# MAJOR PROJECT REPORT ON "COLLEGE MANAGEMENT SYSTEM"

# SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DIPLOMA IN

IT Enabled Services and Management

BY

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### **CERTIFICATE**

This is to Certify that the project report entitled "COLLEGE MANAGEMENT SYSTEM" Was successfully completed by these Students of sixth semester, Diploma(IT Department).

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in partial fulfillment of the requirements for the award of the Diploma

IT Enabled Services and Management

and submitted to the department of IT Enabled Services and Management of Ambedkar Institute of Technology, DSEU Shakarpur Campus –I carried out during a period for the academic year 2019-22 as per curriculum.

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# **ACKNOWLEDGEMENT**

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Secondly I would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

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(PRIYA KARN)	
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## 1. INTRODUCTION

The "College Management System" has been developed to override the process prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system More this system is designed for the particular ner of the company to carry out operations in a smooth and effective manner.

This website is reduced as much as possible to avoid errors while entering the data. It also provide error message when entering invalid data. No formal knowledge is needed for the ser use this system. Thus by this all a preserves it in a friendly College Management System as described above can lead to error free, secure, reliable and feat management system, it can assist the user to concentrate on their other activities rather in concert on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of Student, College, Faculty. Every College Management System has different College needs, therefore we design exclusive management system that are adapted to your managerial requirements This is designed to assist in strategic planning and will help you that your organization is equipped with the right level of

information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with mole a features which will allow you to manage your workforce anytime, at all time. The system will utimately alow you to better manage resources.

# 2. ABSTRACT

The purpose of College Management System is to automate the exiting manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

College Meregement System, as described above, can lead to error free secure, retable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That mean that one need not be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirement so that their valuable data information can be stored for a longer period with easty accessing and manipulation of the same.

### 3. OBJECTIVE AND FUNCTION

This is a web oriented application allows us to access the whole information about the college, staffs, students, facilities etc. This application provides a virtual tour of Campus. Here we will get the latest information about the students and staffs. This generic application designed for assisting the students of an institute regarding information on the courses, subjects, classes, assignments, grades and timetable. It also provides support that a faculty can also check about his daily schedule, can upload assignments, and notices to the students. Here administrator will manage the accounts of the student and faculties, makes the timetable, and upload the latest information about the campus.

#### **FUNCTIONS**

- Provides the searching facilities based on various factors. Such as
   College, Library, Attendance, Study material (download and upload)
- College management system also manages the attendance of the student,
   result and library online.
- It tracks all the information of students
- Shows the information and description of college
- To increase the efficiency of the college and students
- it deals with monitoring the information.

- updation, deleting, download, upload, of information is improved which results in proper resources management of college data.
- Integration of all records of students.

# 4. SCOPE

- College information: Through this service one can access the complete information about the college campus such as courses available, admission procedure, placements, college events, achievements etc.
- Student tracking: Any company or any organization that want to check the summary about the student of the college, so that they will be able to choose the particular students for their campus placement. And for that purpose they will be given a particular link through which they can access the information required.
- Student attendance status: It gives the attendance status of students. Faculty will update the attendance periodically and can be seen by students and parents.
- Student's performance in exams: This facility provides the performance of the student in each exam which is conducted by university or college such as midterm performance. Marks obtained by students in exams will be updated by faculties that can be access by students and parents.
- Exam Notification: This facility notifies students and parents about examination schedule.
- Events: It will give information about different events that will be conducted by college time to time. Information about these events will be updated by administrator.
- Online assignments: This service provides the facility to faculty to upload assignments and to students to submit these assignments online.

• Information about staff: It will help in maintaining complete information about college faculty members such as their department, cadre, date of joining, salary, etc. Administrator will register new faculties and remove their account when they leave the college.

