A Project/Dissertation ETE

Report On

PERSONALITY PREDICTOR

GALGOTIAS UNIVERSITY

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Contents

Abstract

Personality is useful for recognizing how people lead, influence, communicate, collaborate, negotiate business and manage stress. Personality is one of the important main features that determines how people interact with outside world. This project is helpful where we have data related to personal behaviour. This personal behaviour data can be useful for identifying person based on his/her personality traits. The personality characteristics will be already stored in database. Later when user enters his personality characteristics his personality is examined in database and system will detect the personality of user, It is based on Big Five Personality Traits Personality is one feature that determines how people interact with the outside world. This data can be helpful to classify persons using Automated personality classification (APC). This learning can now be used to classify/predict user personality based on past classifications. This system is useful to social networks as well as various ad selling online networks to classify user personality and sell more relevant ads. This system will be helpful for organizations as well as other agencies who would be recruiting applicants based on their personality rather than their technical knowledge. In this project, we propose a system which analyses the personality of an applicant.

CHAPTER-1

Introduction

The project is based on identifying the personality of an individual using machine learning algorithms and big 5 models. The personality of a human plays a major role in his personal and professional life. Nowadays, many organizations have also started shortlisting the candidates based on their personality as this increase the efficiency of the work because the person is working in what he is good at than what he is forced to do.

The aim of this experiment is to explore different options of the algorithm on modifying the personality prediction source code by using logistic regression algorithm, and to find whether the accuracy of the classification can be improved

There are five characteristics of different people that are known as the Big Five characteristic, which is openness, neuroticism, conscientiousness, agreeableness and extraversion that have been stored in the dataset used for training. Then, an overview and comparison will be provided on the different measures taken to reduce the issues faced by researchers in this field.

Classifying these personality traits is useful in many ways, one of the reasons to classify personality is to check the suitability of an employee. Employee's personality is often tested in real time to determine which position of the job he or she is particularly fitting in well.

Classification methods implemented are Support Vector Machine, Ridge Algorithm, Naive Bayes, Logistic Regression and Voting Classifier.

CHAPTER-2

Literature Survey

1. *Novel approaches to automated personality classification:*

This project proposes several new research directions regarding the problem of Automated Personality Classification (APC). Firstly, we investigate possible improvements of the existing solutions to the problem of APC, for which we use different combinations of the APC corpora, psychological trait measurements, and learning algorithms. Afterwards, we consider extensions of the APC problem and the related tasks, such as dynamical APC and detecting personality inconsistency in a text. This entire research was performed in the context of social networks and the related data mining mechanisms. Personality classification is one of the problems considered by personality psychology, a branch of psychology. The focus of this field is the study of personality and individual differences. According to that study, personality can be defined as a dynamic and organized set of characteristics of a person, which have a unique influence on cognition, motivation and behaviour of that person. In this paper the problem of automated personality classification is considered based on information from the following content: textual content that the person wrote and meta information about a person received on request, through social networks or other means. There are studies that also include speech, analysis of facial characteristics, gestures and other aspects of behaviour, but they are not the subjects of our study. The standard approach to solving the APC problem based on the aforementioned content is described in the following steps: A) Gathering the corpus data. B) Determination of the personality characteristics of the participants, and C) Building the model.

