A Mini Project Report on

"INFORMATION MANAGEMENT SYSTEM"

Submitted in partial fulfillment of the requirement for
Degree in Bachelor of Engineering (Information Technology)

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CERTIFICATE

This is to certify that the project entitled

"STUDENT ACHIEVEMENTS AND PLACEMENTS RECORD PORTAL"

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In partial fulfillment of degree of **S.E.** in **Information Technology** for term work of the project is approved.

External Examiner **Internal Examiner**

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External Guide **Internal Guide**

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Head of the Department **Principal**

Dr. Vaishali Bodade **Dr. S M Khot**

Date: - **college seal**

Place:-

Declaration

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Abstract

Careful planning is essential to manage educational institutions these days as they have evolved into complex entities with multiple campuses, many departments, different sections, and a large number of students, staff members. There are various Criteria's which are important parameter upon which an institution is assessed. software with a robust Information Management System (IMS) would be very helpful in this regard. IMS refers to a computerized system used for record-keeping purposes. It is a storehouse of computerized teachers data files. IMS helps educational institutions to define, store, retrieve, and edit/update information available in the database on an on-demand basis. Information in the database may be anything that is of importance to a particular educational institution.

Management of accreditation and all other available data is by no means an easy task. The processes involved can make anyone feel overwhelmed, especially when they are disconnected. IMS app brings together all of the processes on a single dashboard. This makes the management of various processes simple and easy.

As far as institutions are concerned, the need of the hour is to move from the traditional paper-based system to an automated information management system. In its basic form, it makes use of teachers database software for maintaining the records of all the students of the institution and stores them in a concise database. IMS simplifies the work of an institute’s administration department.

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Chapter 1: Introduction

1.1 Background

Management of accreditation data is by no means an easy task. Meticulous planning is required to operate educational institutions these days, with the introduction of entities like many campuses, various departments, diverse divisions, and a big number of students, the complexity has skyrocketed. In terms of institutions, the time has come to transition from the old paper-based method to an automated information management system. In its most basic form, it employs teachers database software to keep track of all of the institution's professors records and keeps them in a succinct database.

1.2 Motivation

There are several Criteria's which are essential metric used to evaluate an institution. Gathering all important data administration software with a solid Information Management System (IMS) will be quite beneficial in this area. The IMS is a computerized system used for record-keeping and is a repository for digital professors data files. The IMS assists educational institutions in defining, storing, retrieving, and editing/updating, deleting, downloading the information available in the database on an as-needed basis. The database may contain any information that is relevant to a certain educational institution. Accreditation data management is not a simple process. The procedures involved might overwhelm anyone, especially if they are unconnected. AN IMS app combines all of the operations into a single dashboard. As a result, it will simplify the administration of many operations.

1.3 Problem Definition

IMS is a server-client based web portal which will allow professors from all departments to enter data of themselves or other professors according to the role assigned pertaining to the given criteria. Clients will be able to enter, update and view the data. The web portal consists of a login page wherein the clients need to enter their credentials which allows them to move onto the main page which provides them sections to enter, update, delete

download and view data particular to the respective clauses. The portal provides a one-stop facility to both enter and store data in a hassle-free manner and eliminating the need for manual and paper documentation.

1.4 Scope

The IMS is an alias for a computerized record-keeping system. It's a repository for digitalized student data files. The IMS assists educational institutions in defining, storing, retrieving, and editing/updating, deleting and downloading information from the database on an as-needed basis. The information in the database might be anything relevant to a certain educational institution.

An IMS app combines all of the operations into a single dashboard which simplifies the administration of many operations. In its most basic form, it employs teachers database software to keep track of all of the institution's teachers records and keeps them in a succinct database. An IMS streamlines the administrative department's tasks.

IMS focuses on providing information to support the operation, management and decision-making functions of enterprises or organizations. In the face of a huge amount of information, it is required to possess the student information management system to improve the efficiency of student management. The portal focuses on a simple interface for maintenance of student information by consolidating back- end applications into one point of access, IMS will also increase security by providing a single sign-in facility for only the faculty and management or other authorized personnel, will enable faculty to quickly and safely share documents and organize teachers data

1.5 Limitations

- Provides a system to store only specific accreditation criteria
- Users cannot view data in the form of conventional Word format
- Default queries are provided dynamic operations can't be done

Chapter 2: Literature Survey

A. Toward a Teachers Information System for FCRIT.

This paper [1] basically focuses on providing a simple interface for the easy collation and maintenance of all manner of teachers information. The creation and management of accurate, up-to- date information regarding tecahers academic careers is critical for students and for the faculties and administration of and for any other educational institution. A teachers information system deals with all kinds of data from enrollment to various programs, papers published, workshops. All these data need to be made available through an online interface.

B. A Study of Teachers Information Management Software

This paper [2] focuses on providing information to support the operation, management and decision- making functions of enterprises or organizations. In the face of a huge amount of information, it is required to possess the information management system to improve the efficiency of data management. Through this system, the standardized management, scientific statistics and fast query of student information can be realized, and thus the workload of management can be reduced. In this paper, a typical teachers information management system will be established to realize the systematization, standardization and automation of student information relationships.