# 5.MODULE

- Library
- user login
- admin login
- register
- Attendance
- add student
- view student
- take attendance
- Famous Courses
- videos lecture
- Study Material
- download
- upload
- Result
- classes
- students
- get result
  - 1. The modules involved are:
  - College information: Through this service one can access the complete information about the college campus such as courses available, admission procedure, placements, college events, achievements etc.
  - 3. 2. Student tracking: Any company or any organization that want to check the summary about the student of the college, so that they will be able to choose the particular students for their campus placement. And for that purpose they will be given a particular link through which they can access the information required.

- Student attendance status: It gives the attendance status of students.
   Faculty will update the attendance periodically and can be seen by students and parents.
- 6. 4. Student's performance in exams: This facility provides the performance of the student in each exam which is conducted by university or college such as midterm performance. Marks obtained by students in exams will be updated by faculties that can be access by students and parents.
- 7. 5. Exam Notification: This facility notifies students and parents about examination schedule.
- 8. 6. Events: it will give information about different events that will be conducted by college time to time. Information about these events will be updated by administrator.
- 9. 7. Online assignments: This service provides the facility to faculty to upload assignments and to students to submit these assignments online.
- 10. 8. Information about staff: It will help in maintaining complete information about college faculty members such as their department, cadre, date of joining, salary, etc. Administrator will register new faculties and remove their account when they leave the college.

# 6. FEATURES

- Creating & Changing Issues at ease
- Query Issue List to any depth
- Reporting & Charting in more comprehensive way
- User Accounts to control the access and maintain security Simple
   Status & Resolutions
- Multi-level Priorities & Severities.
- Targets & Milestones for guiding the programmers
- Attachments & Additional Comments for more information
- Robust database back-end
- Various level of reports available with a lot of filter criteria's
- It contain better storage capacity.
- Accuracy in work.
- Easy & fast retrieval of information.
- Well designed reports.

# 7. SOFTWARE REQUIREMENTS SPECIFICATION

The Software Requirements Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavioral description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

The proposed system has the following requirements:

- System needs store information about new entry of College.
- System needs to help the internal staff to keep information of Student and find them as per various queries.
- System need to maintain quantity record.
- System need to keep the record of Fees.
- System need to update and delete the record.
- System also needs a search area.

### 8. SYSTEM ANALYSIS

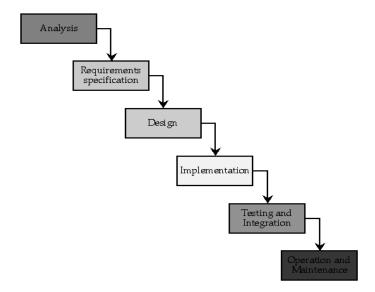
The following requirements are raised during the analysis of the needs of the users:

- A Person Should be able to login to the system through the first page of the Application.
- The Administrator can create users as per user requirement.
- Admin can upload the data for a particular Student. On successful completion of upload, user (Student/Parent/Faculty) can view reports.
- A general user will have access to see the status of particular Student id number.
- Student (user) can use all the facilities, same as which are provided to him in the college.
- Student can see attendance, notices, grades, report and other facilities in updated manner.
- There will be a separate page for every student as his account in which he can get notices, attendance, grades, assignments etc.
- Parent can just view the record of student with the username and password provided.
- Faculty can give the attendances and notices for the students.
- The administrator verifies all these reports and generates them for users to view them.

After analyzing the requirements of the task to be performed, the next step is to analyze the problem and understand its context. The first activity in the phase is studying the existing system and other is to understand the requirements and domain of the new system. Both the activities are equally important, but the first activity serves as a basis of giving the functional specifications and then successful design of the proposed system. Understanding the properties and requirements of a new system is more difficult and requires creative thinking and understanding of existing running system is also difficult, improper understanding of present system can lead diversion from solution.

### 9. LIFE CYCLE

We have used Waterfall Model as Software Engineering life Cycle Process. It is the simplest; oldest and most widely used process model for software development. This model acquires its name from the fact that classic software life cycle is represented as a sequence of descending steps.