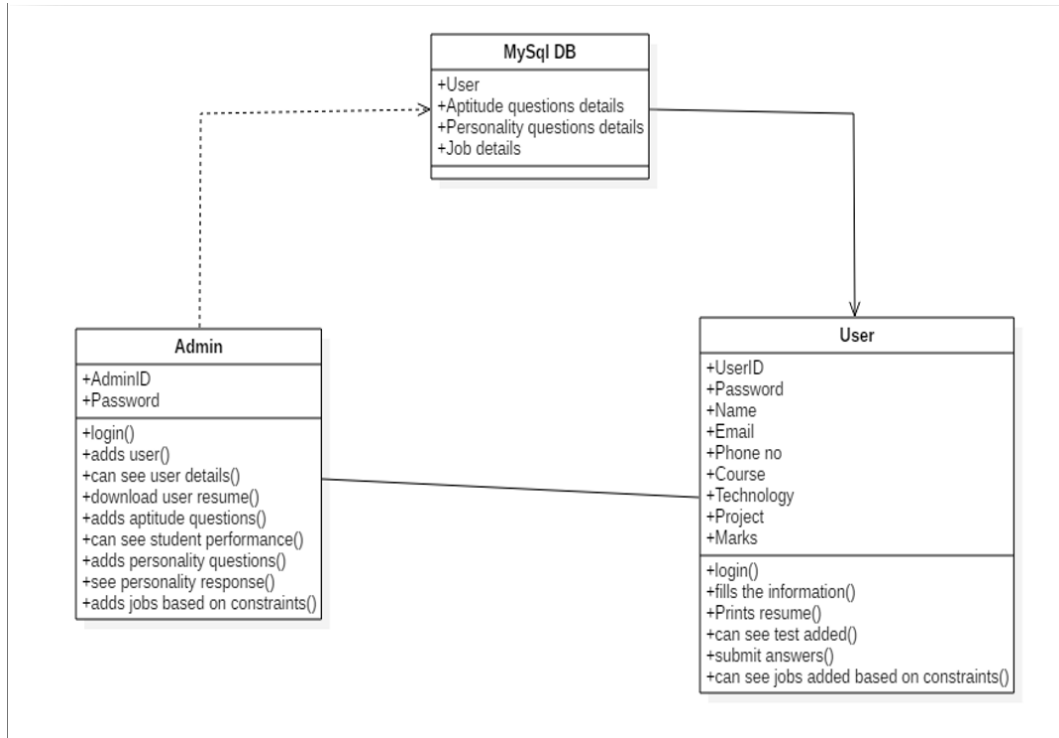## 2. A System for Personality and Happiness Detection:

This work proposes a platform for estimating personality and happiness. Starting from Eysenck's theory about human's personality, authors seek to provide a platform for collecting text messages from social media (WhatsApp), and classifying them into different personality categories. Although there is not a clear link between personality features and happiness, some correlations between them could be found in the future. In this work, we describe the platform developed, and as a proof of concept, we have used different sources of messages to see if common machine learning algorithms can be used for classifying different personality features and happiness. Researchers have tried to obtain information about the personality of human beings through direct means such as the EPQ-R questionnaire, but they have also used indirect methods. Because personality is considered to be stable over time and throughout different situations, specialized psychologists are able to infer the personality profile of a subject by observing the subject's behaviour. One of the sources of knowledge about the behaviour of individuals is written text According to research in this field, it is reasonable to expect that different individuals will have different ways of expressing themselves through the written word, and these differences will correspond to their individual.

