VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"JNANA SANGAMA", Belagavi-590018

A Mini Project Report on

"NOTES APPLICATION"

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR

THE AWARD OF DEGREE OF

BACHELOR OF ENGINEERING IN
INFORMATION SCIENCE AND ENGINEERING

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CERTIFICATE

Certified that the Mini-project work entitled "**Puzzle Game Application",** is bonafide work carried out by **Pratibha J(1JB20IS045) and Sanjana (1JB20IS056),** a bonafide student of **SJB Institute of Technology,** in partial fulfilment for 6th semester in **INFORMATION SCIENCE AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY**, **BELAGAVI** during the academic year **2022-23.** 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 prescribed for the said degree.

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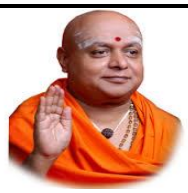
1. _____	_____
2. _____	_____



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Regards,
Pratibha J (1JB20IS004)
Sanjana (1JB20IS005)

ABSTRCT

The objective of this academic project is to develop an Android application that enables students to easily access and download academic notes. With the rapid advancement of technology and the increasing use of mobile devices, this app aims to provide a convenient platform for students to access relevant study materials anytime, anywhere. By creating a user-friendly interface and implementing robust features, this app aims to enhance the learning experience and facilitate knowledge sharingamong students. Developed using Java and XML in the Android Studio IDE, the application employs Firebase for efficient data storage. The project focuses on usability, responsiveness, and visual appeal to enhance the user experience. Through the development of this mini-project, users can enjoy an interactive learning experience while challenging themselves and expanding their knowledge in aneasily accessible and engaging manner. By offering a centralized repository, encouraging user contributions, ensuring a user-friendly interface, and providing offline access, the app aims to enhance the learning experience and facilitate knowledge exchange among students. This project not onlyenables st˙udents to access a wide range of study materials but also promotes collaborative learning and community engagement.

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Chapter 1

INTRODUCTION

1.1 Android Versions

Android is a Linux-based operating system designed primarily for touchscreenmobile devices such as smartphones and tablet computers. Initially developed by Android, Inc., which Google backed financially and later bought in 2005. Android is open source and Google releases the code under the Apache License. This open source code and permissive licensing allows the software to be freely modified and distributed by device manufacturers, wireless carriers and enthusiast developers. Additionally, Android has a large community of developers writing applications ("apps") that extend the functionality of devices, written primarily in a customized version of the Java programming language.

TABLE 1.1 : Android Versions and Specifications

Version	Code Name	Release Date	API Level	Distribution
1.5	Cupcake	April 30,2009	3	0%
1.6	Donut	September 15,2009	4	0.1%
2.0-2.1	Eclair	October 26,2009	7	1.5%
2.2	Froyo	May 20,2010	8	3.2%
2.3.3-2.3.7	Gingerbread	February 9,2010	10	36.4%
2.3-2.3.2	Gingerbread	December 6,2010	9	0.1%
3.2	Honeycomb	May 10,2011	12	0%
3.2	Honeycomb	July 15,2011	13	0.1%
4.0.x	Ice Cream Sandwich	December 16,2011	15	25.6%
4.1.x	Jelly Bean	July 9,2012	16	29.0%
4.2.x	Jelly Bean	November 13,2012	17	4%

1.1.1 Android software development

Android software development is the process by which new applications are created for the Android operating system. Applications are usually developed in the Java programming language using the Android Software Development Kit.

ADT (Android Development Tools) is the software used to develop android apps. It basically encases Eclipse IDE,which is a multi-language Integrated development environment (IDE) comprising a base workspace and an extensible plug-in system for customizing the environment.. The latest version comes with ADT plugin preinstalled and bundled to the IDE.