#### **Requirement Analysis:**

This process is also known as feasibility study. In this phase, the development team studied the site requirement. They investigate the need for possible dynamic representation of the site and increase security features. By the end of feasibility study, the team furnishes a document that holds the different specific recommendations for the candidate system. It also includes personnel assignments, costs, project schedules, target dates etc. the requirement gathering process is intensified and focused specially on software. The essential purpose of this phase is to find the need and to define the problem that needs to be solved. During this phase following facts were gathered.

- v Determined the user need
- v Identified the facts
- v Establish the goals and objective for the proposed system
- v Feasibility for the new system

#### **System Analysis and Design:**

In this phase the software's overall structure and its nuances are defined. In terms of client server technology the no of tiers needed for the package architecture, database design, data structure design etc are defined in this phase. Analysis and Design are very crucial in entire development cycle. Any glitch in this phase could be expensive to solve in the later stage of software development. Hence following is the essential approach taken during website designing:

- v DFD
- v Database Designing
- v Form Designing
- v Pseudo code for methods

#### **Testing:**

Once the code is generated, the website testing begins. Different testing methodologies are done to unravel the bugs that were committed during the previous phases. Different testing methodologies are used:

- v Acceptance testing
- v White Box Testing
- v Black Box Testing

# 10. TECHNOLOGY

#### Software Configuration:

This software package is developed using HTML, CSS, JavaScript, BOOTSTRAP as client side validation, PHP as server side validation, MY SQL to store the database.

Operating System: Windows XP, Windows 7, Windows 8, Windows 10

Front end: HTML, CSS

Client side Validation: JavaScript,BOOTSTRAP

Server side Validation: PHP

Database: MY SQL

Hardware Configuration:

Processor: Core i3, 1.5MHz

Hard Disk: 150 GB

RAM: 2GB

Resolution: 480 X 800

### **External Interface Requirement**

GUI

This application provides good graphical interface for the user and the administrator can operate on the system, performing the request task such as create, update, delete and also view the every details.

- The user interface must be customizable by the administrator.
- All the modules provided with the software must fit into this graphical user interface and accomplish to the standard defined.
- The design should be simple and all the different interfaces should follow a standard template.
- The user interface should be able to interact with the other users.
- Design of registration page is easy to understand for every user.

## 11. IDENTIFICATION OF NEED

The old manual system was suffering from a series of drawbacks. Since whole of the system was to be maintained with hands the process of keeping, maintaining and retrieving the information was very tedious and lengthy. The records were never used to be in a systematic order, there used to be lots of difficulties in associating any particular transaction with a particular context. If any information was to be found it was required to go through the different registers, documents there would never exist anything like report generation. There would always be unnecessary consumption of time while entering records and retrieving records. One more problem was that it was very difficult to find errors while entering the records. Once the records were entered it was very difficult to update these records.

The reason behind it is that there is lot of information to be maintained and have to be kept in mind while running the business For this reason we have provided features Present system is partially automated (computerized), actually existing system is quite laborious as one has to enter same information at three different places.

Following points should be well considered:

Documents and reports that must be provided by the new system: there can also be few reports, which can help management in decision-making and cost controlling, but

since these reports do not get required attention, such kind of reports and information were also identified and given required attention.

• Details of the information needed for each document and report.

The required frequency and distribution for each document.

• Probable sources of information for each document and report

With the implementation of computerized system, the task of keeping records in an organized manner will be solved. The greatest of all is the retrieval of enfermation, which w be at the click of the mouse. So the proposed system helps in saving the time in different operations and making information flow easy giving valuable reports.

# 12. FEASIBILITY STUDY

After doing the project College Management System, study and analyzing all the existing or required functionalities of the system, the next task is to do the feasibility study for the project. All projects are feasible - given unlimited resources and infinite time.

Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

#### A. Economical Feasibility

This is a very important aspect to be considered while developing a project. We decided the technology based on minimum possible cost factor.

