CHAPTER 1
1. INTRODUCTION

1.1 OVERVIEW OF THE PROJECT

With the rapid advance of wireless and mobile technologies, providing mobile learning environments enables learners to learn at anytime and any places. Many studies showed integrating mobile technology into learning activities can provide several benefits in improving students' learning attitudes and their learning achievements. The use of mobile phones and tablet when compared to pc is increasing day by day. In today's world it is difficult to use the vocabularies people who lake in English language. An abundance of evidence from research suggests that a mobile learning system has great potential in providing learners with unprecedented learning opportunities. This android based application will helps the user understand the meaning of the word and the database having its corresponding explanation along with its question.

Although English as an international language affects the overall competition of different fields in a country and how to enhance English proficiency of people is a critical issue in non-English countries (Chen & Hsu, 2008), there are factors might inhibit people living in these countries from attending regular classrooms. As an instance, imagine individuals have to learn English due to their occupations or those individuals interested in traveling to countries where English is spoken as the first or second language or students learning English for studying abroad, but none of them have the opportunity for participation in classrooms. Likewise, individuals in societies have different manners and psychological barriers. An example could be a child who is filled with fear or middle-aged individuals reluctant for attending classes due to their bashfulness.

In this application each questions are having four option and each one has its radio button by selecting the button the user the answers and the application will react according to the user selection .The application identifies the options whether the user picking up the right or wrong from the database. If the user selects the correct option the text “you are a Genius!!!” is being displayed on the screen or if he selects the wrong option the text “Wrong, make another Guess!!!” is being displayed on the screen. If the user selects the correct one he could learn the meaning of the word *[4].*

We have three modes of question for the user purpose. First mode is easy mode, it contains Level 1 vocabularies for the people who using this application first time and to whom their English knowledge is weak. In second mode is Level 2 and it contains the question that could be asked for the users who need to proceed from the easy mode and this will help user to improve the English language. Third mode is Level 3 contains the harder questions than the questions that are being present in the easy and normal modes. This would help the user to improve his/her language to a greater extent. In each mode database will contain 100 set questions with its corresponding options. As a result, by providing the vocabularies in this way, the user can also learn the right meaning of vocabularies. This android based application mainly used to help the user who lack in English language *[5].*

AndroidDriver is a driver for running on Android devices or emulator, AndroidDriver uses Remote WebDriver as mention in above section. In Server-client architecture, while the test code is on the client side and with the prior installation of the server or android-server-2.6.0.apk onto the emulator or device *[6].*In the last 25 years, the field of second language acquisition has seen renewed interest in vocabulary learning and acquisition.

This paper attempts to synthesize for the reader the major findings of research into vocabulary learning and acquisition, outlined under each of the main areas of research on the topic. Following this, the implications of these research findings for teaching vocabulary to L2 (second language) learners will be discussed.

The Linked Data is a term that can be defined as the textual or graphical description of a conceptualization. It can be used to share and reuse the knowledge by using the Universal Resource Identifier (URI) and Resource description framework (RDF). In RDF, vocabularies, related semantics and relationships among concepts or terms of a particular domain have been used. In addition, vocabularies are very practical for explaining metadata terms and structuring domain knowledge in a structured and standard way. This type of standardization facilitates reuse and enables the applications to cooperate with one another more efficiently. Using Linked Data, developers can build more intelligent systems that can understand each other more thoroughly and generate more knowledge [1]. However, it is hard to maintain the vast amount of unstructured data such as PDF documents, video, audio etc for an organization. In order to solve this issue data are transformed in a way that machine can understand as well as data can be uploaded on the web for enabling semantic distribution. It is a door opener for connecting several pieces of information from the web cloud. There is a need of centralized tool for the data engineers to manage all available information in one place. The centralized tool should contain the vocabulary management as well as Linked data publishing functionalities. Many organizations are currently spending significant amount of money for developing their in-house vocabulary management tools to gain all desired functionalities.

But it’s very difficult to judge and evaluate a tool against the organizational requirements so the lack of confidence and confusion contribute to the overall operational costs. This issue has been addressed by developing a machine learning based vocabulary management tool assessment framework. Idea behind this work was to develop a mechanism to provide recommendation about available tools. It is recommended to have a compatible tool of Linked data management before starting any development as otherwise development process could be very inefficient. The key novelty of this work includes application of unsupervised machine learning based approach for clustering the evaluation properties and to give a recommendation for the end users. Using PCA and Bagging Decision Trees a new evaluation method has been developed for this study for assessment of the three different Vocabulary Management Tools. Furthermore, our analyses are based on qualitative and quantitative measurements.

1.2 LITERATURE SURVEY

Studies investigating using mobile phones for learning vocabulary have also started to appear in the literature, and the nature of the activities and the focuses of the research have been varied. Browne and Culligan (2008), for example, provide an overview of an environment where learners complete activities on a computer, after which time they can access vocabulary flash cards on their mobile phones that are generated based on items that the system predicts that they need to work on.

In their study, a description is given of how the activities are beneficial, specifically that targeted items are provided for learners to study at a time and place that suits them, but details are not given regarding how the system was actually used by the learners.

Another example is described by Thornton and Houser (2005), where learners were asked to access video lessons about English idioms from their mobile phones during class time and complete short multiple choice activities about the idioms they had learnt, also on their mobile phones in class. The materials were given a positive evaluation by the learners, who found them both fun and useful.

One study that attempted to investigate the way in which learners acquire vocabulary through mobile phones was conducted by Chen, Hsieh, and Kinshuk (2008). Learners deemed to have varying verbal and visual learning skills according to an online survey into short-term memory abilities were provided with four different types of annotations for learning English vocabulary depending on their learning preferences determined in the survey. Flashcards were sent to their mobile phones via SMS which included one of four different types of annotation; English word only, English word with written annotation, English word with pictorial annotation, and English word with both written and pictorial annotation. In a post-test carried out immediately after the activities.

The study only ran for a two- week period but showed that the learners who received the e-mails scored better on post-tests compared with the other two groups. No measures of effectiveness were conducted in Kennedy and Levy's study.A limitation plaguing research into using mobile phones for language learning, however, is that much of it occurs in artificial environments, generally within the classroom itself. In order to get a real indication of the nature of mobile learning, it is necessary to view its use in naturalistic settings. Learners were provided with tailored vocabulary activities based on listening activities covered in class, and were able to complete these either on mobile phones through the Internet browser function on their phones or on a normal desktop or laptop computer (PC).

Surveys and server log data revealed that learners used the PC in preference to the mobile phone in the vast majority of cases, many of whom indicated from the outset that they did not intend to use the mobile phone for their vocabulary study, citing problems such as the cost of Internet access, the screen size, the keypad and the study environment as the primary reasons. Many learners who indicated that they intended to use the mobile phone in a pre-survey either did not do so or used the mobile phone very minimally. While the reasons cited by learners such as cost, screen size and the inconvenient keypad shed some light on why some learners chose not to use the mobile phone.

Much of the research into vocabulary learning strategies has been aimed at determining the most effective vocabulary memorization techniques, developing taxonomies of strategy usage, and at identifying the vocabulary learning strategy (VLS) usage that distinguishes good and poor language learners. However, there has been very little research done regarding the trainability of vocabulary learning strategies. Of the few studies done, the results are inconclusive; while some studies report reasonable success, others report only limited success and student resistance (McDonough, 1995; Skehan, 1989; Stoffer, 1995). This lack of research into VLS trainability can be attributed to the necessity for such studies to be longitudinal in nature, and also the difficulty with which success in VLS use and training can be measured.

The limited research done in this area has shown that culture is an important determiner regarding the effectiveness with which VLS can be taught and used by learners. O'Malley and Chamot (1990) found that Hispanics who had strategy training improved their vocabulary scores compared to a Hispanic control group. However, Asians in strategy training groups resisted VLS training and performed worse than the Asian control group - who used their familiar rote repetition strategy.

In addition, analysis of a survey by Schmitt, Bird, Tseng, & Yang, (1997) revealed that learners of different culture groups have quite different opinions regarding what VLS they consider useful. At early stages of language development decontextualized vocabulary instruction has been found to be more effective in building a fundamental vocabulary base than has contextual reading.This suggests that teachers of beginner-level learners need to include greater amounts of decontextualized vocabulary instruction (e.g. word lists), gradually increasing toward more context-based vocabulary learning (e.g. extensive reading) as the language ability of their learners develop.

Second language teachers need to think of ways of exposing 'poorer' learners to the ways that 'good' learners approach lexical learning. That is, making 'poorer' learners more conscious of the need to develop a more independent and structured approach to vocabulary learning, which research has shown to be most associated with success in vocabulary learning.