CHAPTER-3

Project Design

1. *Class Diagram*

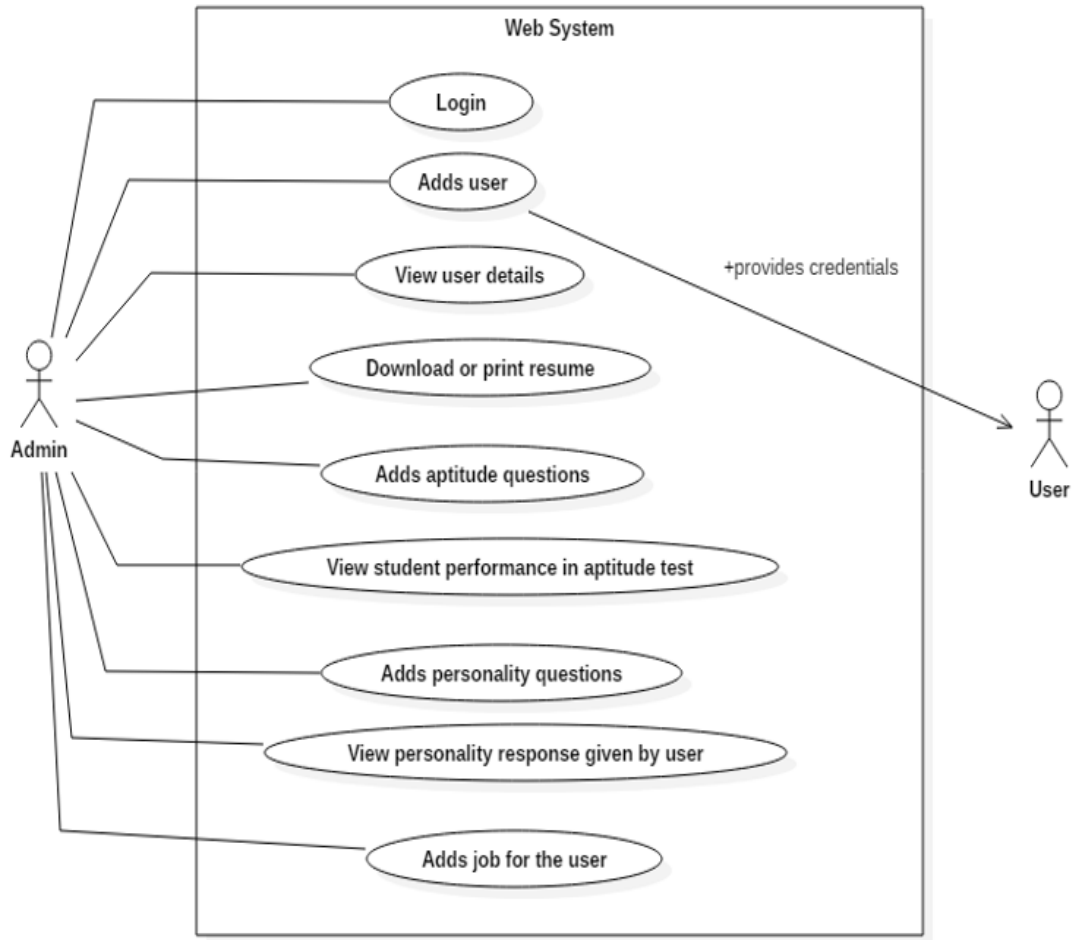A class diagram is an illustration of the relationships and the source code dependencies among classes in the UML.A class diagram models the static structure of an application. It shows relationships between the classes, objects, attributes and operations. Class diagram is not only used for visualizing, describing and documenting different aspects of an application but also constructing executable code of the software application.
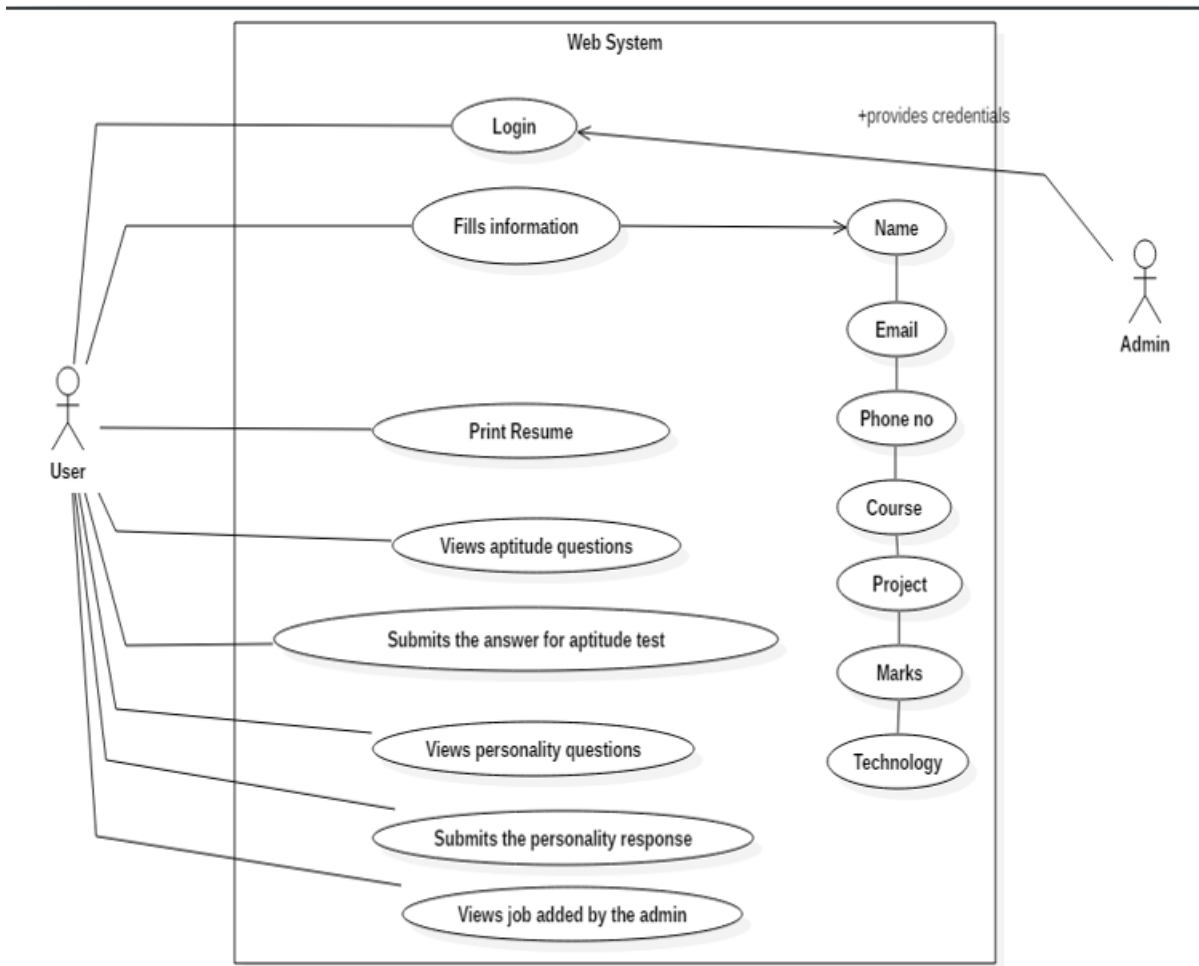
```
                          MySql DB
                    +User
                    +Aptitude questions details
                    +Personality questions details
                    +Job details


        Admin                              User
+AdminID                          +UserID
+Password                         +Password
                                  +Name
+login()                          +Email
+adds user()                      +Phone no
+can see user details()           +Course
+download user resume()           +Technology
+adds aptitude questions()        +Project
+can see student performance()    +Marks
+adds personality questions()
+see personality response()       +login()
+adds jobs based on constraints() +fills the information()
                                  +Prints resume()
                                  +can see test added()
                                  +submit answers()
                                  +can see jobs added based on constraints()
```