C. Web Based Teachers Information Management System

This paper [3] focuses on a simple interface for maintenance of teachers information. The creation and management of accurate, up-to-date information regarding a teachers academic career is critically important in the university as well as colleges. Teachers information system deals with all kinds of details, academic related reports, college details, course details, curriculum, publishment details and other resource related details too. It tracks all the details of a data which can be used for all reporting purposes Different reports and Queries can be generated based on vast options related to students, batch, course, faculty, exams, semesters, certification and even for the entire college.

2.1 Related Work

2.1.1 PHP

PHP is a web-based technology primarily used for web pages on the client-side processes. The standard PHP interpreter, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on a variety of operating systems and platforms. It is an important link used to connect server database with the webpage and ensures efficient and lossless data transfer from website to database.

2.1.2 HTML

The Hypertext Markup Language, or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets. Tags such as <img /> and <input /> directly introduce content into the page. Other tags such as <p> surround and provide information about document text and may include other tags as sub-elements.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

2.1.3 CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file which reduces complexity and repetition in the structural content as well as enabling the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

2.1.4 MySQL

MySQL is an open-source relational database management system (RDBMS). Structured Query Language is abbreviated as "SQL." A relational database organizes data into one or more data tables where data types can be associated to one another; these relationships assist structure the data. SQL is a programming language that allows programmers to build, change, and retrieve data from relational databases, as well as control user access to the databases. MySQL collaborates with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access, and simplifies verifying database integrity and backup creation.

2.2 Existing System

The existing systems consists of a combination of a lot manual and paperwork. These kinds of databases are subject to unintentional modification, data breach and loss of data, less security. One of the primary systems used for student data management is manual entry by individual teachers in various excel sheets. These excel sheets are then forwarded or shared with multiple other editors which in-turn becomes a difficult task to manage and handle.

2.3 Requirement Analysis

Main requirements for the new proposed systems are:

- Need for a faster client-server interaction.
- To eliminate data breach and redundancy
- To provide all criterion in one place rather than separate excel sheets.
- For easier updating and deletion of data.
- To eliminate paperwork.
- For backing up data using database.
- To edit the files whenever required.

Chapter 3: System Design

The system includes 3 main modules:

1. Registration / Login Page
2. Home Page
3. Developers Page

3.1 Architectural Block Diagram

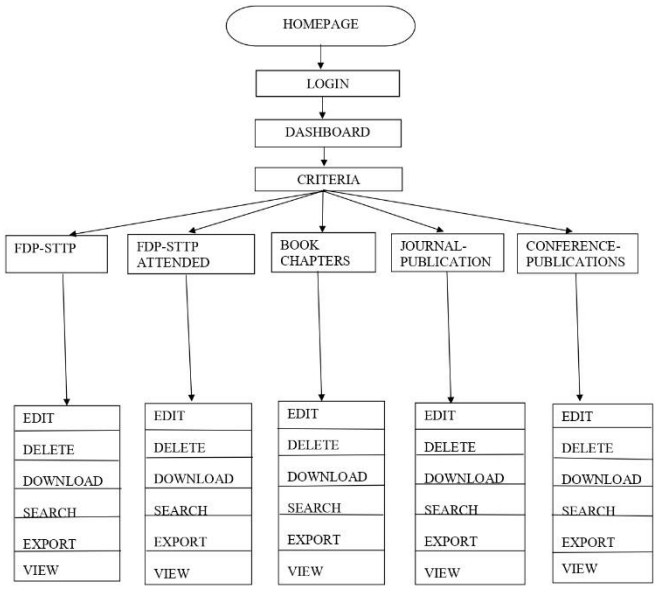

Fig 3.1 Architectural block diagram

The architectural block diagram shows how IMS is designed. The homepage is the main page visible to all after which login is required for viewing further 5 criteria. In each criteria there exists an edit,delete,downoad,search,export and view data option.

3.2 Access Hierarchy

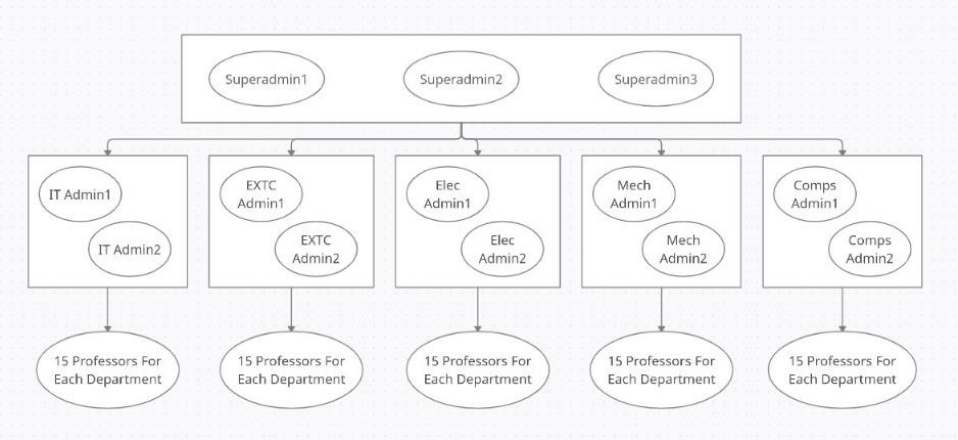

Fig 3.2 Access hierarchy diagram

There are superadmins who are able to view and access all the data made available by other admins and professors. Admins can do the same but only for their respective department only. Professors of each department can add data regarding their perspective department.

