**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**Jnana Sangama, Belagavi-590018, Karnataka**



**A MINI PROJECT REPORT**

ON

**“STUDENT MANAGEMENT SYSTEM”**

Submitted in partial fulfillment of requirements for the award of 5th semester,

**BACHELOR OF ENGINEERING**

**IN**

**COMPUTER SCIENCE & ENGINEERING**

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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**MVJ COLLEGE OF ENGINEERING**

**BANGALORE-67**

**2021-22**



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**CERTIFICATE**

This is to certify that the mini project entitled **"STUDENT MANAGEMENT SYSTEM”** is a bonafide work carried out by **VIKASH SINGH (1MJ19CS185),** a bonafide student of MVJ College of Engineering in partial fulfillment for the award of degree of Bachelor of Engineering in Computer Science & Engineering of the Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all the corrections/suggestions indicated for Internal Assessment have been incorporated in the Report. The Mini Project Report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

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| --- | --- | --- |
| **Signature of the Guide**  **(Mrs. K. Manisha)** |  | **Signature of the HOD**  **(Prof. Tamilarasi.R)** |
|  |  |  |

**Signature of the Examiners *........................................ .......................................***

**Internal** **External**

**ABSTRACT**

**Student Management System is software which is helpful for students as well as the school authorities. In the current system all the activities are done manually. Its time saving and scalable. Our Student Management System deals with the various activities related to the students In the software we can register as a user and user has two types student and administrator. Administrator has the power to add new user and can edit the students details entered. A admin can add students record ,attendance status with department wise. All students can search his/her basics details and attendance status with there respective roll numbers**

**ACKNOWLEDGEMENT**

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**Chapter 1**

**INTRODUCTION**

Database is an organized collection of data. The data is typically organized to model aspects of reality in a way that supports processes requiring information. A DBMS makes it possible for users to create, read, update and delete data in a database. The DBMS essentially serves as an interface between the database and users or application programs, ensuring that data is consistently organized and remains easily accessible.

The main purpose of maintaining database for Tourism Management System is to reduce manual error involved in booking and cancelling of tickets and make it convenient for the customers and providers to maintain the data about their customers or passengers and about the seats available. Due to automation many loopholes that exist in the manual maintenance of the records can be removed. The speed of obtaining and processing the data will be fast.

The project also provides facilities like creating a record of multiple trains, their routes and the no. of seats available in the respective class section of the train.

The front end is made using the HTML and the backend is made using the MySQL and PHP is used to connect the front end to the database

**Chapter 2**

**SYSTEM REQUIREMENTS**

2.1 Hardware Requirements

* **Operating System :** Windows 7 or later
* **Processor :** Intel Pentium 4 or later
* **Memory :** 2 GB minimum, 4 GB recommended
* **Screen resolution :** 1280\*1024 or larger
* **Application Window Size :** 1024\*680 or larger
* **Internet Connection :** Not required

2.2 Software Requirements

* **Client :** Operating System(any)
* **Web Server :** Apache HTTP server
* **Database :** Maria DB
* **Language :** HTML

**Chapter 3**

**PROBLEM DESCRIPTION**

**student management system , student management system, school administration software or student administration system is a**[**management information system**](https://en.wikipedia.org/wiki/Management_information_system)**for education sector establishments used to manage student data. It integrates students, parents, teachers and the administration. Student information systems provide capabilities for registering students in courses; documenting**[**grading**](https://en.wikipedia.org/wiki/Grading_(education))**,**[**transcripts**](https://en.wikipedia.org/wiki/Transcript_(education))**of academic achievement and co-curricular activities, and the results of student**[**assessment**](https://en.wikipedia.org/wiki/Educational_assessment)[**scores**](https://en.wikipedia.org/wiki/Test_score)**; forming student schedules; tracking student attendance; generating reports and managing other student-related data needs in an educational institution.**

[**Information security**](https://en.wikipedia.org/wiki/Information_security)**is a concern, as universities house an array of sensitive personal information, making them potentially attractive targets for security breaches, such as those experienced by retail corporations or healthcare providers.**[**[1]**](https://en.wikipedia.org/wiki/Student_information_system#cite_note-1)

**Chapter 4**

**SYSTEM DESIGN**

**4.1 ER Diagram**:

**Diagram

Description automatically generated**

**Fig 4.1: - ER diagram for** **STUDENT MANAGEMENT SYSTEM**

**4.2 Schema Diagram**:

Timeline

Description automatically generated

**Fig 4.2: - Schema diagram for STUDENT MANAGEMENT SYSTEM**

**4.3 Normal Forms**

**1. NF**

Definition If a relation contain composite or multi-valued attribute, it violates first normal form, or a relation is in first normal form if it does not contain any composite or multi-valued attribute. A relation is in first normal form if every attribute in that relation is singled valued attribute.

