Personality prediction through questionnaire

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ABSTRACT

In this modern world of development, more and more opportunities need to provided to an individual to achieve success in life. However, getting a job entirely depends on selection process. With the advancement in information technology, electronics and communication, the whole system of selection process becomes quite lengthy and complex. Moreover, every organization chooses a candidate by assessing the personality traits of an individual. In this project, we will try to implement a method that will allow an organization to easily select a candidate with the help of personality test that will help in assessing the personality of an individual. This personality test predict the personality with a success rate of 90%.Finally, the organization will choose a candidate if the personality traits of an individual matches with the requirement of organization. Thus, the whole system becomes quick and accurate.

Keywords: *Recruitment, aptitude, OCEAN model, personality prediction and questionnaire.*

1.   INTRODUCTION

Every recruitment process needs to check each individuals Eligibility, Intelligence and Aptitude Evaluation. Moreover, to select candidate from a large group of appearing candidates is quite a most common issue. Earlier, technical aptitude test, group discussions and interviews used to select candidate. Online recruitment system poses newer, powerful challenge and opportunities for employers. With the help of online recruitment system, its result shows various personality traits of individual such as social interaction, mutual respect and creativity. Moreover, this system allows to get a knowledge of the Personality of an individual. If the personality traits of an individual matches with the requirement, then the candidate will be selected. The main prospective of the online recruitment system is to save time which we can't be able to save with the traditional system. It makes the wholesystem more effective and efficient. It also shortens the tedious process. This systemuses

various approaches such as big fivemodel, OCEAN model and other selection methods to choose a candidate. This project will provide some techniques that willselect the best individual. The best suitedindividual for the required job will get selected by the admin on the basis of their personality traits.

It will make whole system of recruitment efficient and effective. Basically, we will use a personality prediction test during the recruitment process to assess the personality traits

2.   LITERATURE SURVEY

For years many research have been performed to prepare a method that can predict a personality efficiently and effectively. Withyears, a system is reforming to predict accuratepersonality of an individual using different algorithms like ML, deep learning or other available one's.

[1]   **M. M. Tadesse et al**, Face book profile data was used to predict one's behavior in social world. They used my personality projectdata set to define personalities based on OCEAN model of characterizing personality. They analyzed and compared four machine Learning models and achieved an accuracy of 76.4% in predicting a personality of an individual.

[2]   **IOP Conf. Series:** , a system is reformed where the personality is predicted using the science of graphology. They used one's handwriting and signature pattern to predict it. This organization used the small curves, end streak, middle streak and other things to analyses the personality. They used PCA to analyze the features and SVM to classify it. They were able to predict one's personalityusing confusion matrix to an accuracy of 71%

[3]   **Tommy Tandera et al** , the use of social media platform like Face book was usedto predict one's personality. They used deep learning algorithm to analyzed and compare the results of personality prediction using various comprehensive methods. They even used status updates to get a

clear idea about one's personality.

[7]   **SK Nivetha, M Geetha, RS Latha** they used random photographs of an interviewee during the recruitment process. They used expressive and analyzing features of an individual's face to predict the personality. They used CNN and FCWH algorithm to know about individual's character. even they use questionnaire using k- means clustering algorithm to predict one's personality in a precise manner.

[8]   **B Ferwerda, M Schedl, M Tkalcic** , they created a twitter dataset to assess one's personality using twitter account. Then the collected dataset undergo preprocessing which involves tokenization and removal of some words. Then this data is visualized and finally various algorithms like adaboost, multinomial naïve bayes and LDA are applied to this dataset. Then this helps in getting an accurate personality of an individual.


Fig. The project aim to predict personality

2.1   TYPES OF PERSONALITYTEST
Personality tests are mainly conducted for many reasons, such as while hiring process or to improve organizational culture.

We have mainly five primary types of tests
- **MYER-BRIGGS TYPE INDICATOR**
- **KOLBE TEST**
- **DISC ASSESSMENT**
- **PROCESS COMMUNICATIONMODEL**
- **PERSONALITY ASSESSMENTSYSTEM**

These are the tests which describes personality in different groups but there is different approach of every test and each one of them was used in different areas of life.
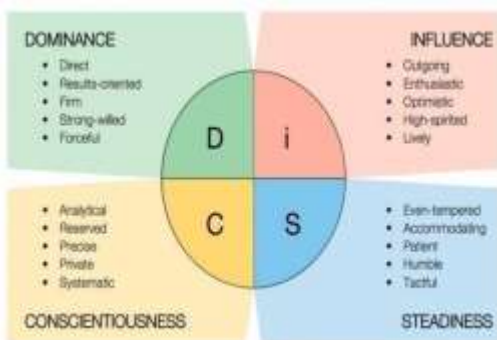
2.2   BIG FIVE MODEL
The **Big Five model** is also known as the **Five- Factor Model (FFM)** and **OCEAN model.** This model was made in 1980. This model describes the overall character of an individual in terms of short and easy to understand way
- **Open to experience-** this involves dimensions like openness, attentiveness, imagination, sensitivity, curious and insight.
- **Conscientiousness-** this involves dimensions like

goal directed, organized, mindful and futuristic.
- **Extraversion-** it involves dimensions like excitation, social, emotional, talkative and friendly
- **Agreeableness-** this involves dimensions like caring, empathized, helpful, trustworthy and kind.
- **Neuroticism**-   this   involves Dimensions like stressful, worried, sad, anxious and mood swings.