Chapter 4: Implementation Details

4.1 System Requirements

This section includes all the details of how the proposed system is implemented and minimum system requirements for the Project to run smoothly.

4.1.1 Hardware Requirements

Any pc/laptop with basic input, output, storage and internal devices

4.1.2 Software Requirements

- Operating systems-windows, macOS, Linux
- Environment: XAMPP
- FRONTEND
  Languages: HTML CSS
  Framework: Bootstrap
- DATABASE and server
  Language: PHP
  Language: SQL Framework: MYSQL
- PhpMyAdmin
- Web browsers- google chrome, safari, internet explorer, Firefox
- Application software- basic database, word processors, graphics, multimedia softwares

4.2 Methodology

This section includes the implementation details of the project, that is how the modules have been divided into login, registration and other portals and how they have been successfully implemented, how the data has been saved in the database using some modules, below are some results of the successful implementation. The modules include, edit the data, that is the data once entered can be edited without re-entering, deletion of the data, storing of the data in the excel.

The project uses various methods of alerting and warning the user of potential errors. These errors can be quickly fixed by the options provided just below the warning box. Here are the various highlights of error handling.

4.2.1 Creation of Client-side login and saving data through existing credentials:

Fig 4.1 shows Login Page of the portal which allows users to enter their pre-defined credentials. This allows users to enter the portal according to levels of their user access. Eg- Super Admin has access to all the 5 criterias.

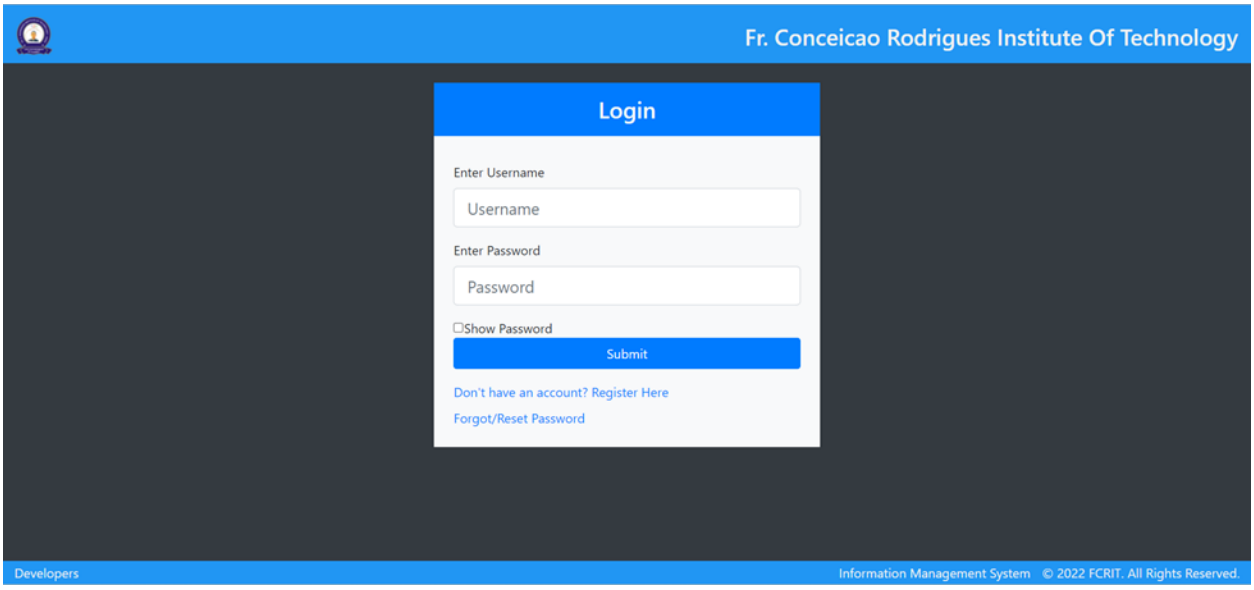

Fig 4.1 Login Page

4.2.2 Displaying Error/Success messages:

Fig 4.2 shows how incorrect username and password errors are handled.

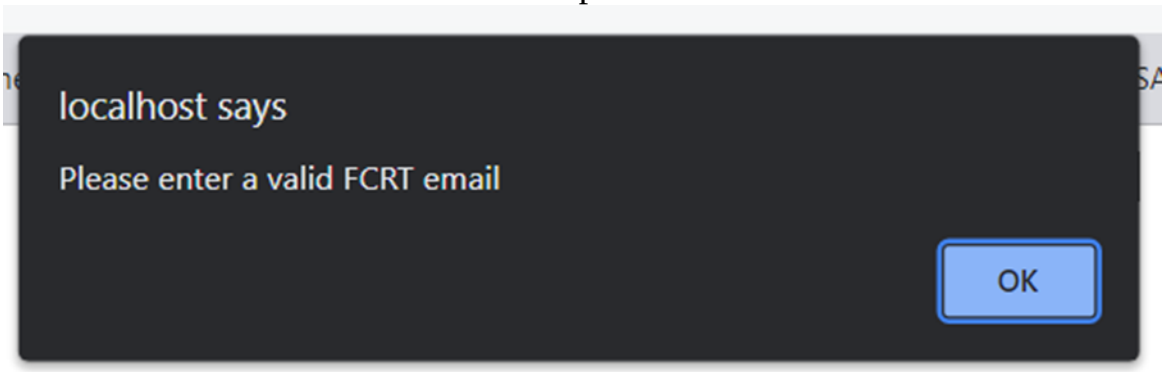

Fig 4.2 Error Handling

Chapter 5: Experimental Details

The Experimental Results of the project are shown below.