A table is in

1NF if:

1. There are only Single Valued Attributes.

2. Attribute Domain does not change.

3. There is a Unique name for every Attribute/Column.

4. The order in which data is stored, does not matter.

**2. NF**

Second Normal Form (2NF) is based on the concept of full functional dependency. Second Normal Form applies to relations with composite keys, that is, relations with a primary key composed of two or more attributes. A relation with a single-attribute primary key is automatically in at least 2NF. A relation that is not in 2NF may suffer from the update anomalies.

To be in second normal form, a relation must be in first normal form and relation must not contain any partial dependency. A relation is in 2NF if it has No Partial Dependency, i.e., no non-prime attribute (attributes which are not part of any candidate key) is dependent on any proper subset of any candidate key of the table.

In other words, A relation that is in First Normal Form and every non-primary-key attribute is fully functionally dependent on the primary key, then the relation is in Second Normal Form (2NF).

**3. NF**

A relation is in third normal form, if there is no transitive dependency for non-prime attributes as well as it is in second normal form.

A relation is in 3NF if at least one of the following condition holds in every non-trivial function dependency X –> Y:

1. X is a super key.

2. Y is a prime attribute (each element of Y is part of some candidate key).

In other words,

A relation that is in the First and Second Normal Form and in which no non-primary-key attribute is transitively dependent on the primary key, then it is in Third Normal Form (3NF).

All the tables in Tourism Management System satisfy all the three normal forms.

**Chapter 5**

**IMPLEMENTATION**

**5.1 Introduction to software used**

**Description**

To run this project you must have installed virtual server i.e XAMPP on your PC (for Windows). MYSQL Server for the creation of the Backend of the project and PHP for the Frontend creation.

**5.1.1 PHP**

**Description**

Stands for "Hypertext Preprocessor." (It is a recursive acronym) PHP is an HTML - embedded Web scripting language. This means PHP code can be inserted into the HTML of a Web page. When a PHP page is accessed, the PHP code is read or "parsed" by the server the page resides on. The output from the PHP functions on the page are typically returned as HTML code, which can be read by the browser.

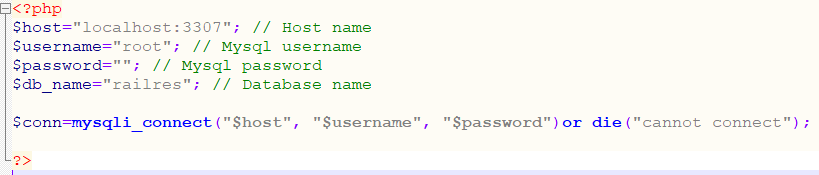
**5.1.2 MySQL**

**Description**

MySQL, pronounced either "My S-Q-L" or "My Sequel," is an open source relational database management system. It is based on the structured query language (SQL), which is used for adding, removing, and modifying information in the database. Standard SQL commands, such as ADD, DROP, INSERT, and UPDATE can be used with MySQL.

**5.2 CODE**

**Database Connection**



**Chapter 6**

**SCREENSHOTS**

A screenshot of a video game

Description automatically generatedGraphical user interface, website

Description automatically generated Graphical user interface, website

Description automatically generated Graphical user interface, application, website

Description automatically generated Graphical user interface, application

Description automatically generated Graphical user interface

Description automatically generated Graphical user interface, website

Description automatically generated Graphical user interface, application

Description automatically generated

**TABLES**

Graphical user interface, text, application, email

Description automatically generated Graphical user interface, text, application, email

Description automatically generated Graphical user interface, text, application, email

Description automatically generated Graphical user interface, text, application, email, website

Description automatically generated

**Chapter 7**

**CONCLUSION & FUTURE SCOPE**

STUDENT MANAGEMENT SYSTEM successfully implemented based on online data filling which helps us in administrating the data user for managing the tasks performed in students. The project successfully used various functionalities of Xampp and python flask and also create the fully functional database management system for online portals. Using MySQL as the database is highly beneficial as it is free to download, popular and can be easily customized. The data stored in the MySQL database can easily be retrieved and manipulated according to the requirements with basic knowledge of SQL. With the theoretical inclination of our syllabus it becomes very essential to take the atmost advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Major Project “Students Management System” was one of these opportunities. It gave us the requisite practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer engineer. The project from a personal point of view also helped us in understanding the following aspects of project development: • The planning that goes into implementing a project. • The importance of proper planning and an organized methodology. • The key element of team spirit and co-ordination in a successful project

**REFERENCES**

* During the course of this project reference to the following materials were made :-
* https://github.com/
* http://php.net/
* https://www.http://en.wikipedia.org/wiki/PHP
* https://www.w3shools.com