

# ENGLISH VOCABULARY STUDY

A Project Report is submitted to the  
Dept. of Computer Science & Engineering (CSE), Hajee Mohammad Danesh Science and  
Technology University in partial fulfillment of the requirements for  
Web & Mobile Application Development Sessional (CSE 352) Course of  
B.Sc. (Engineering) in Computer Science and Engineering (CSE)

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## **Acknowledgement**

At first, we praise to Almighty who gave us opportunity, capability, energy and patience to complete this project work.

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Again, also thanks to the Almighty for helping us a lot in successfully ending this project work.

## **Abstract**

“ENGLISH VOCABULARY STUDY” is an android-based mobile application (apk). The main objectives of this project are learning English vocabularies and testing user’s knowledge in English vocabulary by Quiz test. This project is attempted to provide all vocabulary categories such as Synonym & Antonym, Spelling Mistake, Analogy, Idioms & Phrases and One Word Substitution with proper Bengali meaning. Again, after each quiz, the user will see the final score and have the ability to go through the quiz result analysis to see questions that wrong and correct answers. As it is an android-based application and available for the Smartphone. So, user can easily study of English vocabularies anywhere by installing this application in android device.

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# CHAPTER 1: INTRODUCTION

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## 1.1 Background of the Project

This is an android-based application which is helpful for learning English vocabulary. “ENGLISH VOCABULARY STUDY” application providing many useful vocabulary categories such as Synonym & Antonym, Spelling Mistake, Analogy, Idioms & Phrases and One Word Substitution. In this application we not only include answer but also include proper English meaning of every English word for better understanding [1]. In the current system all the activities are done manually and less time consuming but we try it to make android-based application.

## 1.2 Objective of the project

Our “ENGLISH VOCABULARY STUDY” application deals with the various activities related to the English learning. The main objectives of this project are:

- To make better understand of English vocabulary.
- To provide all categories vocabulary.
- To provide all vocabulary with proper Bengali meaning.
- To test skill on English vocabulary by Quiz.
- To facilitate a user-friendly environment for all users and reduces the manual effort for better understanding of English vocabulary.

## 1.3 Inspiration of the project

As we use English as 2<sup>nd</sup> language. Therefore, we don't know all the English words meaning. This makes us very hopeless when we study or practice English vocabulary. To reduce this problem, we think that we will make an application where all categories of vocabulary will be included with a proper answer as well as the Bengali meaning of every word. This is why we make this application.

## CHAPTER 2: SYSTEM ANALYSIS

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### 2.1 Existing System Analysis

System analysis is a detailed study of the various operations performed by a system and their activities and relationships within and outside of the system. Here the key question is what all problems exist in the present system? What must be done to solve the problem? After analyzing the existing system, we found some problem which are given below:

- ✓ No feature for word meaning
- ✓ Not included all vocabularies category and
- ✓ Testing option
- ✓ Not suitable for low knowledge people in English [2].

### 2.2 Proposed System Analysis

In our proposed system we have the provision for easy understanding, learning and some benefited feature for users. Our proposed system has several advantages which are given below:

- User friendly interface
- Ensuring feature for word meaning
- Including all vocabularies category and
- Testing option
- Ensuring suitable for low knowledge people in English.
- Look and feel easy environment
- Easy English vocabulary learning process

## CHAPTER 3: REQUIREMENT ANALYSIS

---

### 3.1 Requirement analysis:

Requirement analysis is the process to gather requirements from the user, analyze them and make them consistent and unambiguous. This activity reviews all requirements and may provide a graphical view of the entire system. For this, we follow various information-gathering techniques like interviews, surveys, questionnaires task analysis domain analysis, etc. After the analysis of these requirements, the project functionalities can understand easily. Therefore, we collect and analyze the user requirements to make the project more efficient and user-friendly. Here, we may also use the interaction with the customer to clarify points of confusion and to understand which requirements are more important than others.

### 3.2 Steps of requirement analysis:

- System Requirements
- Context diagram
- Model the requirements

#### 3.2.1 System Requirements:

- ✓ Smartphone with Android OS version 4.4 (Kitkat) or higher
- ✓ Minimum 512 MB of RAM
- ✓ A processor with speeds above 1.2 GHz (any make)
- ✓ 16 MB of storage for the app and extra for the data stored, the size of the app increases as the number of entries are increased
- ✓ Android API version 19
- ✓ Permission to install applications over USB and installation from unknown sources from 'Developer Options' [3].

#### 3.2.2 Context diagram:

The context diagram is a simple model that defines the boundaries and interfaces of the proposed systems. Therefore, we made a context diagram for the “ENGLISH VOCABULARY STUDY” that defines the external interface of the system. The context diagram is show in figure 3.2.2 below:

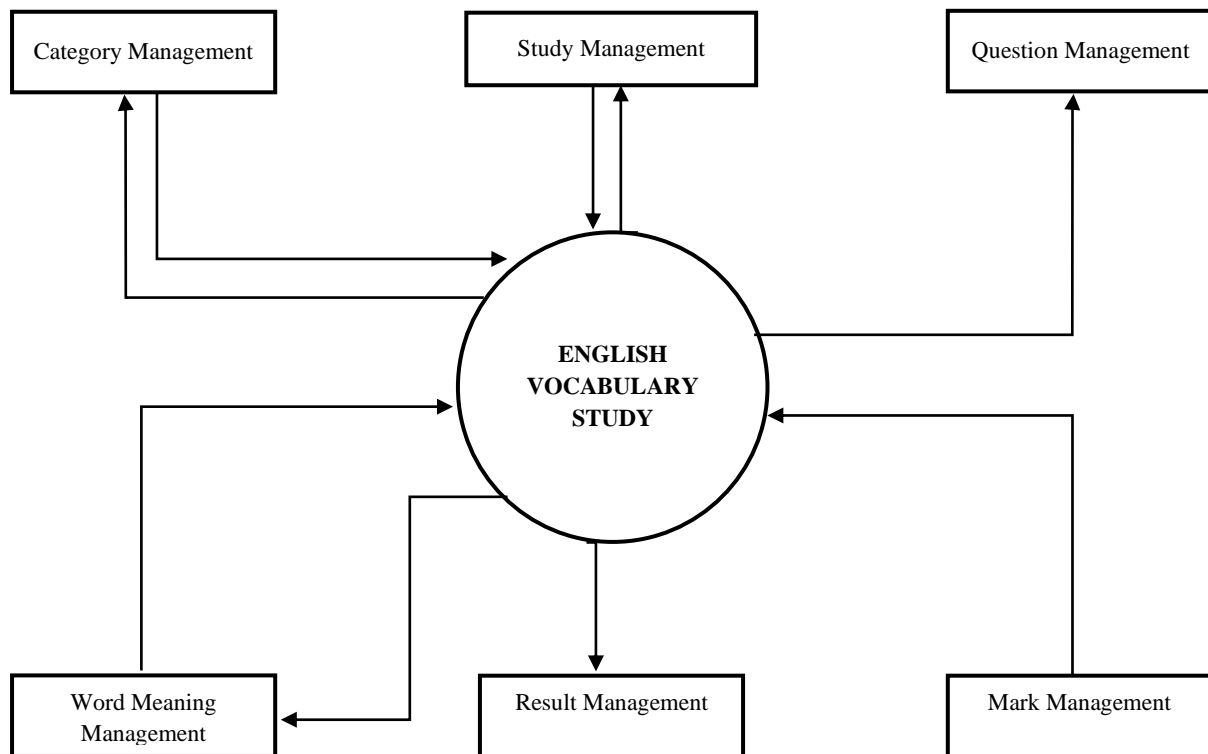


Figure 3.2.2: Context Diagram

### 3.2.3 Model the requirements

This process usually consists of various graphical representations of the functions, data entities, external entities, and the relationships between them. The graphical view may help to find incorrect, inconsistent, missing requirements. Such models include the

- Use-case diagram
- Flow-chart

#### Use-case diagram:

The use case diagram is dynamic in nature, there should be some internal or external factors for making the interaction. These internal and external agents are known as actors. Use case diagrams consists of actors, use cases and their relationships. The diagram is used to model the system/subsystem of an application. A single use case diagram captures a particular functionality of a system. In brief, the purposes of use case diagrams can be said to be as follows—

- Used to gather the requirements of a system.
- Used to get an outside view of a system.



- Identify the external and internal factors influencing the system.
- Show the interaction among the requirements are actors.

