PSYCHOMETRIC TEST BASED ANALYSIS AND CAREER GUIDANCE

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Abstract: As we Know, career selection is very important nowadays. Choosing right career and selecting a domain highly depends on your area of interest and your natural skills. Also, with the large number of opportunities in different career fields makes it difficult for the students to decide which course should they go for. As per the survey that was conducted by the Council of Scientific and Industrial Research (CSIR), about 40% of students are confused about their career options. Hence the students end up selecting a career that is not meant for them, thus human resource productivity is also affected. Hence this app will allow the students to choose the right career based on their interest and behavior by giving the test. This app suggests the courses highly based on the interest, capability and personality traits

Index Terms: Psychometric Test, Career Guidance, Personality traits, C5 Algorithm.

I. INTRODUCTION

Hence our project is an android app which provides suggestions to choose a right career path. Through the increased research and exploration in different domains, there are large number of newly career opportunities in every domain(field).Thus it leads to more confusion to the students studying in tenth or twelfth grade to select one of the career options. The reasons for this confusion could be unawareness of self-talent and self-personality trait, unawareness of the various options available, equal interests in multiple fields, less exposure, etc. Due to these, it becomes more complicated and the student may select a wrong career option and the consequences of this wrong decision could be work dissatisfaction, poor performance, anxiety and stress, social disregard etc.

(A) Problem Statement

Asking students to choose a career path at a very young age, they may not be matured enough to choose one. Students may not understand their area of interest which makes them difficult to know in which field they can contribute more. Therefore, it is quite important to take a right decision regarding the career at an appropriate age to prevent the consequences that results due to wrong career selection

(B) Scope and Motivation

This project aims to allow students to know where they are capable enough or can work well. It provides awareness to the students about various available opportunities in different career paths. Students may well enough know the area where they can focus more.

(C) Project Objective

Here, we aim to provide the students and parents a platform that will provide a distinct personal analysis. There will be two categories, the first will comprise of students who have made a career choice. Since the student is very aware of the choice of career, the website will guide him/her through the various procedures how he/she can excel in their career. The student will be provided with various options of colleges and the prerequisites to apply for the course. The second categories of students are the ones unaware of what they would like to do in life professionally. For these students there will be a series of tests that they take, which will help us analyze their personality and their aptitude. These test questions will be dynamic and different for each user. Once we analyze these details, we will provide a carefully checked list of career options to the student. If the student selects any one of the career choices provided to them, the App will give detail guidelines to build the career.

II. RELATED WORK

EXISTING SYSTEM:

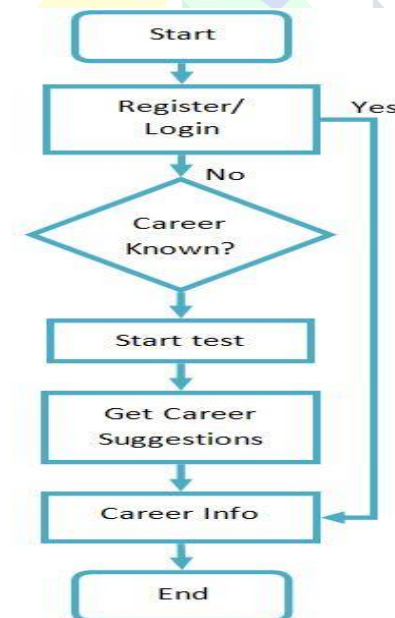**(A) Career Guidance and Employment Management System (CGEMS)**

This paper provides career advice and guidance, or help the one looking for their opportune job. CGEMS is one which tries to bring student, career advisor or consultant, job seeker, and various organizations at one place, where they meet up and help. It helps the users to determine their best choices for their career, also system offers few quizzes related to such career which may add up for better selecting of their career path [1].

(B) Sowunmi, O.Y., Misra, S., Fernandez-Sans, L., & Medina-Meridio

J.-A. Framework is used for academic advice via mobile applications, an expert system is built to recommend universities to students for high schools where there are lack of counsellors. Students many-a-times end up selecting a wrong career option, so this help in avoiding the same. This paper help in understanding how the working of a prediction analysis system in mobile application. The existing system provides career suggestions for the higher secondary school students. STEP stands for (Skill towards Entry and Prediction). which provides analysis and predictions to the students to choose a career. hence, Students are free to choose any desired course with their own will. The STEP is very much useful for students to build their future in a prosperous manner. STEP incubates a lot of information and resources about each individual subject, institutional ratings, schemes available, fees, scholarships, etc. Students are provided their maximum expected courses and also the list of colleges in their defined priority [2].