• All hardware and software cost has to be borne by the organization

Overall we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the initial costs and the later on running cost for system.

#### B. Technical Feasibility

This included the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system, as described in the System Requirement Specification (SRS), and checked if everything was possible using different type of frontend and backend platform.

#### C. Operational Feasibility

No doubt the proposed system is fully GUI based that is very user friendly and all inputs to be taken all self-explanatory even to a layman. Besides, a proper training has been conducted to let know the essence of the system to the users so that they feel comfortable with new system. As far our study is concerned the clients are comfortable and happy as the system has cut down their loads and doing.

# 13.SYSTEM DESIGN

In this phase, a logical system is built which fulfils the given requirements, Design phase of software development deals with transforming the clients's requirements into a logically working system. Normally, design is performed in the following in the following two steps:

#### 1. Primary Design Phase:

In this phase, the system is designed at block level. The blocks are created on the basis of analysis done in the problem identification phase. Different blocks are created for different functions emphasis is put on minimising the information flow between blocks. Thus, all activities which require more interaction are kept

in one block.

#### 2. Secondary Design Phase:

In the secondary phase the detailed design of every block is performed.

The general tasks involved in the design process are the following:

- 1. Design various blocks for overall system processes 2. Design smaller, compact and workable modules in each block.
- 3. Design various database structures.
- 4. Snepify details of programs to achieve desired functionality.
- 5. Design the form of inputs, and outputs of the system.
- 6. Perform documentation of the design.
- 7. System reviews.

#### **User Interface Design**

User Interface Design is concerned with the dialogue between a user and the computer. It is concerned with everything from starting the system or logging into the system to the eventually presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

The following steps are various guidelines for User Interface Design:

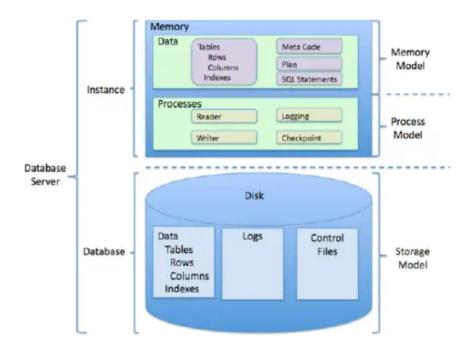
1. The system user should always be aware of what to do next
2. The screen should be formatted so that various types of information, instructions and messages always appear in the same general display area.
3. Message instructions or information should be displayed long enough to low the system user to read them.
4. Use display attributes sparingly.
<ul><li>5. Default values for fields and answers to be entered by the user should be specified.</li><li>6. A user should not be allowed to proceed without correcting an error.</li><li>7. The system user should never get an operating system message or fatal error.</li></ul>

# 14. PROJECT CATEGORY

Relational Database Management System (RDBMS): This is an RDBMS based project which is currently using MySQL for all the transaction statements. MySQL is an opensource RDBMS System.

