

# Entrance-Q bank using Mobile Application Development

Manasvi Malhar Sudershan

Department of Information Technology, B V Raju Institute of Technology, Narsapur, Telangana, India

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## ABSTRACT

A Student life is all about gaining knowledge and implementing it. We have many competitive exams out there and students explore themselves and chooses the path as per their interests and skills. Entrance Q-Bank is the best to proceed. It helps you to find previous years question papers where you could test and practice accordingly It is nothing but treasure, so if you can get your hands on previous year papers then it is no less than a hitting a lottery. It manages your time efficiently. It also makes you confident during exams. We choose this as our project because, instead of laying hands on different websites, having an app makes it more advantageous and time saving. On the whole, we hope to implement an app which saves time and make you more confident. We created this application with Android Studio, XML for the User Interface and Java for the backend.

**Keywords:** Entrance Q-Bank, Mobile Application, Android Studio, User Interface, XML, Java

## I. INTRODUCTION

Previous year Question papers plays major role in Student's life. Students might get worried or lost in search of these papers. In such cases, our App "Entrance Q-Bank" is best to It proceed gives solution to all the students who are wasting their time in search of paper.

### Problem Definition

Life is about solving problems, and we can only do that by facing them head-on. Our app helps you do just that

by providing you with previous years' question papers so you can test and practice accordingly. Instead of having to search through different websites, newspapers, and books, our app makes it easy and efficient for you to find the resources you need.

## II. Review of Literature

### Existing System

People visit libraries, browse different websites, and waste their time in search of books, newspapers, and so

on for a variety of reasons. Some of the most common reasons include:

- Lack of awareness: People may not be aware of the resources that are available to them. For example, they may not know that their local library has an online database of books and newspapers, or that there are many websites that offer free access to educational materials.
- Lack of time: People may not have time to do the research necessary to find the resources they need. For example, they may be working full-time and have young children, so they don't have time to visit the library or browse different websites.
- Lack of skills: People may not have the skills necessary to find the resources they need. For example, they may not know how to use a library catalogue or how to search for information online.

#### **Disadvantages of Existing System**

- Libraries: Libraries often have large collections of books and newspapers, but it can take time to find the specific items you are looking for. You may also need to travel to multiple libraries if you are looking for a variety of resources on a particular topic.
- Websites: There are many websites that offer free access to books, newspapers, and other resources. However, it can be difficult to find the best websites for your needs, and you may need to browse through multiple websites to find the information you are looking for.
- Other sources: If you are looking for specific items that are not available in libraries or on websites, you may need to search through other sources, such as bookstores, antique shops, or private collections. This can be even more time-consuming than searching through libraries and websites.

These are time consuming approaches and cannot be performed at a single place.

### **III. Experimental Work**

Our experimental work follows a structured methodology to achieve the outlined objectives:

#### **a. Market Research**

We conduct thorough market research to understand the existing solutions, user preferences, and potential challenges in developing the app.

#### **b. Database Creation**

Collaboration with educational institutions and the collection of previous question papers will be a fundamental step in building the app's database.

#### **c. App Development**

We design and build the mobile application, focusing on an intuitive user interface and robust functionality.

#### **d. Testing and Optimization**

Rigorous testing will be performed to identify and rectify any bugs or issues. The app will be optimized for various devices and operating systems.

#### **e. Security and Copyright Compliance**

We worked closely with legal experts to ensure that the app complies with copyright laws and maintains the highest standards of data security.

#### **f. Launch and Promotion**

Once the app is refined and ready, it will be officially launched, and a promotional strategy will be devised to reach the target audience.

## **IV. Development Analysis**

### **1. Requirement Specifications**

#### **a. Software Requirements**

- XML
- JAVA
- Android Studio IDE(Java)

#### **b. Hardware requirements**

- RAM: 4GB
- Hard Disk: 256GB SSD drive.
- Processor: i3 /i5 / i7 /i9 take latest version.
- Android powered device used for testing.

