

# Students Guide: Offline Android Quiz Application

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## ABSTRACT

The concept of quizzes is currently very popular among educated circles as well as in entertainment shows. Though the quiz can be conducted manually it also needs elaborate preparations, quizzes contribute to the growth of knowledge of an individual and they are a popular source of entertainment. This program in Java focuses on creating interactive quizzes with a considerably large databases of questions. The program utilizes most of important concept in Java and applet design to get the final output is envision to knowledge and get entertainment with value addition. The system reduces paperwork and all the information will be stored safely in the data base. This app mainly stores questions in the database from which a set of six questions will be displayed. It is designed to replace existing paperwork and manual correction. This system uses java as front end and SQLite as a back end for the database. The implementation of the system in the organization will considerably reduce time and also provide readily calculated marks.

**Keyword:** - Android, General knowledge, Result, and Mobile.

## 1. INTRODUCTION

Today, it may see that many people want to test their memory and general knowledge power. We help them doing so with the help of our small android app which allows them to check their overall IQ. The test contains all type of questions that proves to be helpful to a person who keeps a very keen interest of what is going on around the world. The tests prepared via electronic exam systems, now, have been an alternative for those who prepare for their exams by using their personal computers or mobile devices. Connecting such services requires a computer and an internet access. In other words it is necessary that students must be in an environment which provides above mentioned conditions in order to access such electronic exam systems. Mobiles are an integral part of daily life. With time, customers are expecting best and very versatile applications in less time. It is big challenge to develop high performance mobile applications in this competitive market that would meet the expectation of customers. The advancement in mobile technology has improved everyone's life. Nowadays various mobile technologies as well as mobile phones compete in the market. The users use various applications in their day to day life to reduce the burden of work in some way or the other. One of the uses of mobile devices is "mobile learning", which can be defined as "all kinds of learning that do not take place in certain predetermined fixed places". This app is mainly for graduate students. This will help them do the revision at the important times like placement and semester exams. If they use this app they won't need extra load of study materials and faculty to do the rest of the learning. Nowadays applications which we can use without internet access are popular. Paper based Also there are many mobile applications available that provide mock tests. Our app follow the same path as well.

### 1.1 Android Market Share Analysis

With the number of smartphone users are increasing each day, there is an equal increase in the number of application developers for the same. According to the 2017 survey Android occupies 81.3% of the total market share.

**Table 1. Total Android Market Share (2016-2017)**

Year	2015	2017
Operating System		
Android	81.3%	88.2%
Apple	13.6%	12.4%
Microsoft	2.1%	1.2%
BlackBerry	3.1%	1.0%
Others	3.0%	0.2%

Android technology, being available freely for download, along with enhanced data storage (using SQLite framework) occupying less space leading to increasing number of users using android technology. By considering this, Android platform was chosen to develop this application.

## 2. LITERATURE SURVEY

The Quiz App is rated in the top 5 aptitude applications in android market developed by Sindu Rajan and designed by Yalini Kumaraguru. Pocket Aptitude is a collection of 10+ quantitative aptitude questions and word problems frequently asked in competitive examinations and placement papers. It is designed as a preparation tool for job aspirants and those waiting to crack CAT, NTSE and various bank exams. People with an inclination towards mathematics can use this app to sharpen their IQ, test their aptitude skills and enrich their knowledge. This application has various fine points and flaws provides good user interface but only for practice test but the questions being asked are of old pattern and not in trend. The main motto is to make this app work faster and efficient enough for students to make most out of it.

The Logical Reasoning and Aptitude application developed by team is also popularly used aptitude test application. Logical Reasoning helps in improving problem-solving skills by focusing on Logical Reasoning Questions. Logical Reasoning will help you in preparation of admissions tests and other different kind of exams, but the user interface is not interactive, the user has to scroll horizontally to view the entire answer. It just has MCQ's for test and score evaluation.

## 3. PROPOSED SYSTEM

By considering the pros and cons of the existing applications, this application has been developed to cover all the features and overcomes the cons of the already existing applications. By keeping in mind the users need and the topics that are important for placements and other engineering entrance exams, this app consists of many sections like Quantitative, Verbal, and Logical, Computer Fundamentals, Programming Languages. The sections are listed below:

### 3.1 Login

This option leads the user to the main page of our application. The main page consists of test topics like Quantitative, Verbal and Logical, Programming Languages, Computer Fundamentals.

### 3.2 Test

Each section will contain 6-8 questions. The questions asked are mainly the questions which has been seen in many competitive examinations number of times. The user can leave the question if he does not know the answer. And in the end can press the score button to end that particular test and see the results.

### 3.3 Score Board

After each test, the score will be calculated. This section only shows the result of the test and if the user wants to save the score.