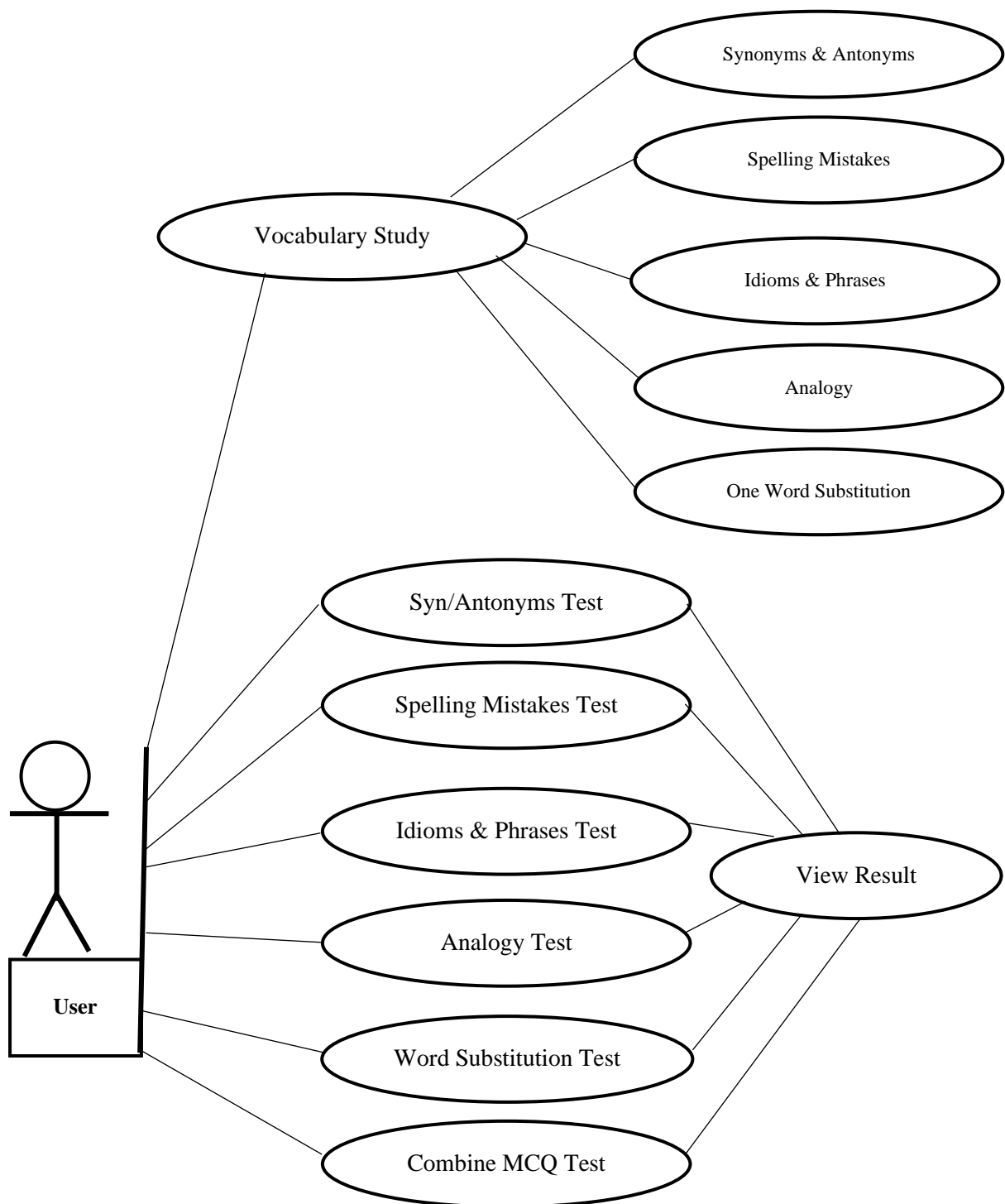


Figure 3.2.3(a): Use-case Diagram

**Flow-chat:** The Flowchart-diagram is shown in figure below.

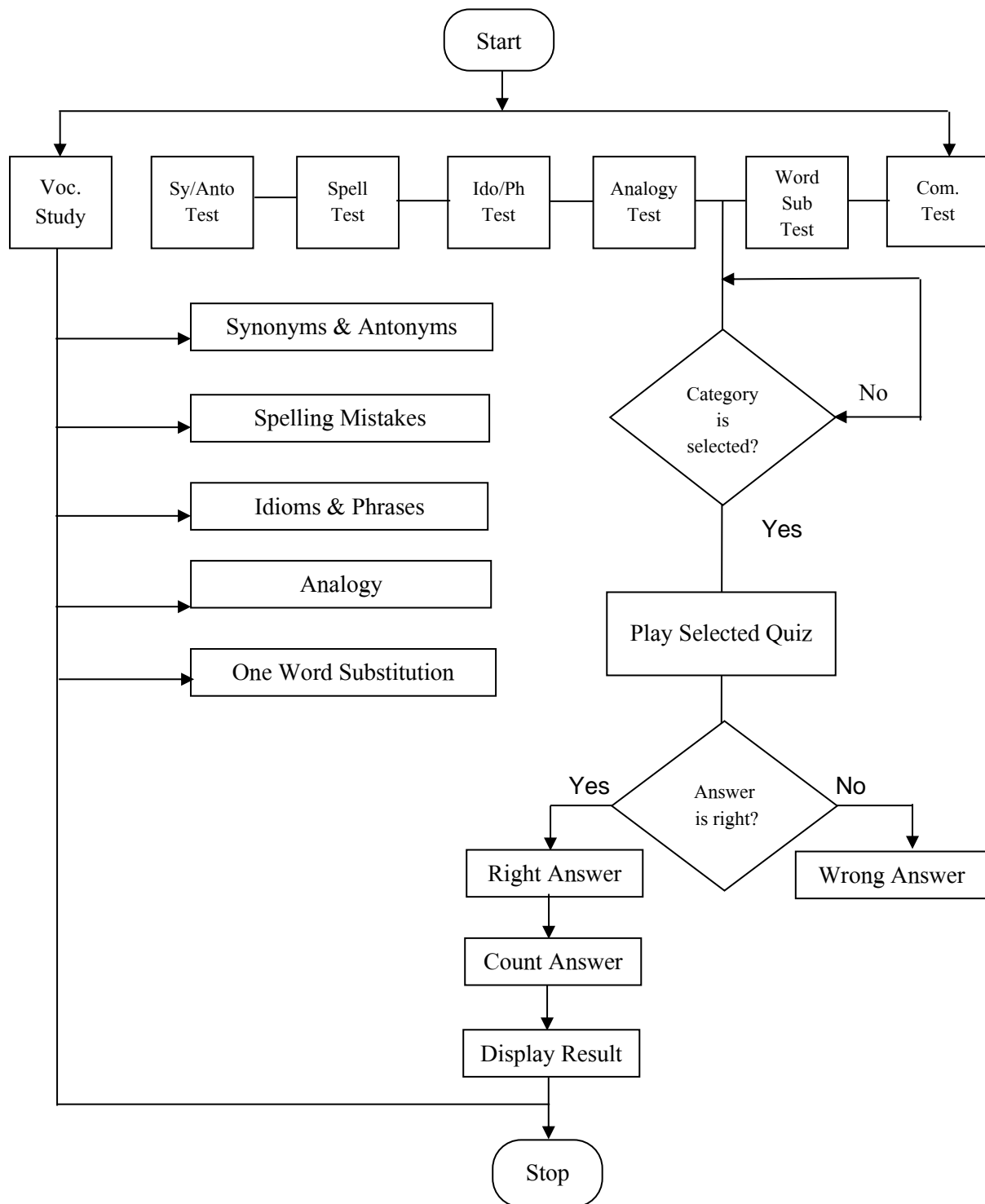


Figure 3.2.3 (b): Flowchart Diagram

## CHAPTER 4: PROJECT DESCRIPTION

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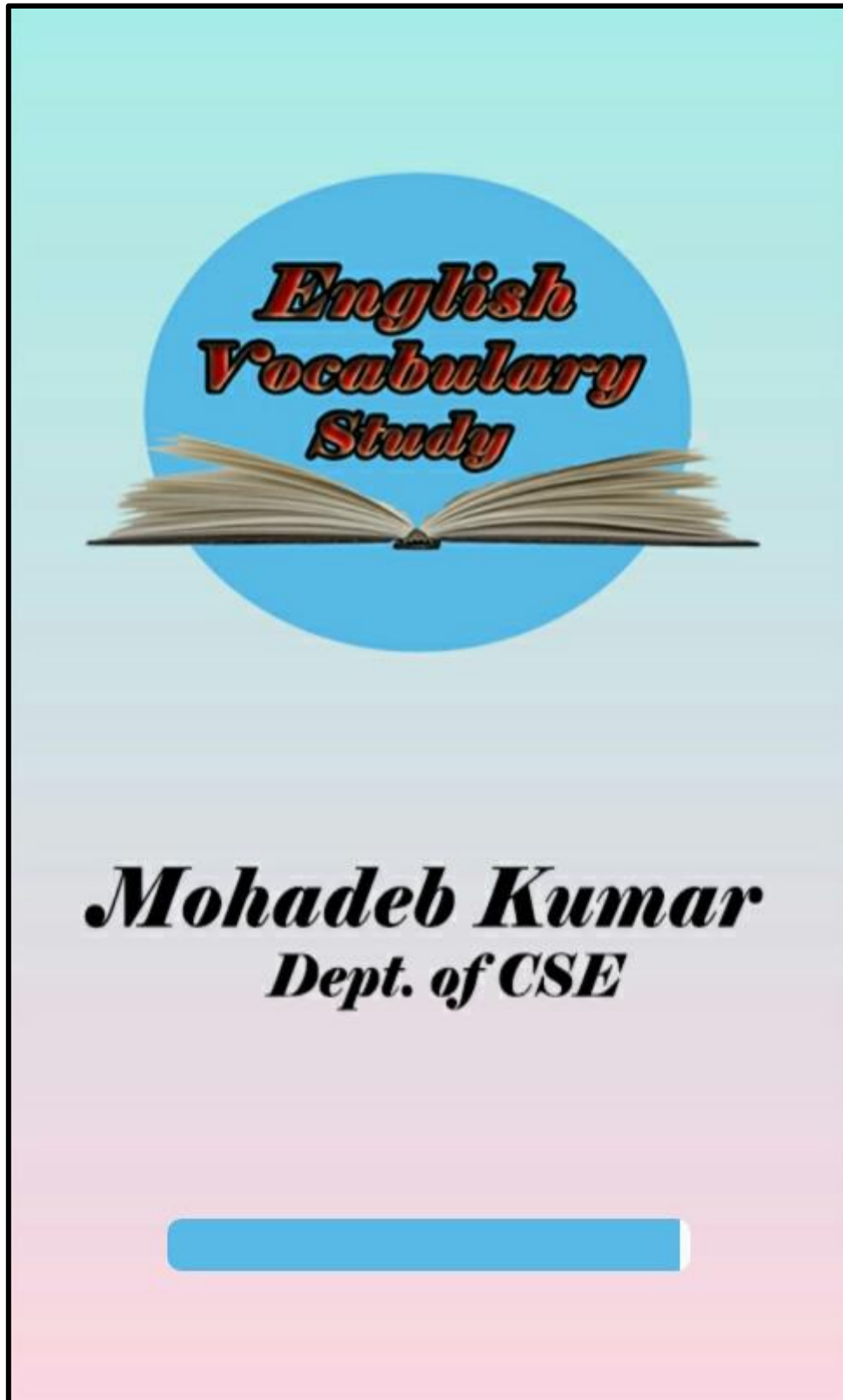
### 4.1 Project overview

The “ENGLISH VOCABULARY STUDY” android application deals with the various activities related to the learning and skill developing in English. There are many modules in this project:

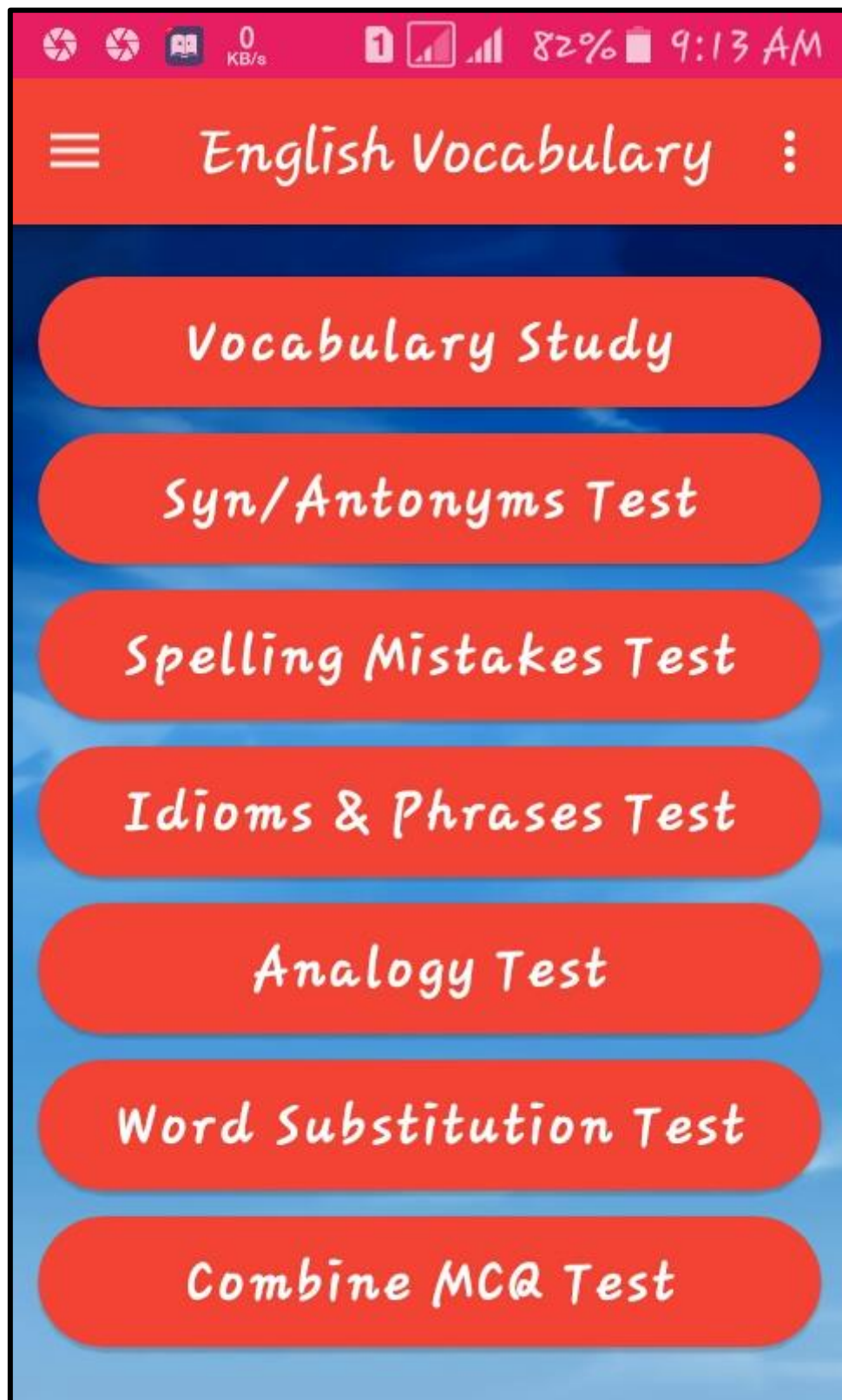
- ❖ Home page
- ❖ Vocabulary Study Panel
- ❖ Vocabulary Testing Category Panel
- ❖ MCQ Question Panel
- ❖ Result Panel
- ❖ About Developer & Others Panel

#### 4.1.1 Home page

The given below page is a Splash Screen with Progress bar as intro page.

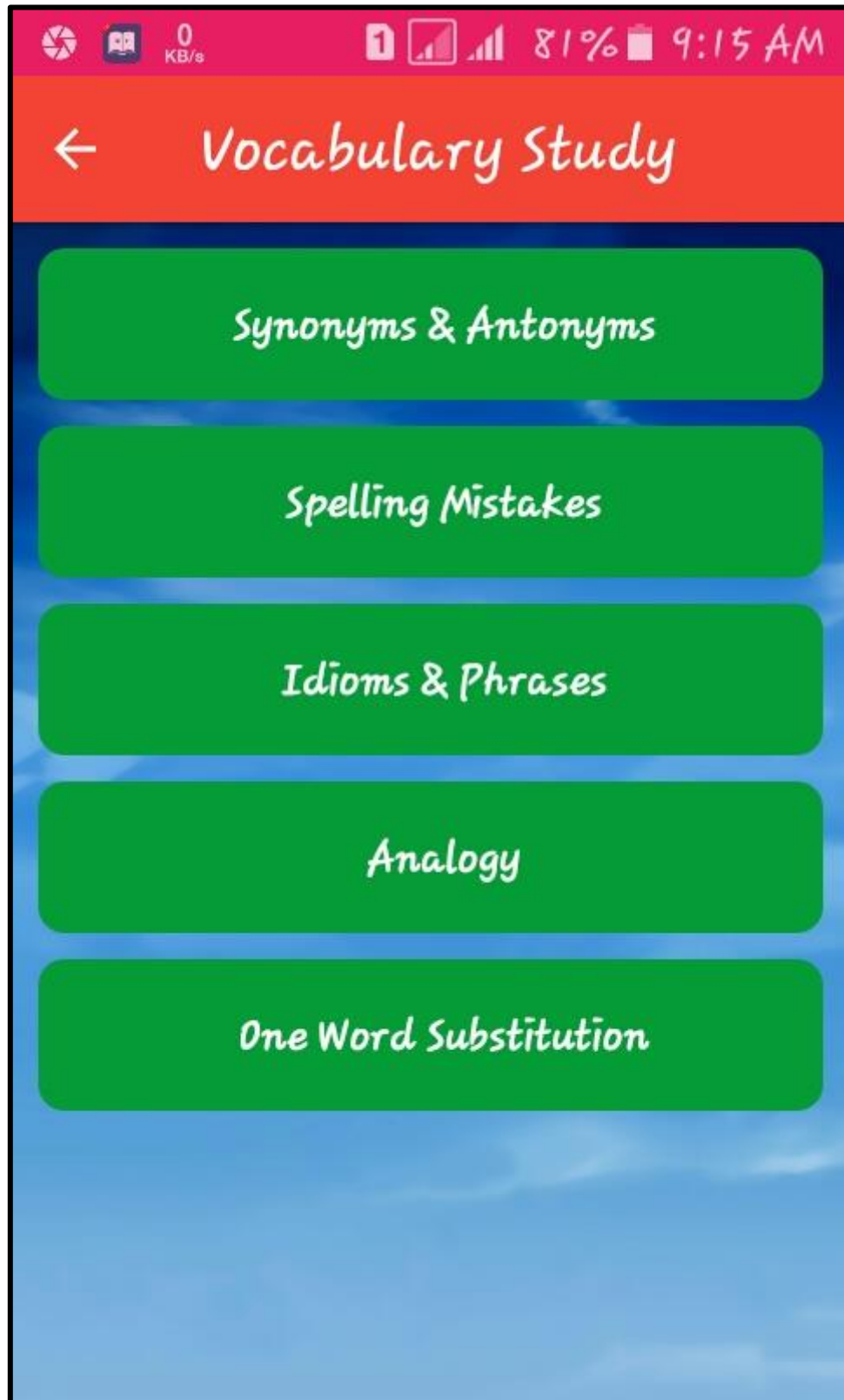


This is the main home page of our application where all categories of vocabulary are displayed. The including categories are Vocabulary study, Syn/Antonyms Test, Spelling Mistakes Test, Idioms & Phrases Test, Analogy Test, One Word Substitute and Combine MCQ Test.












#### 4.1.2 Vocabulary Study Panel

This is Vocabulary study page under main home page where contains four subcategories Such Synonyms & Antonyms, Spelling Mistakes, Idioms & Phrases, Analogy and One word Substitution.



The following page is for study of synonyms and antonyms through MCQ type questions with Bengali meanings.



 *English Vocabulary...*

**Synonym & Antonym**

**Q01. The synonym of 'initiative' is-**

- a) Apathy
- b) Indolence
- c) Enterprise
- d) Activity









**Ans: Enterprise**


**initiative-** আরম্ভ, প্রথম পদক্ষেপ, উদ্যম  
**Apathy-** অহীনা, উদাসীনতা  
**Indolence-** অলসতা  
**Enterprise-** নতুন কিছু করার জন্য উদ্যম, উদ্যোগ  
**Activity-** সক্রিয়তা, তৎপরতা

**Q02. The synonym of 'Disdain' is-**

- a) Belittle
- b) Brave
- c) Beau

The following page is for study of Spelling Mistakes through MCQ type questions with Bengali meanings.



 *English Vocabulary...*

**Spelling Mistakes**

**Q01. Choose the correct spelling.**

- a) Amature
- b) Amatuer
- c) Ametuer
- d) Amateur

**Ans: Amateur**

Amateur- অপেশাদার









**Q02. Choose the correct one.**

- a) Borucracy
- b) Bureaucracy
- c) Burocracy
- d) Bureaucrasy

**Ans: Bureaucracy**



The following page is for study of Idioms & Phrases through MCQ type questions with Bengali meanings.



← English Vocabulary...

**Idioms & Phrases**

**Q01. Explain the meaning of 'Bring to pass'.**

- a) Cause to destroy
- b) Cause to happen
- c) Cause to carry out
- d) Cause to convince

**Ans: Cause to happen**

Bring to pass- কোনো কিছু ঘটানো

Cause to destroy- ধ্বংস হওয়া

Cause to happen- কোনো কিছু ঘটানো









Cause to carry out- কোনো কিছু সম্পাদন করা

Cause to convince- কোনো কিছু স্বমতে নিয়ে আসা

**Q02. 'Out and out' means-.**

- a) Not at all
- b) Brave

The following page is for study of Analogy through MCQ type questions with Bengali meanings.



English Vocabulary...