- Home Page and Landing Page
- Sub-Criterion Page
- Data Page
- Update Page
- Login Page
- Developers Page
- Search data
- Edit data
- Excel

5.1 Homepage for respective criteria and Landing Page

Figure 5.1 shown below represents the homepage of the project which will provide access to all accreditation window bubbles.

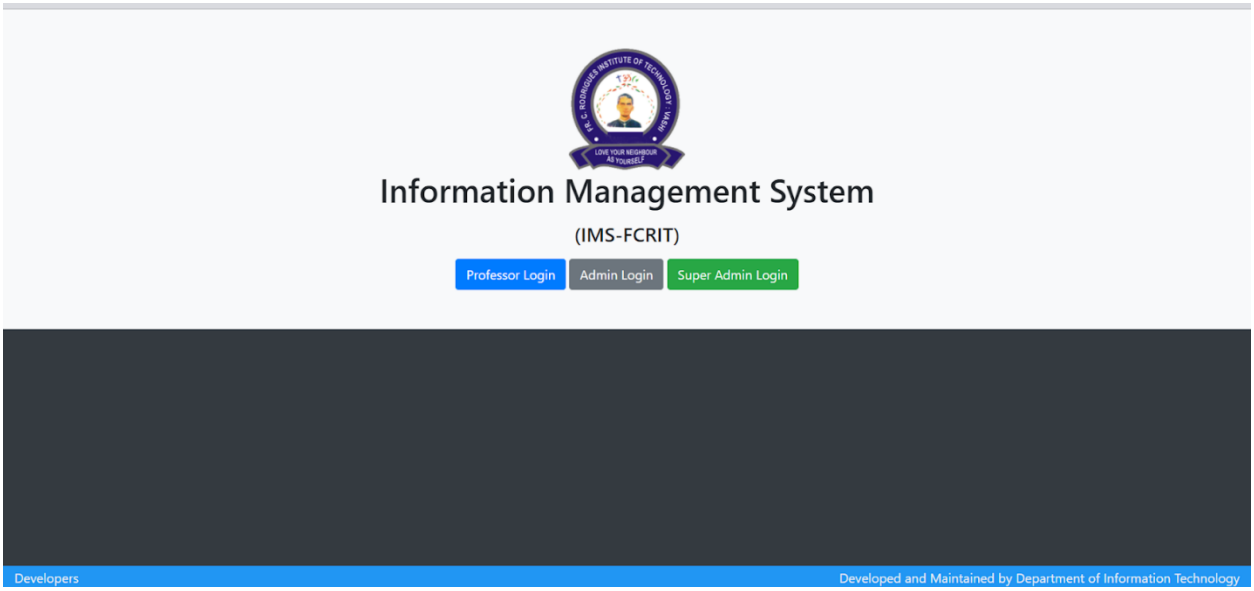

Fig 5.1.1 Homepage

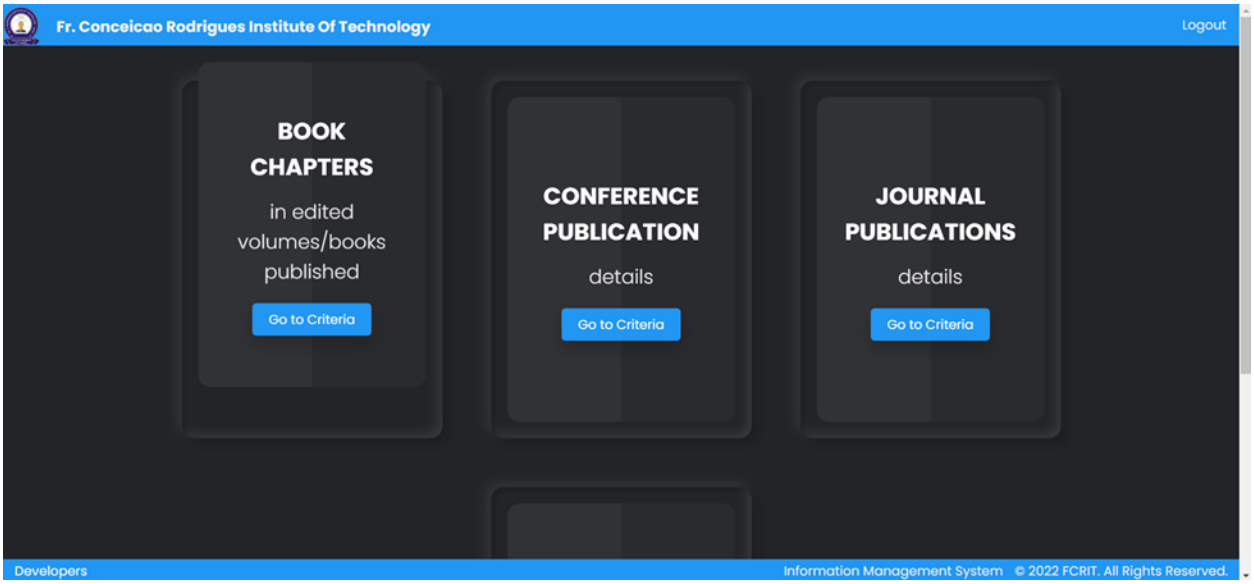

Fig 5.1.2 criteria page

The figure shown below the landing page visible to the user right after logging in. Here the 4 different criterions are available, and the user can choose the respective criteria where data manipulation needs to be done.

5.2 Sub-Criterion Page

