Student Profile & Personality Prediction using Data Mining Algorithms

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ABSTRACT

Predicting student profile and personality is very much challenging due to a set of factors affecting the results. In a country like India, there is a lack of existing system that analysis and monitors the student profile and personality. Here the career choice options are generally suggested on the basis of his/her academics performance and social influence. To overcome this drawback of selection of profile we have come up with the solution which uses data mining algorithm which helps in predicting student profile. This paper also focuses on how prediction algorithm can be used to identify the most important attribute in student data.

**Keyword : -** *Data mining, Information, Knowledge, IQ Test, psychometric TEST,*

1. INTRODUCTION

Data mining is simply study of data and analysis to identify hidden patterns, information and knowledge in a large data set. Data mining in educational database is useful in understanding previous unknown patterns and current performance of student that improves his/her performance in selection of career choices. Using data mining algorithms we can understand student's academic growth and interest so that we can guide them in that particular field. Overall development of a student is based on his/her academic performance. The focus is on the student profile to communication with the test results in the context of the student's particular background, behaviors, and approach to the test items as the main goals. We want to create test that help us to identify with learning disabilities and then select the right career for those studies

The main objective of this paper is to provide an overview on the data mining algorithm that are been used to predict student profile and personality. In this paper we focus on few attributes of the student and an online test result to predict student profile. In this way we can improve student's career choices and achievement's and success more effectively using data mining algorithms. The impacts are not only limited to student but also the parents, educators and academic institution can improve the existing education system. Student performance is very much essential in predicting profile and personality.

2. PROPOSED SYSTEM

We are creating an online survey system that will help students to make career choices and understand their personality traits. The profile prediction is based on IQ test and logical score. In our society intelligence is highly appreciated. If you have a high IQ, you have a better chance of being successful at school and professionally. For prediction of personality, psychometric questions are required. For that we will use psychometric Test. Student will login/register into his account, there will be two test set. Based on IQ test, profile will be predicted. Intelligence is made up of the skills of logical reasoning, problem solving, critical thinking, and adaptation.IQ tests in general consist of Verbal and Performance sections. In each subtest of the Verbal scale, specific areas such as, verbal fluency, vocabulary, expressive language and memory skills are put to test, while in the Performance scale, visual-spatial abilities, numerical abilities, fine motor coordination, perceptual skills, inductive reasoning, rational logic and in some also speed, are essential for scoring.
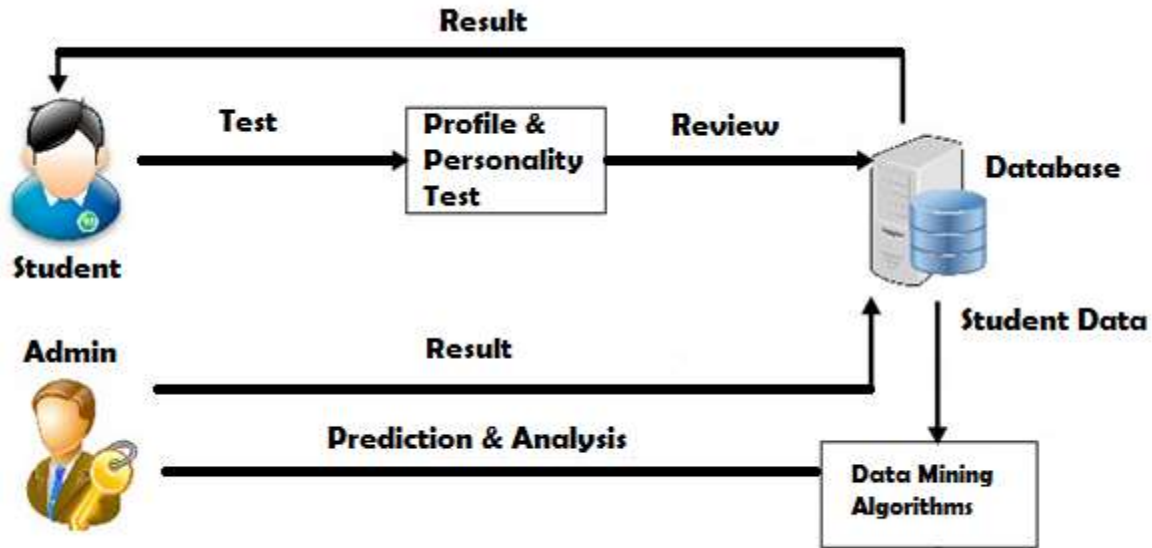
3. IMPLEMENTATION

The system is in the form of web based application which helps to predict student profile and personality. Using this system, the student can create an account and then login using his/her credentials. After login student first needs to enter his school GPA. All the scores are stored in mysql database. Then student can proceed for IQ test. There are 15 questions .The options selected by the students are compared with answers of the IQ test that are stored in the database.