**Analogy**

**Q01. 'Harm:Damage'.**

- a) Sweet:Sour
- b) Injure:Incapacitate
- c) Stout:Weak
- d) Hook:Crook

**Ans: Injure:Incapacitate**









**Harm(ক্ষতি করা):Damage(ধ্বংস করা)**- অর্থাৎ কাউকে ধ্বংস করার জন্য ক্ষতি করা হয়

**Injure(আঘাত করা, ক্ষত করা):Incapacitate(অক্ষম করা, আঘাতের দ্বারা দুর্বল করা)**- একইভাবে কাউকে অক্ষম করার জন্য আঘাত করা হয়

**Q02. Tiger:Zoology::Mars:.**

- a) Astrology
- b) Cryptology
- c) Astronomy

The following page is for study of One word Substitution through MCQ type questions with Bengali meanings.



← English Vocabulary...

**Word Substitution**

**Q01. If a part of a speech or writing breaks the theme, it is called-.**

- a) Pomposity
- b) Digression
- c) Exaggeration
- d) Anti-climax

**Ans: Digression**

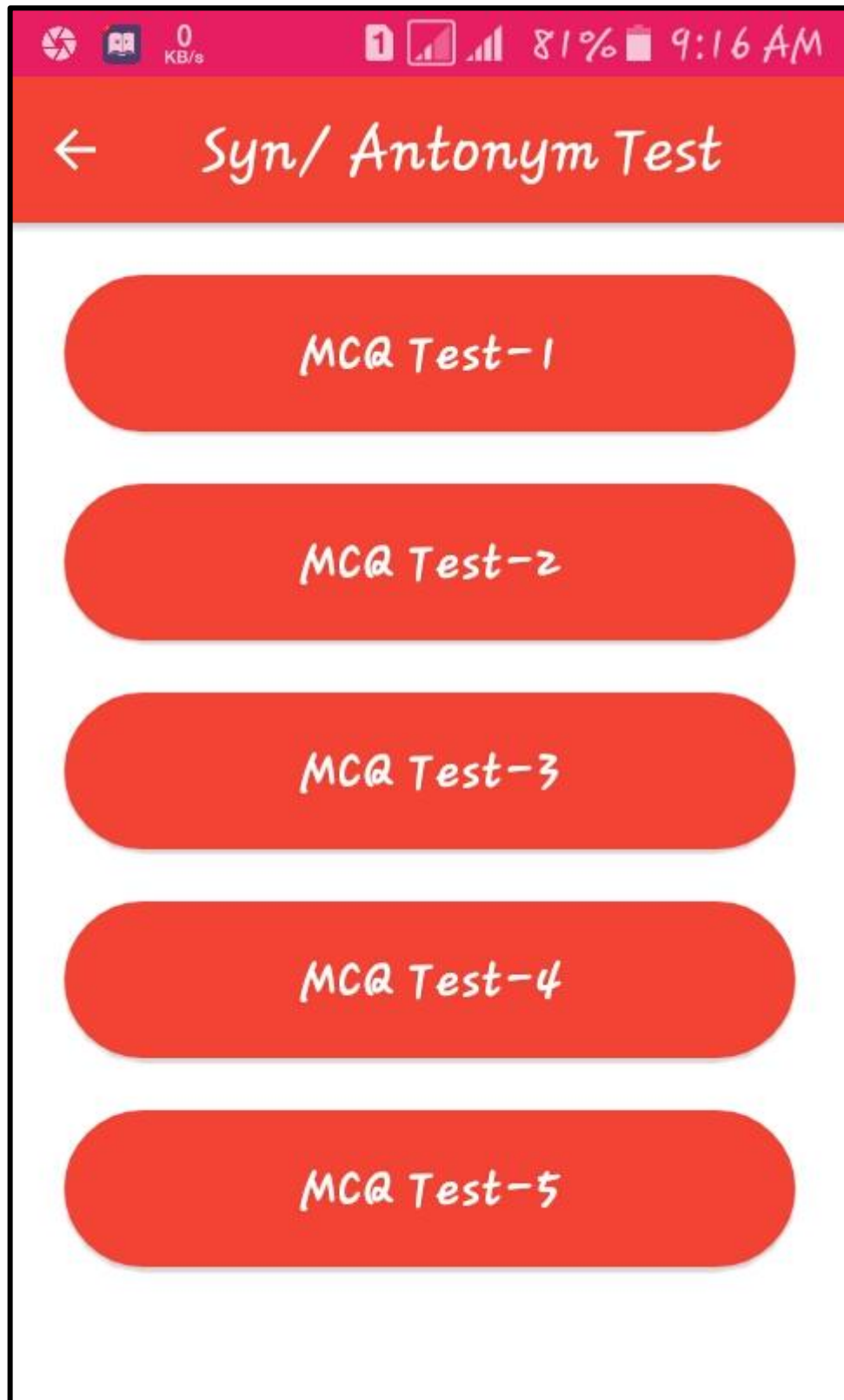
Digression(মূল প্রসঙ্গ থেকে বিচ্যুতি)- যদি কোনো বক্তব্য বা লেখা মূলভাব থেকে বিচ্যুত হয়ে পড়ে তখন তাকে Digression বলে