Fig.. Ocean Model

2.3   Two Types of Personality Questions
Personality types are-
- **Statement-based Personality Questions**   Basically these types of question will give a statement, like "I love participating with others and making new comrades." The answers will be measured on a 5 or 10-degree scale, with "strongly disagree" at the bottom and "strongly agree"   at   the top.   These questions are effective for collecting the data required to conduct this kind of recruitment system. Interviewer could ask a question such as: What do you do if you don't understand a work given by your supervisor? Answers could include: it could include overall review of whole work, tips and notes of other higher officials and asking employees to help etc.

- **Open-ended Personality Questions** These questions are typically used in interviews, as they ask interviewee to provide a detailed answer. Open ended questions can tell you a lot about a person's personality, but only if you ask the right ones. All of these personality questions are worth considering, as a nice mixture of them can help you achieve the intended results.
This makes the whole system quite magnificent and productive. It allows to create a magnificent and effective framework that might help in getting a best person out of the crowd that has sparkling and hardworking personality. It might act as asset for the organization.

Fig.. Tests Usage

3.   PROBLEM STATEMENT
The problem we usually face during online recruitment system is that the online recruitment can become lengthy if various kind of tests are used to choose a candidate. It will also pose problem

in selecting the best candidate because of lengthy process. As per LinkedIn, 70% ofcompanies take up to 1-4 months to complete their hiring process.

In recent times, it is seen that lengthy recruitment process wastes a lot of money and decreases the interest of candidate. Moreover, it creates a negative impact on an individual as candidates usually judge a company by its hiring process.

4. OBJECTIVES OF SYSTEM

Some objectives of our project are given below:
- To provide an effective way of choosing a best candidate.
- To ensure that a candidate that is selected will meet all desired personalitytraits required for a job.
- To make the recruitment process shortand effective.
- To conduct online aptitude andpersonality test.
- To allow an organization to have an effective medium of selecting candidate.

5. PROPOSED SYSTEM ARCHITECTURE

The whole system works in three phases-

I. Registration for test-

Here the candidate must register himself for the job and need to take a Personality test.

II. Personality test-

This test examines the personality of an individual with the help of personality assessing questions that will help in judging a person's behavior. this whole process is entirely based on uphill algorithm that will allow questions to be arranged in a manner of increasing IQ consumption. This will help in getting a best result oraccurate personality of an individual.

III. Meeting the job requirement-

Ocean and big five model used to match the jobber requirement. The company will match its requirement with the individual's personality.
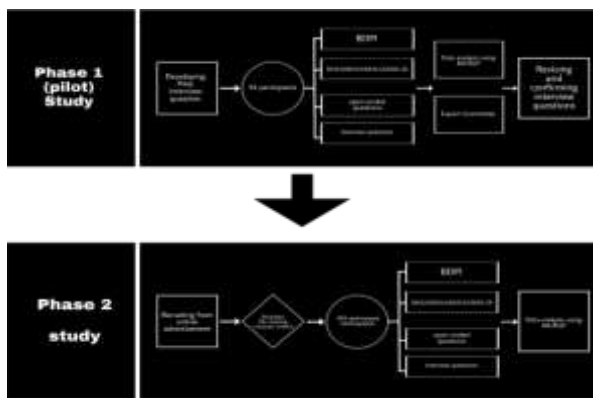

Fig.4. Schematic Diagram

6. BASIC FRAMEWORK

This whole project will revolve around thepersonality of an individual. Here we create abasic framework that might assess the basicpersonality of an individual. The overall layoutwill be created with the help of HTML, CSS And JavaScript. It will help in providing thedesigning and creating a best framework for thesystem. This project helps in creating web layoutwhere questions appear after a certain interval and the result is provided on the basis of results.

7. CONCLUSION

This whole project based on judging the personality of an individual for the job selection process. This system will make the whole recruitment system effective and efficient. It will be used in many business sectors to save time and money that is usually spent to organize recruitment process.

This whole project based on judging the personality of an individual for the job selection process. This system will make the whole recruitment system effective and efficient. It will be used in many business sectors to save time and money that is usually spent to organize recruitment process. Thus this research project is quite futuristic and may help many organizations to select a candidatethat may prove itself as an asset. Moreover, this project allows one to assess individual ability with the help of its personality.Big-5 model allows one to have an accurate outcome after the questionnaire assessment. Even ,it also helps in reducing human workforce required for the process of recruitment which in turn benefit the whole organization and save their precious time.

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