Introducing and having learners practice using a variety of alternative vocabulary learning strategies can be considered an effective way of enabling learners to achieve more effective independent vocabulary learning in the future. Research has shown that strategies involving deeper elaboration (i.e. more active processing of information) result in better retention of words. However, many mnemonic and non-mnemonic semantic elaboration strategies assume a reasonable L2 vocabulary base from which associations can be made. For this reason, instruction in such strategies should be considered largely ineffective for beginner-level L2 learners, but would benefit learners of higher proficiency levels. In attempting to introduce vocabulary learning strategy training into a second language classroom, research alerts us to the following potential pitfalls: Certain cultural groups are likely to have quite different opinions regarding what VLS they consider useful, which may result in resistance to learning some types of alternative vocabulary learning strategies.

1.3 EXISTING SYSTEM

In existing system user should enter the word in the dictionary to find out its meaning. By entering the word in the dictionary it will shows the related meanings for the corresponding words. For example when we type the word in the dictionary like “perhaps” it will shows the corresponding meaning of the vocabulary. The user has to keep rolling the million word book to learn words which in later hardly stores in mind. Because simply knowing a word and its meaning at a instant will not help the user to use it later as there is no mapping of word by the user in some real situations.

1.4 PROPOSED SYSTEM

In the proposed system a window contains a question with multiple choices for user to choose. User can choose any option which he thinks correct to the question. Each question contains four options each with a check box which the user could select the option which he thinks would be the correct one. The way of giving these words could allow user to know its meaning. The questions contain four choices for the purpose of user to select a particular meaning and know its proper meaning.

This method allows the user to study the four choices and select the one which he thinks as a correct. It will help the users to know the right choice among the four options which is given with its questions.

At the end user can know the exact meaning of the word along with its proper usage as he/she has learned the word from the situation. This helps the user to map the word and use in his language when he/she comes across similar situations.

In the field of English language learning, there are many factors that have an effect on Thai students' low English language learning proficiency students' learning styles, teachers' teaching styles, students' background and so on. One of the most difficult problems of unsuccessful English instruction in Thailand is that students lack particular vocabulary knowledge which can influence students' reading comprehension. As a study by Granowsky (2002) shows, many researchers have confirmed the important role vocabulary knowledge plays in students' reading comprehension, and therefore in their school success. Also, having limited vocabulary knowledge, students are not able to express and communicate well.

For this reason, the main purpose of this study is to generally explore students' vocabulary learning strategies and to investigate which effective vocabulary learning strategies are used by high and low proficient students at Triam Udomsuksa School in order to further provide students with effective vocabulary learning strategies.Other VLS (vocabulary learning strategy) research has attempted to identify the ways in which "good" and "poor" learners approach lexical learning.

Sannoui's research (1992, 1995) identified two distinctive approaches to L2 vocabulary learning: those who structured their vocabulary learning, independently engaged in a variety of learning activities and practiced target words, and those that did not. Learners with a structured approach were shown to be more successful than those who followed an unstructured approach, regardless of level of instruction or type of instruction received. Kojic-Sabo and Lightbrown (1999) grouped learners according to the vocabulary learning strategy or set of strategies that dominated their approach. Learner independence and time were shown to be associated with the vocabulary learning profiles of the two most successful groups.

1.5 OBJECTIVES

To develop a for android application for Interactive Vocabulary Learning method. This application provides an effective way to enhance the vocabulary skills for the people lacking in English language by relating words with situations unlike dictionaries. Second-language vocabulary acquisition is a field of investigation that has seen an explosion of experimental research in the past 25 years.

JQuiz is a tool for creating question-based exercises. Each quiz can consist of an unlimited number ofquestions with four basic question types, multiple-choice questions, short-answer questions, hybridquestions or multi-select questions.In multiple-choice questions, the student chooses an answer by clicking. If the answer is correct, the button changes to "correct", and if it's wrong, it will show "false" and gives (if added by the author) a feedback specific to that answer, explaining why it's correct or wrong. The score for each question at the end of the exercise is based on the number of trials to get a correct answer.For language learning there are a lot application areas of JQuiz. The following example shows a multiple-choice quiz with grammar exercises for English as second language. It is very important togive targeted feedback also for correct answers.

Within the field of education over the last few decades, a number of definitions of LLS have been defined by many researchers. Wenden and Rubin (1987) define language learning strategies as "any sets of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information." O'Malley and Chamot (1990) define LLS as "the special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information". In a study by Segler, Pain, and Sorace (2001), they conclude that there is no consensus on a definition of the term of LLS.

As well as, they support that learning is the process by which information is obtained, stored, retrieved, and used. Thus the language learning is like other kinds of learning: LLS could be any set of operations used by the learner which involve this process. In comparison, another helpful definition by Oxford (1990), defines LLS as "specific actions, behaviors, steps, or techniques that students, often intentionally, use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement necessary for developing communicative ability." Apart from this, it is the viewpoint of Lessard-Clouston on the characteristics of LLS that a number of additional aspects of LLS are less consistently accepted.

When discussing LLS, the studies of Oxford and others such as Wenden and Rubin (as cited in Lessard-Clouston, 1997) note an aspiration for control and autonomy of learning on the part of the learner through LLS. Cohen (as cited in Lessard-Clouston, 1997) insists that only aware strategies are LLS, and that there must be an alternative involved on the part of the learner. Transfer of a strategy from one language or language skill to another is a related goal of LLS, as Pearson and Skehan (as cited in Lessard-Clouston, 1997) have discussed. Overall, Oxford (1990) summarizes her idea of LLS by listing twelve key features.

1.6 ORGANIZATION OF THE PROJECT

The report has been organized in such a way that the flow of the process and modules of the application coincides with the text. The report is split into chapters that the application demands. The succeeding chapters deal with the requirements specification, a detailed description about the design and the test plans, the implementations and the results and finally the conclusion of the project.

The requirements specification includes the overall description of the product, its specific requirements and the Interactive Vocabulary Learning system design. The detailed design and the test plan consist of the description about the way in which the modules are decomposed and their dependencies. It also includes the Object Oriented Analysis and Design (OOAD) diagrams associated with the project. The test plan deals with the different test cases the inputs, the actions and their corresponding outputs.

The report is concluded and the future enhancements that can be done to the application are discussed. Surveys and server log data revealed that learners used the PC in preference to the mobile phone in the vast majority of cases, many of whom indicated from the outset that they did not intend to use the mobile phone for their vocabulary study, citing problems such as the cost of Internet access, the screen size, the keypad and the study environment as the primary reasons.

While the debate concerning learning words in context vs. learning words out of context has yet to be resolved, a potentially effective third approach to teaching vocabulary is beginning to emerge through research findings. This approach combines decontextualized vocabulary instruction with contextualized reading. The English gifted students are competent in use of English.They are apparently good at main four skills: listening, speaking, writing, and reading. Not only do the students use English well in an academic way, but they also communicate in English well. Besides, the degree of interaction between students and teachers is outstanding, so the students enjoy learning English and many activities with great enthusiasm and motivation. However, that the English gifted students are competent at English language is intriguing. It would be warding to study what factors make them succeed in English learning in order to find and understand the learning process of high proficient students and adopt it to low proficient students.

CHAPTER 2

2.1 Requirement Specifications

Hardware Requirements

Intel Pentium 2.3 GHz Core 2 Duo Processor

512 MB RAM

250 GB Hard Disk

Android Based Tablets

Software Requirements

Android OS 4.0 or above(jelly bean for tablets)

Android sdk(1.5)

Android virtual emulator

Eclipse IDE

MySqlServer2000

Windows 07/vista

2.2 System Architecture

In this system architecture it explains that how the application used for the user. When application started your android based device it is asking you to enter your name then by touching an Start Quiz method the system will react.

In this application we are using three modes like Easy, Normal and Hard. By the corresponding mode The questions will retrieved from the database finally the score will be displayed after completing your test part.

In this architecture describes about the interactive vocabulary learning application . When the user enters his name and clicks the submit button it takes to welcome screen by displaying his name. welcome screen consist of start quiz and exit button.

