

JNTUA Affiliated Colleges Staff and Student Management System

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ABSTRACT

Digitalization is a new era in computer technology. All the works in government and private sectors are almost digitalized. Still there are some organizations which are not digitalized completely. In order to digitalize some works under JNTUA, we will designed a portal. This portal is aimed to view the affiliated college's staff, student data and affiliation process of JNTUA private colleges. This portal is also calculates the student-staff ratio and can find duplicate staff who are shown in multiple private colleges. This portal gives information about various Engineering, Pharmacy, MBA and MCA colleges which are affiliated to JNTUA in five districts of Andhra Pradesh. This application is designed with the help of xampp server, HTML, PHP, CSS and Java script.

Keywords: Remove duplicate staff, Employee id generation, Add new colleges, Staff- student ratio.

I. INTRODUCTION

The main purpose of JNTUA affiliated college's staff and student management system is to find out the duplicate staff that are shown in multiple colleges and also show the graphical [10] representation of staff and student data. In general University's getting a student, staff records in manual by the affiliated colleges. However, this method is time-consuming and data redundancy. It is difficult to verify the person whether he exists or not. Every organization whether it be an educational institution or business organization maintain proper records of a student, staff for the effective functioning of the organization. Designing [1] a better student, staff management system for detected duplicate staff with ease and accuracy was an important key to motivating this work. This would improve the accuracy of staff records because it will remove the duplicate staffs that are shown in multiple private colleges by generating a unique id when staff registered. The use-case diagram (Fig: 3) shows the administrator functions and user functions.

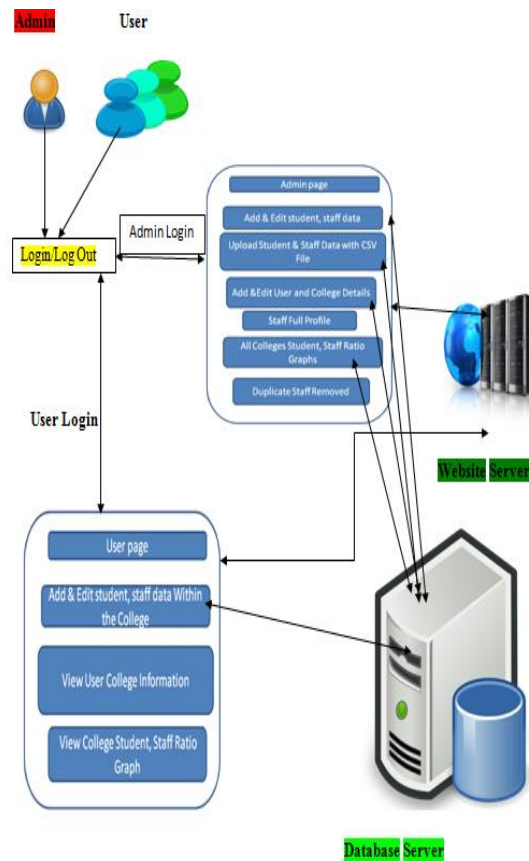


Figure 1: System Architecture.

This system is to reduce the manual operation required to maintain all the records of a staff, student. CSV is a comma separated values file which allows data to be saved in a table structured format. It's mainly used for

importing and exporting of a table data and reduces the time complex city and also uploads a student, staff data in the fastest way.

1.1 BACK GROUND

It takes more time for an administrator to maintain all the records of the employee, student and also calculation of student, staff ratio is difficult in manually. It is a time taking a process to find out the duplicated staffs that are shown in multiple private colleges.

1.2 MOTIVATION:

The main purpose of the staff and student management system is to reduce the manual effort, store all affiliated colleges staff and student data. This helps to view the all affiliated colleges staff and student data. We can easily find out the college's staff and student ratio and also view the full profile details of a staff like his personal information as well as his educational information, experience and also publications like national and international journals, workshops.

SCOPE

Activities of a system

1. This application maintains a database for all affiliated colleges staff and student data under the JNTUA University.
2. This application allows adding of a new college.
3. This system allows CSV file to upload the bulk of a student, staff data.
4. This system generates a unique employee id for the employee.
5. This system allows sending mail when staff or student registered, edit and update time.

1.3 OBJECTIVE

The main objective of this application is removing the duplicate staffs that are shown in multiple private colleges. This application shows the all affiliated college's staff and student ratio in graphically. It can remove the duplicate staff by generating a unique employee id; Id is generated automatically when staff is registered. Generating an employee id can vary from company to company or organization to organization. An organization can put employee id with respect to company's name followed by the employee's date of joining or date of birth, followed by a unique number.

In this system, we design an employee id with respect to surname followed by birth and full name. Employee id have ten digits in the first digit has a first char of the surname and next eight digits are followed by birth year, month and day. The tenth digit is first char of a full name.

Example: Generation of an employee id process and procedure.

(B19930711N)

B → It is the first char of surname.

1993 → It is a birth year.

07 → It is a birth month.

11 → It is a birth day.

N → It is the first char of full name.

1.4 ORGANIZATION

Staff and student management system are used by two types of users i.e. Admin and user. Admin has full access to the system where as a user as limited access. We have a number of modules in this system.