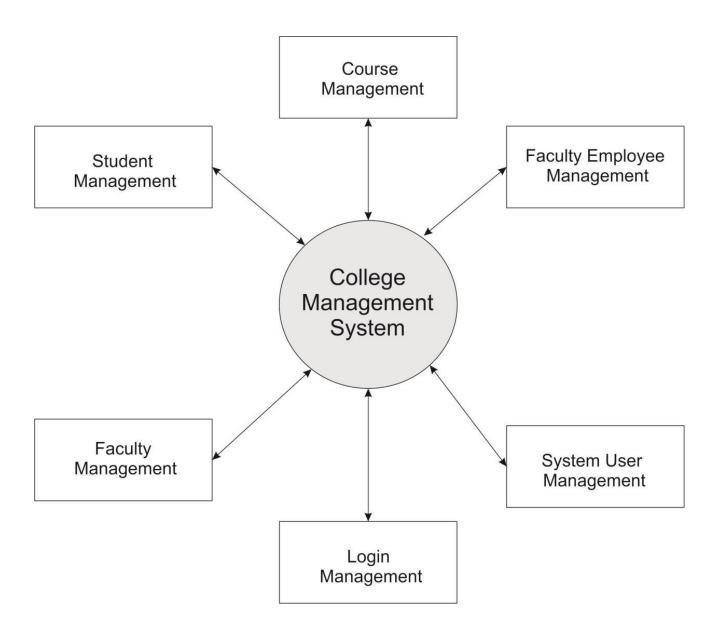
**Brief Introduction about RDBSM:** 

A relational database management system (RDBMS) is a database management system (DBMS) that is based on the relational model as invented by E. F. Codd, of IBM's San Jose Research Laboratory. Many popular databases currently in use are based on the relational database model.

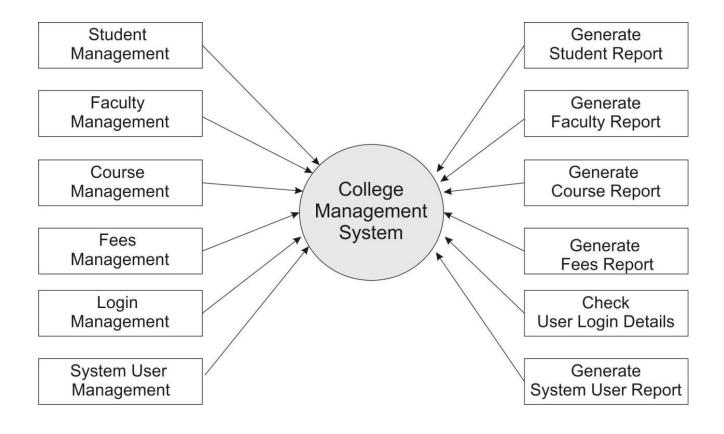


RDBMSS have become a predominant choice for the storage of information in new databases used for financial records manufacturing and logistical information personnel data, and much more since the 1980s Relational databases have often replaced legacy hierarchical databases and network databases because they are easier to understand and use. However, relational databases have been challenged by object databases which were introduced in an attempt to address the object-relational impedance mismatch in relational database, and XML databases.