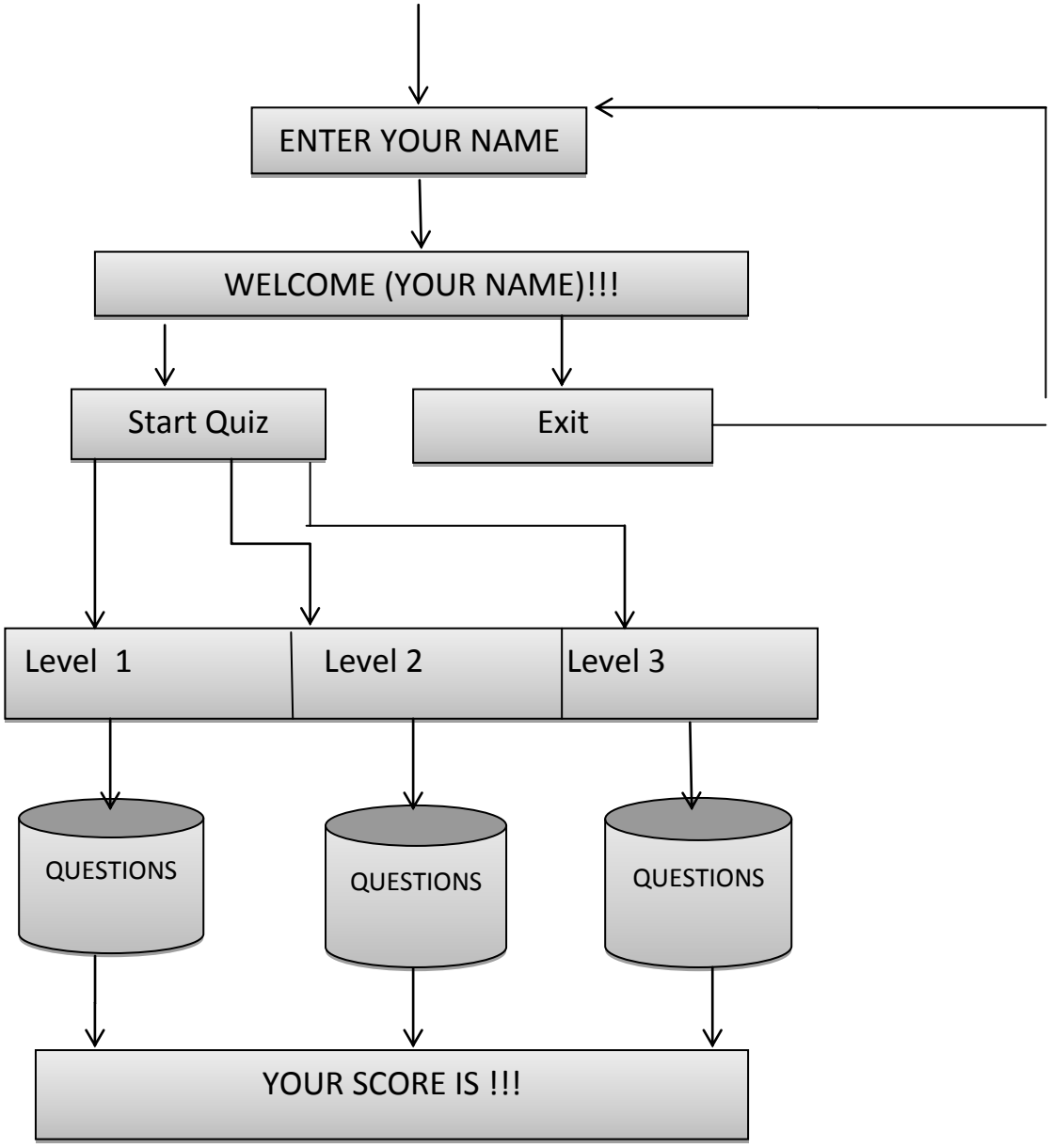

Fig no:2.1 System Architecture

When the user selects start quiz he is offered with three levels which contains set of questions which helps in improving the use of vocabulary. explanation of the word will be displayed by clicking the explanation button.

CHAPTER 3
DETAILED DESIGN AND TEST PLAN\

3.1 DETAILED DESIGN

In our project the modules had been designed based up on its work. The design of our project is that to develop an interactive vocabulary learning android based application.

Module 1: Connecting to the database and retrieve the questions from that

This module about by touching the start quiz button it will directly get the questions from the database along its four choices. And it has three modes like easy, medium and hard according to the user selection the database will retrieve the questions.

Module 2: Explanation for each and every question

In explanation module it has the explanation for each and every question which are presented in the database and when the user makes its right choices then the explanation will be display.

Module 3: Scorecard

Scorecard module is about according to the users right selection the score will be added in the scorecard module.

3.2 OOAD DIAGRAMS

The typical object oriented analysis and design diagrams for the project description can be shown according to the work we have done on the project. The OOAD diagrams consist of the following categories.

3.2.1 Use-case Diagram

A use case diagram is a graph of actors, a set of use cases enclosed by a system boundary, a communication association between the actors and the use cases, and a generalization among use cases.

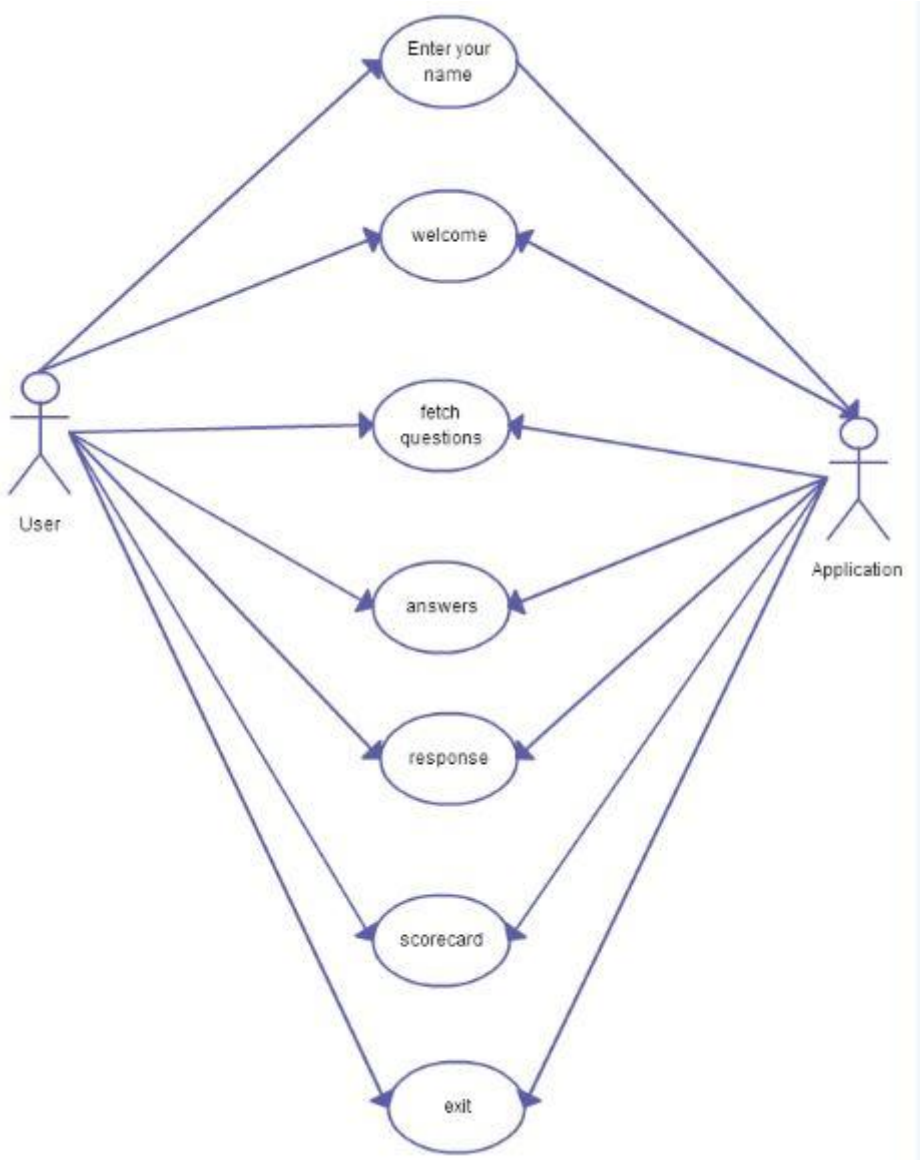

Fig:3.1 Use-Case Diagram

Figure 3.1 represents the use case diagram. It describes the interaction between the users-query images and the test clip in order to perform the processing through the algorithm. After the processing of the algorithm the output will be received as the match.

3.2.2 Sequence Diagram

A sequence diagram describes the behavior of the system by viewing the interaction between the system and the environment.