III PROPOSED SYSTEM:

This system is proposed, to help students identify their career path. The project will display the set of questionnaires and the students will have to give answers to those. These questions will help to identify the personality traits of students and also their interest and capacity in choosing a career. By performing analysis to the answers given by students, one can identify whether he is an introvert or extrovert person, more thinking person, more perceiving or not, etc. Through this person's capability and interest to take that course can be identified.

IV. SOFTWAREREQUIREMENTS:

Operating System: Windows 7/8/10

Technology: JAVA & J2EE,

Web-Technologies: HTML, JavaScript, CSS, PHP

IDE: -Visual Studio, Android Studio.

Database: -MySQL 5.6

Java Version: -JDK 7

V. ALGORITHM & IMPLEMENTATION:

In this decision tree C5 algorithm is used for implementation. It provides a very easy way to understand large decision trees using set of rules. It fills the missing data wherever necessary. In this, each question has two options i.e. Agree and Disagree. And based that the predictions are made by identifying the personality traits. So, each question agrees or disagree option will correspond to one of these:
- Extraversion (E) – Introversion (I)
- Sensing (S) – Intuitions (N)
- Thinking (T) – Feeling (F)
- Judging (J) – Perceiving (P)
so, using these pairs, 16 different personalities can be formed like ISTJ, ESTJ, ENFJ, etc.

	Extraversion (E) – Introversion (I)	Introversion (I)	Extraversion (E)
You worry too much about what other people think?	Extraversion (E) – Introversion (I)	Introversion (I)	Extraversion (E)
Generally speaking, you rely more on your experience than your imagination?	Sensing (S) – iNtuition (N)	Sensing (S)	iNtuition (N)
You would not call yourself a dreamer.	Sensing (S) – iNtuition (N)	Sensing (S)	iNtuition (N)
Winning a debate matters less to you than making sure no one gets upset.	Thinking (T) – Feeling (F)	Feeling (F)	Thinking (T)

Figure 5(a) Implementation Of Different Combination
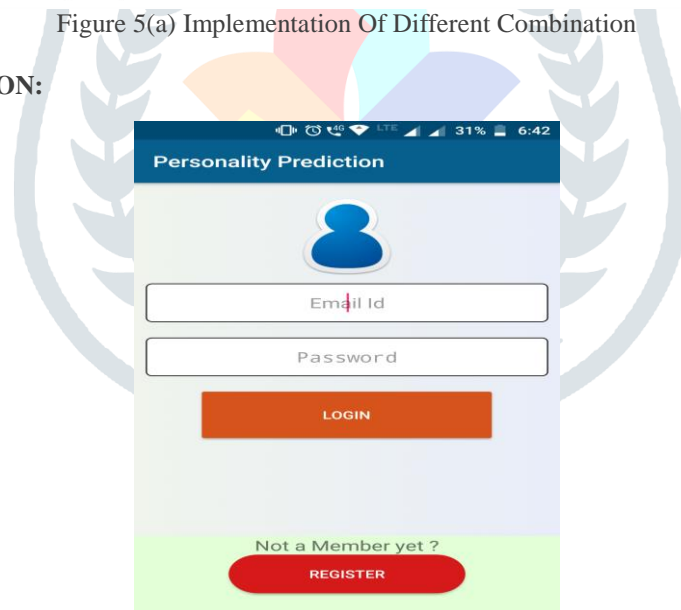
VI. RESULT AND DISCUSSION:

Figure 6(a) Login Page of an Application

This is the user interface for the login form for the mobile app users. Registered users can provide their username and password to log in and new users have an option to click on new user in order to register for the application.
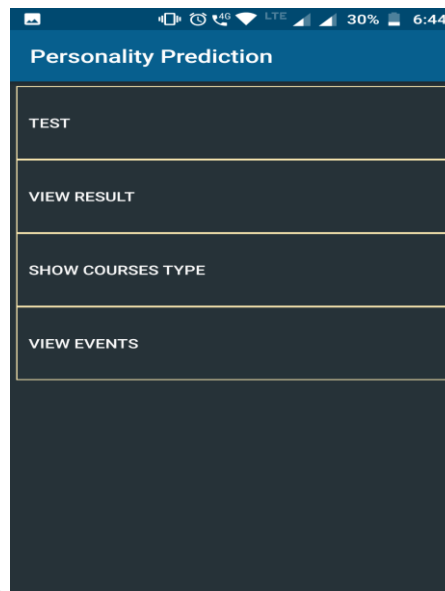
Figure 6(b)User Side page After logging in an application

(A)Test

Test include number of questions for which user have to answer each. User have to choose either agree or disagree. Pop up appears for selected agree or disagree option.

