id.back_btn);

        saveBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) { insertData(); }
        });


        backBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new Intent(getApplicationContext(),SaveMarks.class));
//                finish();
            }
        });
    }
```

Figure 4.2: Pseudo code of note page

The above code snippet of calculator home page which connects three types of calculators such as basic, sgpa and cgpa calculator. which helps to navigate between different types of calculators.

```
package com.example.edutrack;

import ...

public class CalculatorActivity extends AppCompatActivity {
    public Button Sbtn, Cbtn, Nbtn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_calculator);

        Sbtn = (Button) findViewById(R.id.SgpaBtn);
        Cbtn = (Button) findViewById(R.id.CgpaBtn);
        Nbtn = (Button) findViewById(R.id.NrmlBtn);
        Sbtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new Intent( packageContext: CalculatorActivity.this, Sgpa.class);
                startActivity(intent);
            }
        });
        Cbtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent cgpa = new Intent( packageContext: CalculatorActivity.this, Cgpa.class);
                startActivity(cgpa);
            }
        });
        Nbtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
```

Figure 4.3: Pseudo code of Calculator home page

The above code snippet is for retrieving pdf from the firebase database . This code snippet displays all soft copies of which have been uploaded to the firebase database by the student.

```
package com.example.edutrack;

import ...

public class RetrievePDF extends AppCompatActivity {

    ListView listView;
    DatabaseReference databaseReference;
    List<putPdf> uploadPDF;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_retrieve_pdf);
        listView =findViewById(R.id.listView);
        uploadPDF=new ArrayList<>();
        retrievePDFFiles();
        listView.setOnItemClickListener(new AdapterView.OnItemClickListener(){
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
                putPdf putPDF = uploadPDF.get(position);

                Intent intent=new Intent(Intent.ACTION_VIEW);
                intent.setType("application/pdf");
                intent.setData(Uri.parse(putPDF.getUrl()));
                startActivity(intent);