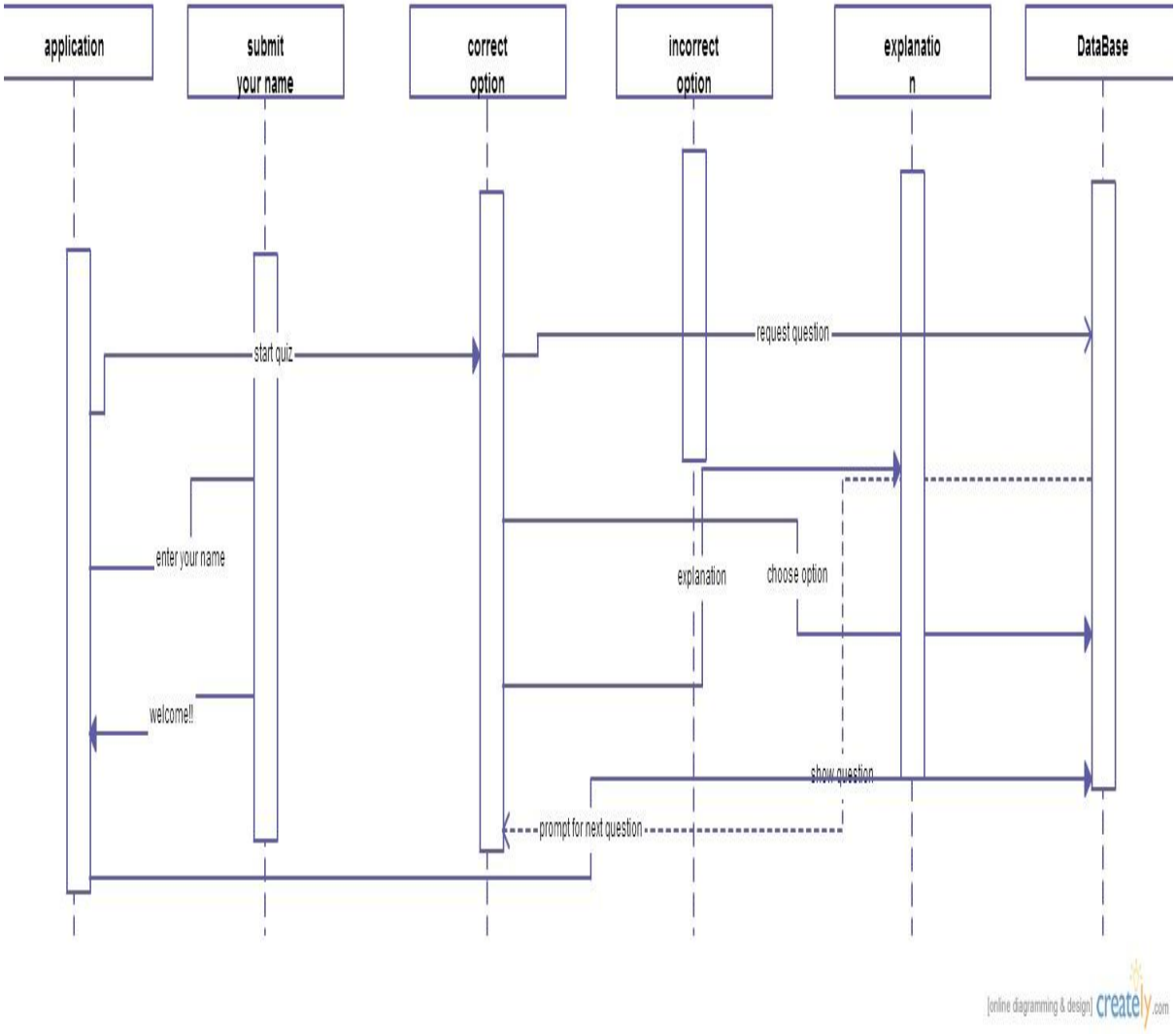

Fig: 3.2 Sequence Diagram

Figure 3.2 represents the sequence diagram. It represents the sequence of the events that occur in the modules.

3.3 TEST PLAN

TESTING:

The project is tested to verify its correctness and efficiency. The test plan includes following test cases:

Test Case	**Expected Output**	**Actual Output**
Questions are not retrieved from the database	Cannot connect to the database	Questions should retrieve from the database
Emulator is not running	There is only three questions comes repeatedly from the database	All the questions should retrieve from the database
Explanations are not coming	Explanations of the questions are not coming when the user picks up the right selection	Explanation should come along with its answers

CHAPTER 4
IMPLEMENTATION AND RESULTS

4.1 IMPLEMENTATION

This android based application will be used to learn the English vocabulary. In this application vocabulary words are stored in the database when user enters in this application the test part will open and when answering the corresponding question it is having an Right Or Wrong options. By providing the vocabularies in this way, the user can also learn the right usage of vocabularies.

4.2 TESTING:

Software testing is an investigation conducted to provide stakeholders with information about the quality of the product or service under test. testing also provides an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation.

Software testing can also be stated as the process of validating and verifying that a software program/application/product:

1. meets the business and technical requirements that guided its design and development;
2. works as expected; and
3. Can be implemented with the same characteristics.

4.2.1 Unit Testing:

Unit testing is a development procedure where programmers create tests as they develop software. The tests are simple short tests that test functionality of a particular unit or module of their code, such as a class or function. In this project all the modules are tested individually with required inputs and it works clean.

4.2.2 Integration Testing:

Integration testingis the phase in software testing in which individual software modules are combined and tested as a group. It occurs after unit testing and before system testing. Integration testing takes as its input modules that have been unit tested, groups them in larger aggregates, applies tests defined in an integration test plan to those aggregates, and delivers as its output the integrated system ready for system testing. In this project all the modules are combined together and tested with required inputs. It works clean.

4.2.3 System Testing:

System testing of software or hardware is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. System testing falls within the scope of black box testing, and as such, should require no knowledge of the inner design of the code or logic. In this project all the relevant inputs are given and tested. It works clean.

4.3 RESULT

We have implemented and evaluated our algorithms as well as a well accepted approach for Interactive Vocabulary Learning Android based Application. In the experiments performed both in indoor and outdoor environments, our approaches considerably reduce the lake of English knowledge. As our project are more efficient way to enhance the vocabulary skills for the user.

This paper has attempted to synthesize the major findings of various areas of research into vocabulary learning and acquisition. These findings suggest the following for language teaching practice.

Language teachers need to develop in learners an awareness of alternative vocabulary learning strategies that involve active processing of the target vocabulary.Language teachers need to make learners conscious of the need to develop an independent and structured approach to language learning, which has been shown to be most associated with vocabulary learning success.Greater amounts of decontextualized vocabulary instruction should be given to beginner-level learners, gradually increasing toward more context-based vocabulary learning as their language ability develops.

Teachers need to be aware that learners may resist the learning of certain vocabulary learning strategies because they are culturally quite different, because certain elaboration strategies require a reasonable L2 vocabulary base from associations with new vocabulary are made, or because some strategies require greater cognitive effort than other commonly used techniques.

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CHAPTER 5

CONCLUSION AND FUTUREWORK

5.1 **CONCLUSION**

In our project concluded as Interactive Vocabulary Learner which is an android based application .This project is focused on people who are lacking in English knowledge and it helps the user to understand the vocabulary according to the user selection from the database .Providing vocabulary by this way user can easily identify the words in their real life and it is used to enhance their English knowledge to the user. People sometimes get bored learning the words from the dictionary, so they could use this app to learn the words and improve their vocabulary.

5.2 FUTURE WORK

The future work could be improvement in the interactive vocabulary learning based android application by storing questions more questions in the database and several other things like the puzzles, odd one out etc could be added to this application so it could be more interactive work.

We could add other things such a antonyms, synonyms, reading comprehension and it could be played as a game between the people to check their language. In the future it could be used by the software companies for their campus recruitments, they could send their app to the candidates who are attending the interview and candidates could answer the questions ,the score is being viewed by the company officials and they could shortlist the candidates they require.This could reduce the time that is taken to evaluate the candidates test paper and then shortlisting the required candidate.

APPENDIX A
SAMPLE CODES

ACTIVITY_MAIN

```
<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"
    android:orientation="vertical"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin">

    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:text="@string/welcome" />

    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:layout_gravity="center"
```

```
        android:text="@string/name" />



    <EditText
        android:id="@+id/getname"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
         android:gravity="center"
        android:layout_gravity="center"
        android:hint="@string/hint1"
        />

    <Button
        android:id="@+id/button1"
        android:layout_width="250dp"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:layout_gravity="center"
        android:textSize="20dp"
        android:text="@string/but1name"
         />

  </LinearLayout>
```
//refer the fig no b1 for the use of get the user name.