This is how the IDE looks like with the important elements marked

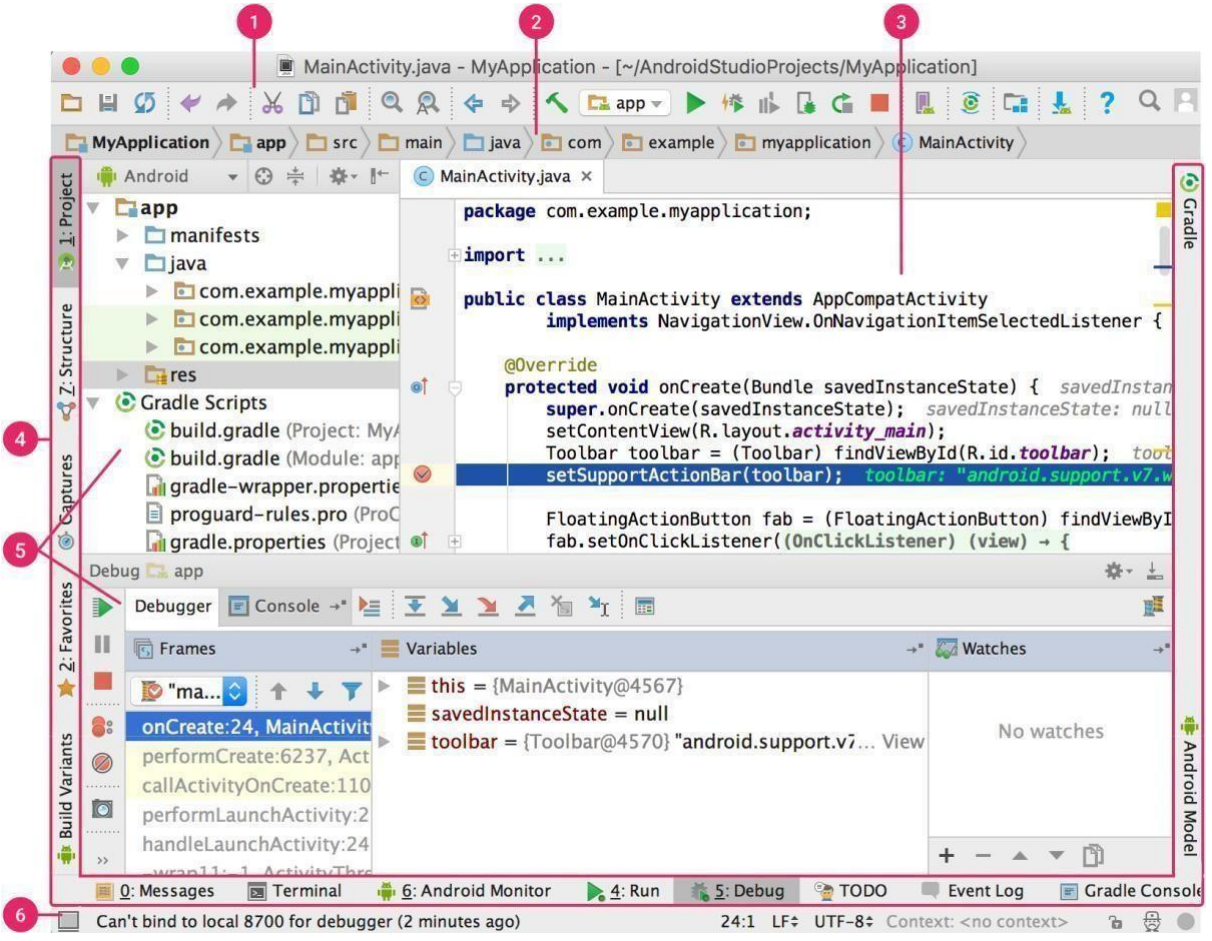


Figure 1.1 Android Studio main window

The **toolbar** lets you carry out a wide range of actions, including running your app and launching Android tools.

The **navigation bar** helps you navigate through your project and open files for editing. It provides a more compact view of the structure visible in the **Project** window.

The **editor window** is where you create and modify code. Depending on the current file type, the editor can change. For example, when viewing a layout file, the editor displays the Layout Editor.

The **tool window bar** runs around the outside of the IDE window and contains the buttons that allow you to expand or collapse individual tool windows. The **tool windows** give you access to specific tasks like project management, each, version control, and more. You can expand them and collapse them.

The **status bar** displays the status of your project and the IDE itself, as well as any warnings or messages.

1.1.2 Application programming interface (API)

Application programming interface (API) specifies how some software components should interact with each other. In practice in most of the cases an API is a library that usually includes specification for routines, data structures, object classes, and variables. An API specification can take many forms, including an International Standard such as POSIX, vendor documentation such as the Microsoft Windows API, the libraries of a programming language, e.g., Standard Template Library in C++ or Java API.

Google APIs can be downloaded from Google Code, Google's site for developer tools, APIs and technical resources. The Google Data API] allow programmers to create applications that read and write data from Google services. Currently, these include APIs for Google Apps, Google Analytics, Blogger, Google Base, Google Book Search, Google Calendar, Google Code Search, Google Earth, Google Spreadsheets, Google Notebook, and Picasa Web Albums.

1.1.3 Software Development Kit

SDK (Software Development Kit or "devkit") is typically a set of software development tools that allows for the creation of applications for a certain software package, software framework, hardware platform, computer system, video game console, operating system, or similar development platform. It may be something as simple as an application programming interface (API) in the form of some files to interface to a particular programming language or include sophisticated hardware to communicate with a certain embedded system. Common tools include debugging aids and other utilities often presented in an integrated development environment .

In the latest version of ADT, the android SDK adds on to the IDE automatically as soon as you unzip and load the IDE.

SDK Manager enables us to download Google APIs and use them in our code

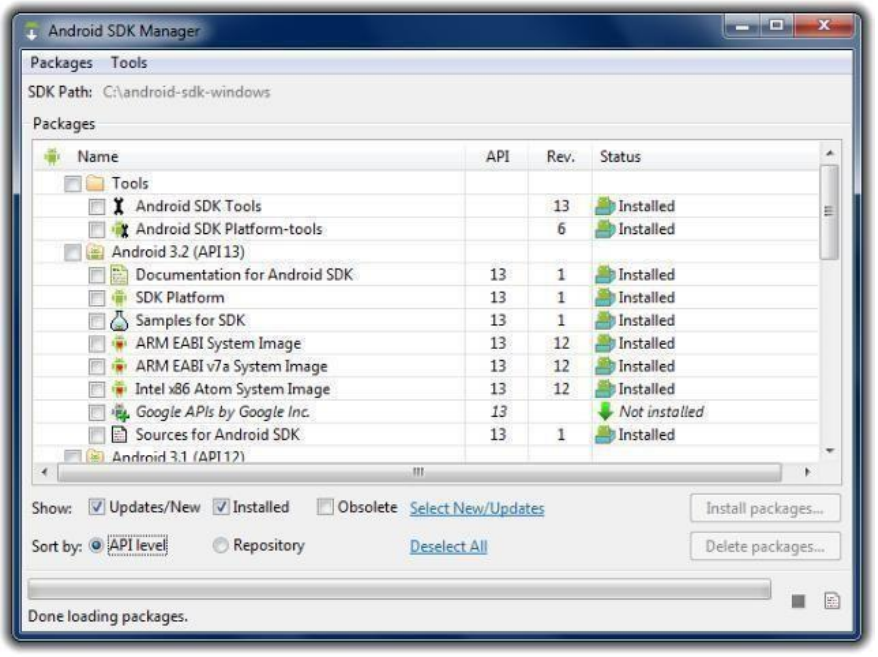


Figure 1.2 SDK Manager

1.1.4 Android Virtual Device (AVD)

Android Virtual Device (AVD) manager enables us to launch virtual android devices/ emulators in our PC and run the app in the emulator, and at the same time we can track and debug each app activity from the Logcat in our IDE.

1.2 ADVANTAGES:

- Improves Efficiency.
- Offers High Scalability.
- Secures the App Data.
- Easy to Maintain.
- Improves Customer Relationship
- Facilitates New Client Data Retrieval.
- Provides Real-time Project Access.

1.3 FEATURES:

- A flexible Gradle-based build system.
- A unified environment where one can develop for all Android devices.
- Apply Changes to push code and resource changes to the running app without restarting the app.
- Extensive testing tools and frameworks.
- Lint tools to catch performance, usability, version compatibility, and other problems C++ and NDK support.
- Built-in support for Google Cloud Platform, making it easy to integrate Google
- Cloud Messaging and App Engine.

Chapter 2

SYSTEM REQUIREMENTS SPECIFICATION

2.1 HARDWRE REQUIREMENTS

- RAM: 8GB recommended, 4 GB minimum.
- HARD DISK: 5 GB or above of hard disk space required.
- MONITOR: 15 VGA Color Monitor
- SYSTEM: Intel Core 5 or Above

2.2 SOFTWARE REQUIREMENTS

2.2.1 Data Requirements

The set of data that is involved in any project is defined using data requirements. For this project, the there on data required is the product information to register the application and the item's information. The application can be run without giving any user infromation.