Figure 5.2 shown below represents the criterion page to fill data pertaining to the criterion and view the same.

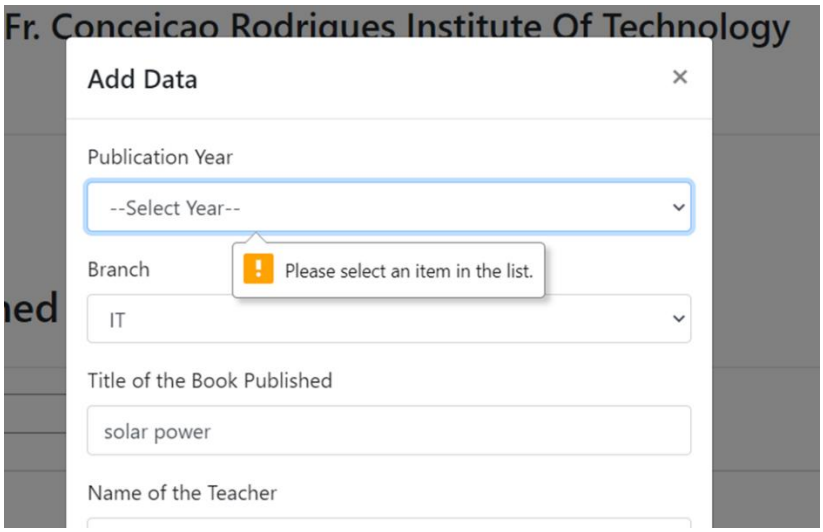

Fig 5.2 Sub-Criterion page

5.3 Data Page

Figure 5.3 shown below represents the data page to fill data pertaining to the criterion. The data displayed on the criterion page itself and the user has the ability to update and delete the data entries according to their needs and requirements.

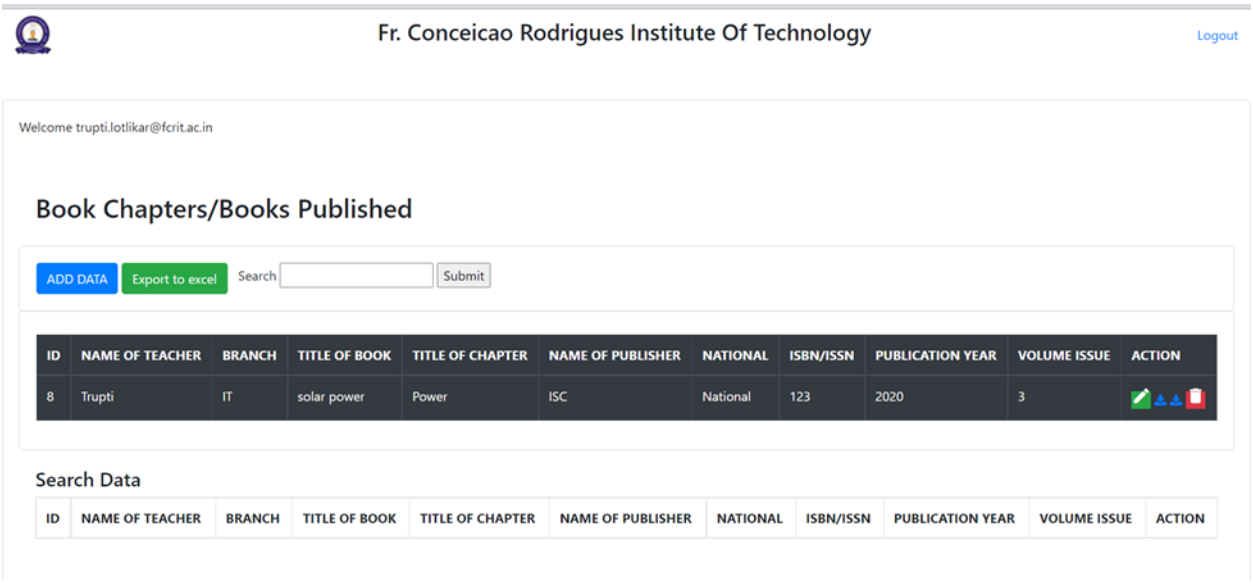

Fig 5.3 Data page

5.4 Update Page

Figure 5.4 shown below represents the update page to update data pertaining to the criterion. It allows them to update the available data. Keeping simplicity in mind, we have merged the update page within the criteria page to enable ease of the user to update any data required.