ACTIVITY_MAIN_SCREEN

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin" >

    <TextView
        android:id="@+id/question"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:layout_weight="1" />

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:layout_gravity="center_horizontal"
        android:layout_weight="1"
        android:orientation="vertical" >
```

```
<RadioGroup
    android:id="@+id/rg1"
    android:layout_width="wrap_content"
    android:layout_height="match_parent" >

   <RadioButton
       android:id="@+id/radio0"
       android:layout_width="wrap_content"
       android:layout_height="match_parent"
       android:checked="true" />

    <RadioButton
       android:id="@+id/radio1"
       android:layout_width="wrap_content"
       android:layout_height="match_parent" />

    <RadioButton
       android:id="@+id/radio2"
       android:layout_width="wrap_content"
       android:layout_height="match_parent" />

    <RadioButton
       android:id="@+id/radio3"
       android:layout_width="wrap_content"
```

```
            android:layout_height="match_parent" />
        </RadioGroup>

        <Button
            android:id="@+id/button1"
            style="?android:attr/buttonStyleSmall"
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:text="Next Question" />

        <TextView
            android:id="@+id/explanation"
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
             />
    </LinearLayout>

</LinearLayout>
```
//refer the fig no:b5 for the use of radio group.

WELWITHNAME

```
<RelativeLayout 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"
android:paddingBottom="@dimen/activity_vertical_margin"
android:paddingLeft="@dimen/activity_horizontal_margin"
android:paddingRight="@dimen/activity_horizontal_margin"
android:paddingTop="@dimen/activity_vertical_margin"
 >
<TextView
    android:id="@+id/textView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
     />

<Button
    android:id="@+id/sq"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:layout_below="@+id/textView1"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="92dp"
    android:text="Start Quiz" />
<Button
    android:id="@+id/exit"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
```

```
        android:layout_alignRight="@+id/sq"
        android:layout_below="@+id/sq"
        android:layout_marginTop="14dp"
        android:text="Exit" />
</RelativeLayout>
```

//refer the fig no:b2 welcome screen with the user name.

MAIN SCREEN

```
package com.example.sampleapp;
import java.io.IOException;
import java.io.InputStream;
import java.io.OutputStream;
import android.app.Activity;
import android.content.Context;
import android.content.Intent;
import android.database.Cursor;
import android.database.SQLException;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteException;
import android.database.sqlite.SQLiteOpenHelper;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
```

```
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;
public class MainScreen extends Activity
{
        TextView myques;
RadioGroup myrg;
RadioButton myc1,myc2,myc3,myc4;
Button NxtQues;
int counter=0;
String checked,correct;
/** Called when the activity is first created. */
Cursor c=null;
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main_screen);
DatabaseHelper myDbHelper = new DatabaseHelper(MainScreen.this);
try {
myDbHelper.createDataBase();
}
catch (IOException ioe)
{
```

```
throw new Error("Unable to create database");
}
try
{
myDbHelper.openDataBase();

}
catch(SQLException sqle)
{
throw sqle;
}
c=myDbHelper.query("myDbHelper.MainTable",null, null, null, null,null, null);
c.moveToFirst();
myques=(TextView)findViewById(R.id.question);
myrg=(RadioGroup)findViewById(R.id.rg1);
myc1=(RadioButton)findViewById(R.id.radio0);
myc2=(RadioButton)findViewById(R.id.radio1);
myc3=(RadioButton)findViewById(R.id.radio2);
myc4=(RadioButton)findViewById(R.id.radio3);
NxtQues=(Button)findViewById(R.id.button1);
myques.setText(c.getString(1));
myc1.setText(c.getString(2));
myc2.setText(c.getString(3));
myc3.setText(c.getString(4));
```

```
myc4.setText(c.getString(5));
correct=c.getString(6);
RadioButton.OnClickListener mop =
new RadioButton.OnClickListener()
{
@Override
public void onClick(View v) {
// TODO Auto-generated method stub
counter++;
if( myc1.isChecked() && c.getString(1).equals(correct))
{
Toast.makeText(MainScreen.this,"You are a Genius!!!" ,
Toast.LENGTH_LONG).show();
}
else if( myc2.isChecked() && c.getString(2).equals(correct))
{
Toast.makeText(MainScreen.this,"You are a Genius!!!" ,
Toast.LENGTH_LONG).show();
}
else if( myc3.isChecked() && c.getString(3).equals(correct))
{
Toast.makeText(MainScreen.this,"You are a Genius!!!" ,
Toast.LENGTH_LONG).show();
}
```

```
else if( myc4.isChecked() && c.getString(4).equals(correct))
{
Toast.makeText(MainScreen.this,"You are a Genius!!!" ,
Toast.LENGTH_LONG).show();
}
else
{
Toast.makeText(MainScreen.this,"Wrong, make another Guess!!!" ,
Toast.LENGTH_LONG).show();
}
}
};
myc1.setOnClickListener(mop);
myc2.setOnClickListener(mop);
myc3.setOnClickListener(mop);
myc4.setOnClickListener(mop);
NxtQues.setOnClickListener(new OnClickListener()
{
@Override
public void onClick(View V)
{
if(c.moveToNext())
{
myques.setText(c.getString(1));
```

```
myc1.setText(c.getString(2));
myc2.setText(c.getString(3));
myc3.setText(c.getString(4));
myc4.setText(c.getString(5));
correct=c.getString(6);
RadioButton.OnClickListener mop =
new RadioButton.OnClickListener()
{
@Override
public void onClick(View v) {
// TODO Auto-generated method stub
counter++;
if( myc1.isChecked() && c.getString(1).equals(correct))
{
Toast.makeText(MainScreen.this,"You are a Genius!!!" ,
Toast.LENGTH_LONG).show();
}
else if( myc2.isChecked() && c.getString(2).equals(correct))
{
Toast.makeText(MainScreen.this,"You are a Genius!!!" ,
Toast.LENGTH_LONG).show();
}
else if( myc3.isChecked() && c.getString(3).equals(correct))
{
```

```
Toast.makeText(MainScreen.this,"You are a Genius!!!" ,
Toast.LENGTH_LONG).show();
}
else if( myc4.isChecked() && c.getString(4).equals(correct))
{
Toast.makeText(MainScreen.this,"You are a Genius!!!" ,
Toast.LENGTH_LONG).show();
}
else
{
Toast.makeText(MainScreen.this,"Wrong, make another Guess!!!" ,
Toast.LENGTH_LONG).show();
}
}
};
myc1.setOnClickListener(mop);
myc2.setOnClickListener(mop);
myc3.setOnClickListener(mop);
myc4.setOnClickListener(mop);
}
}
});
//refer fig no:b6 selecting the right one among the four options
```

WELCOME WITH NAME

```
package com.example.sampleapp;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.TextView;
public class Welwithname extends Activity
{
@Override
protected void onCreate(Bundle savedInstanceState)
{
super.onCreate(savedInstanceState);
setContentView(R.layout.welwithname);
Intent intent = getIntent();
String message = intent.getStringExtra(MainActivity.EXTRA_MESSAGE);
// Create the text view
TextView textView = (TextView)findViewById(R.id.textView1);
textView.setTextSize(40);
textView.setText("Welcome" + message + "!!!" );
```

```
Button startQuiz = (Button)findViewById(R.id.sq);
// Button exit = (Button)findViewById(R.id.exit);
final Intent open = new Intent(this,MainScreen.class);
startQuiz.setOnClickListener(new OnClickListener()
{
@Override
public void onClick(View V)
{
startActivity(open);
}
});
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
// Inflate the menu; this adds items to the action bar if it is present.
getMenuInflater().inflate(R.menu.welwithname, menu);
return true;
}
}
```

DATABASEHELPER

```
package com.example.sampleapp;
import java.io.FileOutputStream;
import java.io.IOException;
```

```
import java.io.InputStream;
import java.io.OutputStream;
import android.content.Context;
import android.database.Cursor;
import android.database.SQLException;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteException;
import android.database.sqlite.SQLiteOpenHelper;
public class DatabaseHelper extends SQLiteOpenHelper
{
//The Android's default system path of your application database.
String DB_PATH =null;
private static String DB_NAME = "vocablearner";
private SQLiteDatabase myDataBase;
private final Context myContext;
/**
* Constructor
* Takes and keeps a reference of the passed context in order to access to the application assets and resources.
* @param context
*/
public DatabaseHelper(Context context)
 {
super(context, DB_NAME, null, 1);
this.myContext = context;
```