2.2.2 Functional Requirements

Functional requirements are properties that must exist in the final system. For any mobile application, we need to download the application from the play store. The application could be either free or paid depending upon the store or merchant. To use the application, the user needs to click on start quiz after installing and start answering the question that are being displayed on the screen answering the question by clicking the appropriate options.

2.2.3 Performance Requirements

Response time, scalability, platform dependencies, tolerance are the performance requirements that should be considered when developing any system. It should be able to deliver the information about any of those issues to the user when the system is no longer able to provide results when theuser wants scalable enough to accept new features when we want to expand the application complexity.

2.2.4 System Requirements

The application should be installed into a device, system or any machine in such a way that it should have basic requirements like supporting software and hardware of the device, accessing in-built software, say camera for mobile device, internet permissions, and potential security issues such as virus or any malware detection.[7]

- DEVELOPMENT PLATFORM : WINDOWS 7
- LANGUAGE TOOL : JAVA
- *SOFTWARE USED: Android Studio SDK

Chapter 3

SYSTEM DESIGN

The purpose of the design phase is to develop a clear understanding of what the developer wants people to gain from his or her project. As the developer works on the project, the test for every design decision should be 'does this future fulfill the ultimate purpose of the project?' A purpose statement affects the design process by explaining what the developer wants the project to do, rather than describing the project itself. The design document will verify that the current design meets all of the explicit requirements contained in the system model as well as the implicit requirements described by the customer.

3.1 SEQUENCE DIAGRAMS

A sequence diagram is a type of interaction diagram because it describes how and in what order a group of objects work together. These diagrams are used by software developers and business professionals to understand requirements for a new system or to document an existing process. Sequence diagrams are also known as event diagrams or event scenarios.

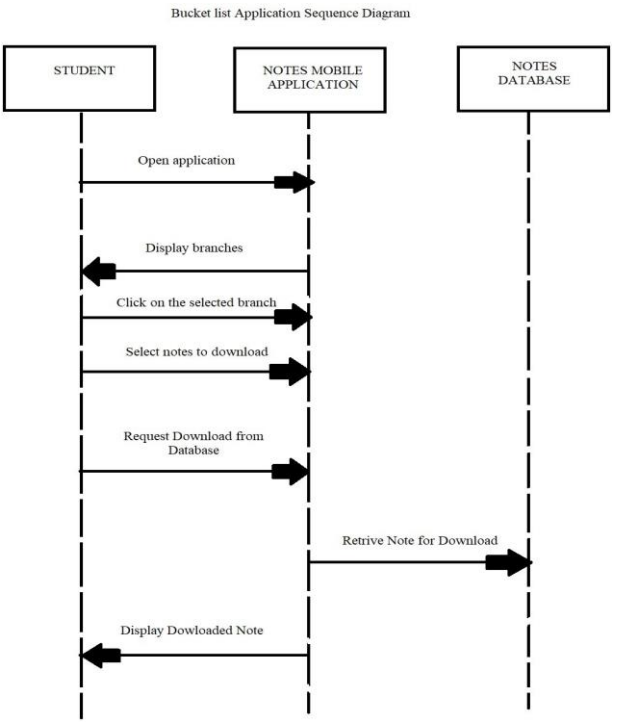


Figure 3.1 Sequence diagram

3.2 Firebase Database

Firebase is a mobile and web application development platform provided by Google. It offers various services, including a real-time database, authentication, and cloud storage. Firebase offers various client libraries and SDKs that make it easy to integrate these services into your applications. The Firebase console provides a graphical interface for managing your database, authentication settings, and storage buckets. Additionally, Firebase provides APIs and developer tools to interact with these services programmatically.

By using Firebase, you can build powerful real-time applications with data synchronization, user authentication, and secure storage capabilities without the need for setting up and managing complex infrastructure.Here's some information about each of these Firebase services:

Firebase Realtime Database:

The Firebase Realtime Database is a NoSQL, cloud-hosted database that allows you to store and sync data in real-time across multiple clients. It is a JSON-based database that provides real-time synchronization, offline capabilities, and automatic handling of data synchronization conflicts. You can integrate the Realtime Database into your applications using Firebase SDKs for various platforms, such as Android, iOS, and web.

Firebase Authentication:

Firebase Authentication provides an easy-to-use authentication system that allows you to authenticate users using various sign-in methods, such as email/password, phone number, Google, Facebook, Twitter, etc. It handles the user authentication process, including user registration, login, and account management. Firebase Authentication integrates well with other Firebase services, allowing you to secure access to your database and storage.

Firebase Cloud Storage:

Firebase Cloud Storage is a scalable and secure object storage service provided by Firebase. It allows you to store and retrieve user-generated content, such as images, videos, and files. Firebase Storage provides features like secure file uploads and downloads, access control, and easy integration with Firebase Authentication.

Chapter 4

IMPLEMENTATION

4.1 Introduction to Programming Languages, IDE'S, Tools:

4.1.1 Java

As the project is developing an Android Application, the default programming language is Java. All Android applications are built using Java in Android Studio or Eclipse or both. Java is a popularand widely used language throughout the world. As mentioned in, Java is one of the powerful programming languages like C, C++. developed by Sun Microsystems which has many powerful features as described below. The language is also easy to learn, understand and implement. Java is used in various kinds of applications like Web, Desktop, Mobile, and Big Data. Many powerful features are supported by Java including various libraries, application services, graphics library for 2D/3D applications. The language is flexible enough to maintain code complexity, test, implementation, integration and support. Apart from these, there are other key features which make Java more special. It is object oriented programming language, one of the important hierarchies in the programming languages which is used to implement real time applications, it provides for code reusability, it has a platform independence feature including any virtual machines(Write Once Read Everywhere), as in no need to write the 20 code for different OS as the Java Compliers convert the java source files to bytecode and this could be interpreted by any machine and the actual code is compiled irrespective of any machine, OS. It is more secured as the compilers are designed efficiently to figure out any kind of errors.

4.1.2 IDE's, Tools and Technologies:

4.1.2.1 Android Studio

Android Studio is exclusively designed for developing Android applications.Say, suppose we declared few variables or methods that starts with an 'S', it automatically senses everything that starts with an 'S' and makes suggestions. It also supports Git as a version control system to maintain the app changes and push them into github. All java files, layout files (for design) are integrated into a single project easily. After the completion of project, the whole application could be put as an .APK (Android Package) file, in which we can run that APK file in any device and use the application. Other main tools include Android SDK, ADB, and Gradle Build.