**Q02. First language means the\_\_\_language.**

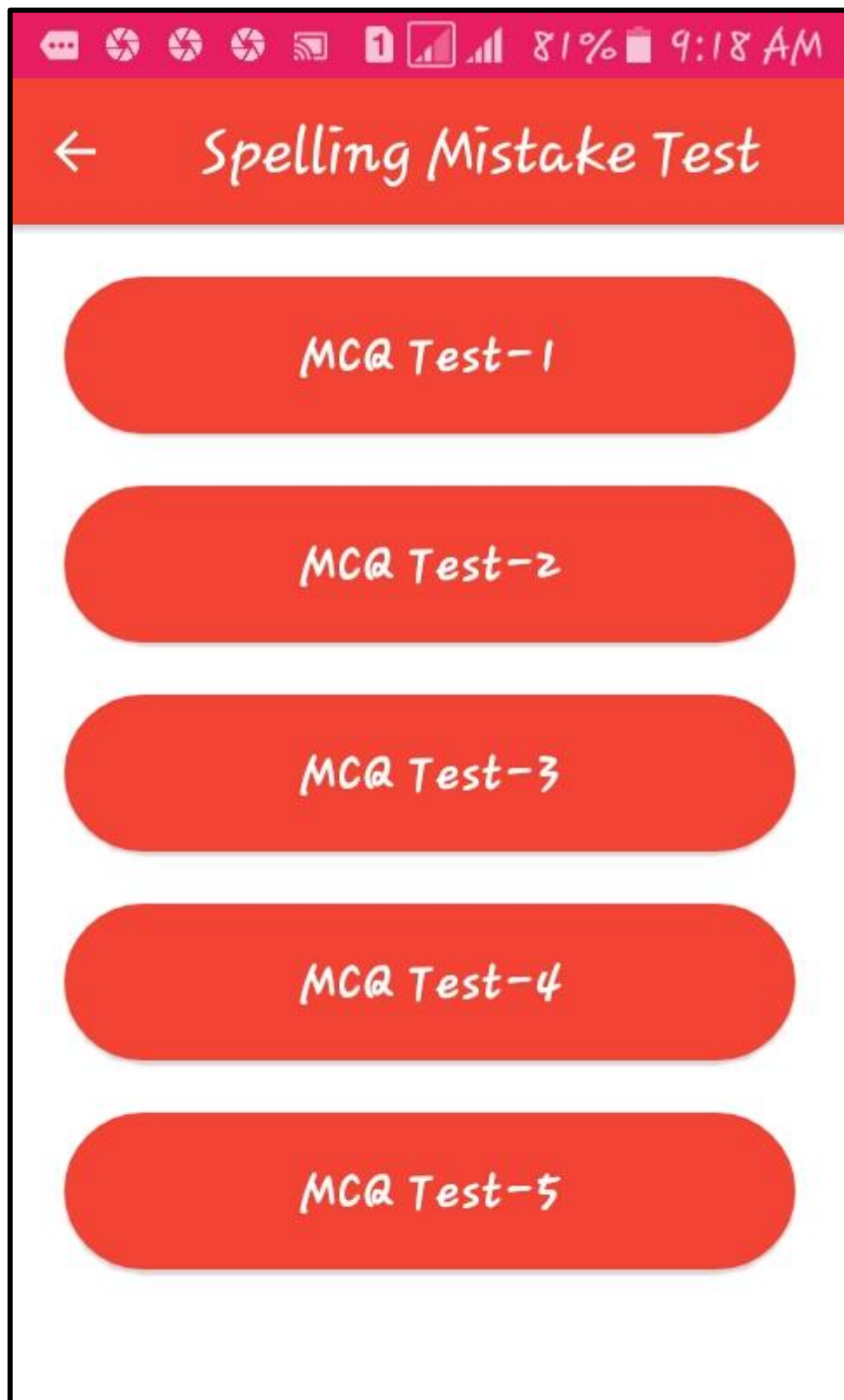
- a) Important
- b) Main
- c) Natural

### 4.1.3 Vocabulary Testing Category Panel

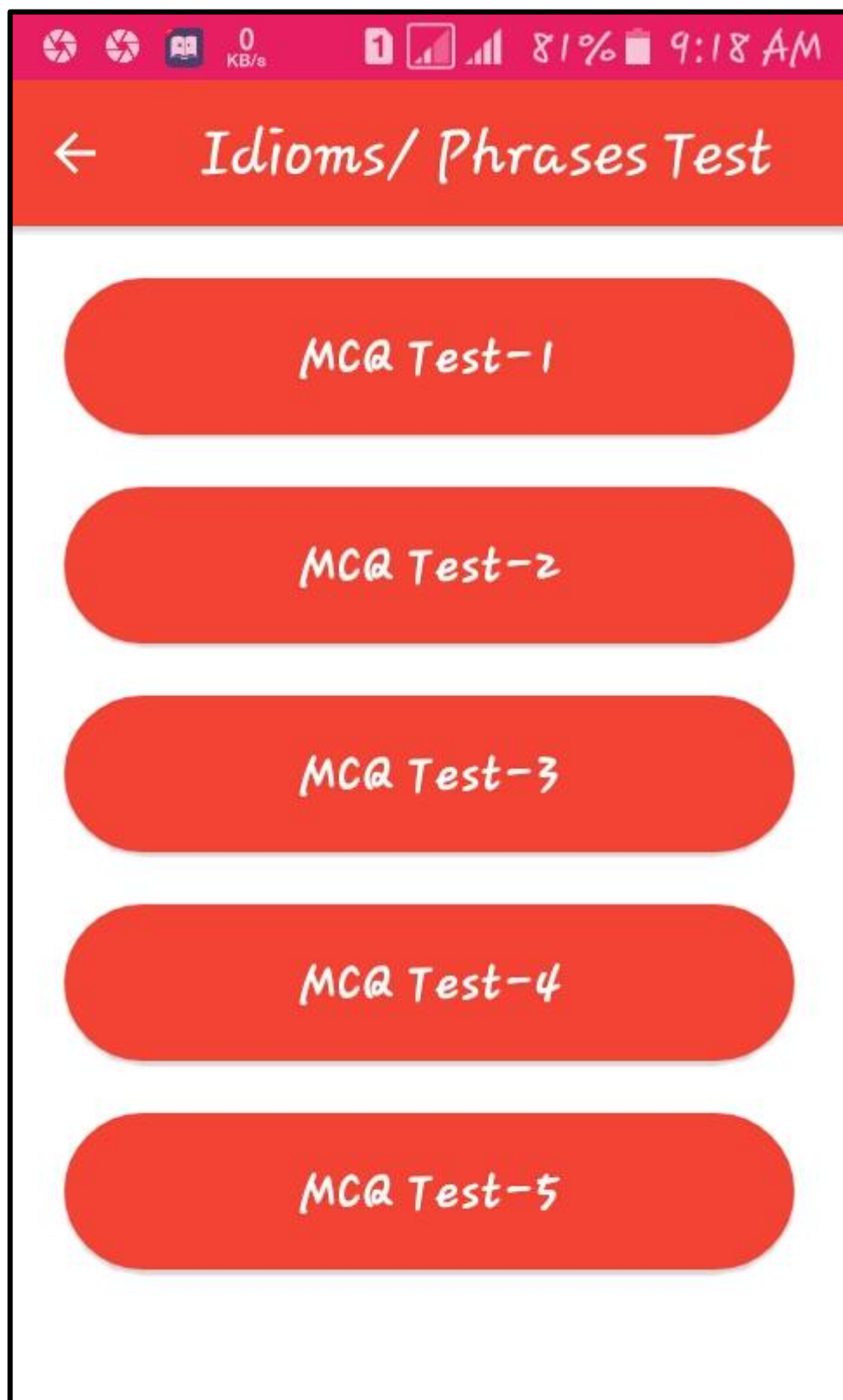
The given pages shown as Vocabulary categories page, where including some Question for Vocabulary test. The following page is for testing of Synonyms & Antonyms with some questions.



The following page is for testing of Spelling Mistake with some questions.

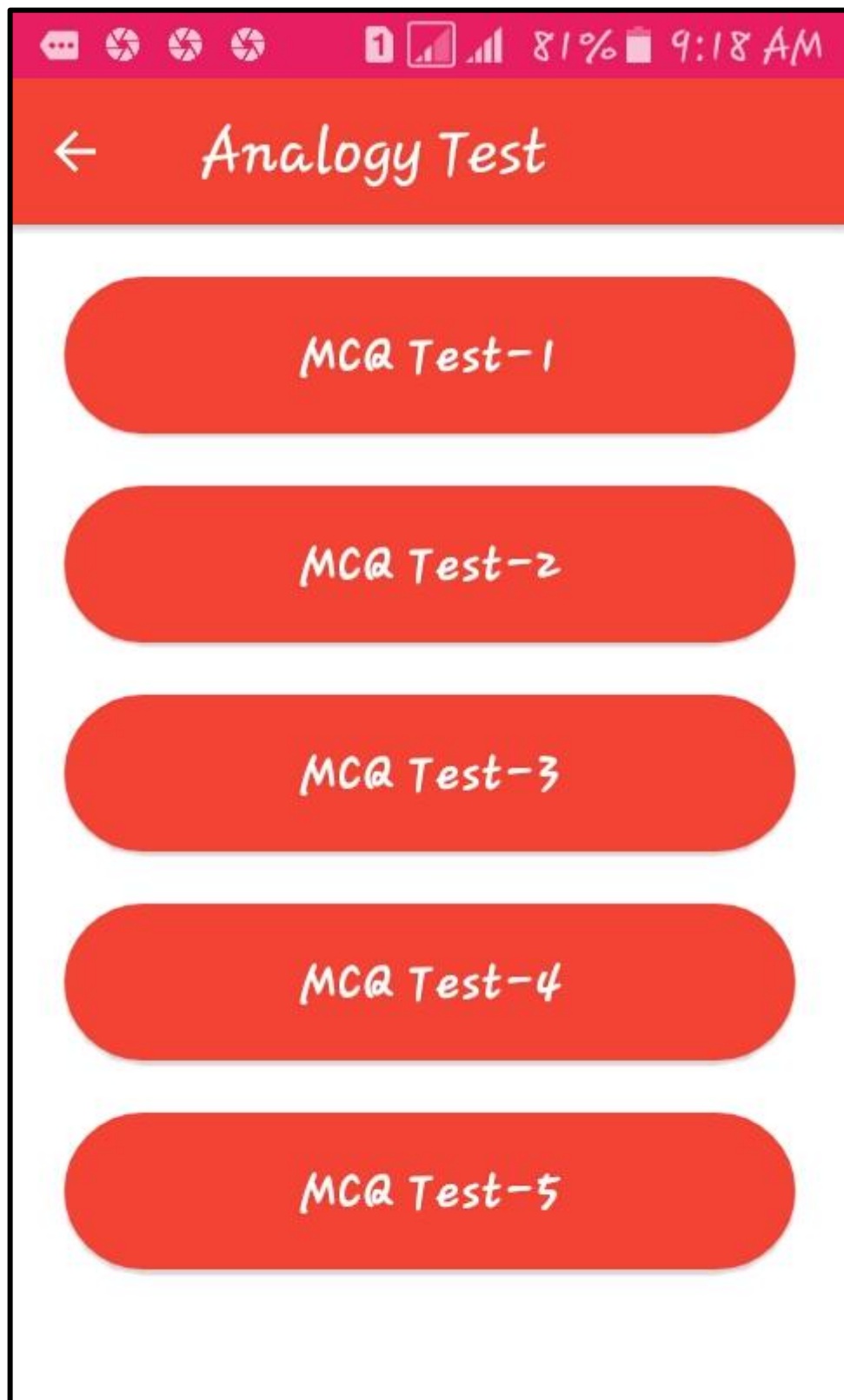


The following page is for testing of Idioms and Phrases with some questions.

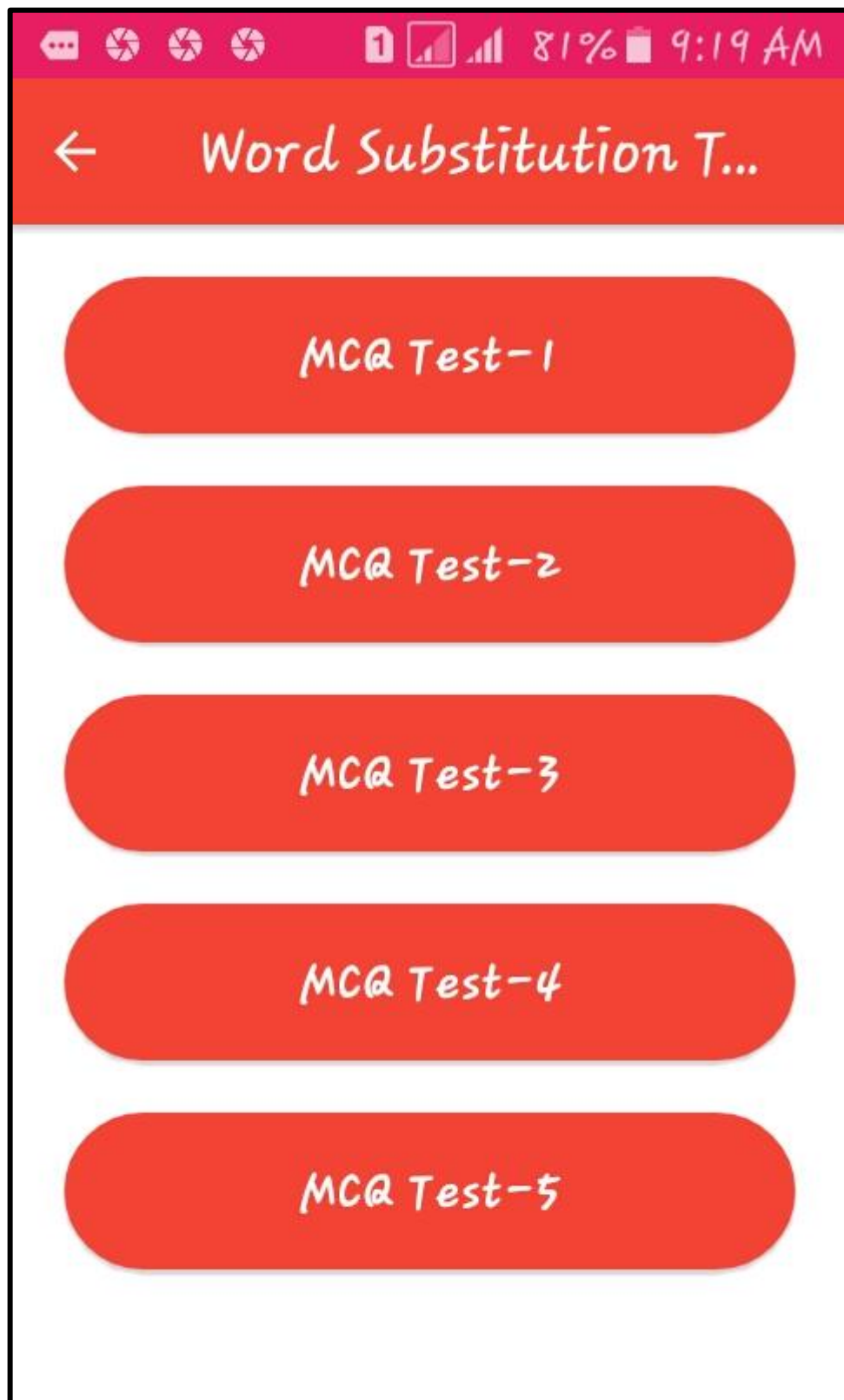




The following page is for testing of Analogy with some questions.