### **2. Design**

#### **a. UML Diagrams**

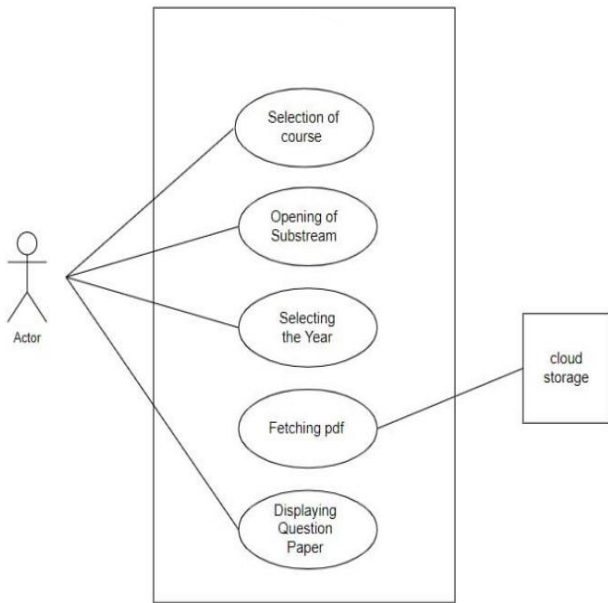


Fig 1. Use case Diagram of Entrance-Q

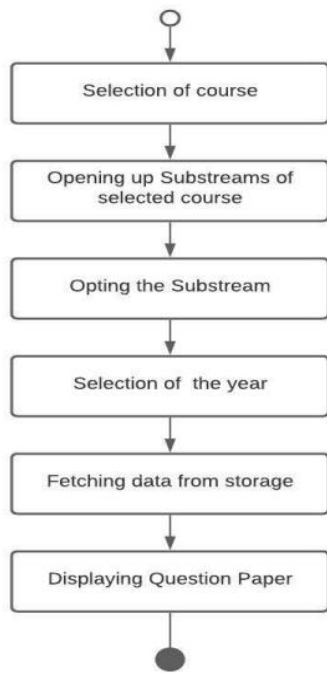


Fig 2. Activity Diagram of Entrance-Q

### 3. Development

#### a) Coding Specifications (Sample)

```

<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="100dp">

    <ImageButton
        android:id="@+id/imageButton1"
        style="@style/Widget.AppCompat.Button.Borderless.Colored"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:layout_marginEnd="8dp"
        app:layout_constraintBottom_toTopOf="@+id/guideline8"
        app:layout_constraintEnd_toStartOf="@+id/guideline7"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@drawable/ic_upsc1" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:shadowColor="@color/black"
        android:shadowDx="2"
        android:shadowDy="2"
        android:shadowRadius="2"
        android:text="GATE"
        android:textColor="@color/white"
        android:textSize="14sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="@+id/imageButton1"
        app:layout_constraintEnd_toEndOf="@+id/imageButton1"
        app:layout_constraintStart_toStartOf="@+id/imageButton1"
        app:layout_constraintTop_toTopOf="@+id/imageButton1"
        app:layout_constraintVertical_bias="0.0" />

    <ImageButton
        android:id="@+id/imageButton2"
        style="@style/Widget.AppCompat.Button.Borderless"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:layout_marginEnd="8dp"
        app:layout_constraintBottom_toTopOf="@+id/guideline8"
        app:layout_constraintEnd_toStartOf="@+id/guideline7"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@drawable/ic_upsc2" />
    
```

XML code

```

package com.example.mytrove;
import android.content.Intent;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageButton;
import androidx.annotation.Nullable;
import androidx.fragment.app.Fragment;

public class HomeFragment extends Fragment {
    @Override
    public View onCreateView(LayoutInflater inflater, @Nullable ViewGroup container,
        @Nullable Bundle savedInstanceState) {
        View view = inflater.inflate(R.layout.fragment_home, container, false);

        ImageButton imageButton1 = view.findViewById(R.id.imageButton1);
        ImageButton imageButton2 = view.findViewById(R.id.imageButton2);
        ImageButton imageButton3 = view.findViewById(R.id.imageButton3);
        ImageButton imageButton4 = view.findViewById(R.id.imageButton4);
        ImageButton imageButton5 = view.findViewById(R.id.imageButton5);

        imageButton1.setOnClickListener(v -> {
            Intent intent = new Intent(getActivity(), Gate.class);
            startActivity(intent);
        });
        imageButton2.setOnClickListener(v -> {
            Intent intent = new Intent(getActivity(), UPSC.class);
            startActivity(intent);
        });
        imageButton3.setOnClickListener(v -> {
            Intent intent = new Intent(getActivity(), JEEYears.class);
            startActivity(intent);
        });
        imageButton4.setOnClickListener(v -> {
            Intent intent = new Intent(getActivity(), TS_Eamcet.class);
            startActivity(intent);
        });
        imageButton5.setOnClickListener(v -> {
            Intent intent = new Intent(getActivity(), AP_Eamcet.class);
            startActivity(intent);
        });
        return view;
    }
}
    
```