4.1.3 Android Software Development Kit (SDK):

One of the main tools used in developing android applications, as it packages many core features into one SDK and it can be used in the application easily. This helps us to avoid writing lot of code, and building applications faster.

4.1.4 Android Debug Bridge (ADB):

Android SDK uses ADB tool as a connection device which allows us to connect the Android Devices or Emulator with the machine via USB. After developing or while developing applications, we can connect with the device to check how the application runs. Later, we can debug and run the applications.

4.1.5 Gradle Build:

Gradle Scripts are the recent feature that is added to Android Studio. It is basically an automated build system which is used to automate the various phases involved in designing an application that includes design, development, test, debug, and publish. We need to configure the project and modules by mentioning all the supported jar files, SDK's, version name, level, compiled SDK version, build tools version. to ensure that the developed app is compatible with the testing device/emulator. Gradle is also similar to Ant and Maven which helps in maintaining java projects (repositories).

4.1.6 Android Device Monitor:

If we want to access all the hidden files that are generated when we run the application, we can use the monitor. We can select any project and explore the files that are related to that project. But, as they are hidden files, we need root permissions to access them. Suppose, if we run the app in device, we need to root the device and run commands in adb shell to get permissions.

4.1.7 SDK Manager:

It is one of the main tools to maintain the updates of all the installed components required to run the project. It also notifies us when the project is not compatible with device or any other compatibility issues and to download any component that is required.

4.1.7 AVD Manager:

It is used to create virtual devices of any desired API level to support higher level SDK's incase our device does not support. Using emulators to test the application is difficult as it might be little slower when compared to real device.

4.1.8 Create an Entity:

Room allows you to create tables via an Entity. Let's do this now.
Create a new Kotlin class file called Word containing the Word data class. This class will describe the Entity (which represents the SQLite table) for your words. Each property in the class represents a column in the table. Room will ultimately use these properties to both create the table and instantiate objects from rows in the database.

4.2 XML AND .java CODES OF THE PROJECT

4.2.1 Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".MainActivity">
 <ScrollView
      android:layout_width="match_parent"
      android:layout_height="match_parent">
<LinearLayout
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:orientation="vertical">
<LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:padding="10dp">
<RelativeLayout
          android:layout_width="0dp"
          android:layout_height="wrap_content"
          android:layout_weight="1">
 <ImageView
            android:layout_width="match_parent"
            android:layout_height="200dp"
            android:src="@drawable/cse"
```

```
            android:scaleType="centerCrop"
            android:adjustViewBounds="true"
            android:id="@+id/cse"/>
 <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="@string/CSE"
            android:textSize="30sp"
            android:textStyle="bold"
            android:layout_below="@id/cse"
            android:gravity="center"/>
</RelativeLayout>
<RelativeLayout
          android:layout_width="0dp"
          android:layout_height="wrap_content"
          android:layout_weight="1">
<ImageView
            android:layout_width="match_parent"
            android:layout_height="200dp"
            android:src="@drawable/ise"
            android:scaleType="centerCrop"
            android:adjustViewBounds="true"
            android:id="@+id/ise"/>
 <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="@string/ISE"
            android:textStyle="bold"
            android:textSize="30sp"
            android:layout_below="@id/ise"
            android:gravity="center"/>
</RelativeLayout>
</LinearLayout>
 <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:padding="10dp">
 <RelativeLayout
           android:layout_width="0dp"
           android:layout_height="wrap_content"
           android:layout_weight="1">
<ImageView
              android:layout_width="match_parent"
              android:layout_height="200dp"
              android:src="@drawable/checklist"
              android:scaleType="centerCrop"
              android:adjustViewBounds="true"
              android:id="@+id/cse1"/>
```

```
 <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Question Paper"
            android:textSize="30sp"
            android:textStyle="bold"
            android:layout_below="@id/cse1"
            android:gravity="center"/>
</RelativeLayout>
<RelativeLayout
          android:layout_width="0dp"
          android:layout_height="wrap_content"
          android:layout_weight="1">
<ImageView
            android:layout_width="match_parent"
            android:layout_height="200dp"
            android:src="@drawable/book"
            android:scaleType="centerCrop"
            android:adjustViewBounds="true"
            android:id="@+id/ise1"/>
<TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Important Questions"
            android:textStyle="bold"
            android:textSize="30sp"
            android:layout_below="@id/ise1"
            android:gravity="center"/>
</RelativeLayout>
</LinearLayout>
LinearLayout
       android:layout_width="match_parent"
       android:layout_height="wrap_content"
       android:orientation="horizontal"
       android:padding="10dp">
<RelativeLayout
          android:layout_width="0dp"
          android:layout_height="wrap_content"
          android:layout_weight="1">
<ImageView
            android:id="@+id/physics"
            android:layout_width="200dp"
            android:layout_height="200dp"
            android:adjustViewBounds="true"
            android:scaleType="centerCrop"
            android:src="@drawable/file"
            android:layout_centerHorizontal="true
</LinearLayout>
</ScrollView>
```

4.2.2 Login.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".login_activity"
    android:background="@drawable/background">
<View
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:background="#C4000000"/>
<ScrollView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:fillViewport="true"
        tools:layout_editor_absoluteX="46dp"
        tools:layout_editor_absoluteY="16dp">
<androidx.constraintlayout.widget.ConstraintLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent">
 <TextView
                android:id="@+id/textView"
                android:layout_width="253dp"
                android:layout_height="66dp"
                android:fontFamily="@font/aldrich"
                android:text="@string/login"
                android:textAlignment="center"
                android:textColor="#F1EEEE"
                android:textSize="48sp"
                android:textStyle="bold"
                app:layout_constraintBottom_toBottomOf="parent"
                app:layout_constraintEnd_toEndOf="parent"
                app:layout_constraintStart_toStartOf="parent"
                app:layout_constraintTop_toTopOf="parent"
                app:layout_constraintVertical_bias="0.075" />
<EditText
                android:id="@+id/inputemail"
                android:layout_width="371dp"
                android:layout_height="60dp"
                android:layout_marginTop="64dp"
                android:height="48dp"
                android:background="@drawable/input_bg"
                android:drawableStart="@drawable/baseline_email_24"
                android:drawablePadding="10dp"
                android:ems="10"
                android:hint="@string/email"
```

```
 android:inputType="textEmailAddress"
            android:paddingStart="10dp"
            android:textColor="@color/white"
            android:textColorHint="@color/white"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.497"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/textView" />
 <EditText
            android:id="@+id/inputpassword"
            android:layout_width="371dp"
            android:layout_height="60dp"
            android:layout_marginTop="20dp"
            android:height="48dp"
            android:background="@drawable/input_bg"
            android:drawableStart="@drawable/baseline_security_24"
            android:drawablePadding="10dp"
            android:ems="10"
            android:hint="@string/password"
            android:inputType="textPassword"
            android:paddingStart="10dp"
            android:paddingEnd="10dp"
            android:textColor="@color/white"
            android:textColorHint="@color/white"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.4"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/inputemail" /
 <TextView
            android:id="@+id/fgpassword"
            android:layout_width="181dp"
            android:layout_height="29dp"
            android:layout_marginTop="24dp"
            android:text="@string/fgpassword"
            android:textAlignment="center"
            android:textColor="@color/white"
            android:textSize="20sp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.913"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/inputpassword"
            app:layout_constraintVertical_bias="0.023" />
 <Button
            android:id="@+id/button"
            android:layout_width="300dp"
            android:layout_height="60dp"android:layout_marginTop="28dp"
            android:backgroundTint="#80000000
            app:layout_constraintStart_toStartOf="parent"
```

```
            android:text="@string/btnlogin"
            android:textColor="@color/white"
            app:layout_constraintEnd_toEndOf="@+id/inputpassword"
            app:layout_constraintHorizontal_bias="0.436"
            app:layout_constraintStart_toStartOf="@+id/inputpassword"
            app:layout_constraintTop_toBottomOf="@+id/fgpassword" />
 <TextView
            android:id="@+id/newaccount"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="@drawable/input_bg"
            android:text="@string/newacc"
            android:textAlignment="center"
            android:textColor="@color/white"
            android:textSize="20sp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.518"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/button"
            app:layout_constraintVertical_bias="0.174" />
 <TextView
            android:id="@+id/or"
            android:layout_width="56dp"
            android:layout_height="31dp"
            android:text="OR"
            android:textAlignment="center"
            android:textColor="@color/white"
            android:textSize="20sp"
            android:textStyle="bold"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.528"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/newaccount"
            app:layout_constraintVertical_bias="0.123"
 <View
            android:id="@+id/view2"
            android:layout_width="0dp"
            android:layout_height="2dp"
            android:background="@color/white"
            app:layout_constraintBottom_toBottomOf="@+id/or"
            app:layout_constraintEnd_toStartOf="@+id/or"
            app:layout_constraintHorizontal_bias="0.0"
            app:layout_constraintStart_toStartOf="@+id/button"
            app:layout_constraintTop_toTopOf="@+id/or" />
 </androidx.constraintlayout.widget.ConstraintLayout>
 </ScrollView>
</androidx.constraintlayout.widget.ConstraintLayout>
```