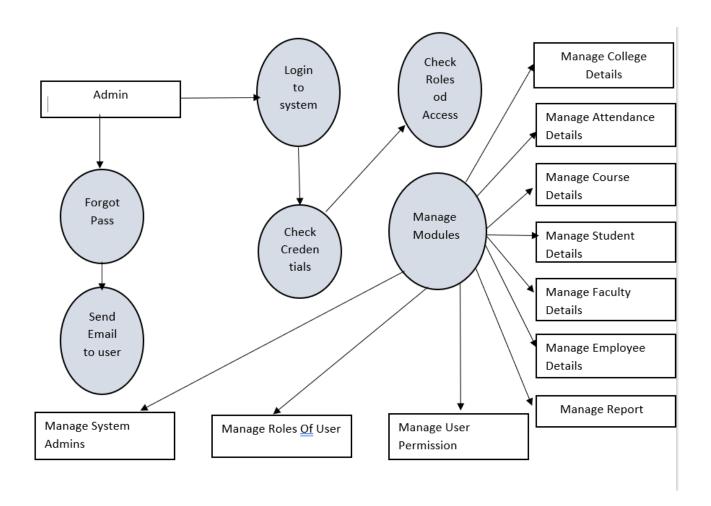
# 15. DATA FLOW AND ER DIAGRAM



Zero Level DFD - College Management System

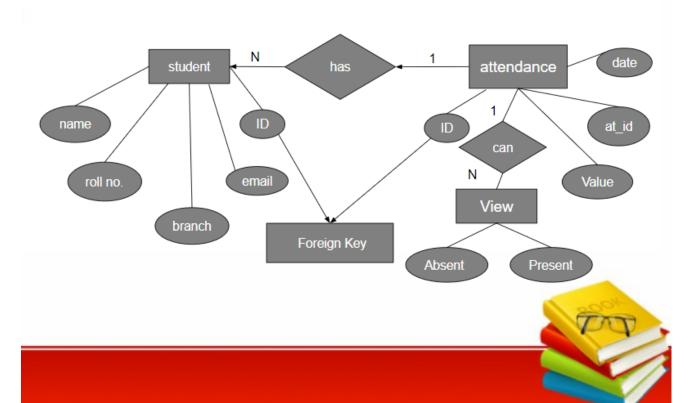


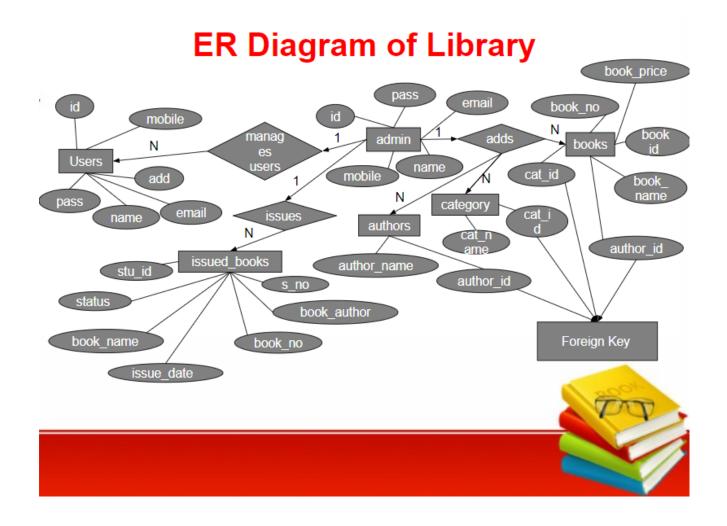
First Level DFD - College Management System



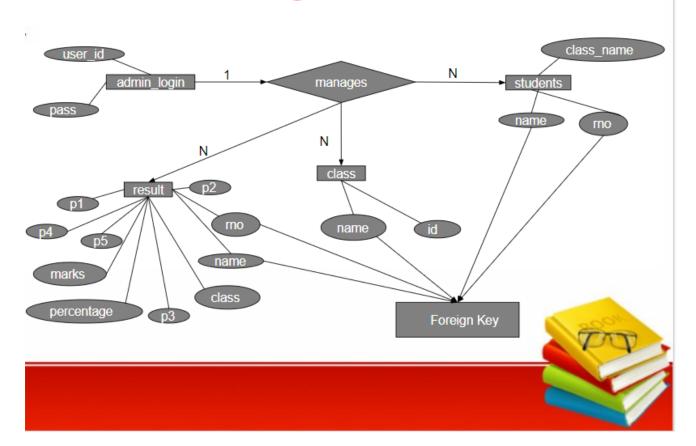
Second Level DFD - College Management System

