

Student Sentiment Analysis using Android Application

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Abstract - In this project we have decided to provide a potential solution for an issue about the emotions of children's & students along with the obstacles that causes a decline in the development of children's in their competent and personal life. Our project is an android application that will allow mentors and teachers to keep a track of the students mental health. In this app a collection of MCQ's that can isolate the symptoms of a psychological condition in any person are represented through an friendly user interface. The mentors and guide can distribute the application and encourage the students for downloading, sharing and use the application for generating a report. The students then shall should perform the test on application based on the report generated by the application the reports stored in database notifies the administrator that a student might be dealing with a problem, then after analysis of the result or report the problem is identified and proper guidance and counseling Is provided to that respective student.

KeyWords: Sentiment, psychological, Analysis, Android .

1. INTRODUCTION

Now a days their have been seen an increase in number of case's where children's are facing psychological problems and faces emotional instability. There have been many try to identify and overcome the problems that casus a fall in student s performance and reduces their efficiency due to this reason many students faces a problem of low grades and low creativity and innovative attitude of student that affect the future researches and other productive activates this can create problems such as low productivity and low IQ of students. Our application try's to solve this problem by identifying the symptoms of the problems in the early stages by targeting the school students and college students so that any problem identified can be cured by providing proper guidance and support to student by their teachers this app creates a friendly environment where the students can fearlessly mention and put their problems so that the problems can be solved through proper guidance of experts. The android platform serves as a best platform to reach students due to its availability i.e. almost every person uses an android device also the simplicity of its use, android has proved over time that it is the most user interactive, simple to use OS. It supports for developing complex and user-friendly applications at low cost and distribute them freely.

2. LOGIC / IDEA OF APPLICTION

Irjet Template sample paragraph .Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

2.1 Method of extracting data from students

The application use an set of questions that are represented in the form of MCQ's, which are selected based on their importance of how much they refer to an specific psychological symptom. Based on the option selected by the student any possible symptom of a specific psychological condition is analyzed.

2.2 Types of psychological conditions identified by the application

- 1) Internet addiction: identifying that if the student is addicted of using Internet.
- 2) Depression: identifying whether the student is suffering through depression.
- 3) Harassment: identifying that if the student is harassed /bullied by other students or any one else.

2.3 Analysis of result's

The application collects values of the options selected by the user in its on device file and at the end of the application on the last activity the application retrieves all the data stored and adds the values for the question designed to identify the symptom. Then the value for each symptom is compared using logical conditions and report is created based on the conditions satisfied.

3. ALGORITHM

Step 1 :

Start the application, install the application on a physical or virtual device.

Step 2 :

Collect personal information from the user, The information consist of personal data such as first name, last name, and a photo that must be clicked through the application.

Step 3 :

Store the data for use in local file, The application uses a feature of the android API called as shared preferences to store the data collected from the user in the local device so that the data can be accessed again when need in that running app instance.

Step 4 :

Collect academic information of the user, collecting information such the semester, year, roll no and mentor is important to identify that particular student for generating a report.

Step 5 :

Store the data for use in local file.(same procedure discussed in step 3)

Step 6 :

Enter the test. During this process the user is asked to answer some particular question designed in the form of MCQ's.

Step 7 :

collect the users choice when the user selects an option from the given choices and store that result for every question as an integer indicating the degree of severity of the selected choice. Store the values through shared preferences to access it quickly later.

Step 8 :

Repeat step 7 until all questions are answered.

Step 9 :

Gather all the data collected from user, retrieve all the data stored in shared preferences file data such as name , roll no, year, semester, and values of all answered questions.

Step 10 :

Generate report of user. Evaluate the values of all the answers and based on the average generated by a set of questions grouped to identify a particular disorder.

Step 11 :

Notify the reports of student detected with symptoms, based on the generated report of the student if a student is detected for a symptom of any disorder the system is

responsible for notifying the authorities mostly the mentors of the student.