4.3.3 Signup.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
   xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   tools:context=".Register_activity"
   android:background="@drawable/background">
<View
      android:layout_width="match_parent"
      android:layout_height="match_parent"
      android:background="#AD000000" />
<ScrollView
      android:layout_width="match_parent"
      android:layout_height="match_parent"
      android:fillViewport="true"
      tools:layout_editor_absoluteX="0dp"
      tools:layout_editor_absoluteY="-16dp">
<androidx.constraintlayout.widget.ConstraintLayout
         android:layout_width="match_parent"
         android:layout_height="match_parent">
<TextView
            android:id="@+id/textView"
            android:layout_width="243dp"
            android:layout_height="54dp"
            android:fontFamily="@font/aclonica"
            android:text="REGISTER"
            android:textAlignment="center"
            android:textColor="@color/white"
            android:textSize="44sp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.497"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent"
            app:layout_constraintVertical_bias="0.097" />
<EditText
            android:id="@+id/inputEmail"
            android:layout_width="371dp"
            android:layout_height="60dp"
            android:background="@drawable/input_bg"
            android:drawableLeft="@drawable/baseline_email_24"
            android:drawablePadding="10dp"
            android:ems="10"
            android:hint="Email"
            android:inputType="textEmailAddress"
            android:paddingLeft="20dp"
```

```
            android:paddingTop="13dp"
            android:paddingRight="20dp"
            android:paddingBottom="13dp"
            android:textColor="@color/white"
            android:textColorHint="@color/white"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintBottom_toTopOf="@+id/inputPassword"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/textView" />
    <EditText
            android:id="@+id/inputconfirmpassword"
            android:layout_width="371dp"
            android:layout_height="60dp"
            android:background="@drawable/input_bg"
            android:drawableLeft="@drawable/baseline_security_24"
            android:drawablePadding="10dp"
            android:ems="10"
            android:hint="Confirm Password"
            android:inputType="textPassword"
            android:paddingLeft="20dp"
            android:paddingTop="13dp"
            android:paddingRight="20dp"
            android:paddingBottom="13dp"
            android:textColor="@color/white"
            android:textColorHint="@color/white"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent"
            app:layout_constraintVertical_bias="0.499" />
    <TextView
            android:id="@+id/oldacc"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="16dp"
            android:layout_marginBottom="180dp"
            android:background="@drawable/input_bg"
            android:text="@string/oldacc"
            android:textAlignment="center"
            android:textColor="@color/white"
            android:textSize="20sp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.593"/>
           </androidx.constraintlayout.widget.ConstraintLayout>
</ScrollView>
</androidx.constraintlayout.widget.ConstraintLayout>
```

4.3.4 ise.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Ise">
<ListView
        android:id="@+id/listview"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:dividerHeight="10dp"
        android:paddingTop="10dp"
        android:paddingStart="5dp"
        android:paddingEnd="5dp">
</ListView>
</LinearLayout>
```

4.3.5activity_thirdsem.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/black"
    tools:context=".Thirdsem">
<androidx.cardview.widget.CardView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        app:cardCornerRadius="8dp"
        app:cardElevation="4dp"
        app:cardUseCompatPadding="true"
        app:contentPadding="16dp"
        android:id="@+id/c1">
<TextView
            android:id="@+id/pdf_name"
            android:layout_width="350dp"
            android:layout_height="48dp"
            android:gravity="center"
            android:textSize="20sp"
            android:onClick="retrievePDF01"
            android:text="Mathematics(M3)"
            android:textColor="@color/black" />
</androidx.cardview.widget.CardView>