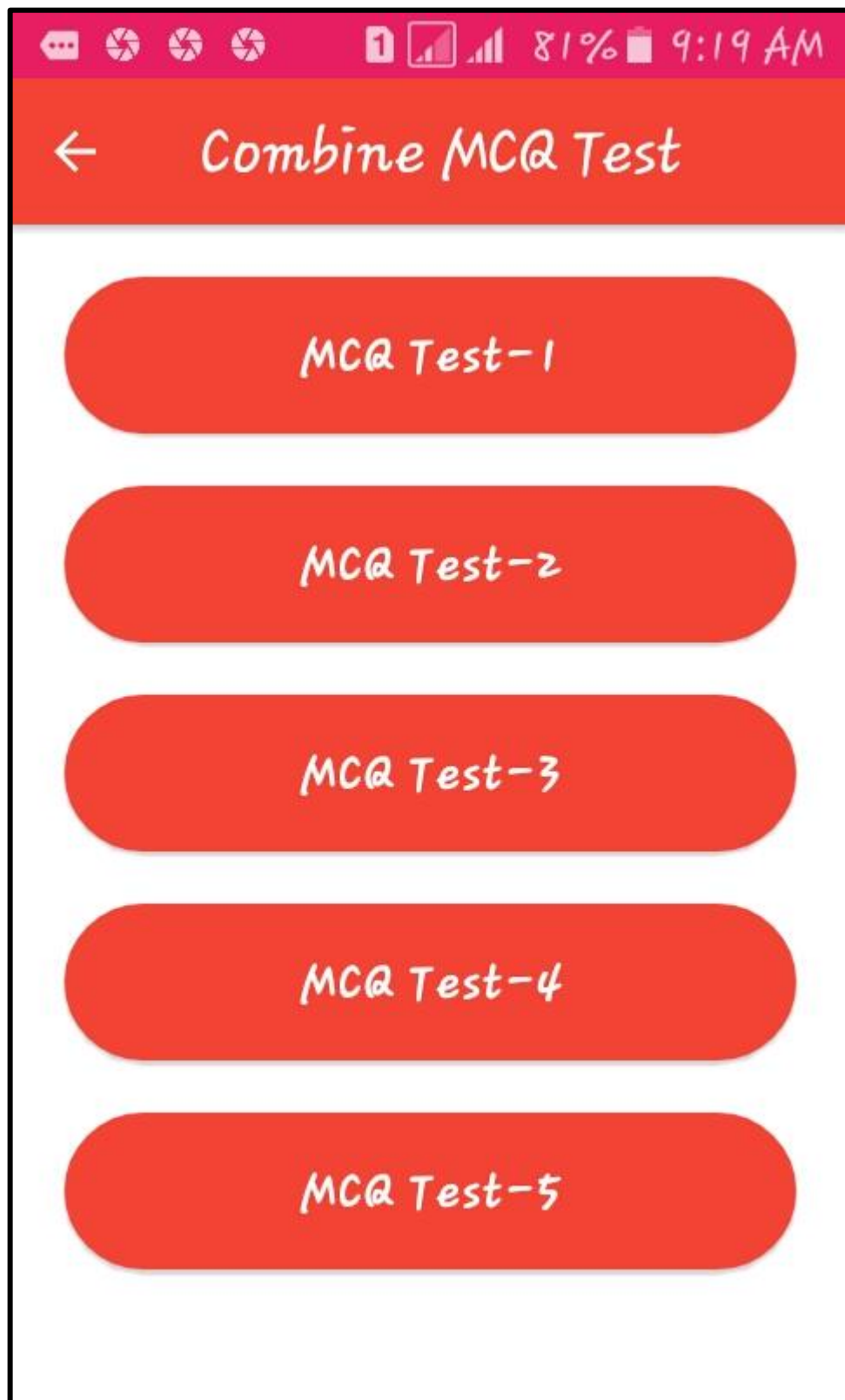


The following page is for testing of One word Substitution with some questions.



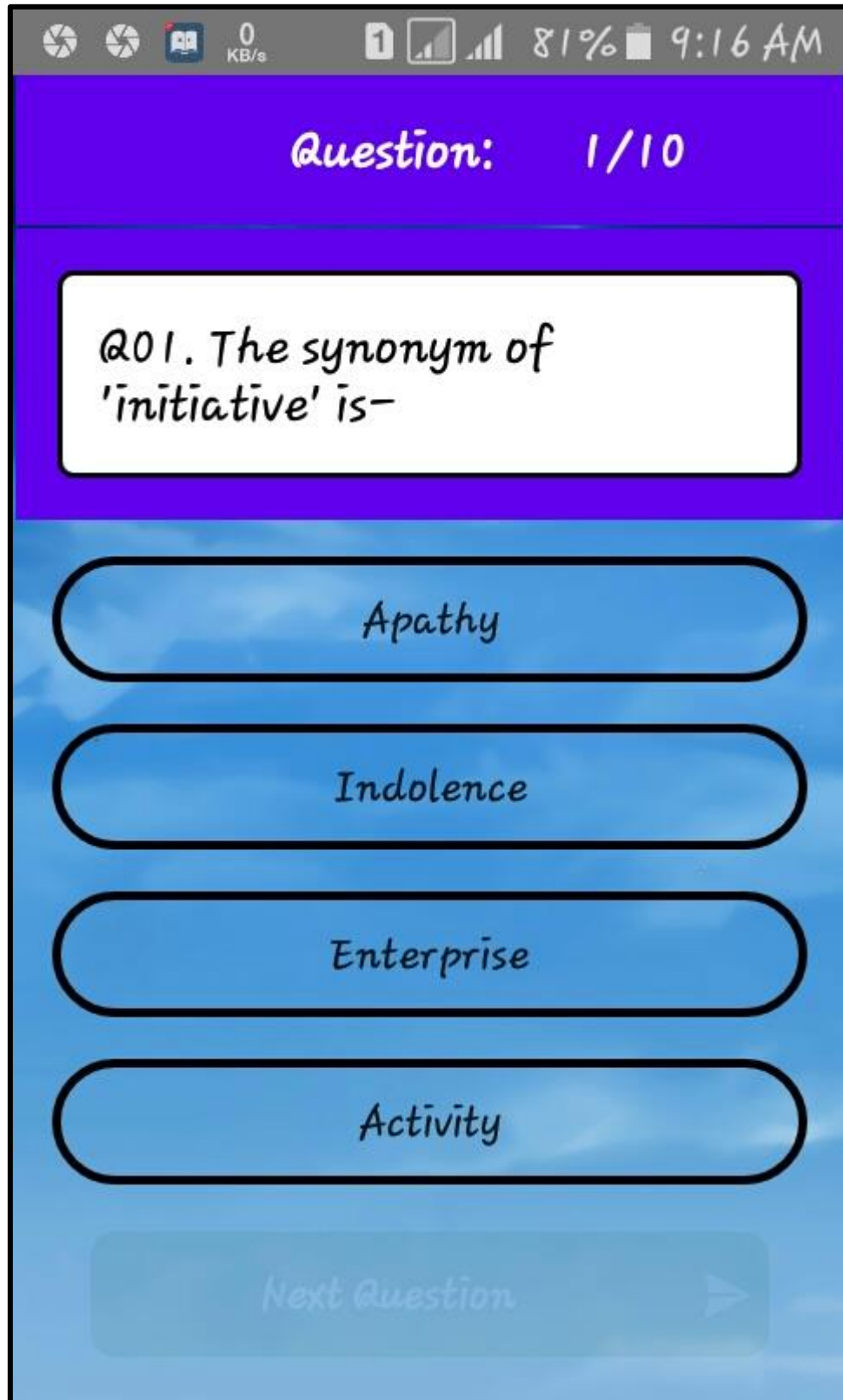


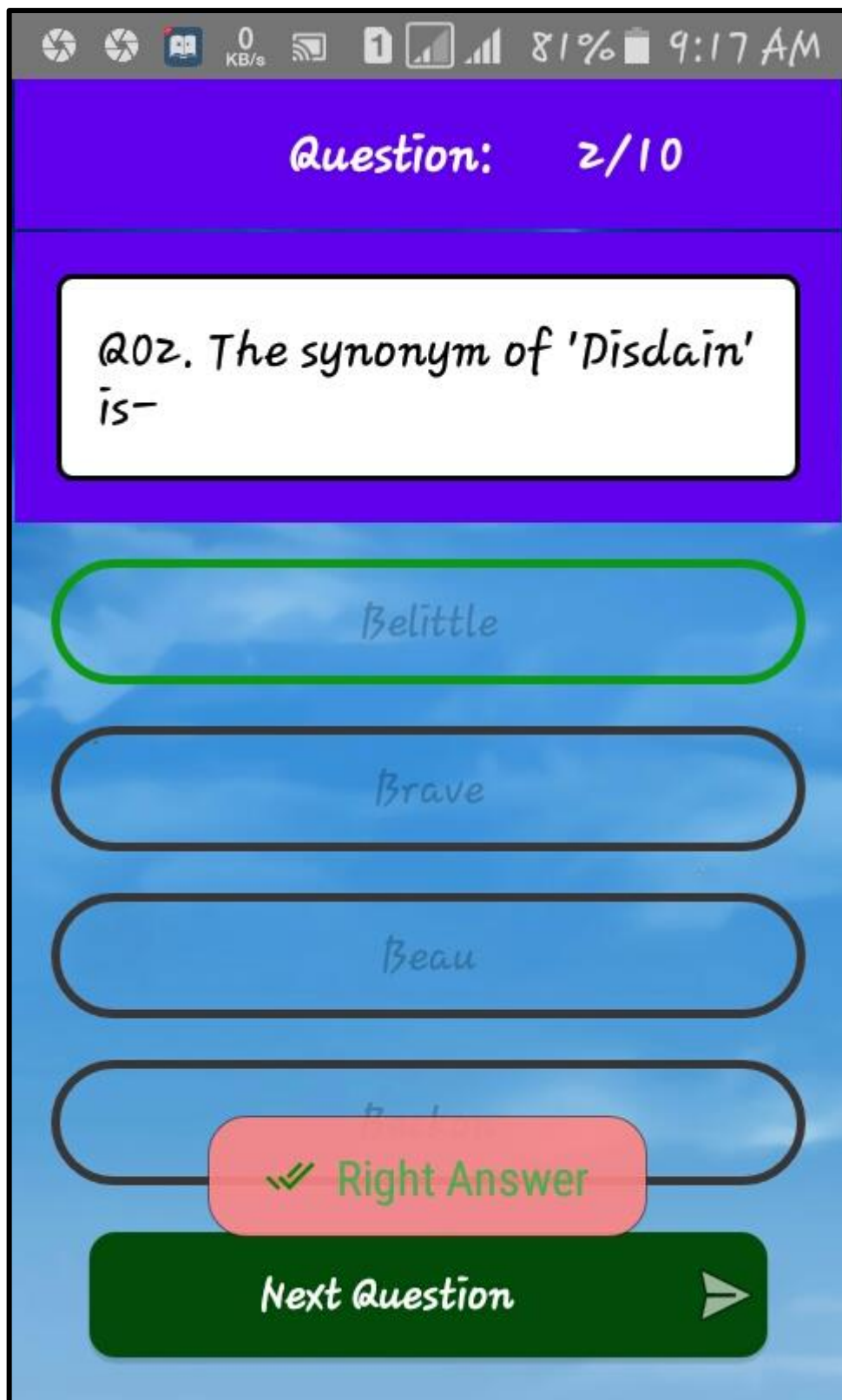
The following page is for testing of Combine MCQ with some questions.