# **ER Diagram of Attendance**





# **ER Diagram of Result**



# **16.SOURCE CODE**

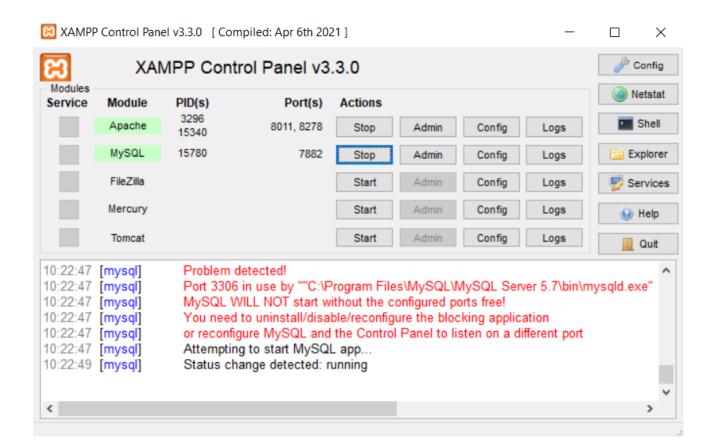
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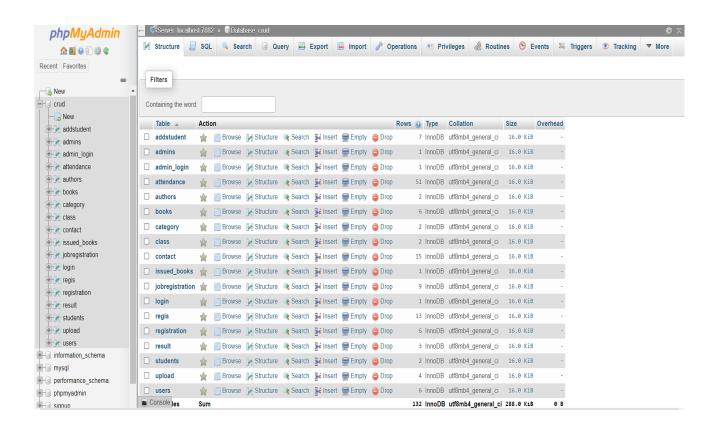
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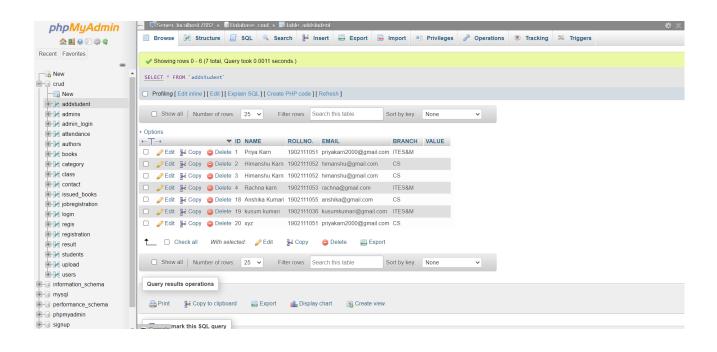
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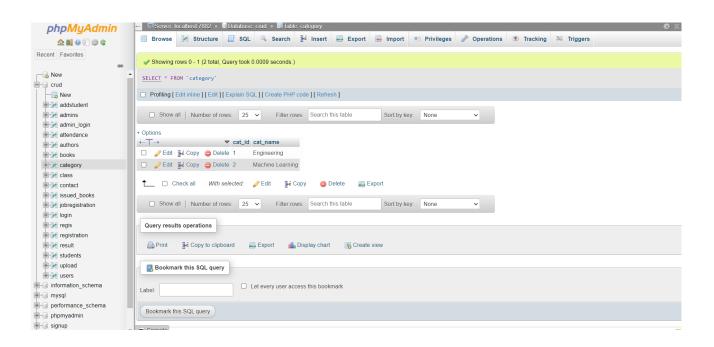
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## 17. CONCLUSION

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

At the end it is concluded that we have made effort on following points....

- A description of the background and context of the project and its relation to work already done in the area.
- Made statement of the aims and objectives of the project.
- The description of Purpose, Scope, and applicability.
- We define the problem on which we are working in the project.
- We describe the requirement Specifications of the system and the actions that can be done on these things,
- We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.
- We included features and operations in detail, including screen layouts

•	We designed user interface and security issues related to system. Finally the
	system is implemented and tested according to test cases.

# 18. Bibliography

- ✓ www.w3school.com
- ✓ www.stackoverflow.com
- www.tutorialspoint.com
- www.javapoint.com
- ✓ www.youtube.com
- https://www.w3schools.com/howto/howto\_google\_fonts.asp
- ✓ https://www.iconfinder.com/
- ✓ https://geeksforgeeks.org
- ✓ https://nodejs.org/en/docs/
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