</RelativeLayout>
```

```
<androidx.cardview.widget.CardView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        app:cardCornerRadius="8dp"
        app:cardElevation="4dp"
        app:cardUseCompatPadding="true"
        app:contentPadding="16dp"
        android:id="@+id/c6"
        android:layout_below="@+id/c5">
 <TextView
            android:id="@+id/name4"
            android:layout_width="350dp"
            android:layout_height="48dp"
            android:textSize="20sp"
            android:gravity="center"
            android:onClick="retrievePDF04"
            android:text="Analog and Digital Electonics"
            android:textColor="@color/black" />
</androidx.cardview.widget.CardView>
<androidx.cardview.widget.CardView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        app:cardCornerRadius="8dp"
        app:cardElevation="4dp"
        app:cardUseCompatPadding="true"
        app:contentPadding="16dp"
        android:id="@+id/c7"
        android:layout_below="@+id/c6">
<TextView
            android:id="@+id/name5"
            android:layout_width="350dp"
            android:layout_height="48dp"
            android:textSize="20sp"
            android:gravity="center"
            android:onClick="retrievePDF05"
            android:text="Software Engineering"
            android:textColor="@color/black" />
</androidx.cardview.widget.CardView>
</RelativeLayout>
```

4.3.6 activity_retrieveodf

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".RetrievePDF">
```

```
<androidx.cardview.widget.CardView
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_margin="16dp"
        app:cardCornerRadius="8dp"
        app:cardElevation="4dp"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent">
<ListView
            android:paddingBottom="10dp"
            android:id="@+id/listview"
            android:layout_width="match_parent"
            android:layout_height="match_parent" />
</androidx.cardview.widget.CardView>
</androidx.constraintlayout.widget.ConstraintLayout>
```

4.3.7 splash_activity.java

```
package com.devdroid.eduapp;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.os.Handler;
public class splash_activity extends AppCompatActivity {
@Override
 protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_splash);
new Handler().postDelayed(new Runnable() {
            @Override
            public void run() {
                Intent iHome = new Intent(splash_activity.this,login_activity.class);
                startActivity(iHome);
                finish();
            }
        },4000 );
    }
```

4.3.8 Loginactivity.java

```
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
public class login_activity extends AppCompatActivity {
    TextView textview;
   EditText inputEmail, inputPassword;
    Button button;
    String emailpattern = "[a-zA-Z0-9._-]+@[a-z]+\\.+[a-z]+";
```

```
ProgressDialog progressDialog;
   FirebaseAuth mAuth;
   FirebaseUser mUser;
@Override
   protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_login);
      textview = findViewById(R.id.newaccount);
      getWindow().setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN,
WindowManager.LayoutParams.FLAG_FULLSCREEN);
     inputEmail = findViewById(R.id.inputemail);
     inputPassword = findViewById(R.id.inputpassword);
     button = findViewById(R.id.button);
      progressDialog = new ProgressDialog(this);
      mAuth = FirebaseAuth.getInstance();
      mUser = mAuth.getCurrentUser();
    textview = findViewById(R.id.newaccount);
      textview.setOnClickListener(new View.OnClickListener() {
         @Override
         public void onClick(View v) {
            startActivity(new Intent(login_activity.this, Register_activity.class));
         } });
      button.setOnClickListener(new View.OnClickListener() {
         @Override
         public void onClick(View v) {
            PerforAuth();
         }});
   }
 private void PerforAuth() {
         String email = inputEmail.getText().toString();
         String password = inputPassword.getText().toString();
        if (!email.matches(emailpattern)) {
            inputEmail.setError("Enter correct email");
         } else if (password.isEmpty() || password.length() < 6) {
            inputPassword.setError("Enter correct password");
         } else {
            progressDialog.setMessage("Please wait while Login");
            progressDialog.setTitle("Login");
            progressDialog.setCanceledOnTouchOutside(false);
            progressDialog.show();
          mAuth.signInWithEmailAndPassword(email,password).addOnCompleteListener(new
OnCompleteListener<AuthResult>() {
               @Override
               public void onComplete(@NonNull Task<AuthResult> task) {
                  if(task.isSuccessful()){
                     progressDialog.dismiss();
                     sendUserToNextActivity();
                     Toast.makeText(login_activity.this, "Login Sucessful",
Toast.LENGTH_SHORT).show();
```

```
 }else{
                    Toast.makeText(login_activity.this, ""+task.getException(),
Toast.LENGTH_SHORT).show();
                } }
            });
private void sendUserToNextActivity() {
        Intent intent = new Intent(login_activity.this,MainActivity.class);
        intent.setFlags(Intent.FLAG_ACTIVITY_CLEAR_TASK|
Intent.FLAG_ACTIVITY_NEW_TASK);
        startActivity(intent);
    }
}
```

4.3.9 Mainactivity.java

```
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.Toast;
import com.devdroid.eduapp.databinding.ActivityMainBinding;
public class MainActivity extends AppCompatActivity {
   ImageView physics,chemistry,cse,ise,cse1,ise1;
   @Override
   protected void onCreate(Bundle savedInstanceState) {
     super.onCreate(savedInstanceState);
     setContentView(R.layout.activity_main);
     physics=findViewById(R.id.physics);
     cse=findViewById(R.id.cse);
     ise=findViewById(R.id.ise);
     cse1=findViewById(R.id.cse1);
     ise1=findViewById(R.id.ise1);
     physics.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
          Intent i1 = new Intent(MainActivity.this,Physics.class);
          startActivity(i1);
        } });
      cse.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
          Intent i3 =new Intent(MainActivity.this,Cse.class);
          startActivity(i3);
        }});
      ise.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
          Intent i4 =new Intent(MainActivity.this,Ise.class);
          startActivity(i4);
        }});
```

```
 ise.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
           Intent i4 =new Intent(MainActivity.this,Ise.class);
           startActivity(i4);
        }});
      cse1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
           Intent i4 =new Intent(MainActivity.this,Questionpaper.class);
           startActivity(i4);
        }});
      ise1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
           Intent i4 =new Intent(MainActivity.this,Importantqest.class);
           startActivity(i4);
        }});
```