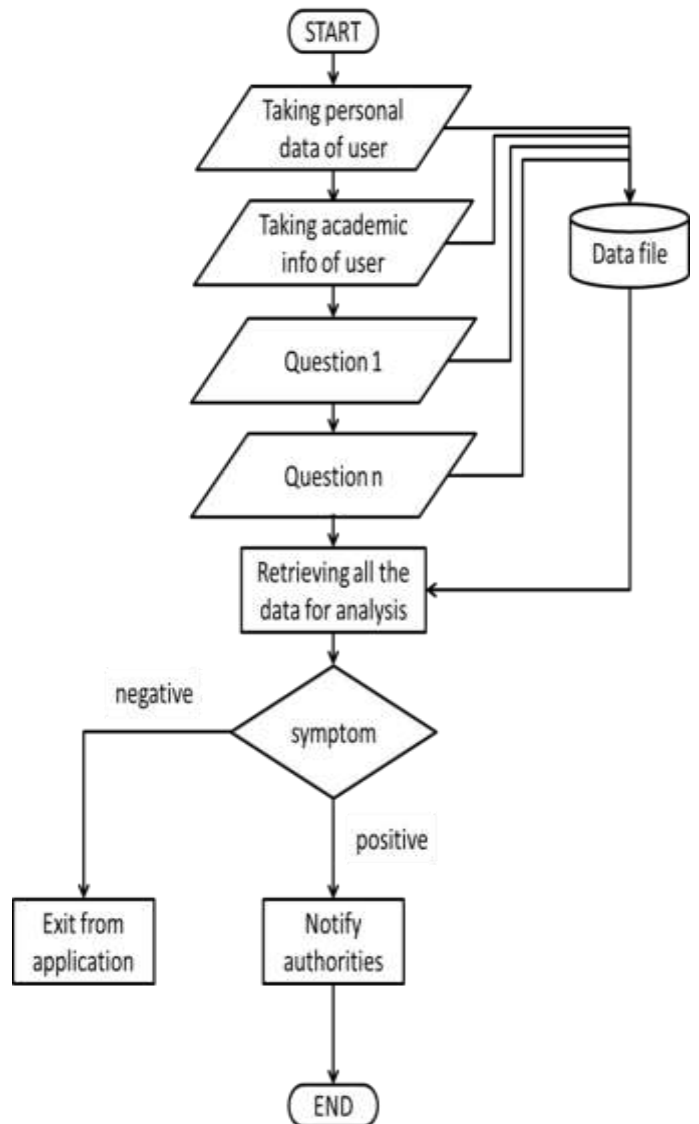
4. WORK FLOW OF THE APPLICATION

Fig -1: Application Flow Chart

5. GUI OF THE APPLICATION

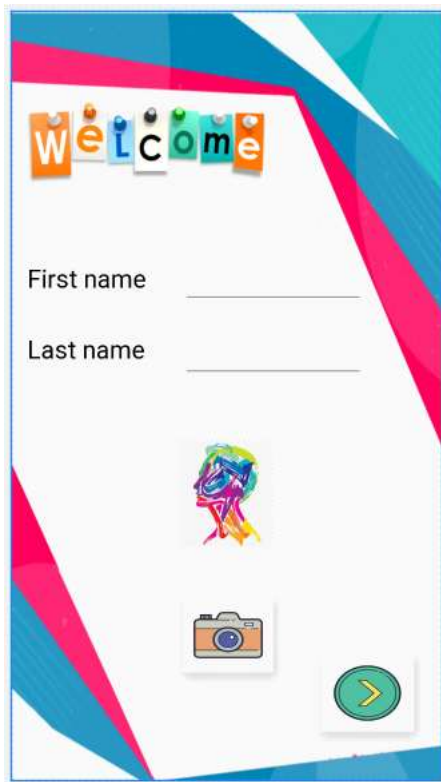


Fig -2: Welcome Activity

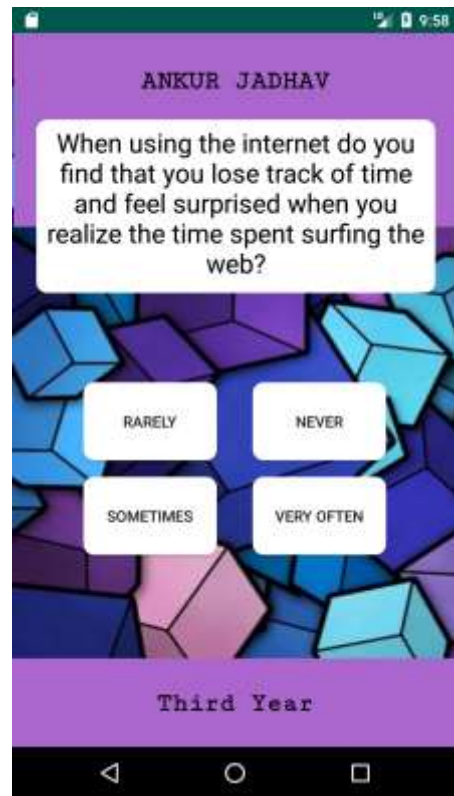


Fig -4: Question Activity



Fig -3: Information Activity



Fig -5: Report Activity

6. RESOURCES USED

6.1 Hardware for pc/laptop :

1. Ram :Minimum 3 GB, recommended 8 GB
2. Hard Disk :Minimum 2 GB, recommended 4 GB
3. Input device :Standard Keyboard and Mouse
4. Output device :screen of laptop or monitor for pc's

6.2 Software for pc/laptop :

1. Operating System : Windows 7/8/10
2. Language : java
3. Tool : jdk, Android Studio
4. Data Base : Firebase database

6.3 Hardware for mobile device :

1. Sound : speakers
2. Camera :any camera present in the device
3. Screen : Touch screen
4. Connectivity : internet support

6.4 Software for mobile device :

1. Operating System : Android OS minimum version 4.0 (Ice Cream Sandwich)

7. FUTURE SCOPE

The android application designed to extract Sentiments of a student through MCQ based questions. Through the use of Android technology developing an user friendly application is very help full for fast and low cost developing teams. The area of fields where the application works can be changed by developing and releasing different versions or variants of the app based on the required area of work. The application can be used in educational institutes, private companies, government offices and NGO's working for better life of children's. The application will help number of students suffering from psychological problems

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