

Insight: Personality Analysis from Digital Footprints using Watson API

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Abstract— An application which can collect data from social media accounts like Facebook, Twitter which will serve as an input to Watson API that will determine the mental state, personality of the user. This can be viewed by the followers of that particular user. The purpose of this application is to help the follower understand the user's mind state from his digital footprints.

Key words: Digital Footprints using Watson API, Personality Analysis

I. INTRODUCTION

Social media is a place where users present themselves to the world, revealing personal details and insights into their lives. We create a web application to uncover a deeper understanding of a person's personality characteristics from his digital footprints. In order to obtain one's personality traits there is a need to meet in person. So there arises a need to automate the process in order to:

- Generate precise results
- Save time

II. RELEVANCE OF SYSTEM

The project is so build so as to find its relevance in many different applications. We can hence alter the output of the process depending on the user and generate corresponding results. Few applications mentioned are as follows-

- Psychiatrists can use the platform to gather information about a person's current state of mind.
- Recruiters can estimate the candidate's personality and qualities and deem him fit for the organization
- Parents can use this software to monitor suicidal tendencies and depression and take timely action.
- A mentor and a teacher can use this application for the same to understand a student's state of mind and guide him/her accordingly.

III. LITERATURE SURVEY



Fig. 1: models five domains of personality, Openness, Conscientiousness, extroversion, Agreeableness, and Neuroticism

Social networking has expanded its reign to an extent that this data if used effectively can build significant applications. The personality insights, tone analysis of a person can be few of these many applications. The proposed system aims at finding the personality traits of a user from his social activities which can be represented using the 'Big Five' model. This model is one of the most well researched

and prominent method of judging one's personality or mindstate. The models five domains of personality, Openness, Conscientiousness, extroversion, Agreeableness, and Neuroticism, were conceived.

IV. PROPOSED SYSTEM

A. Functional Requirements

The functional requirements are stated as follows-

Login/Register: A registration form to register new users wherein the user is expected to fill its username, password and other details.

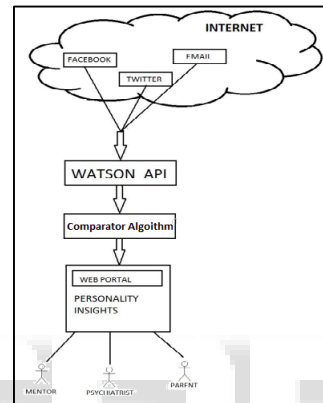


Fig. 1: Flow Graph

1) Follower: Follow a person

- Facebook login: A login portal to via facebook at the time of login so as to access the data of your followers from facebook profile.
- Data acquisition from Facebook: Extraction of data from Facebook posts and feeds to provide input to Watson API.
- Data acquisition from Twitter: Use Twitter API to access tweets and feed it to Watson API.
- Data acquisition from mail: Access user's mailbox using Zapier and MailParser and pass it to Watson API.
- Personality calculator: Use Watson API to depict the personality of the user.
- View last fetched results: Allowing the followers to view the previously generated results of followed users.
- Personality updation: Users can update data of any followee to get latest updates.

B. Non Functional Requirements

The non-functional requirements are stated as follows

- Privacy: The portal is publicly private i.e. the privacy of user and the data is maintained.
- Security: The data is protected against threats, viruses and malware attacks.
- Performance: The system accuracy should be as high as possible.
- Availability: 99% up time.
- Storage: Dynamic data processing.

- Constraints: Person should have a social media account on Facebook or Twitter Only public posts are accessed.

V. METHODOLOGY USED

The data is gathered from various social media like facebook, twitter and emails using their corresponding APIs as given below:

Social Media	Api Used
Facebook	Rest API and graph API
Twitter	Twitter API

Emails	Zapier and Mailparser
Language	Php curl

Table 1: Various social media

The gathered data is then processed using WATSON API for analysis. The analyzed data is then compared to an average benchmark data values using comparative analysis with the help of an algorithm to deem the person fit for a particular purpose.