4.3.10 Thirdsem.java

```
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
public class Thirdsem extends AppCompatActivity {
@Override
   protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_thirdsem);
   }
public void retrievePDF(View view) {
      startActivity(new
Intent(getApplicationContext(),RetrieveIsecse.class));
   }
   public void retrievePDF01(View view) {
      startActivity(new
Intent(getApplicationContext(),RetrievePDF01.class));
   }
 public void retrievePDF02(View view) {
      startActivity(new
Intent(getApplicationContext(),RetrievePDF02.class));
   }
public void retrievePDF03(View view) {
      startActivity(new
Intent(getApplicationContext(),RetrivePDF03.class));
   }
 public void retrievePDF04(View view) {
      startActivity(new
Intent(getApplicationContext(),RetrivePDF04.class));
   }
```

```
public void retrievePDF04(View view) {
      startActivity(new Intent(getApplicationContext(),RetrivePDF04.class));
   }
public void retrievePDF05(View view) {
      startActivity(new Intent(getApplicationContext(),RetrievePDF05.class));
   }
```

4.3.11 ISE.java

```
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ListView;
import java.util.ArrayList;
public class Ise extends AppCompatActivity {
   private ListView listView;
   private ArrayList<item> itemList;
 @Override
   protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_ise);
     listView = findViewById(R.id.listview);
     itemList = new ArrayList<>();
      itemList.add(new item("Third Semester", R.drawable.third, Thirdsem.class));
      itemList.add(new item("Fourth Semester", R.drawable.fourth, Fourthsem.class));
      itemList.add(new item("Fifth Semester", R.drawable.fifth, Fifthsem.class));
      itemList.add(new item("Sixth Semester", R.drawable.six, Sixthsem.class));
      itemList.add(new item("Seventh Semester", R.drawable.seven, Seventhsem.class));
      itemList.add(new item("Eight Semester", R.drawable.eight, Eighthsem.class));
ItemAdapter adapter = new ItemAdapter(this, itemList);
      listView.setAdapter(adapter)
listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
         @Override
         public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
            Class<?> activityClass = itemList.get(position).getActivityClass();
            // Start the corresponding activity for the selected item's image
            Intent intent = new Intent(Ise.this, activityClass);
            startActivity(intent);
         }
      });

   }
}
```

4.3.12 RetrivePDF

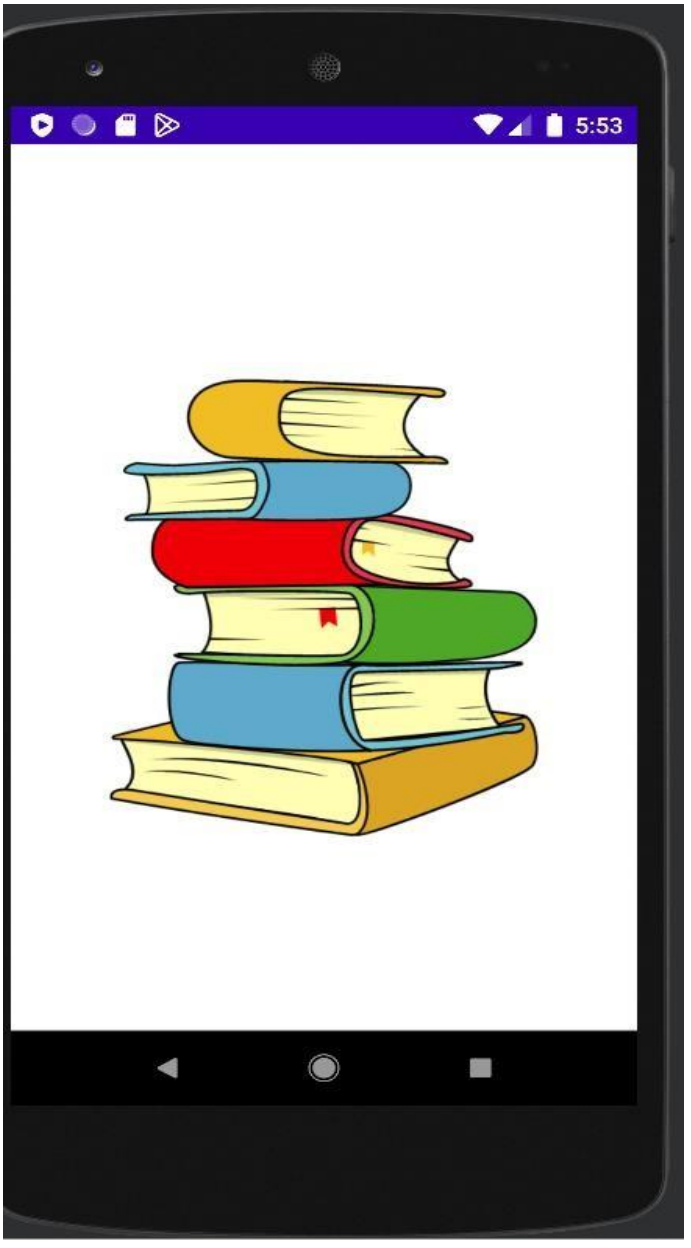
```
import java.util.ArrayList;
import java.util.List;
public class RetrievePDF extends AppCompatActivity {
ListView listView;
   DatabaseReference databaseReference;
   List<putPDF> uploadedPDF;
@Override
   protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_retrieve_pdf);
      listView=findViewById(R.id.listview);
      uploadedPDF=new ArrayList<>();
      retrievePDFFiles();
 listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
         @Override
         public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
            putPDF putPDF=uploadedPDF.get(position);
            Intent intent = new Intent(Intent.ACTION_VIEW);
            intent.setType("application/pdf");
            intent.setData(Uri.parse(putPDF.getUrl()));
            startActivity(intent);
         }
      });
   }
```