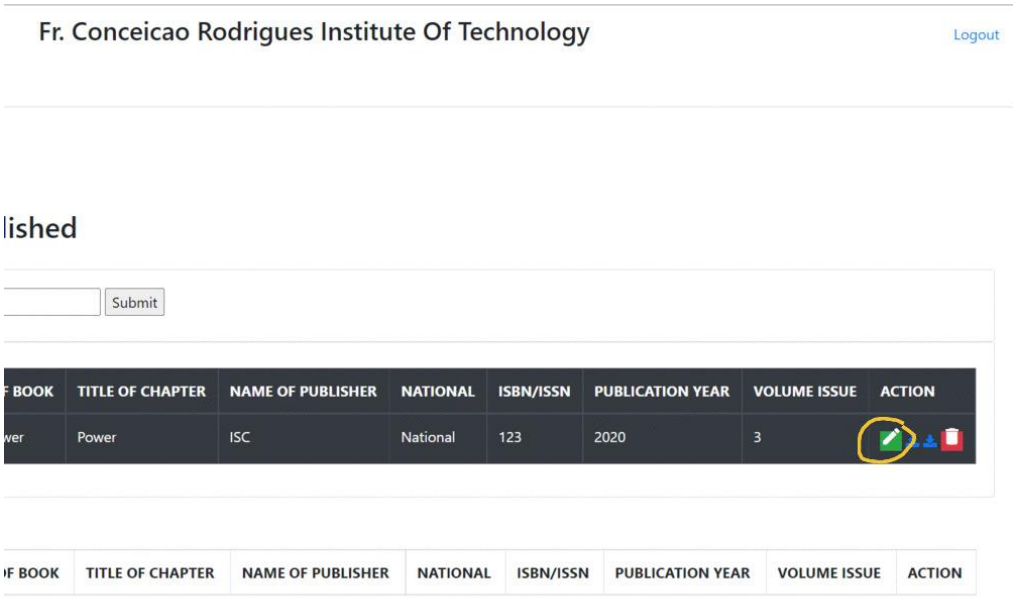

Fig 5.4 Update page

5.5 Login page

Figure 5.5 shown below is the login page for registered professors and register for new registry.

