

An Android Application on Visual Reasoning Questions and Maze Game: BrainFreezer

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Abstract— BrainFreezer is an android application consisting of two games. Game 1: Maze Runner: In this game the user will have to find a way through the maze to reach the destination. The maze will consist of one start point and one end point. The user will have to find the correct path starting from the source through the maze to reach the destination. Game 2: Visual Reasoning: In visual Reasoning game the user will have many questions on Visual Reasoning of many types. The user will be given 4 options for every question and he will have to select one right answer from those options. The user will be provided with correct answer for every question with its explanation.

Key words: Android, Visual Reasoning, Maze Game

I. INTRODUCTION

BrainFreezer android application is developed to help the users in getting different types of Visual Reasoning questions at one place. The visual Reasoning questions are of many types.

Example: Guess the mirror image, identify the pattern, complete the series etc.

This application will help the users to find all such questions in one application with the correct answer and explanation of every question. At present there is no application in android or any other Operating systems based on visual reasoning questions. The visual reasoning questions are important as they are asked in various competitive exams in India like CAT, Bank PO, SBI PO, MBA-CET and in aptitude tests of many MNCs.

The maze runner game will help in developing the decision making ability of the users. The users will have to find a way through cryptic paths and avoid the dead ends. Once the user will reach a dead end he will have to start from the beginning. When he will restart he will have to keep in mind the previous wrong path that he chose and will have to try a different way to reach the destination. This will help the users in developing his concentration and will also enhance his decision making abilities.

II. LITERATURE SURVEY

An aptitude test was conducted in our college by an MNC to hire interns at the end of our 6th semester exam. The test consisted of about 4-5 questions based on visual reasoning. So from there the idea of creating an android application based on visual reasoning questions struck our head. The fact that there is no other application based on the same concept made us do it as it was the need of the hour [1].

There are many applications on android or other Operating Systems based on aptitude preparations. These applications have covered the questions relating to

quantitative part and logical reasoning part. Some applications have also added the interview questions and verbal questions to develop the skills of the students but there are no mobile or web application covering visual reasoning questions [2].

There are many applications on maze runner game in android operating system, the reason we have added it to our project is to be versatile and informative in the same application. Maze Runner is like mind refresher and can be useful in relaxing [3].

Visual reasoning is a key aspect in the competitive exams and also in Aptitude tests of many MNCs. Many find it difficult to find the correct answers due to less practice or exposure to such type questions as they are not available on any digital platform. Every visual reasoning problem has different logic and has to be solved with different approach. Having many questions of different types based on visual reasoning will help the user to build this thinking ability. It improves the reasoning capability and thereby develops one's logical skills and problem solving techniques.

There are many applications on android and other Operating Systems having maze game, but the approach in maze runner is different as the user will have to restart every time he reaches a dead end.[4]

There are different applications for Aptitude preparations but no application consists of Visual Reasoning questions, also these types of questions are not available on web platforms, so it was essential for creating this application.

III. PROPOSED SYSTEM

BrainFreezer is a user friendly and easy to use application. Any user can use the application in an effective way and will be very beneficial for him/her. The application has educational as well as entertainment values and all of them are available in the same application. This application will help in developing the thinking ability of the user. Visual Reasoning will have two different modes:

Arcade Mode: The arcade mode will have many questions and there will be no time limit or marking system for them. The answer and explanation to these questions will be available for the user at run time.

Challenge Mode: The challenge mode will consist of 10 or 20 questions in it. The user will have to answer all those questions in the time allotted to him. Marking will be done on the basis of these answers. The user will get the solution set of the test after all the answers are answered or after the time is complete. Whatever will come first. The score will be displayed at the end of challenge mode. There will be multiple challenge modes consisting of different questions.

The System Architecture of the application is given below. The BrainFreezer application will work in all the android versions from android 4.0

System Architecture



Fig. 3.1: System Architecture of BrainFreezer

Basic steps involved in starting the application:

- 1) Install
 - The user needs to install this application on their android device or use a virtual android device to start the application.
 - The virtual android device is available on android studios.
- 2) Open Application
 - Once the installation is done either on the android device or android virtual device we then start this application.
 - After starting the application we need to select the game that we want to go ahead with either puzzles or observatory.
- 3) Start Game Play
 - Once the game is started select level and begin.
 - After completing a level new level will be unlocked.
 - Similarly after a question is solved next question will appear.
 - The data will get stored in the database.
- 4) End Game
 - Once we are done with the game. We need to exit the game.
 - The flow of application is given in a diagrammatic manner below.

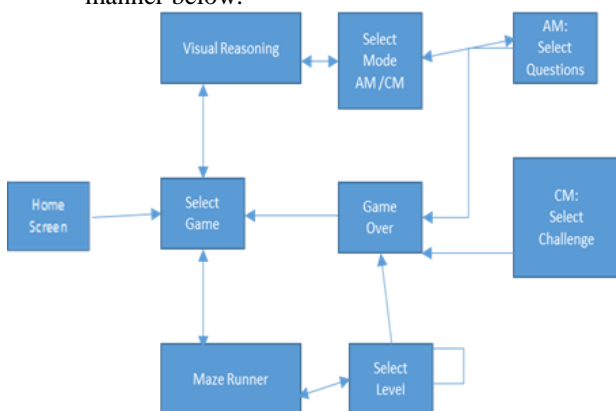


Fig. 3.2: Block Diagram of BrainFreezer.

IV. CONCLUSION

Thus this android application is useful in solving and learning questions on visual reasoning and the maze runner game will be used to develop decision making abilities and will also serve the purpose of relaxing mind and increase the problem solving abilities.

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