Chapter 5

RESULT AND SNAPSHOT

5.1 Splashscreen

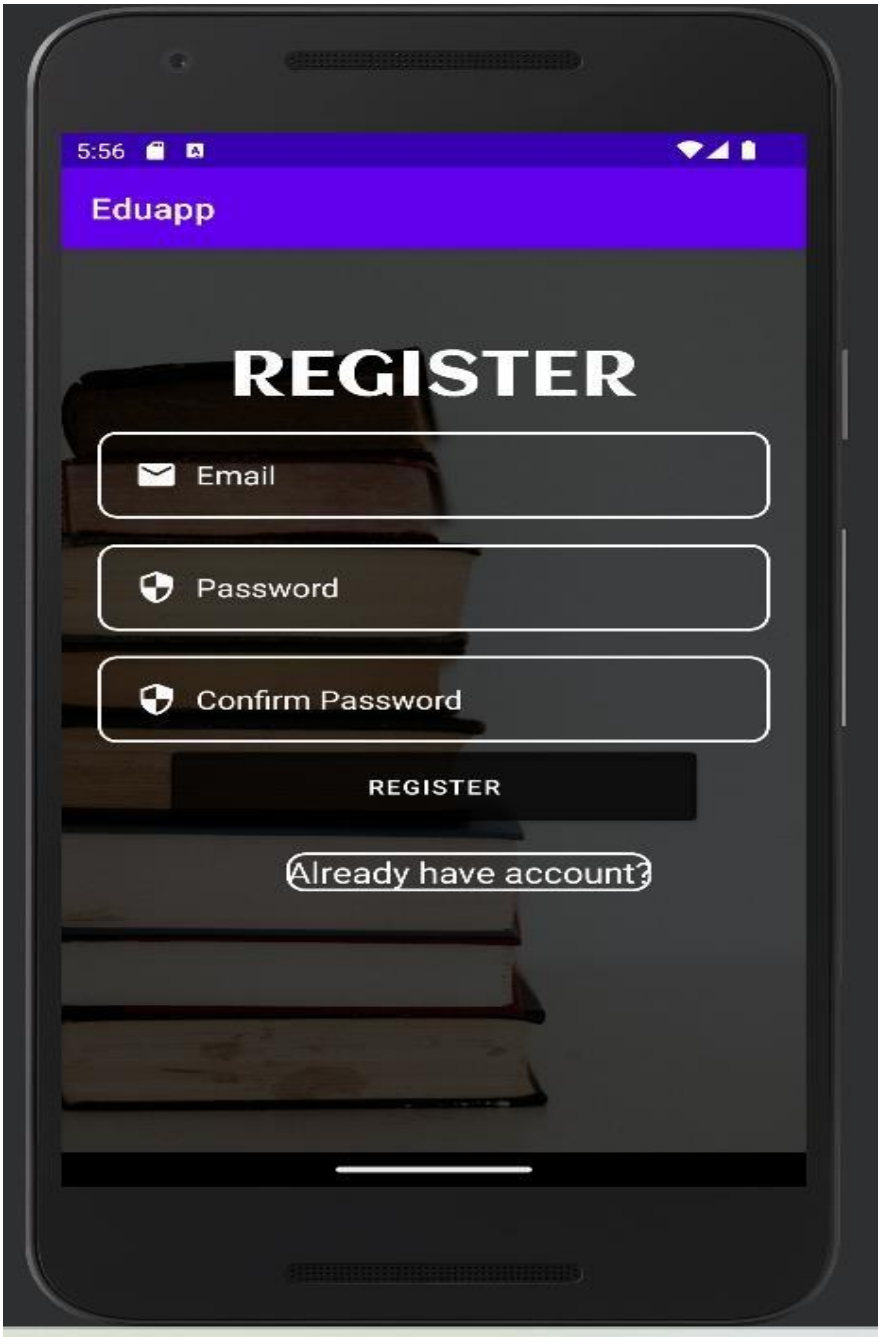
Splashscreenof the application gives the display of the logo for some milli seconds



5.1 Splashscreen

5.2 Registeration Page

It is the page where new users can create their accounts and provide the necessary information to access the app's features and functionalities. The register page typically includes form fields for users to enter their desired username, email address, password, and any other relevant details



5.2 Registeractivity

5.3 Menu Page

It is the page where students can go through the content which is provided by the notes app. Which include question papers, notes and syllabus.

5.3 Menu Page

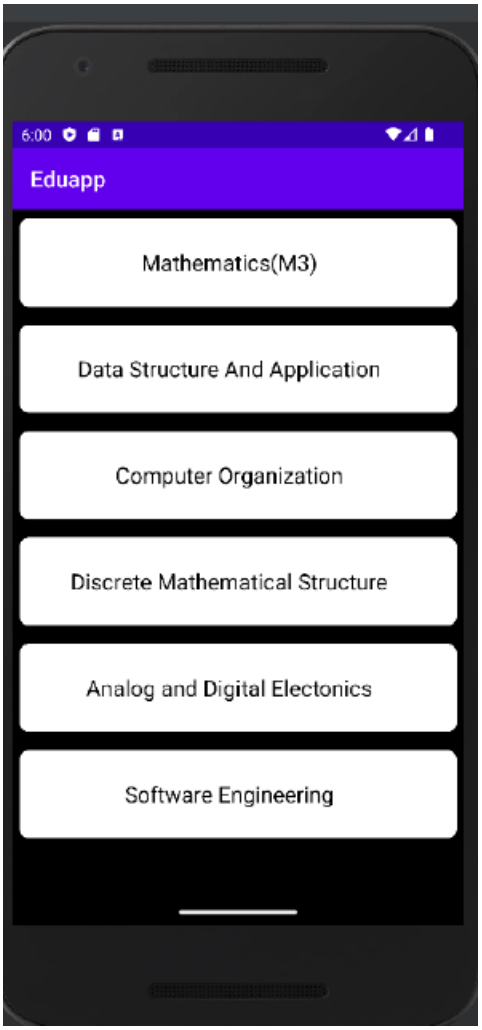
5.4 Semester Menu Page

It is the page where students can go through the content of various semester and choose any to download notes from the database.

5.4 Semester Menu Page

5.5 Subject Menu Page

It is the page where students can go through the content of various subjects and can choose any of them to download.



5.5 Subject menu page

5.6 Module page

5.7 Question Paper Year Menu Page

Question paper is the page where students can go through the content of various subject question paper according to their year.

Chapter 6

CONCLUSION AND FUTURE ENHANCEMENT

6.1 Conclusion

In conclusion, this quiz app provides an engaging and educational experience for users. With its diverse range of topics and challenging questions, it encourages continuous learning and fosters intellectual growth. Whether you're a student, a trivia enthusiast, or simply seeking some fun, this app offers an enjoyable way to test your knowledge and expand your horizons.

6.2 Advantages:

• Flexibility of anytime, anywhere learning.

• Immediate feedback for quick assessment and improvement.

• Interactive and engaging experience enhances knowledge retention.

6.3 Future Enhancement:

- Personalized learning paths based on user performance and preferences
- Integration of social features for multiplayer quizzes and collaborative challenges
- Enhanced gamification elements with badges, levels, and rewards
- Utilization of artificial intelligence and machine learning for adaptive quizzes
- Integration of multimedia content such as videos and interactive simulations
- Improved accessibility features for users with disabilities
- Integration with learning management systems for seamless integration into educational environments
- Real-time analytics and performance tracking for users and administrators
- Expansion of question types to include multimedia-based questions, interactive scenarios, and case studies
- Integration with external resources and APIs to provide a broader range of content and topics.

Chapter 7

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