2. *Use Case Diagram*

Use case diagram are behaviour diagrams used to describe a set of actions that some application should or can perform in collaboration with one or more external users of the application (Actors). Each use case should provide some observable and valuable result to the actor or other stakeholders of the application.

Admin Use Case Diagram -:

Web System

Login

Adds user

View user details

+provides credentials

Download or print resume

Adds aptitude questions

View student performance in aptitude test

Adds personality questions

View personality response given by user

Adds job for the user

Admin

User

User Use Case Diagram -:

Web System

Login +provides credentials

Fills information → Name

Email

Phone no

Print Resume

Course

Views aptitude questions

Project

Submits the answer for aptitude test

Marks

Views personality questions

Technology

Submits the personality response

Views job added by the admin

User

Admin

3. Activity Diagram

Activity diagram describes the dynamic aspects of the application. It is essentially an advanced version of flowchart modelling the flow from one activity to another activity. It describes how activities are coordinated to provide a service which can be at different levels of abstraction.
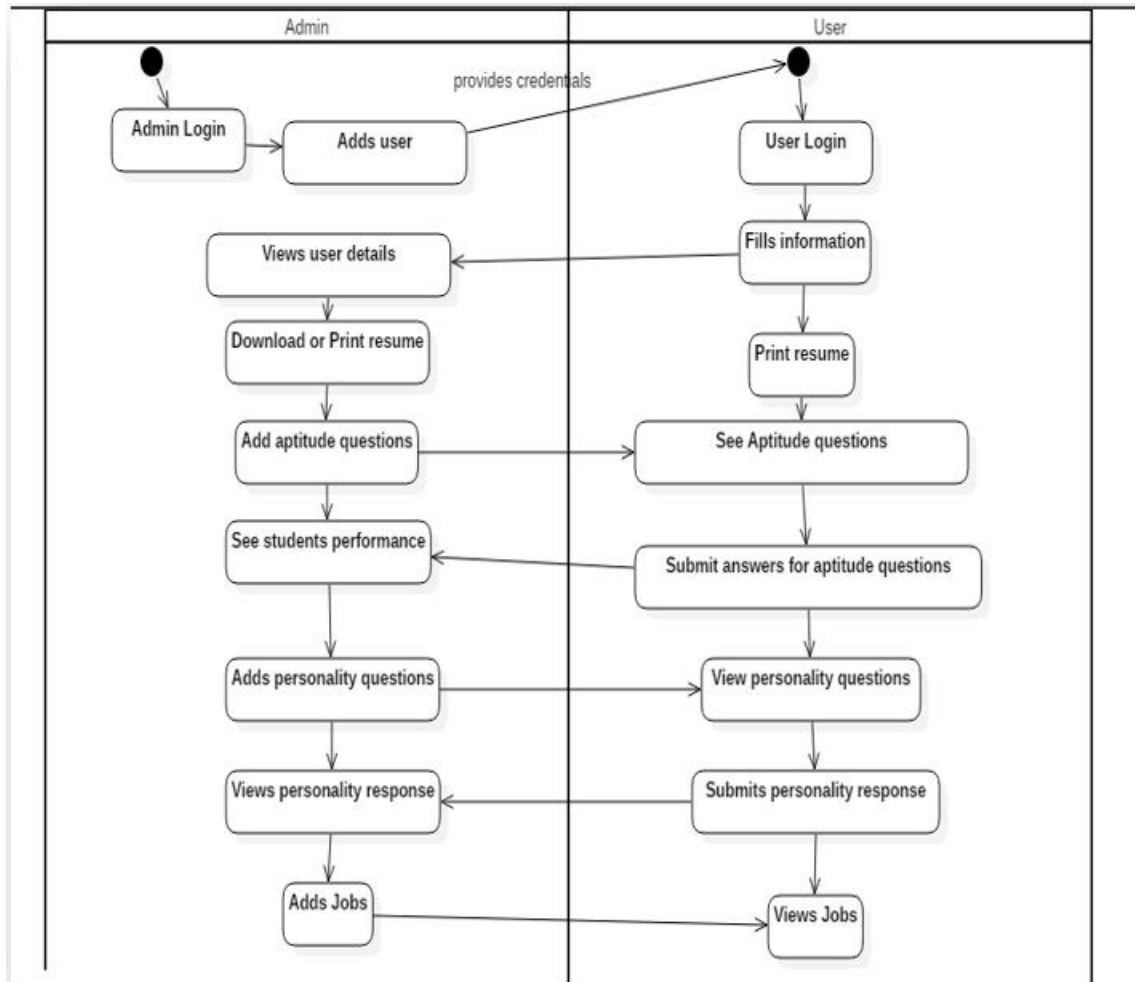
4. Sequence Diagram