(B)View Result

After completing test successfully user can view their result by clicking on View Result button. This shows name of the user, he's personality and the suggested careers for him

(C)Show Course Type

It provides the list of courses also, complete details are given about each course. Here user gets aware about various available courses he can apply for and also overview of the same.

(D)View Events

In events, user get notified about the upcoming events like workshops or exams, etc.

Test:

Figure 6(c)Test Page Interface

This is the page that will be displayed to the users when he starts the test. For the user's convenience the test options will be grouped into two i.e. Agree, Disagree. The predictive analysis will be used to provide various career suggestion based on the answers given.

View Result:

Name
rajat

Result
ISTJ

Careers
Top careers for the ISTJ include:
•Accountant
•Airplane Pilot
•Flight Engineer
•Nuclear Engineer
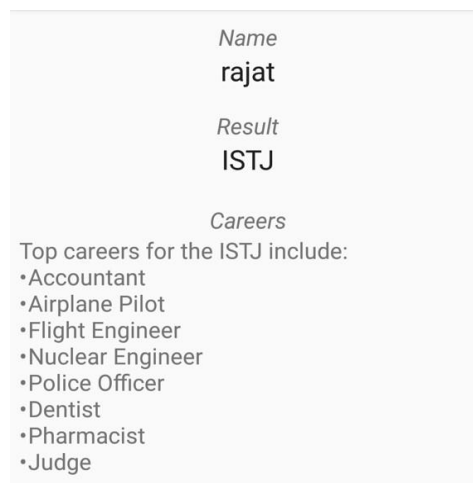•Police Officer
•Dentist
•Pharmacist
•Judge

Fig 6(d)Result Page Interface

After completing successful test user can see their result while clicking on view result button. This shows name of the user, he's personality and the suggested careers for him.
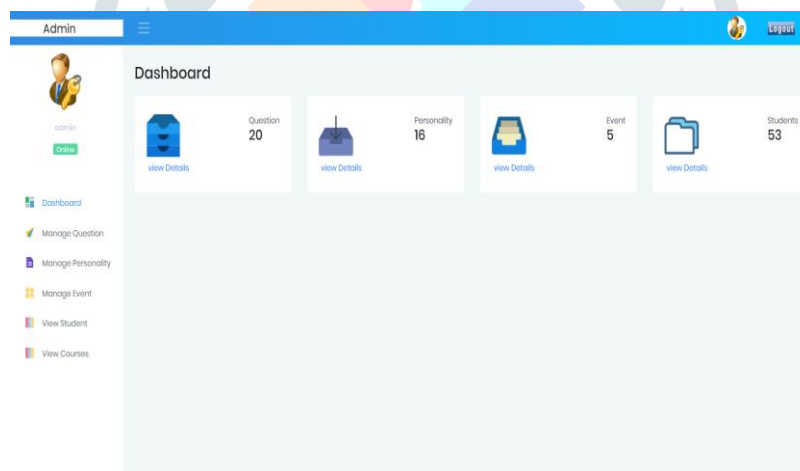
Admin side:

Fig 6(e) Admin Side Page After Logged In

(A)Questions
In this admin can add, delete or update the questions. This question was collected by psychiatrist and are framed in an easily understandable way.

(B)Personality
Personality Include:
- Extraversion (E) – Introversion (I)
- Sensing (S) – intuitions (N)
- Thinking (T) – Feeling (F)
- Judging (J) – Perceiving (P)
So, using these pairs, 16 different personalities can be formed like ISTJ, ESTJ, ENFJ, etc.

(C)Manage Events

In this admin can add or delete the events and notify each user about the latest events. Complete description is available for each event.

(D)Students

it provides information of the list of registered students. Their id, name and Gmail id is shown which will get directly from database

VII. CONCLUSION:

Thus, in this trending competitive world, young students need to categorize their career options. The system will provide a personalized analysis, career options, which will be enabling each student to evaluate their choices and make a decision. By using this app, student just needs to answer the question displayed by the system, and based on the answers the system analyzes and recommends course. Thus, this android application will play a major role in providing online guidance for the students

VIII. REFERENCES:

[1] "Career Guidance and Employment Management System,"(CGEMS)

[2] Sowunmi, O.Y., Misra, S., Fernandez-Sans, L., & Medina-Merodio

[3] A Roshani, PR Deshmukh, An incremental ensemble of classifiers as a technique for prediction of student's career choice.

IEEE   Networks & Soft Computing (ICNSC) on 25 September 2015.

[4] A Mustafer, Predicting Instructor performance using data mining technique in higher education. IEEE 2016; 4:2379-2387.