```
DB_PATH="/data/data/"+context.getPackageName()+"/"+"databases/";
}
/**
* Creates a empty database on the system and rewrites it with your own database.
* */
public void createDataBase() throws IOException
{
boolean dbExist = checkDataBase();
if(dbExist)
{
//do nothing - database already exist
}
Else
{
//By calling this method and empty database will be created into the default system path
//of your application so we are gonna be able to overwrite that database with our database.
this.getReadableDatabase();
try
{
copyDataBase();
}
catch (IOException e)
```

```
{
throw new Error("Error copying database");
}
}
}
/**
* Check if the database already exist to avoid re-copying the file each time you open the application.
* @return true if it exists, false if it doesn't
*/
private boolean checkDataBase()
{
SQLiteDatabase checkDB = null;
Try
{
String myPath = DB_PATH + DB_NAME;
checkDB = SQLiteDatabase.openDatabase(myPath, null, SQLiteDatabase.OPEN_READONLY);
}
catch(SQLiteException e)
{
//database does't exist yet.
}
if(checkDB != null)
{
```

```
checkDB.close();
}
return checkDB != null ? true : false;
}
/**
* Copies your database from your local assets-folder to the just created empty database in the
* system folder, from where it can be accessed and handled.
* This is done by transfering bytestream.
* */
private void copyDataBase() throws IOException
{
//Open your local db as the input stream
InputStream myInput = myContext.getAssets().open(DB_NAME);
// Path to the just created empty db
String outFileName = DB_PATH + DB_NAME;
//Open the empty db as the output stream
OutputStream myOutput = new FileOutputStream(outFileName);
//transfer bytes from the inputfile to the outputfile
byte[] buffer = new byte[1024];
int length;
while ((length = myInput.read(buffer))>0)
{
myOutput.write(buffer, 0, length);
}
```

```
//Close the streams
myOutput.flush();
myOutput.close();
myInput.close();
}
public void openDataBase() throws SQLException{
//Open the database
String myPath = DB_PATH + DB_NAME;
myDataBase = SQLiteDatabase.openDatabase(myPath, null,
SQLiteDatabase.OPEN_READONLY);

}
@Override
public synchronized void close() {
if(myDataBase != null)
myDataBase.close();
super.close();
}
@Override
public void onCreate(SQLiteDatabase db) {
}
@Override
public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
}
//return cursor
```

```
public Cursor query(String table,String[] columns, String selection,String[]
selectionArgs,String groupBy,String having,String orderBy){

return myDataBase.query("MainTable",null, null, null, null, null, null);