Sequence diagram describes interactions among classes in terms of an exchange of messages over time. Sequence diagrams are popular, dynamic, modelling solutions in UML. They specifically focus on Lifelines or the processes and objects that live simultaneously and the messages exchanged between them to perform a function before the lifeline ends.
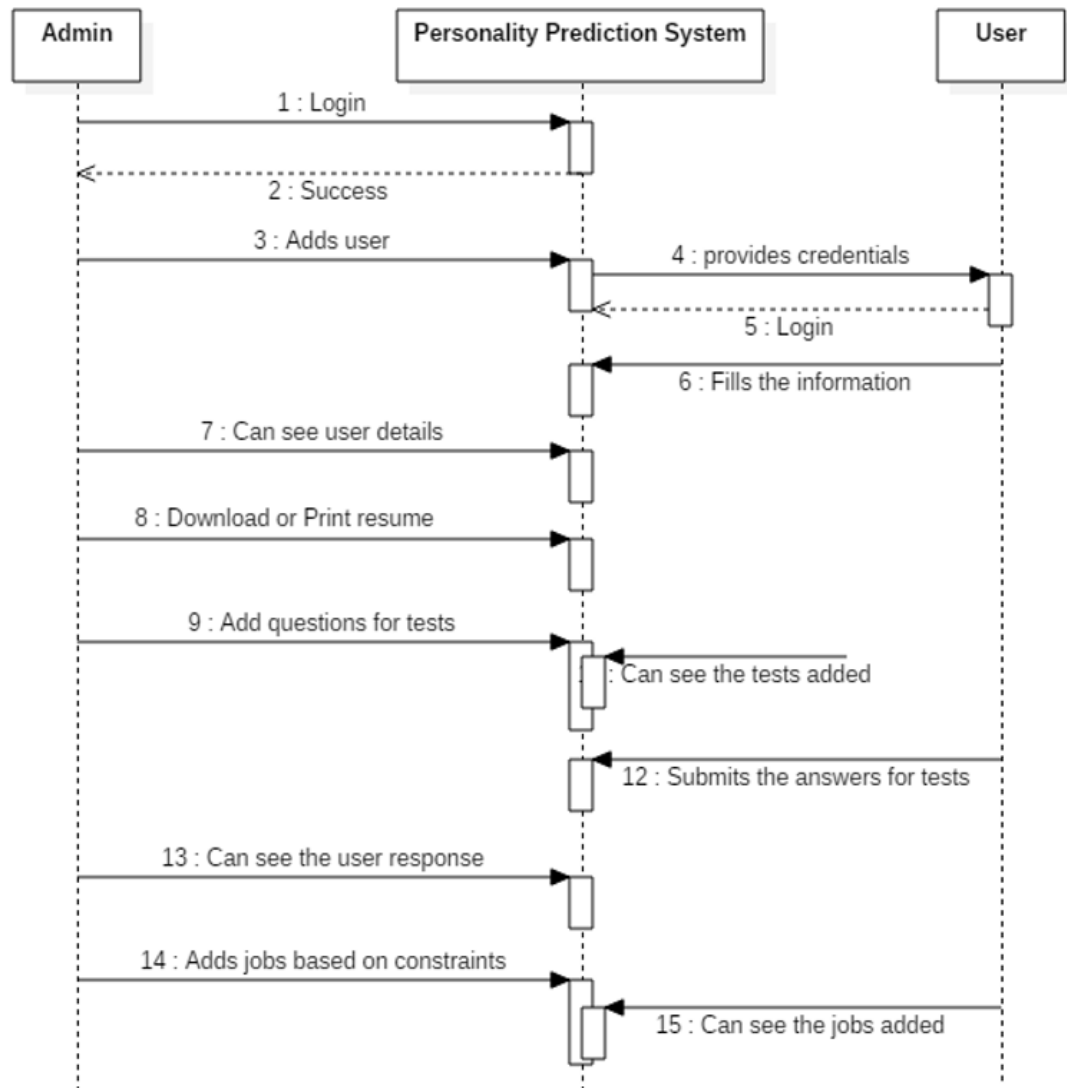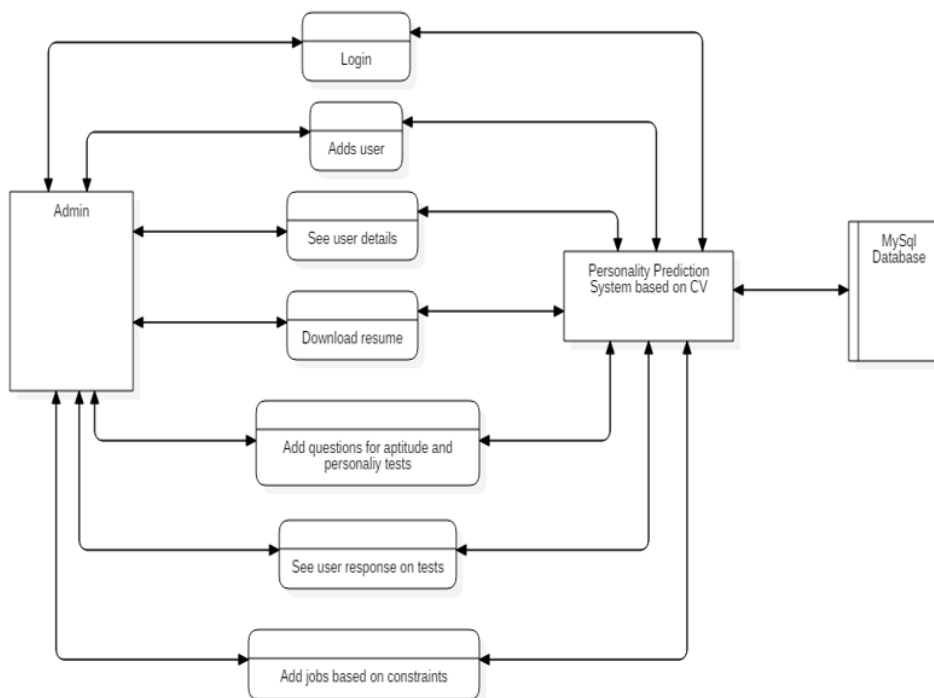
5. Data Flow Diagram