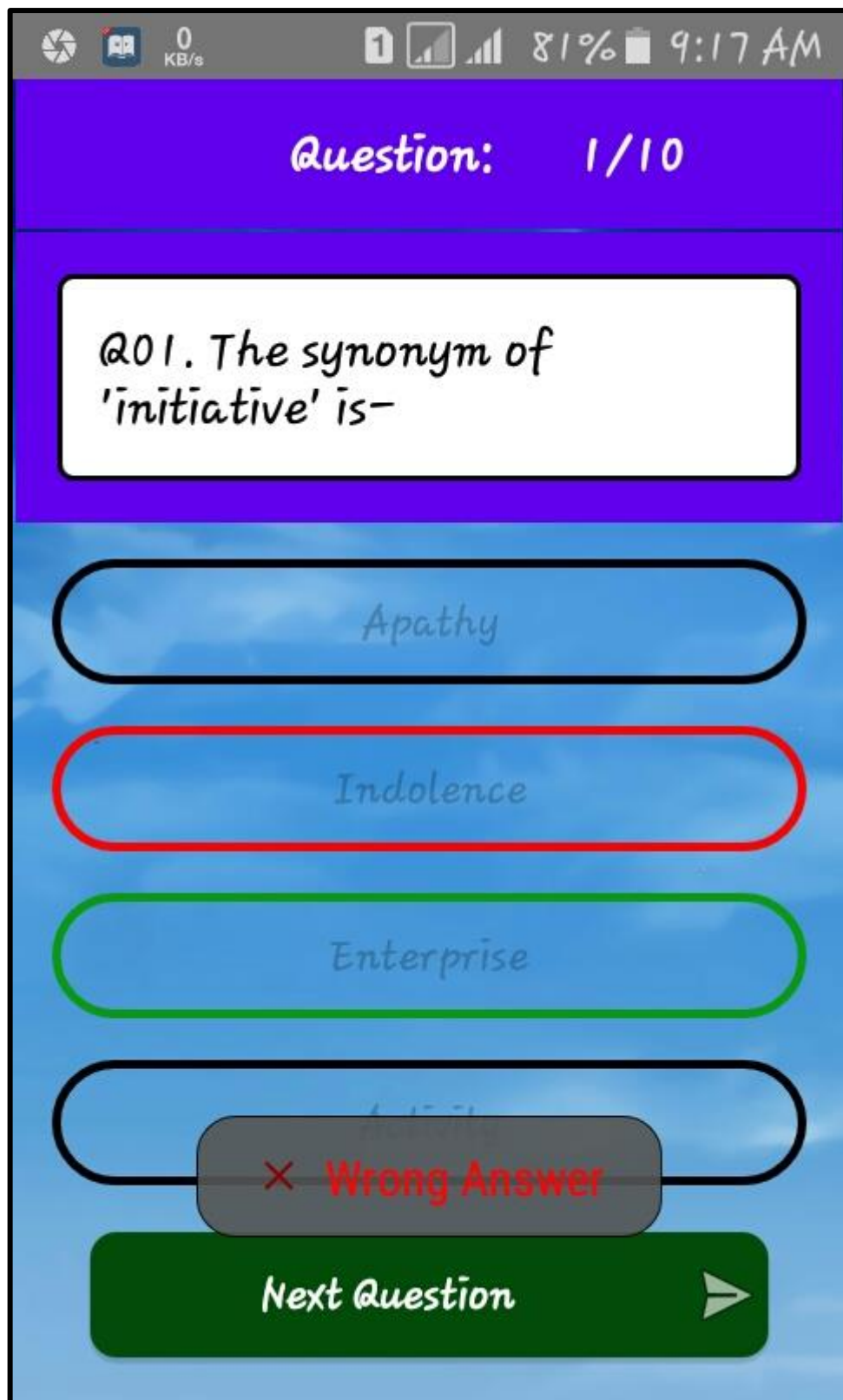


#### 4.1.4 MCQ Question Panel

The given pages are for question sets where use can test by selecting one option of four and can see right and wrong answer. If there is right answer the “Right Answer” toast will be visible otherwise “Wrong Answer” toast will be visible.