JAVA code

### 4. Modules

#### a. Gate

This module is divided into several categories like aerospace engineering, CSIT, Mechanical, Electrical, Civil etc.

#### b. UPSC

This module has categories Prelims and Mains.

#### c. JEE

This module provides the user with sub domains like Years.

**d. TS EAMCET**

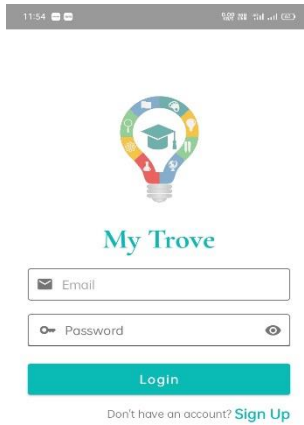
The module provides us categories like Years.

**e. AP EAMCET**

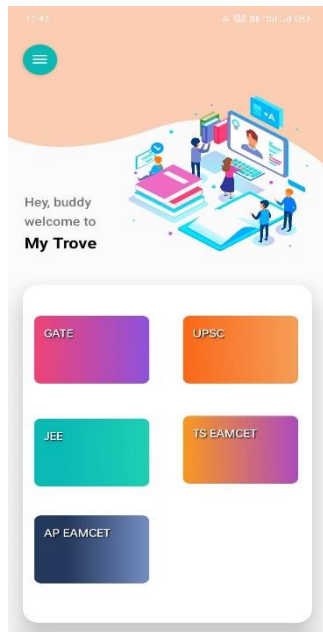
This domain provides us categories like Years.

**V. RESULTS**

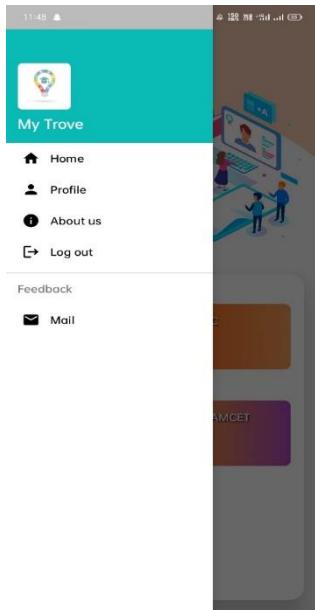
**Application Screenshots**



Login



Homepage



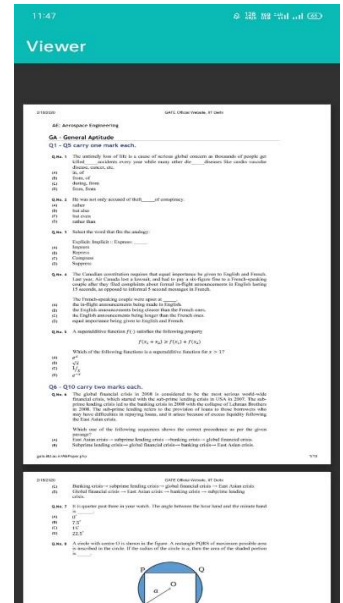
Navigation Drawer



GATE



TS EMCET



Question Paper Viewer

**VI. CONCLUSION**

In conclusion, our app revolutionizes the way students prepare for exams by providing easy access to previous years' question papers. By empowering users with valuable exam resources, we aim to boost their confidence and enhance their preparation strategies. With our user-friendly interface and comprehensive question bank, we enable learners to practice effectively, ultimately paving the way for their academic success. Embrace confidence, excel in exams – that's the power of our app.

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