            }
        });
```

Figure 4.4: Pseudo code of retrieve pdf page

Chapter 5

Results and Discussion

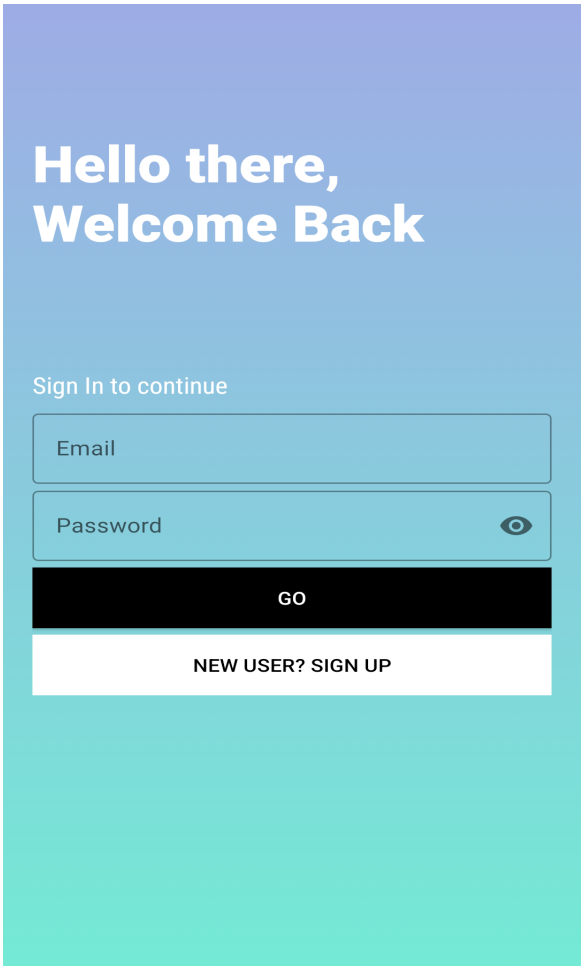

Figure 5.1: Login page

The above figure is the login page where the user logs in into the account by giving the email and the password. The user can also register by clicking the register button.

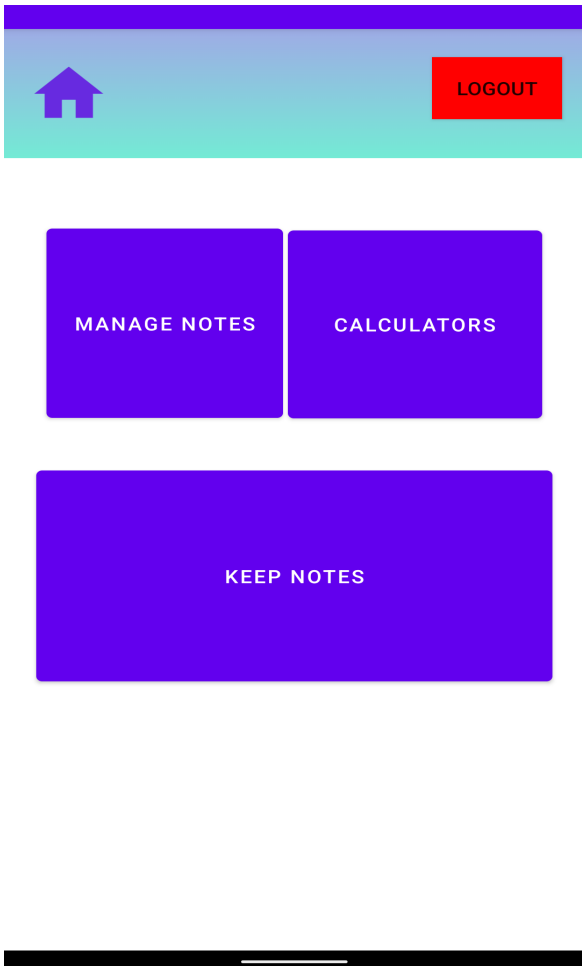

Figure 5.2: Home page

The above figure is the main page of the application which has three buttons through which student can use manage note, calculators and keep notes features.

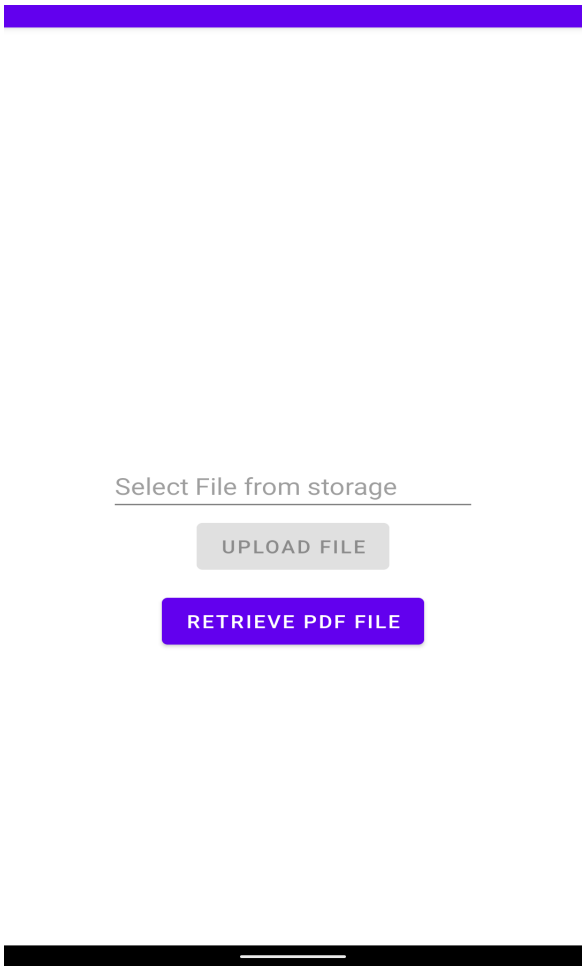

Figure 5.3: Notes uploading page

The above figure is the soft copy managing interface. In this student can select the particular soft copy from the system and upload to the database . The uploaded soft copy can be retrieved and it will directly gets downloaded.

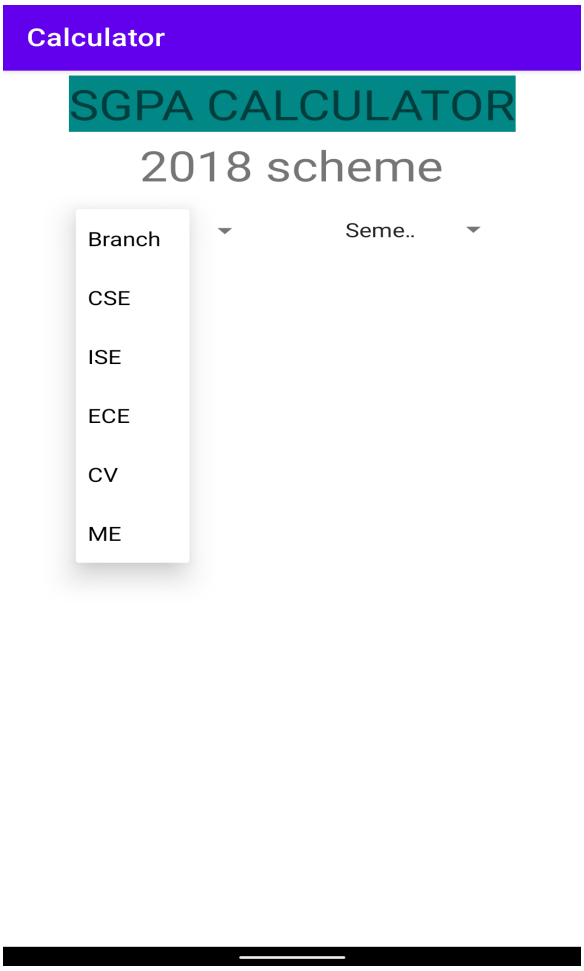

Figure 5.4: SGPA page

The above figure is the main interface of the sgpa calculator. The student has to select branch and semester in order to calculate the sgpa and percentage. This page will changes as the student select different branch and semester.