}

}
```

APPENDIX B
OUTPUT SCREENSHOTS

APPLICATION WINDOW

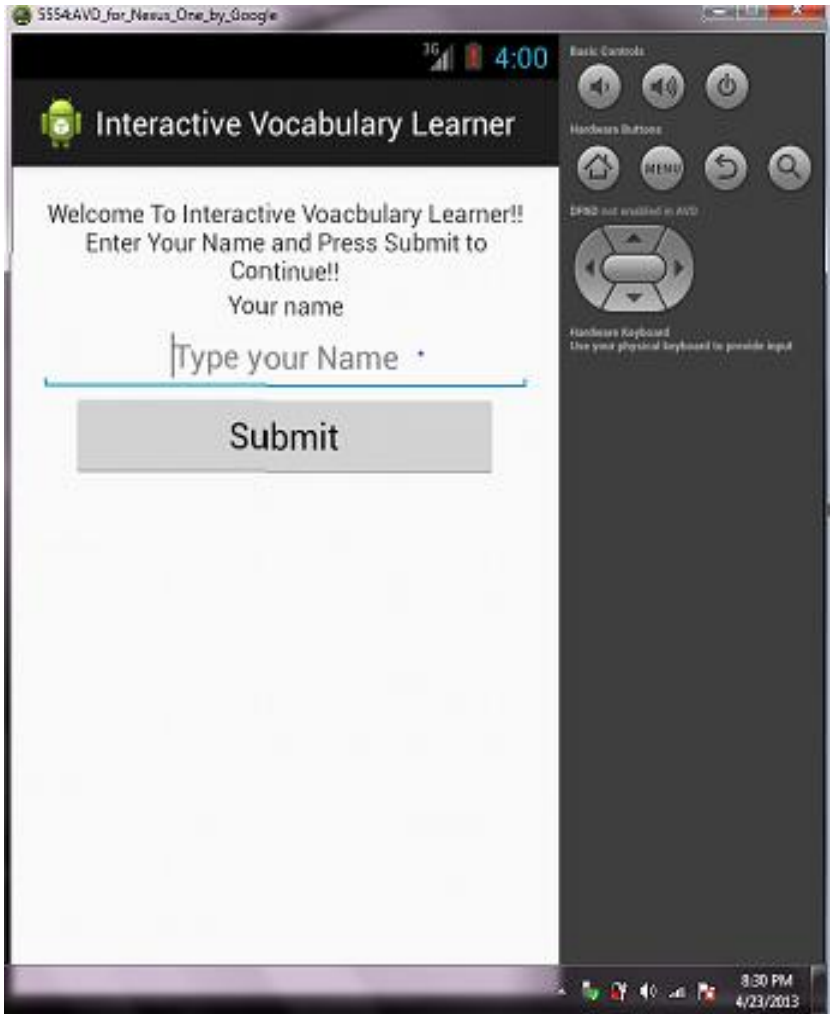

Fig no:b.1 Application Window

In the above window there is a text field in which the user needs to enter his/her name. The name is been used by the app to interact with the user by his/her name. The data in the text field is been used by the app and it is been given as the input to the second step.

WELCOME WINDOW WITH NAME

Fig no:b.2 welcome window with name

The name that is been given by the user in the first window is been got and it is displayed with a welcome message. This window consist of two buttons namely Start and Exit. The on pressing Start quiz button the control would be passed into the application and it gets started. On clicking the Exit Button it would exit the application.

QUESTIONS FROM DATABASE

Fig no:b.3 questions from database

In the above window it asks user a question and user could answer the question by selecting any one of the check boxes from the four that is being displayed below the question. If the user answers the question correct the meaning of the word is been displayed if it is wrong the next question is been displayed.

SELECTING THE OPTIONS

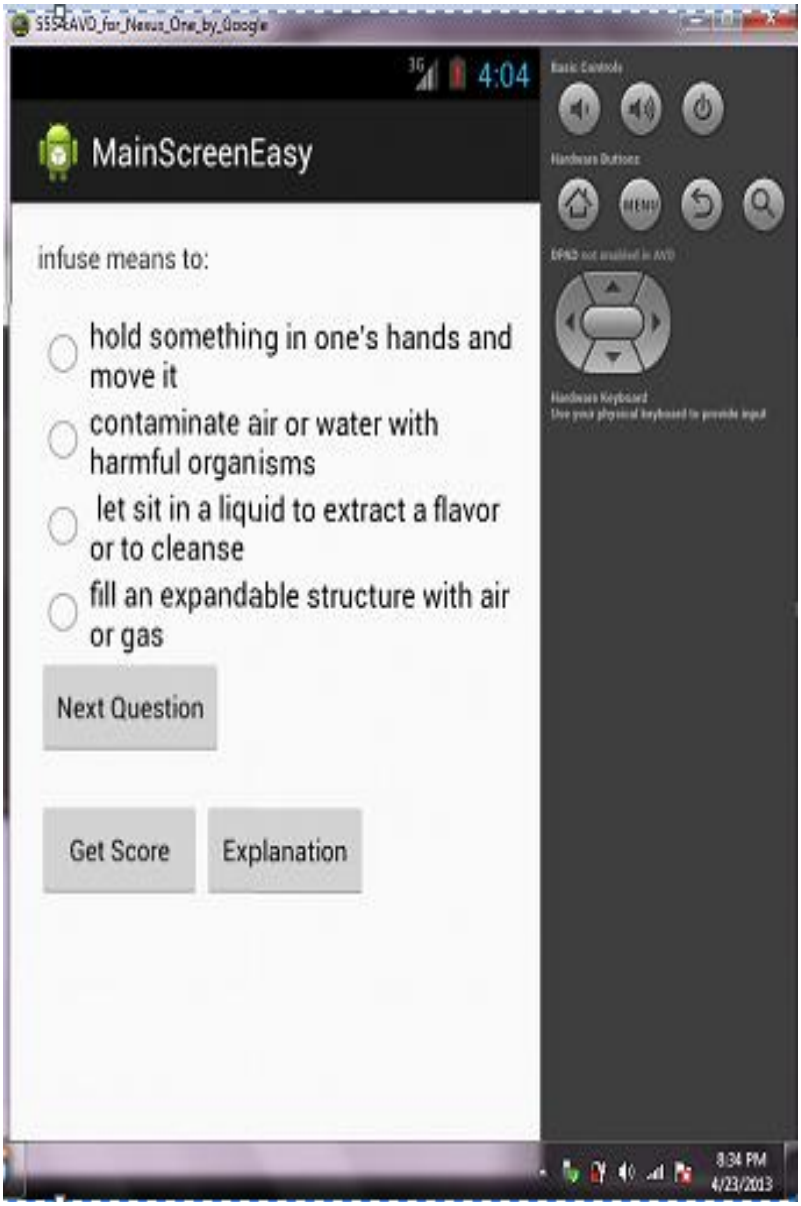

Fig no:b4 selecting the options

In the above window there are various options for the given question the user needs to select the option by clicking on the correct checkbox and it would be processed by the app wether the option selected is correct or wrong. On making a wrong guess the above message “Wrong, make another Guess!!!” would be displayed on the screen.

NEXT QUESTION

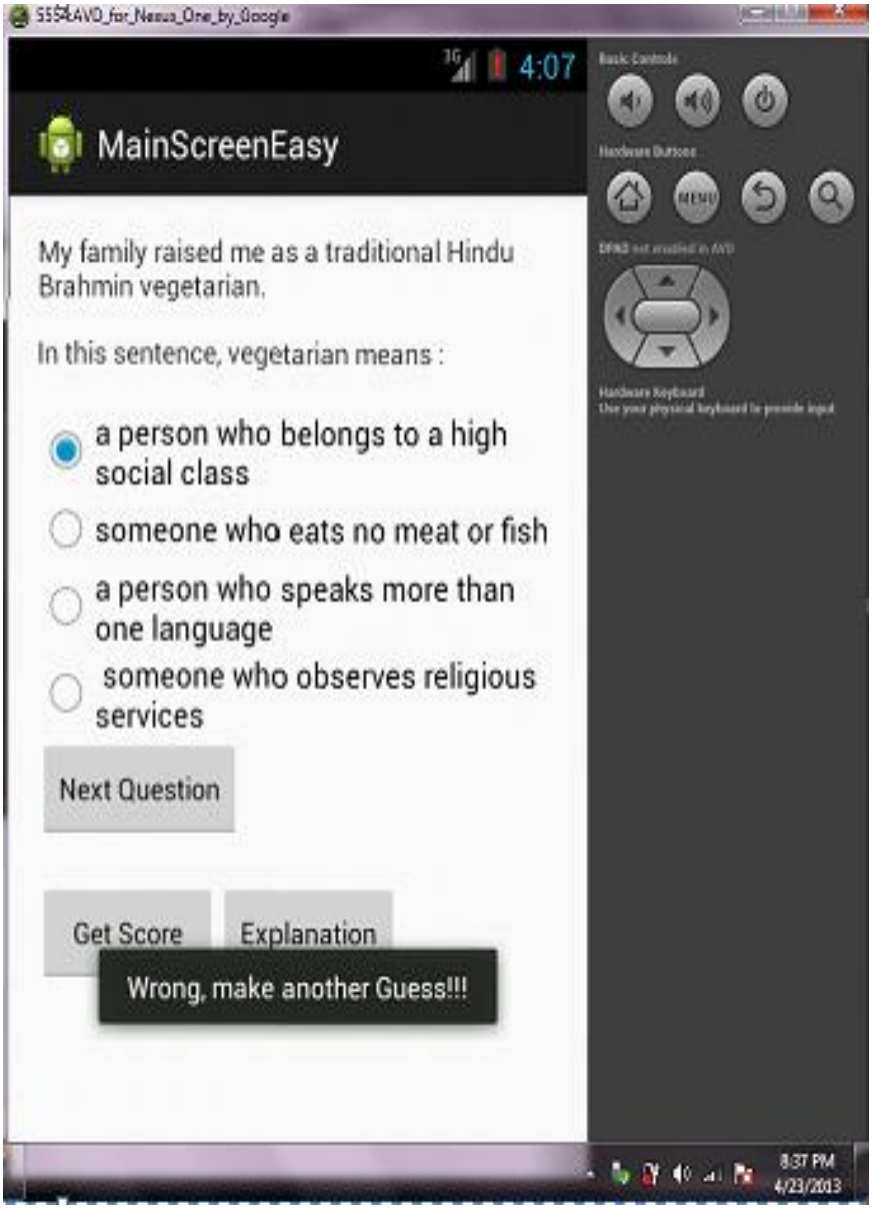

Fig no:b5 next question