### 3.4 System Architecture

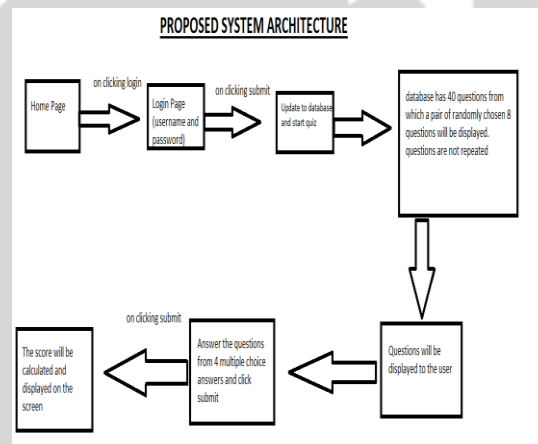


Fig -1: System Architecture

## 4. IMPLEMENTATION

On starting the offline android aptitude application, the main screen is loaded with the header that provides navigation to the Score Board of the appeared test, questions that are marked as favorite and Tutorials. It has 3 pages and each page has 6 questions of a particular genre.

Example general knowledge, math, computer knowledge. The test with a random set of questions will be started by selecting any of the sub sections. Simultaneously a timer will be started. The user can jump to any other question by using the next button.

The user can answer the question in each genre according to his own choice and submit the test. The question contain single choice questions, multiple choice questions as well as text to write the answers. After that, a score board will be displayed indicating the individual score.

As the given app is offline app. We have the advantage of accuracy and speed both. If the app would have been dependent on network it would have been difficult to access the app when the person is far away from network area.

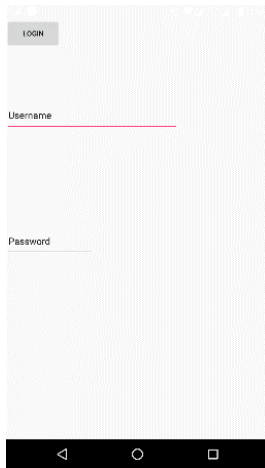


Fig -2: Login

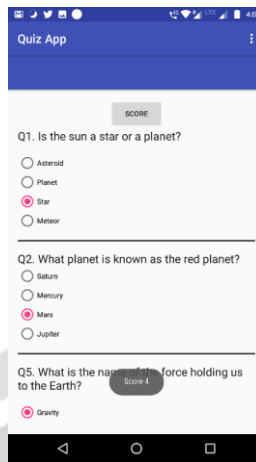


Fig -3: Test

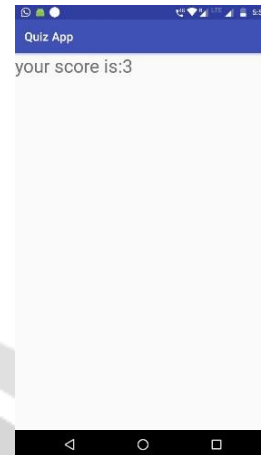


Fig -4: Score

## 5. MODULE IMPLEMENTATION

Following are the modules for the Offline Android Quiz Application.

### 5.1 Login

This activity will contain only two empty fields that is the user’s email-id and the password. Upon entering the data, the user’s credentials will be verified, with the data stored in the database and if the data exists the user will be logged into the application.



Fig -5: Login Module

### 5.2 Test

Each section will contain 6-8 questions. The questions asked are mainly the questions which has been seen in many competitive examinations number of times. The user can leave the question if he does not know the answer. And in the end can press the score button to end that particular test and see the results.



**Fig -6: Test Module**

### 5.3 Result

On clicking the score button. The score will be displayed in a new activity.



**Fig -7: Result Module**

## 6. RESULT

The following is the comparison of the existing application Pocket Aptitude App, Logical and Reasoning with the newly developed application Offline Android Aptitude Application.

### 6.1 User Interface

- The pocket aptitude app has a very user simple interface that is interactive and provides easy navigation throughout the app.
- The logical and reasoning app is not interactive as the user has to horizontally scroll for viewing the answer.
- In the Offline Android Aptitude Application, the user can smoothly navigate through the app. The user interface is made interactive by following principles of Human Computer Interaction (HCI) like simplicity, compatibility, comprehensibility, clarity, consistency, aesthetically, pleasing, flexibility, efficiency, familiarity, responsive.

## 6.2 Categorization

- The Pocket Aptitude App provides test facility for only quantitative section.
- The Logical and Reasoning provides test for quantitative and logical sections.
- The Offline Android Aptitude Application provides test for:
  1. Science
  2. Verbal and Logical
  3. Computer knowledge

## 6.3 Score Board

- The Pocket Aptitude App and the Logical and Reasoning App does not maintain score board for future reference.
- The Offline Android Aptitude Application maintains score board for future reference.

## 7. CONCLUSIONS

This research paper discusses about the fine points and flaws of top android aptitude applications. By considering the need of the students for placements and other entrance exams, this application has been developed in the most preferred mobile operating system i.e. Android. This application has been developed to overcome the flaws in the existing system like properly categorizing the sections, providing section wise questions, random set of questions, maintaining score board along with a user friendly and attractive and easy to use user interface. It has been designed to ask both type of questions like multiple choice and textual questions. This abilities of this app helps to take the assessment of the user more easily. It is designed as a preparation tool for job aspirants and various aptitude tests.

## 8. ACKNOWLEDGEMENT

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## 9. REFERENCES

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