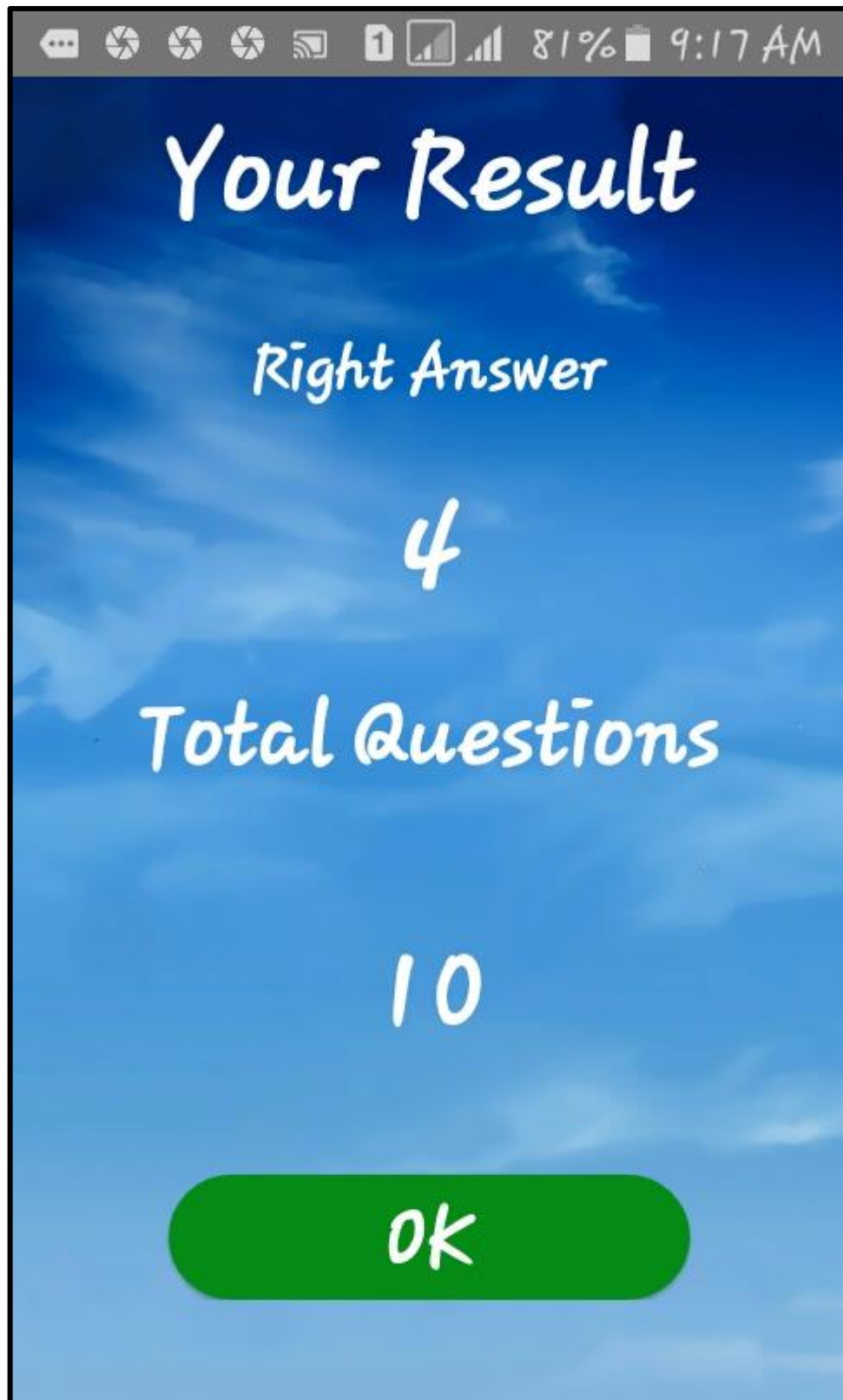






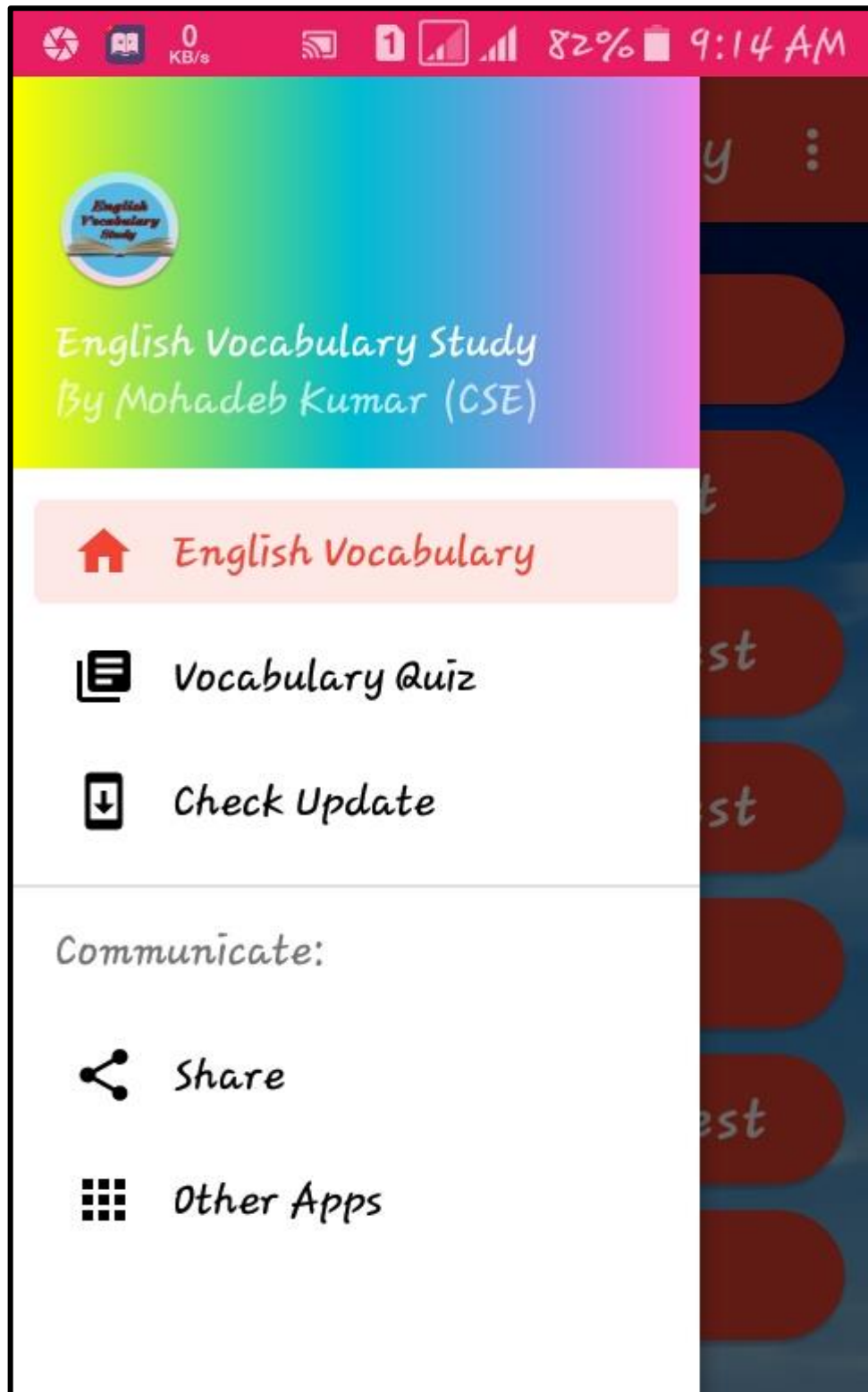
#### 4.1.5 Result Panel

The following page is for displaying result. From this page user can see test result after completing test.



#### 4.1.6 About Developer & Others Panel

In this page there are some useful features such as Check for Update, share option and view other application those are uploaded on play store by us.





By Click doted, there will appear there extra features where first one is for Privacy policy, second one is for about developer and finally exit button.





0  
KB/s



81%



9:14 AM



## About Us

### About Developer



#### **Mohadeb Kumar**

Dept. of Computer Science  
& Engineering (CSE).  
Hajee Mohammad  
Danesh Science &  
Technology

University(HSTU). I have  
created this "English  
Vocabulary Study" application for  
educational purposes. I hope students will  
be benefited from this application.

Gmail: [mohadeb.cse@gmail.com](mailto:mohadeb.cse@gmail.com)



## CHAPTER 5: TECHNICAL TOOLS AND LANGUAGES

---

### 5.1 Technical Tools used

The following tools are used as technical tools:

- ❖ Android Studio
- ❖ Notepad++

### 5.2 Languages used:

The following tools are used as technical Languages:

- ❖ Java
- ❖ HTML
- ❖ CSS 5

## CHAPTER 6: IMPORTANT CODE SEGMENTS

We have used “Android Studio” as Integrated Development Environment (IDE) for developing our android application project. In ‘Android Studio” IDE there are main two code section such as:

- **Java code** for controlling and maintain operation on every layout or activity.
- **XML code** for design every layout or activity.

In this chapter we just focus on important code segment in Java programming language. The code segments are given below:

### 6.1 MainActivity.java ----For Progress bar and splash screen.

```
public void doWork(){
    for(progress=3; progress<=100; progress=progress+5){
        try {
            Thread.sleep( millis: 50);
            progressBar.setProgress(progress);
        } catch (InterruptedException e) {
            e.printStackTrace();
        }
    }
}

public void startNextActivity(){
    Intent intent=new Intent( packageContext: MainActivity.this,HomeActivity.class);
    startActivity(intent);
    finish();
}
```

### 6.2 HomeActivity.java ----For Home index and other menu and navigation codes

```
private AppBarConfiguration mAppBarConfiguration;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_home);

    startBtn1=findViewById(R.id.startBtnID1);
    startBtn1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent categoryIntent=new Intent( packageContext: HomeActivity.this,CategoryActivity.class);
            startActivity(categoryIntent);
            finish();
        }
    });

    startBtn2=findViewById(R.id.startBtnID2);
    startBtn2.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent categoryIntent=new Intent( packageContext: HomeActivity.this,QuizActivity.class);
            startActivity(categoryIntent);
            finish();
        }
    });
}
```

### 6.3 CustomerAdapter.java ----For managing HTML code

```
@NonNull
@Override
public CustomHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {

    LayoutInflater inflater=LayoutInflater.from(context);
    View view=inflater.inflate(R.layout.item_list,parent, attachToRoot: false);
    return new CustomHolder(view);
}

@Override
public void onBindViewHolder(@NonNull CustomHolder holder, int position) {

    final String htmlfile=htmlFile[position];

    holder.textView.setText(title[position]);
    holder.linearLayout.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent=new Intent(context,StudyActivity.class);
            intent.putExtra( name: "file",htmlfile);
            context.startActivity(intent);
            ((CategoryActivity)context).finish();
        }
    });
}
```

### 6.4 CategoryActivity.java ----For maintenance study categories

```
@NonNull
@Override
public CustomHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {

    LayoutInflater inflater=LayoutInflater.from(context);
    View view=inflater.inflate(R.layout.item_list,parent, attachToRoot: false);
    return new CustomHolder(view);
}

@Override
public void onBindViewHolder(@NonNull CustomHolder holder, int position) {

    final String htmlfile=htmlFile[position];

    holder.textView.setText(title[position]);
    holder.linearLayout.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent=new Intent(context,StudyActivity.class);
            intent.putExtra( name: "file",htmlfile);
            context.startActivity(intent);
            ((CategoryActivity)context).finish();
        }
    });
}
```

## 6.5 QuestionModel.java ----For arranging question model

```
public QuestionModel(String question, String optionA, String optionB, String optionC, String optionD, String correctAns) {
    this.question = question;
    this.optionA = optionA;
    this.optionB = optionB;
    this.optionC = optionC;
    this.optionD = optionD;
    this.correctAns = correctAns;
}

public String getQuestion() { return question; }

public void setQuestion(String question) { this.question = question; }

public String getOptionA() { return optionA; }

public void setOptionA(String optionA) { this.optionA = optionA; }

public String getOptionB() { return optionB; }

public void setOptionB(String optionB) { this.optionB = optionB; }

public String getOptionC() { return optionC; }

public void setOptionC(String optionC) { this.optionC = optionC; }

public String getOptionD() { return optionD; }

public void setOptionD(String optionD) { this.optionD = optionD; }
```

## 6.6 QuestionActivity1.java ----For including questions [4]

```
public QuestionModel(String question, String optionA, String optionB, String optionC, String optionD, String correctAns) {
    this.question = question;
    this.optionA = optionA;
    this.optionB = optionB;
    this.optionC = optionC;
    this.optionD = optionD;
    this.correctAns = correctAns;
}

public String getQuestion() { return question; }

public void setQuestion(String question) { this.question = question; }

public String getOptionA() { return optionA; }

public void setOptionA(String optionA) { this.optionA = optionA; }

public String getOptionB() { return optionB; }

public void setOptionB(String optionB) { this.optionB = optionB; }

public String getOptionC() { return optionC; }

public void setOptionC(String optionC) { this.optionC = optionC; }

public String getOptionD() { return optionD; }

public void setOptionD(String optionD) { this.optionD = optionD; }
```

## 6.7 ScoreActivity.java ----For display and manipulating quiz test score

```
package com.example.englishvocabularyquiztest;

import ...

public class ScoreActivity extends AppCompatActivity {
    private TextView score, total;
    private Button doneBtn;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_score);

        score=findViewById(R.id.scoreID);
        total=findViewById(R.id.totalID);
        doneBtn=findViewById(R.id.doneBtnID);
        score.setText(String.valueOf(getIntent().getIntExtra( name: "score", defaultValue: 0)));
        total.setText(String.valueOf(getIntent().getIntExtra( name: "total", defaultValue: 0)));
        doneBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent=new Intent( packageContext: ScoreActivity.this,QuizActivity.class);
                startActivity(intent);
            }
        });
    }
}
```

## CHAPTER 7: TESTING

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Application testing refers to the process of testing any software application using scripts, tools, or any test automation frameworks in order to identify errors. It helps teams release bug-free and robust software applications into the real world. We use the following testing in our android application:

- Unit Testing
- Compatibility Testing
- Beta Testing

### 7.1 Unit testing

Unit testing involves the testing of each unit or individual component of the software application. It is the first level of software testing. Our aim of unit testing is to validate unit component with its performance. A unit is a single testable part of a software system and tested during the development phase of the application software. Therefore, we used white box testing approach used for unit testing.

### 7.2 Compatibility testing

This application was tested and used on different devices like Samsung Galaxy J1 Ace, Symphony V85. The application worked fine and is stable. The application worked fine both in landscape and portrait modes and there isn't any problem with the resolution or compatibility.

### 7.3 Beta testing

Android app Beta testing is a phase of the software development lifecycle where a group of external users (Beta testers) test application in real-world environments to discover errors and provide you with feedback.

The present application was tested by myself and friends who are using different mobile devices that has Lollipop Android and that seemed to be working fine and they were satisfied with the performance and responsiveness of the application and how the app worked.

## CHAPTER 8: CONCLUSION

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The main vision of “ENGLISH VOCABULARY LEARNING” project is to provide the necessary all vocabulary categories with proper meaning to the users. As it is an android-based application and available in the Smartphone. So, user can easily study of English vocabularies anywhere by installing this application in android device.

At the same time there is some scope for improvement in the future. It can be possible to make it more users friendly by adding more variety of functions to it.

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-----The end-----