If the user needs to skip the question or if he had answered the question correctly he could press the Next Question button to skip the current question and move on to the next question. On pressing the back button on the mobile phone user is been moved to the welcome window and he could press the Exit button to exit from the app.

PICKING THE RIGHT CHOICE

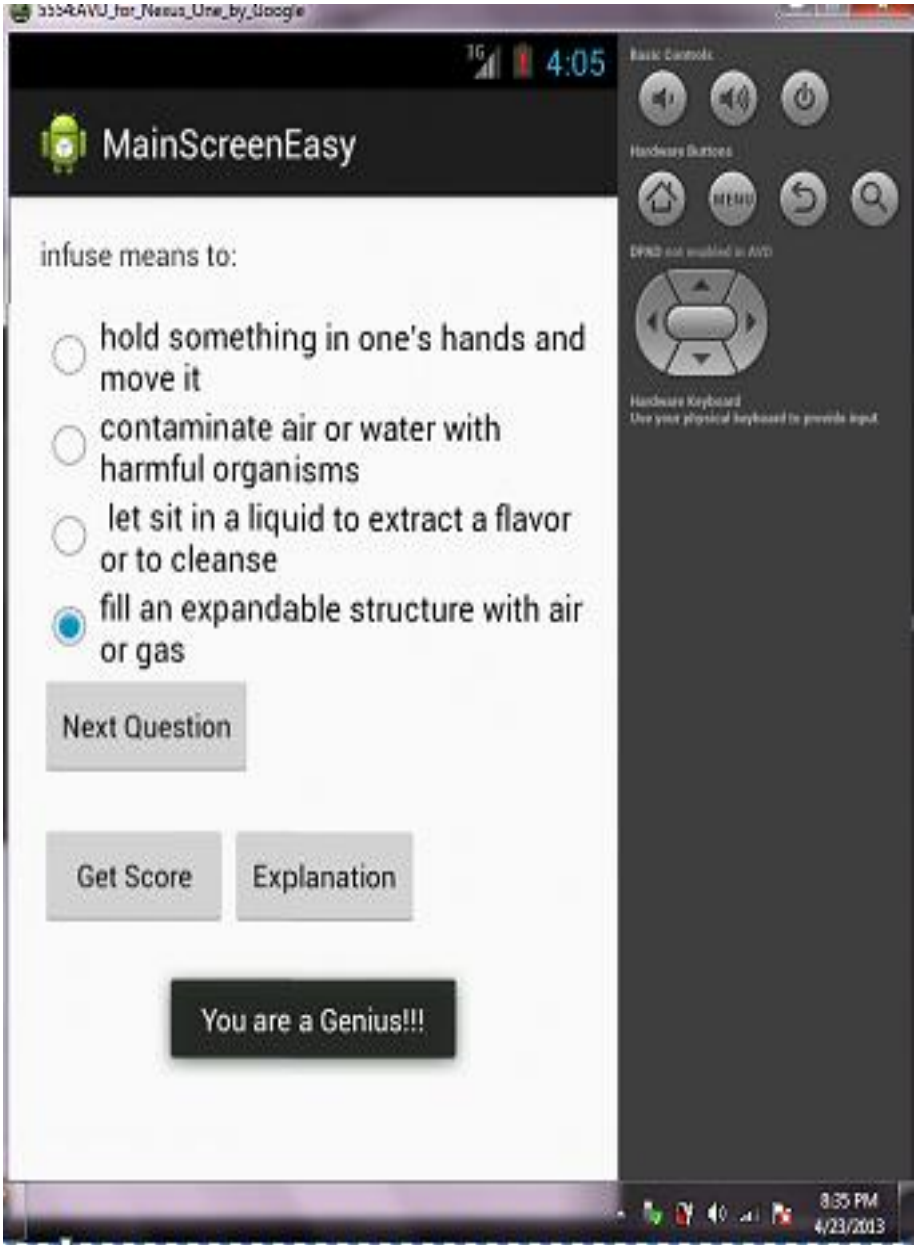

Fig no:b6 picking the right choice

In the above window there are a four checkboxes and the user needs to select one, if the option that user is selecting is true then the text “You are a Genius!!!” is been displayed on the window. By selecting the correct options score will be added into the score card.

EXPLANATION

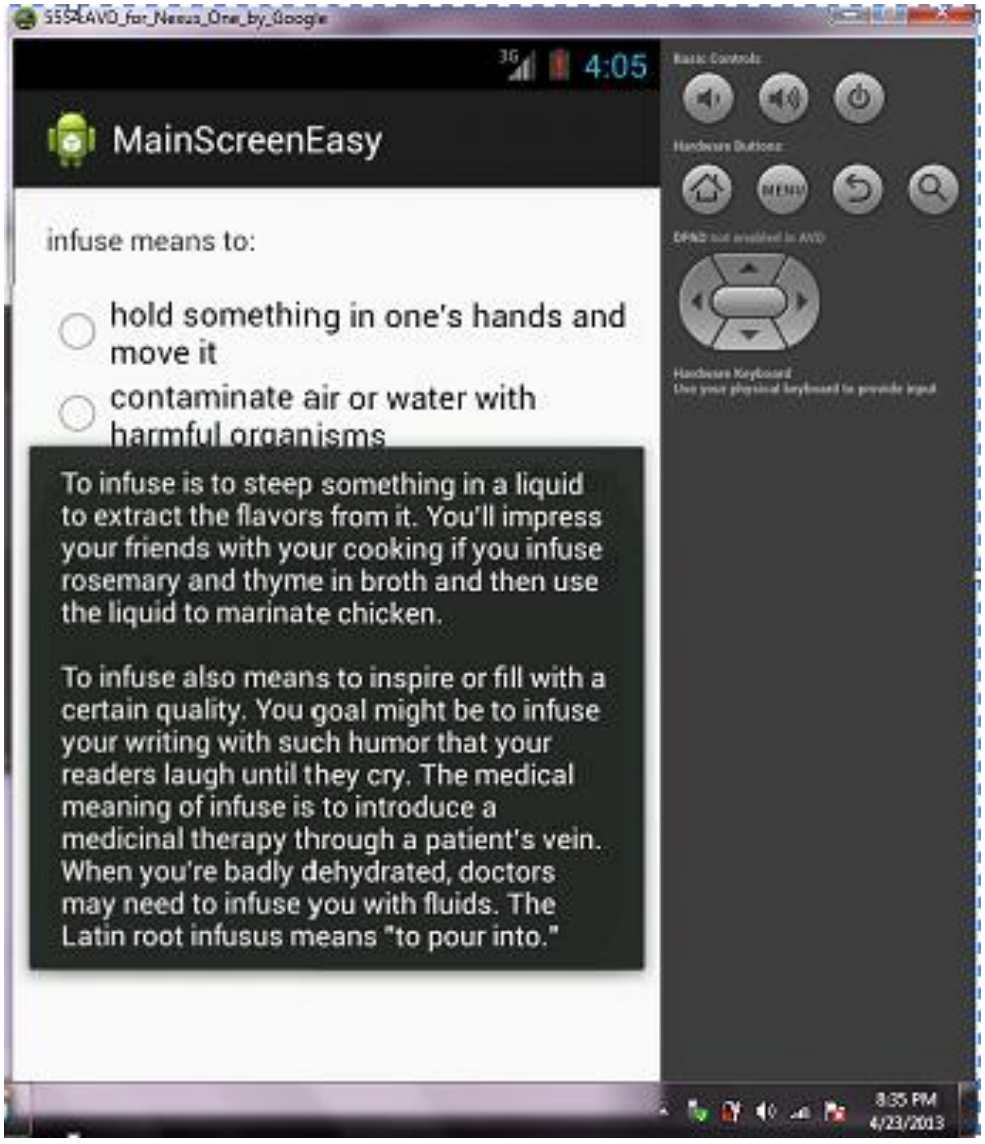

Fig no:b7 explanation

When the user picks its right selection then the explanation will be displayed by clicking the explanation button.

SCORE CARD

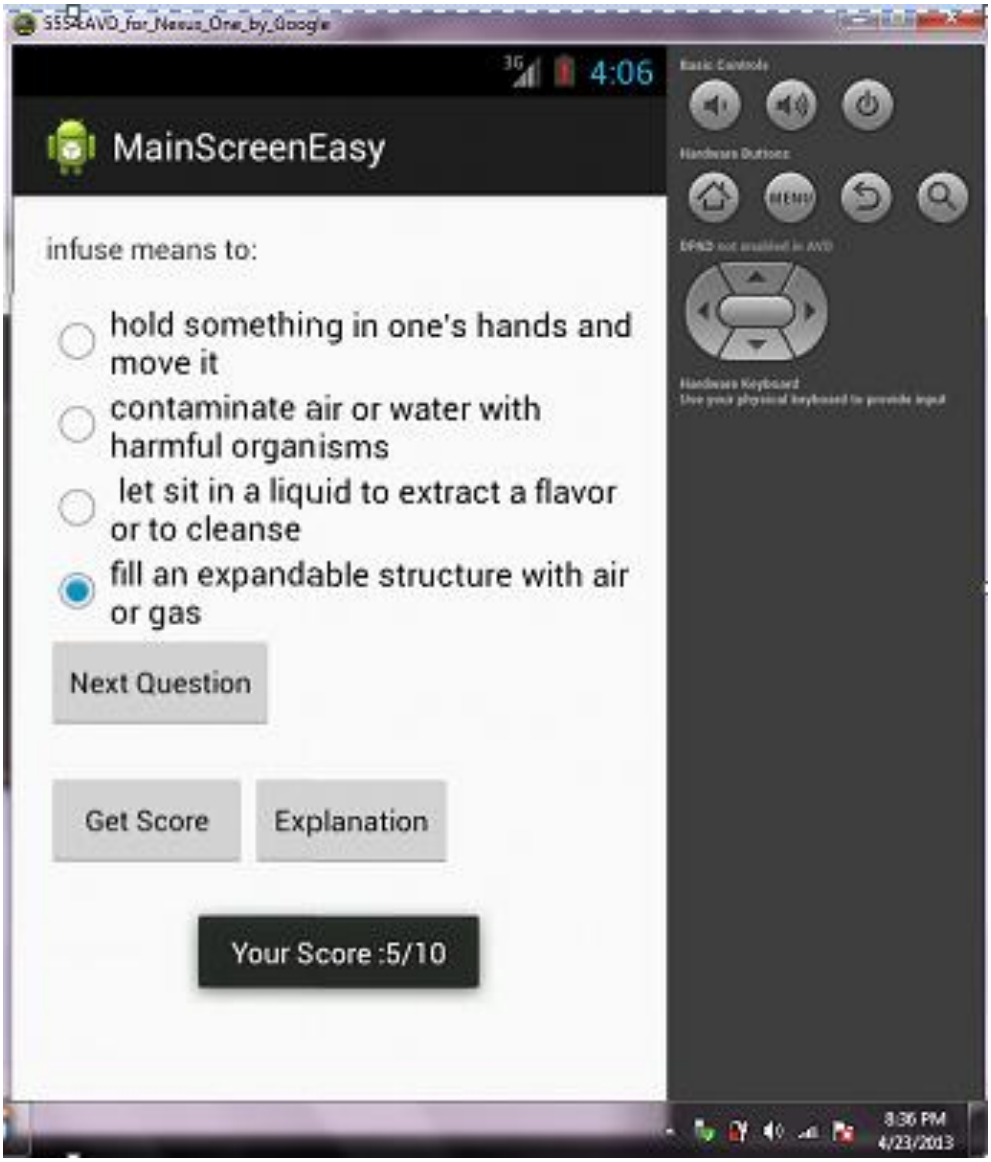

Fig no:b8 score card

According to the user selection the score will be added and when user picks their first time then the score will be 10 else it will take its users selection. when the user selects the second time options the score will be added into the 5 out of 10 and then the third time it will be added as 2.

REFERENCES

Book References:

[1] “The Busy Coder's Guide to Android Development” Mark L. Murphy

[2]*Schildt* “Java2 Complete Reference” 3th edition Tata McGraw Hill

[3] *Brett McLaughlin* “Java & XML data binding**”** O'Reilly Media, Inc.

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[7] E. Clayberg, “D. Rubel, Eclipse Building Commercial-Quality Plug-ins second edition”, Addison-Wesley, Boston, MA, 2006