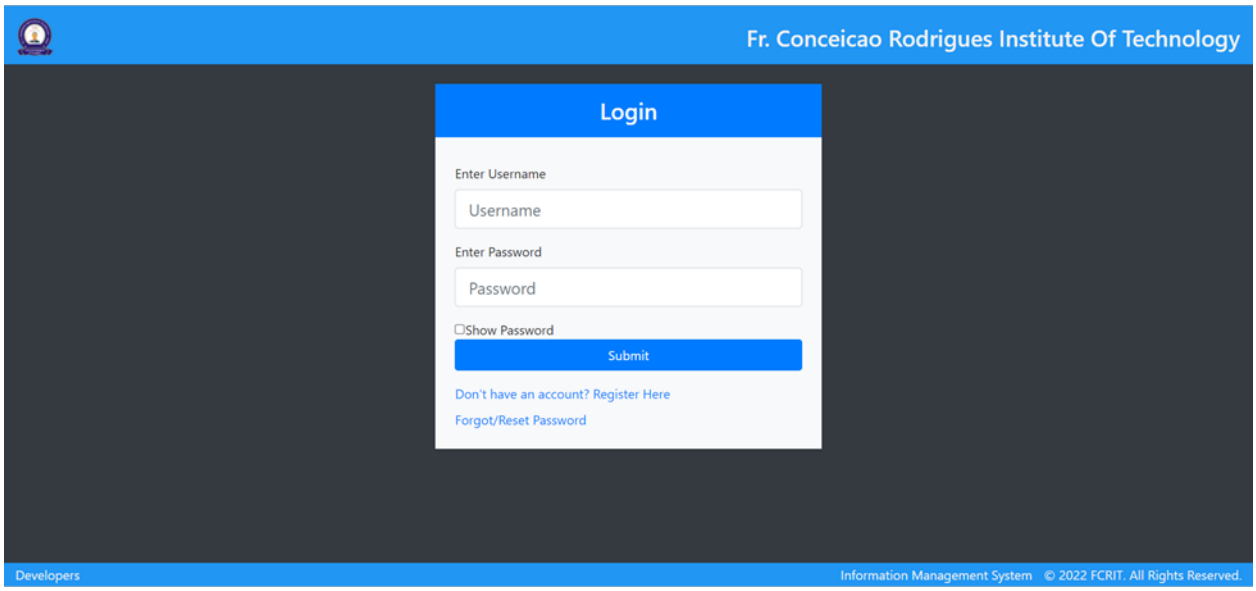

Fig 5.5.1 Log in page

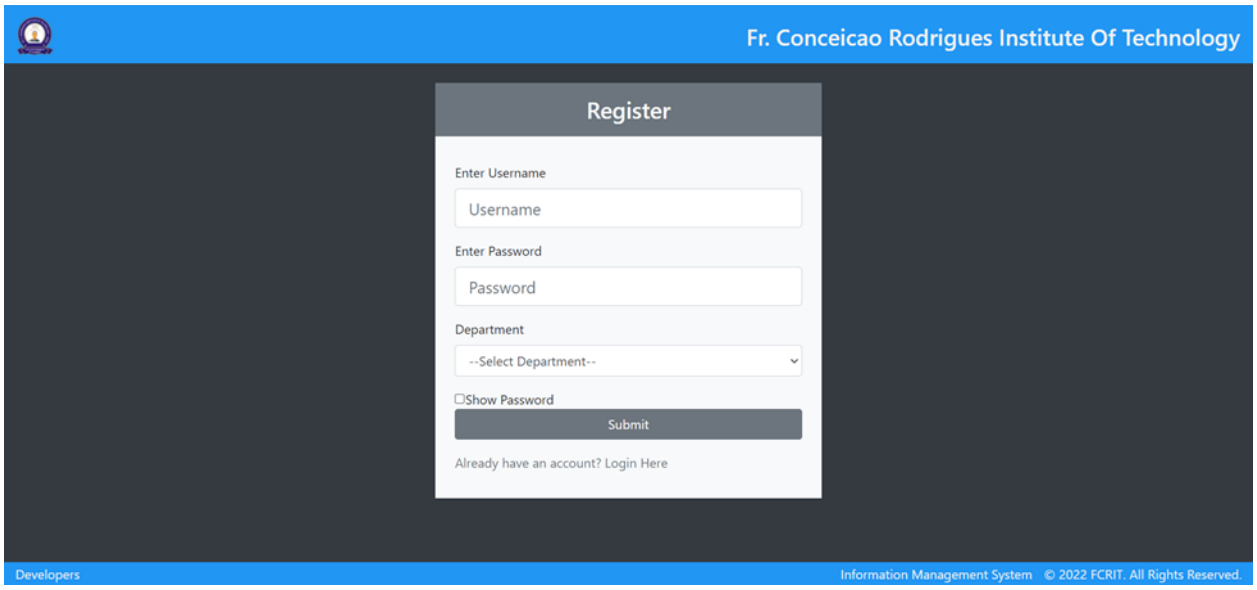

Fig 5.5.2 Register page

5.6 Developers Page

Figure 5.6 shown below is the page which contains details about the developers of the portal

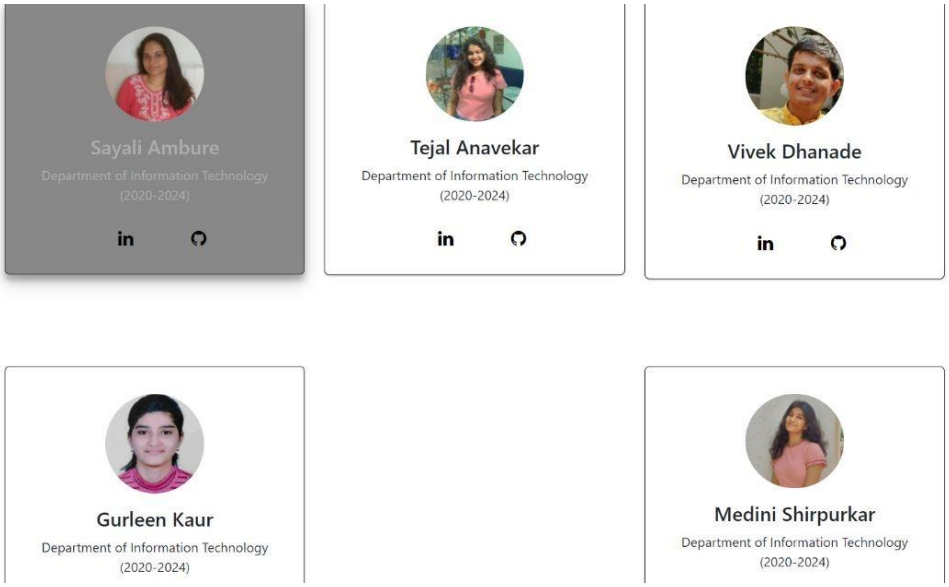

Fig 5.6 Developers Page

5.7.1 Search Data

In search data, the admins can search for a specific data or specific Student's data for the files or record of data. The admin can perform necessary changes by updating or editing the data (for eg: marks, attendance). Instead of looking for the individual Student's name, admin can easily search the name by typing it in the Search bar option.

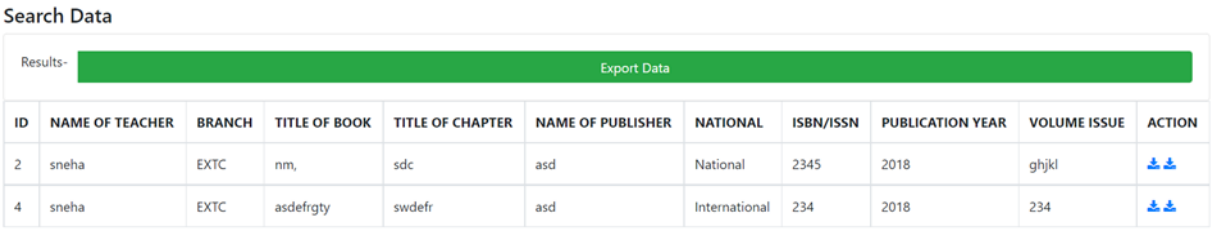

Fig 5.7.1 Search result for extc

5.7.2 Edit Data

The admins can edit the data entered whenever required. They can easily click on edit and edit the required data rather than re-entering all the data again. The final edited data will be stored in the database and the previous data will be deleted.