A data flow diagram (DFD) is a way of representing a flow of a data through a process or a system. It also provides information about the outputs and inputs of each entity and the process itself. A data flow diagram has no control flow; there are no decision rules and no loops.
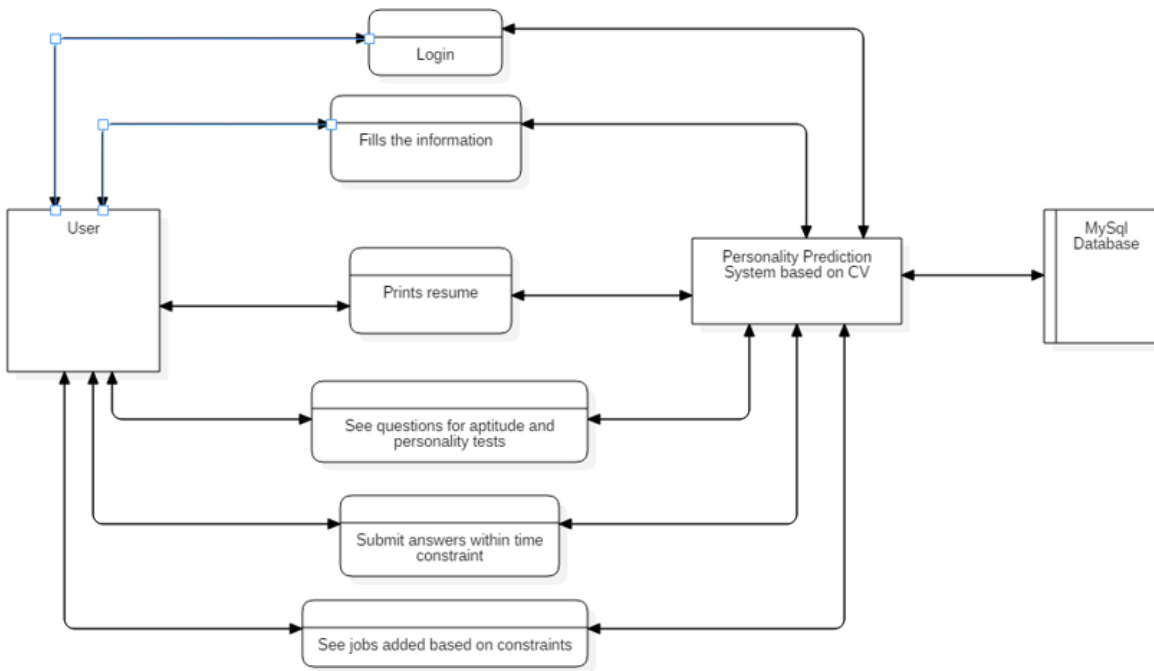
Level 0 DFD Diagram -:
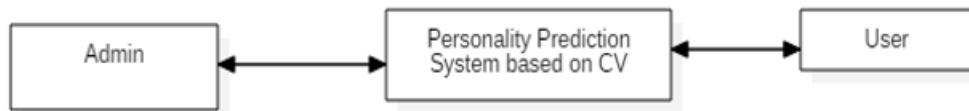
Level 1.1 DFD Diagram -:

Level 1.2 DFD Diagram -:

CHAPTER-4

Result

1. Admin Login

Sr no	Test cases	Expected Result	Actual Result	Remark
1	Enter wrong admin id and click on login	Display error message	Display error message	Pass
2	Enter wrong admin password and click on login	Display error message	Display error message	Pass
3	Enter correct admin id and password	Login Successful	Login Successful	Pass

2. Admin Panel

Sr no	Test cases	Expected Result	Actual Result	Remark

1	Add the user	Login Credentials are sent to the user	Login Credentials are sent to the user	Pass
2	Add aptitude questions	Displays question to the user module	Display questions to the user module	Pass
3	Add personality test questions	Display questions to the user module	Display questions to the user module	Pass
4	Add jobs based on constraints	Display only added jobs to the user module	Display only added jobs to the user module	Pass

3. *User Login*

Sr no	Test cases	Expected Result	Actual Result	Remark

1	Enter wrong login credentials and click on login	Display error message	Display error message	Pass
2	Enter correct login credentials and click on login	Login Successful	Login Successful	Pass

4. *User Panel*

Sr no	Test cases	Expected Result	Actual Result	Remark
1	Enter all the personal information	Displays information to the admin module	Displays information to the admin module	Pass
2	Click on Print Resume	Resume is printed successfully	Resume is printed successfully	Pass
3	Click on aptitude questions	Aptitude questions are displayed	Aptitude questions are displayed	Pass

4	Submit answers for aptitude questions	Display answers on the admin module	Display answers on the admin module	Pass
5	Click on personality tests	Personality test questions are displayed	Personality test questions are displayed	Pass
6	Submit answers for personality tests	Display answers on the admin module	Display answers on the admin module	Pass
7	Click on jobs	Jobs added by admin are only displayed	Jobs added by admin are only displayed	Pass

CHAPTER-5

Conclusion

There has been a huge workload on the human resource department in order to select the right candidate for a particular job profile which in turn would require expert's workforce for the organization from a large pool of candidates. In this project, we have implemented an organization-oriented recruitment system that would assist the human resource department in short listing the right candidate for a specific job profile. The system would be used in many business sectors that will require expert candidate, thus reducing the work load on the human resource department**.** From proper analysis of the positive points and constraints, it is safely concluded that this system proves to be highly effective.

The main objective of this project was to develop a full-fledged Web Application which will help the organization to recruit candidates that will best suit to their specific roles. Generally, this system will provide aptitude tests and personality tests for the candidates. The candidates with good percentage and knowledge of languages will be provided jobs

based on these constraints. With very little training, admin can learn the usage of this software.

The Features or Requirements can be modified during development process. Any changes can be made during the development cycle. For developing this project, we have used Sublime text in which all coding is been done and all the data will be saved in XAMPP server. It is easy to implement and I am pretty much familiar with this software. This report gives an overview of all that one needs to get acquainted with in order to work with software project documentation specifically in the field of software development.