There is a common myth which says that IQ tests measure intelligence. What an IQ test actually measures is not actual intelligence, but a person's capacity for intelligence. In other words, it does not test on learned information, but instead, it test's a person's ability to learn information. . Basically, an IQ test measures a person's performance on several indicators, relative to that of his or her peers. It test and analyses the performance of the test taker on a series of analytical, mathematical, and spatial activities, and the success with those endeavors will be represented as

an IQ score. The test is meant to measure a person's intelligence; however, the debate over the true meaning of intelligence has been going on for over a hundred years and remains unsettled.


The student is assigned with marks according to his/her performance in the I.Q Test. The scores are stored in the database the can be use further for analysis purpose. Same steps are repeated in logical reasoning test. So you see that IQ tests go a long way in helping one analyze one's learning abilities, identify the soft spots and fortes; it gives one a fair estimation as to where his intelligence levels lies in comparison to his peers. This in turn greatly assists in selecting your subjects choosing a profession, making a career, so on and so forth.

However, IQ does not measure many, many things! An IQ test does not measure creativity, musical affinity, intrinsic motivation, or spiritual gifts, non-academic talents, musical, manual dexterity, interpersonal skills etc.. Because an IQ test can only measure the responses to the questions given, a person who is gifted in areas such as art or music may find that his or her abilities are ignored. Now the student proceeds to give personality test here he needs to select he choices that are most likely or nearly suits the personality. Based on his/her choices the system

predicts the student's personality. The former are focused on the individual (intellectual capacity, motive patterns, self concept, perception of the environment, role behaviors, values, level of anxiety or depression, coping patterns and general personality integration) while the latter on the individual's life situations. The success and precision levels of an Intelligence Test depends to a large extent on the sociological and psychological make-up of the individual in addition to his intelligence.
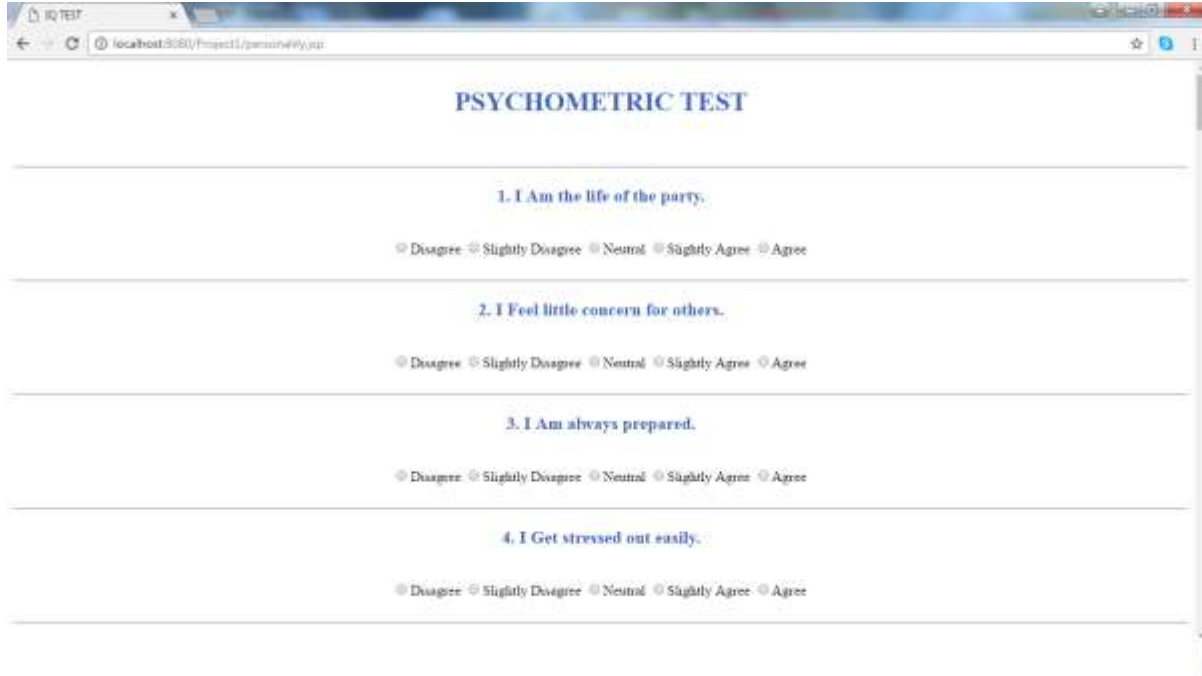
Finally based on the score of IQ Test, logical reasoning test and GPA score the system predicts the student profile. Now combining the results of tests and personality, the system predicts the career that suits him/her accordingly. The system is designed in such a manner that once a student gives test, he /she cannot take down the test again.

4. CONCLUSIONS

The study purpose of this method is to guide graduating high school students and educators to enhance decision-making process. This could guide them also to decide whenever an institution is planning to offer new courses. This is to conclude that the proposed methods are feasible to support decisions to the identified beneficiary of this study. This simple analysis works show that the proper data mining application on student's performance data can be efficiently used for vital hidden knowledge / information retrieval from the vast data, which can be used for the process of decision making by the management of an educational institution. This paper also concludes with that for data mining application for effective and faster results prediction, classification and clustering can be done.

5. REFERENCES

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