VI. DETAILED DESIGN

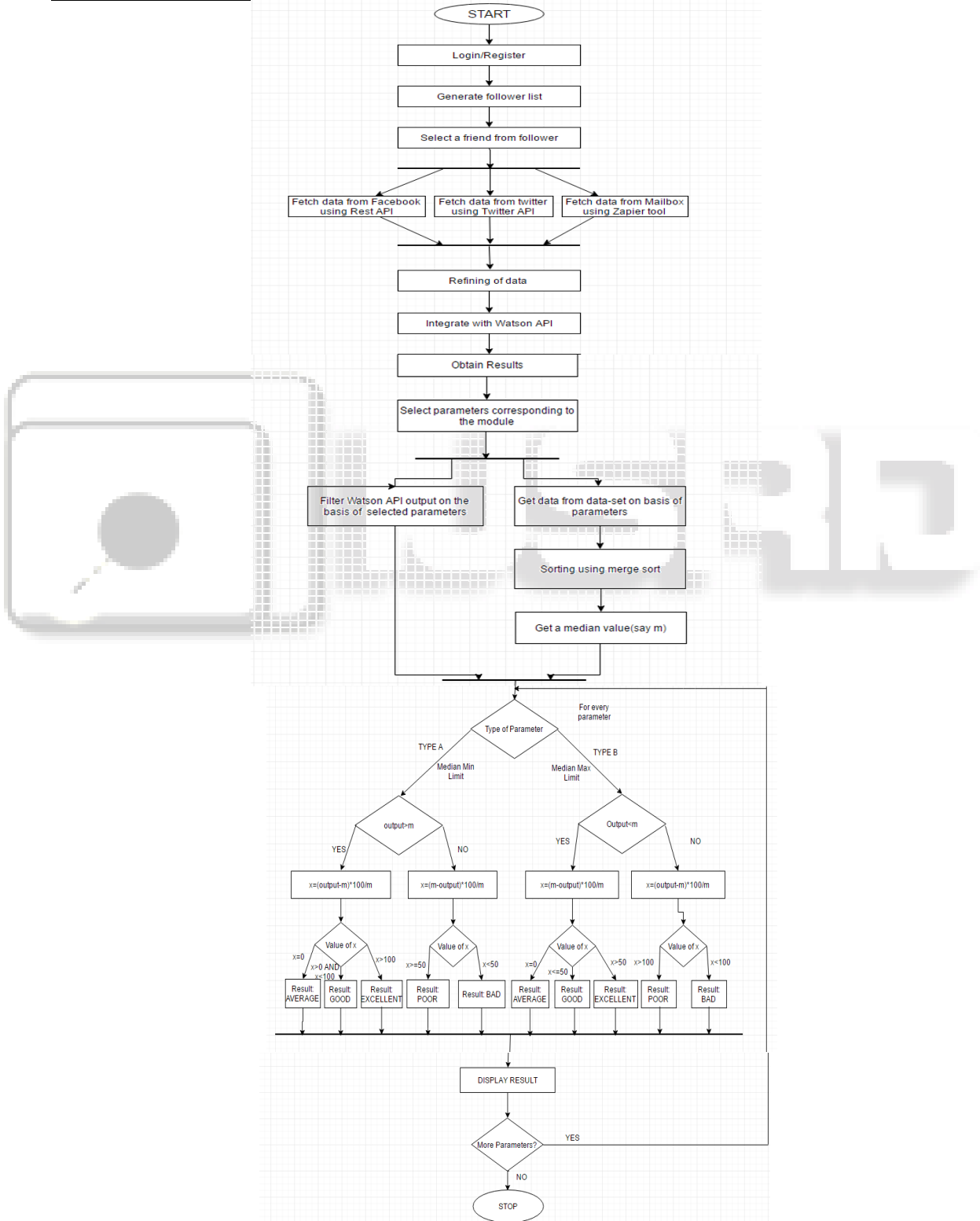


Fig. 1: Flowchart

VII. CONCLUSION

The proposed system aims to implement a reliable personality prediction application to replace traditional methods by automating it. The system has been modelled properly using modelling diagrams (DFD, Flowchart, System block diagram, Sequence diagram, Gantt chart).

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