Modules:

List of all modules

1. Staff
2. Student
3. Graph
4. Profile
5. CSV file
6. Admin
7. User

1. Staff:

In this module, Admin and user can enter the staff details like his personal information as well as his educational information, experience and also publications like national and international journals, workshops. Admin, user can update and delete the staff details. Admin can only transfer employee status from one college to another college, but a user can only add within the college staff data. Here employee id is automatically generated and assigned to the employee.

2. Student:

In this module admin and user enter the student details like his personal information as well as his educational information like branch and department. Here roll number is the unique id in the student database.

3. Graph:

It is automatically generated by the system. This graph shows the number of staff and students exist within the individual colleges and also calculate the ratio between the staff-student. It automatically (Fig:2) appears in the dashboard when user login. The graph can be designed with the help of Google charts.

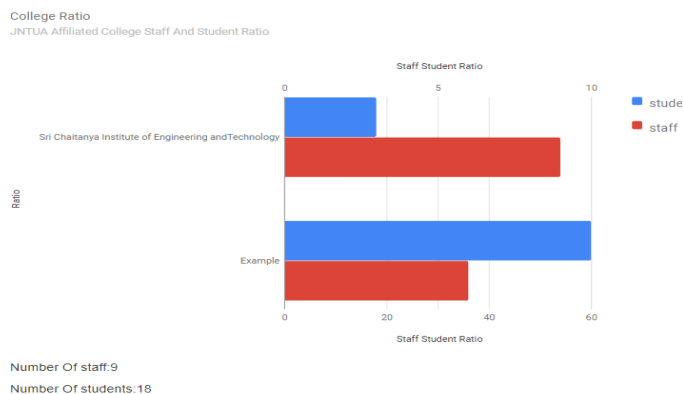


Figure 2: Student-Staff Ratio

4. Profile:

In this module, we get full details about staff personal, educational information and also publications, present working college details.

5. CSV files:

CSV is a comma separated values file which allows data to be saved in table structured format. In this system CSV file mainly used for importing and exporting of a table data and reduce the time complexity. By using this file we can upload a student, staff data in the fastest way.

6. Admin:

Admin has full access to the system where as a user has limited access. The software starts with a login form where admin can log in by entering the username and corresponding password. Admin can only add and view the user login details.

Administrative functions:

- Add/view the new college.
- Add/view the user details.
- Add student, staff data with CSV file.
- Filtering student, staff data.
- Remove duplicate staff.
- Create/update user login details.
- Add/view the student, staff details.
- View all college's student, staff ratio graph.

7. User:

The user can login by entering the username and corresponding password in user login page. The user can add student, staff data within the college only. He has a limited access to the system.

User functions:

- Add/view the student, staff details.
- Update staff, student data.
- View student, staff ratio graph.



Figure: 3 Use-case diagram

II. LITERATURE SURVEY

As a rule University's getting an understudy, staff records in manual by the associated colleges. Be that as it may, this strategy is tedious and information repetition. It is hard to check the individual whether he exists or not. Each association whether it be an instructive establishment or business association keep up legitimate records of an understudy, staff for the powerful working of the association. Planning a superior understudy, staff administration framework for recognized copy staff easily and precision was an essential key to inspiring this work [1]. This would enhance the precision of staff records since it will expel the copy staffs that are appeared in various private universities by creating a one of a kind id when staff enlisted.

The literature survey is the ground study of a particular project or specific subject. It can include a lot of books, websites and also another source like tutorial points [8]. In this way, we get more details about the recommended system. The system is designed with the help of HTML, PHP, CSS and Java script it can be learned and referred by the w3school, tutorial point. The database [5] is mainly used for storing and retrieving the data in this process we take care about the redundancy of a data. It can be removed by using data normalization for this purpose we referred Data Base Management System by Raghu Rama Krishnan.

III. DATABASE DESIGN

Database design is the process of producing a detailed data model of a database. Every web application we need database it is mainly used in the back end. The general theme behind a database is to handle information as an interrelated data stored with minimum redundancy to serve many users quickly and efficiently. Database management system is system software for creating and managing the database. It provides users and programmers with a systematic way to create, retrieve, update and manage data. During this phase, care should be taken to avoid the redundancy of information storing into a database, since it leads to being wastage of memory space for this purpose a normalization technique has been applied here exhaustively to design the database.

Normalization:

Normalization is the process of efficiently organizing data in the database there are two goals of the normalization process. Eliminating redundant data and ensuring data dependencies make sense. It improves the performance of the system and faster update due to less number of columns in one table.

In this system, we have a number of tables they are.

- Staff table
- Student table
- Admin table
- User table
- Staff experience table
- Staff publication table

IV.CONCLUSION

The project “JNTUA affiliated college’s student staff management system” is designed in order to reduce the

maintaining bulk of records of the entire student, staff details who are affiliated to the JNTUA University. Inserting, retrieving and updating the student, staff details are easy when it is compared to the manual record management. Maintain the project is also easy which can easily understand. Maintaining the details in the database is also simple. This project is purely user-friendly and platform independent, so the user can run this tool in any environment. It is very easy to implement and add many features easy to this tool. Finally, it very needs a full and simple tool for any big educational organization. Here made all effort to minimize the difficulties of an existing system, the project is developed using HTML, PHP, java script and CSS.

V. REFERENCES

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