TO ACKNOWLEDGE EXEMPLARY STUDENTS

MINOR PROJECT REPORT

Submitted in partial fulfilment of the requirements for the award of the degree

of

BACHELOR OF TECHNOLOGY

in

INFORMATION TECHNOLOGY ENGINEERING

by

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Guided by

Mr. Devender Banga Assistant professor



DEPARTMENT OF INFORMATION TECHNOLOGY ENGINEERING AKHILESH DAS GUPTA INSTITUTE OF TECHNOLOGY AND MANAGEMENT (AFFILIATED TO GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI) NEW DELHI – 110053 NOV 2019 CANDIDATE'S DECLARATION

It is hereby certified that the work which is being presented in the B. Tech Minor Project

Report entitled "TO ACKNOWLEDGE EXEMPLARY STUDENTS" in partial fulfilment

of the requirements for the award of the degree of Bachelor of Technology and submitted in

the Department of Information Technology Engineering of AKHILESH DAS GUPTA

INSTITUTE OF TECHNOLOGY AND MANAGEMENT, New Delhi (Affiliated to Guru

Gobind Singh Indraprastha University, Delhi) is an authentic record of our own work

carried out during the period from August 2019 to November 2019 under the guidance of Mr.

Devender Banga, Assistant professor.

The matter presented in the B. Tech Minor Project Report has not been submitted by me for the

award of any other degree of this or any other Institute.

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This is to certify that the above statement made by the candidate is correct to the best of my

knowledge. They are permitted to appear in the External Minor Project Examination.

Mr. Devender Banga Assistant professor Dr. Prashant Singh HOD, IT

Mr. Ankit Agarwal

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(Signature of External Examiner)

ABSTRACT

To identify exemplary students firstly all the educational institutions need to upload the results of students as well as points/certificates of extra curricular activity (activity name, score out of 10 for performance) to the database for a student according to the current class of study. Aadhar number for all the students will always be given (from there students details will be verified).

A parent or any other non government institute can also upload scanned copy of result or certificate of any student with his/her Aadhar number and their own details. Admin will Cross-check and verify it for the update in the database. One's (schools and institutions) first login or registration, there will be a unique token, (user id and password) to the Portal. That login will be further verified. So every institution will have a unique user id and password and students' details will be uploaded yearly and updates will be done twice in a year.

The second fold of the solution is to sort the data according to the merit of students. The designed application will perform the operation with the provided data and present a lesser (according to requirement) students' details. There will be a faster and optimal Algorithm to sort data by marks and activity score from database .Base will be adopted i.e., tree type-level representation) to sort the data (details) of exemplary students from provided records of all the students.

The third and final part is providing the list of exemplary students to the education department and university. Each official and university will also have a login section. The list of exemplary students will be provided according to year, required field. The education department or university can also post the facilities provided to the selected and shortlisted student as a notice.

Therefore, we are going to develop a Web-based application comprising of Web portal and secured database to identify exemplary students in primary education according to data (100%) uploaded and retrieved from several institutions and selected exemplary students list will be provided to the Education Department and Universities.

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CHAPTER 1: INTRODUCTION

1.0 INTRODUCTION

We are going to make a Web-based application, where the application structure is broken into different fragments, which perform different jobs. One part will be taking in the to the database from a web portal designed using CSS, JavaScript, Node js, mySql. Computation of the sorted data and the various mathematical calculations i.e. arranging the sorted data according to given criteria etc will be done.

Another part will be integrated with the various Education Department and Universities to provide them up with shortlisted meritorious students, integrating with their personal choices and cut-offs, and also where shortlisted students will be notified by notice posted. Keeping in mind the ease of obtaining marks and details which has increased throughout the years.

In the web app, after one's first login or registration, each part of the education department, university and institution have a unique token, (user id and password) to the database. Coming to the part of its database, My SQL can be used with a firmed dashboard powered by JavaScript on a network frame. Since the app will be containing huge academic details of many students, so a strong encryption algorithm will to be used for data integrity and data security.

2.0 MOTIVATION

There are 29 states in India. Each state has different cities and villages across India. There is no mechanism to identify bright students who are performing well in studies, sports or other activities. Web-portal can be designed to acquire data about such students and can be analyzed on different parameters.

What Exact Problem is being solved? : Such identified students can be provided with extra resources or special attention can be given to their upbringing .

3.0 OBJECTIVE

Identification of poor exemplary students and Funding based support from different NGOs, organizations and donations if they want to provide.

Choice Based selection of such students from data set. For instance, if the requirement is only limited to academics, they can refer to the website to fetch a list of top scorers say top 100 or top 200 students.

Again if the requirement is limited to selection of Extra-curricular activity like – singing, painting, dancing etc they can fetch the list of students having expertise in that particular field only.

To highlight the social issues such as Child Labour, child trafficking, by year wise regulation Data.

School wise progress analysis using pie charts and bar graphs.

Update Records every year to keep a check on the improvement, Standardization & Sorting data based to filter out the exemplary students on the basis of academics and extra curricular activities.

The school should submit their data to get a recognition as well as to be in sight of fund providing parties (governmental or non-governmental).

Students will be benefited as direct communication is in between officials and student and no middle man in between.

REFERENCES

- [1] Jeffery C. Jackson, "Web Technologies a computer science perspective" Edition 2008, Medium: English
- [2] "Database Management Systems" P. S. Gill. Edition 2008, Medium: English
- [3] Conference Paper at INCON VIII Volume: ASM's E journal of ongoing research in management and IT. Available: http://www.researchgate.net