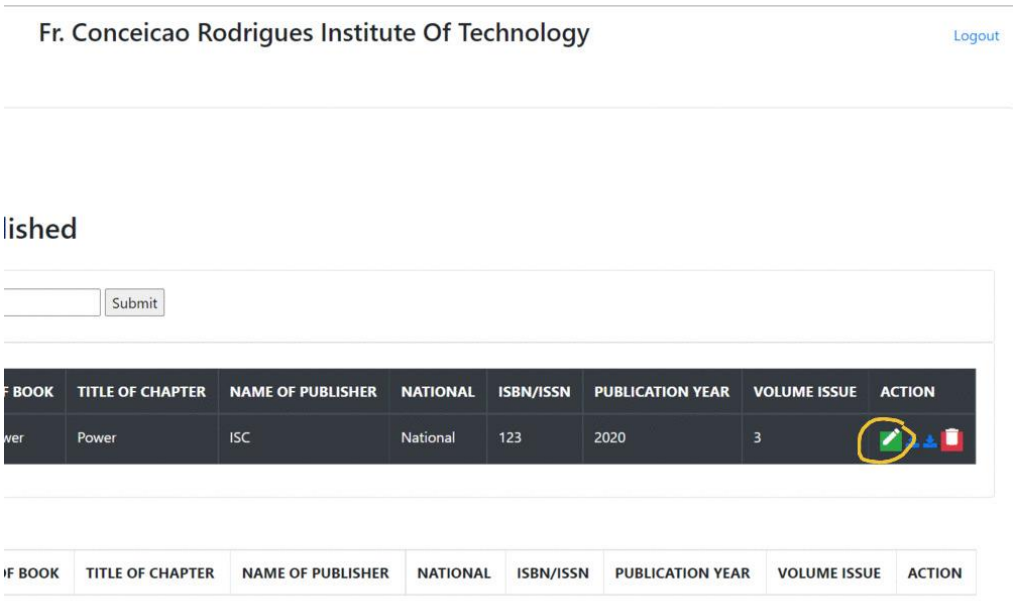

Fig 5.7.2 Edit data

5.7.3 Excel

In this, the admins will enter the data, then that data will get stored in form of a excel sheet. For example: If an admin stores the name and roll number of a class then all the data will get stored in form of a excel sheet, and the admin can download the excel sheet when required. The admin can also perform necessary changes and again the data will be stored in the excel.

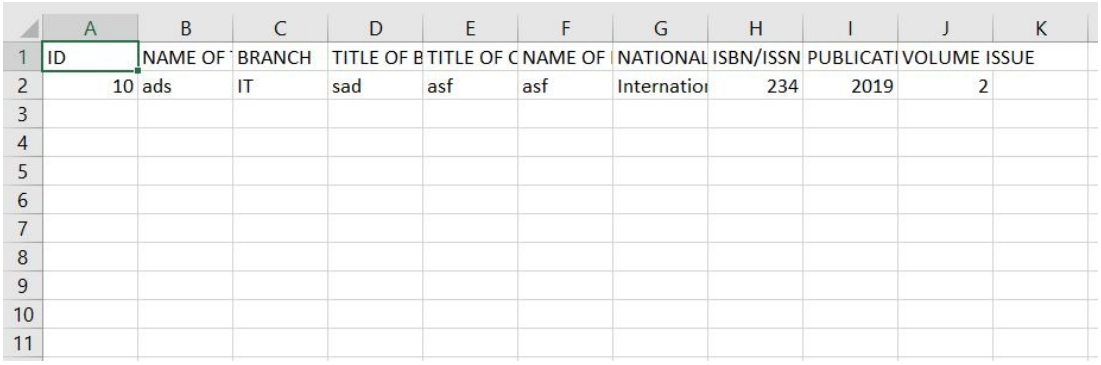

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Fig 5.7.3 Excel

Chapter 6: Conclusion and Future Scope

This section includes the Final Conclusion of the project through various Findings, Research and the Success in implementing the desired project, the Future Scope of this project and how this project can be made more dynamic.

6.1 Conclusion

Information Management System (IMS) portal focuses on providing a simple interface for the easy collation and maintenance of sensitive data. The creation and management of accurate, up-to-date information regarding data is critical for students and for the faculty and administration of our college and for any other educational institution. All this data is made available through an online interface. what

IMS deals with data pertaining to different criterion like FDP/STTP organised, etc. Clients can enter, update ,search, download and view the data. Thus, we have implemented the project successfully and understood how to create web-portals using various frameworks for developing frontend and backend. We achieved our goal to create a Centralize portal for all faculty members to eliminate Data redundancy and keeping backup.

6.2 Future scope

We plan to extend the Portal to other criteria. Functionality to parents can also be added and a portal for student information can be included as well. So far, we have also created superadmins, department wise admins. This will ensure that the respective criteria admins can only edit the data of allotted criterion.

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Yours sincerely,

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