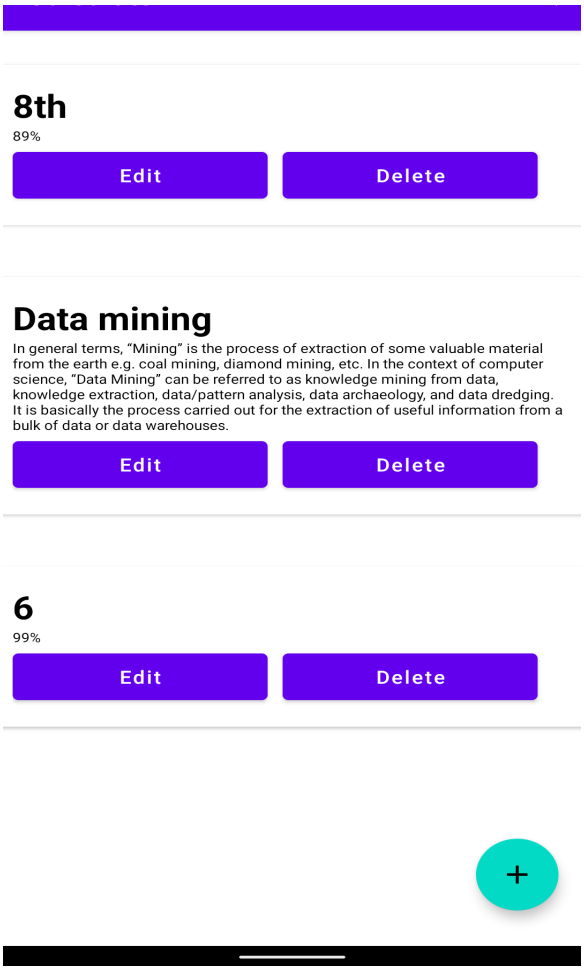

Figure 5.5: Note page

The above figure will display the notes which is inserted by the student . In this student can edit and delete the particular note.

Chapter 6

Conclusion and Future work

The Student Activity application is designed to help students by reducing the workload by taking notes through application this will help to increase the productivity and also saves time . The application therefore saves precious time of students in managing their virtual copies of the notes . The student can upload the soft copies and retrieve whenever they want. Calculator feature in this app will enable the student to access to different types of calculators , which will be help full to their education life.

The Student Activity Application have limited features, but the application can be well equipped with the tons of other functionality. The features can be added to the application such as reminder events functionality, adding timetables and educational notification feature. The application can be improved by adding education blog API which help the students to gain more educational knowledge.

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