

Zip Demons

Group 04

Title: Student Management System

Project plan

Our project plan is for student management system. Since we are at the beginner stage, we have kept our project at the admin level only. And in future, we want to add many more features in this project. For now, only Admin/Teachers can use this project facilitate for their work.

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Version history

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Contents	Page No.
1 Introduction	4
1.1 Purpose and scope of project	4
1.2 Product and environment	4
1.3 Customer's current system and other similar systems	4
1.4 Project constraints	5
1.5 Definitions, abbreviations and acronyms	5
2 Project Organisations	5
2.1 Customer	5
2.2 Related organisations	6
3 Requirements	7
3.1 Functional requirements (main goals)	7
3.2 Non-functional requirements goals	7
3.2.1 Usability goals	7
3.2.2 Performance goals	7
3.2.3 Reliability goals	7
3.2.4 Security goals	8
3.3 User interface requirements (main goals)	8
4 System Design	9
4.1 Use Case Diagram	9
4.2 E-R Diagram	9
4.3 Prototype	11
5 Risk management	14
5.1 Risk list	14
5.2 Risk monitoring	14
6 References	15
7 Ideas for further development	15
8 APPENDIX	15

Introduction

1.1 Purpose and scope of project

This project is aimed to automate the student management system. This project is developed mainly to administrate the student records. The purpose of the project entitled as to computerize the Front Office Management of student records in colleges, schools and coaching's, to develop software which is user friendly, simple, fast and cost-effective. Traditionally, it was done manually. The main function of the system is to register and store student details, retrieve and these details as and when required, and also to manipulate these details meaningfully. Project scope is the part of project planning that involves determining and documenting a list of specific project goals, deliverables, features, functions, tasks, deadlines, and ultimately costs. In other words, it is what needs to be achieved and the work that must be done to deliver a project.

1.2 Product and environment

Management systems are specialized. These specialized solutions target specific needs, such as school applications or student behaviour tracking. Student management systems provide many benefits to educational institutions, mostly stemming from centralized data management and accessibility. Teachers can more easily input, manage, and access student data. Parental guardians get better visibility into how their student is performing in classes. State-level compliance and other regulatory requirements are also much easier to fulfil. Project environment represents a connection, where the project is processed. It impacts the project and is, therefore, conditioned. Such an interaction is provided by numerous factors as operational, physical, ecological, social, cultural, economic, psychological, financial, organizational etc. The environment not only formulates the project but also estimates it. Intended User Groups

1.3 Customer's current system and other similar systems

Customer's current system and other similar systems is a process in which a business or other organization administers its interactions with customers, typically using data analysis to study large amounts of information. Customer relationship management systems compile data from a range of different communication channels, including a company's website, telephone, email, live chat, marketing materials and more recently, social media. They allow businesses to learn more about their target audiences and how to best cater for their needs, thus retaining customers and driving sales growth. CRM may be used with past, present or potential customers.

1.4 Project constraints

In general, the term project constraint refers to the limitations and risks associated with a particular end ever. Every project will have its own set of constraints that will ultimately impact its success or failure.

- Existing code branch that we have to extend
- Technology selection freedom is not there
- Time limitations, with other courses and so on.
- Existing production system is there, so we need to ensure this system update won't harm production data.

1.5 Definitions, abbreviations and acronyms

A student management system helps a school manage data, communications, and scheduling. A school system generates and uses a large amount of data. This data must be communicated appropriately to students, faculty, and parents. A student management system helps schools to store, manage, and distribute this information. Some student management systems are designed to serve all of a school's student data management needs. Other student management systems are specialized. These specialized solutions target specific needs, such as school applications or student behaviour tracking.

Basic User: Teacher (Admin)

Project organisation

2.1 Customer

There may be many customers of our project. Such as: different schools, colleges, universities it. By modifying it again, different private companies will be able to store the information of their employees, so if they want, they can also be the customers of this project.

- Schools
- Colleges
- Universities or
- Various Company

2.2 Related organisations

- Schools
- Colleges
- Universities or
- Various Company

Requirements

3.1 Functional requirements (main goals)

The functional requirements of this system are:

- Register new students.
- Record the internal marks of students.
- Record the feed details of students.
- Register a new teacher/employee.
- Register a new user for the system.
- Record the course details and subject information.
- Record the contacts of students.
- Record the address of students.
- Record the ID of students.

Admin:

- Be able to upload profile photo more than 3.5mb
- News on the main page should be shown latest to oldest. (currently this is working opposite)
- Sign-up and student add, edit, view etc.

IT Officer:

- Report on the applications security. Possibly improve.
- Report on the error handling, and logs. Possibly improve.
- Implement HAKA login. (Least priority)

3.2 Non-functional requirements goals

In this system, the authentication of the user is an important factor. In this system, user authentication will be done by login by user name and password and classified by user type. Users will get access to the system as permissions are classified for that type of user.

The system has a consistent interface so that the system is easy to use and in the interface of our system buttons and forms are used to enter data related to a specific module.

3.2.1 Usability goals

The usability goal is to have an application which doesn't have usability issues. The goal also is that everything in the user interface is logical and clear to use. In addition, the user interface is pretty simple and boring, so something could be done to the user interface.

- The application front page needs changes.
- We need to have a usability test with the application.

3.2.2 Performance goals

Performance Goal defines how fast a software system or its particular piece responds to certain users' actions under certain workload. In most cases, this metric explains how much a user must wait before the target operation happens (the page renders, a transaction is processed, etc.) given the overall number of users at the moment. But it's not always like that. Performance requirements may describe background processes invisible to users, e.g., backup. But let's focus on user-centric performance.

3.2.3 Reliability goals

This quality attribute specifies how likely the system or its element would run without a failure for a given period of time under predefined conditions. Traditionally, it's expressed as a probability percentage. For instance, if the system has 85 percent reliability for a month, this means that during this month, under normal usage conditions, there's an 85 percent chance that the system won't experience critical failure.

As you may have guessed, it's fairly tricky to define critical failure, time, and normal usage conditions. Another, somewhat simpler approach to that metric is to count the number of critical bugs found in production for some period of time or calculate a mean time to failure. Three ways to measure it are:

- Probability percentage, time;
- The number of critical failures, time; and
- Mean time between failures

3.2.4 Security goals

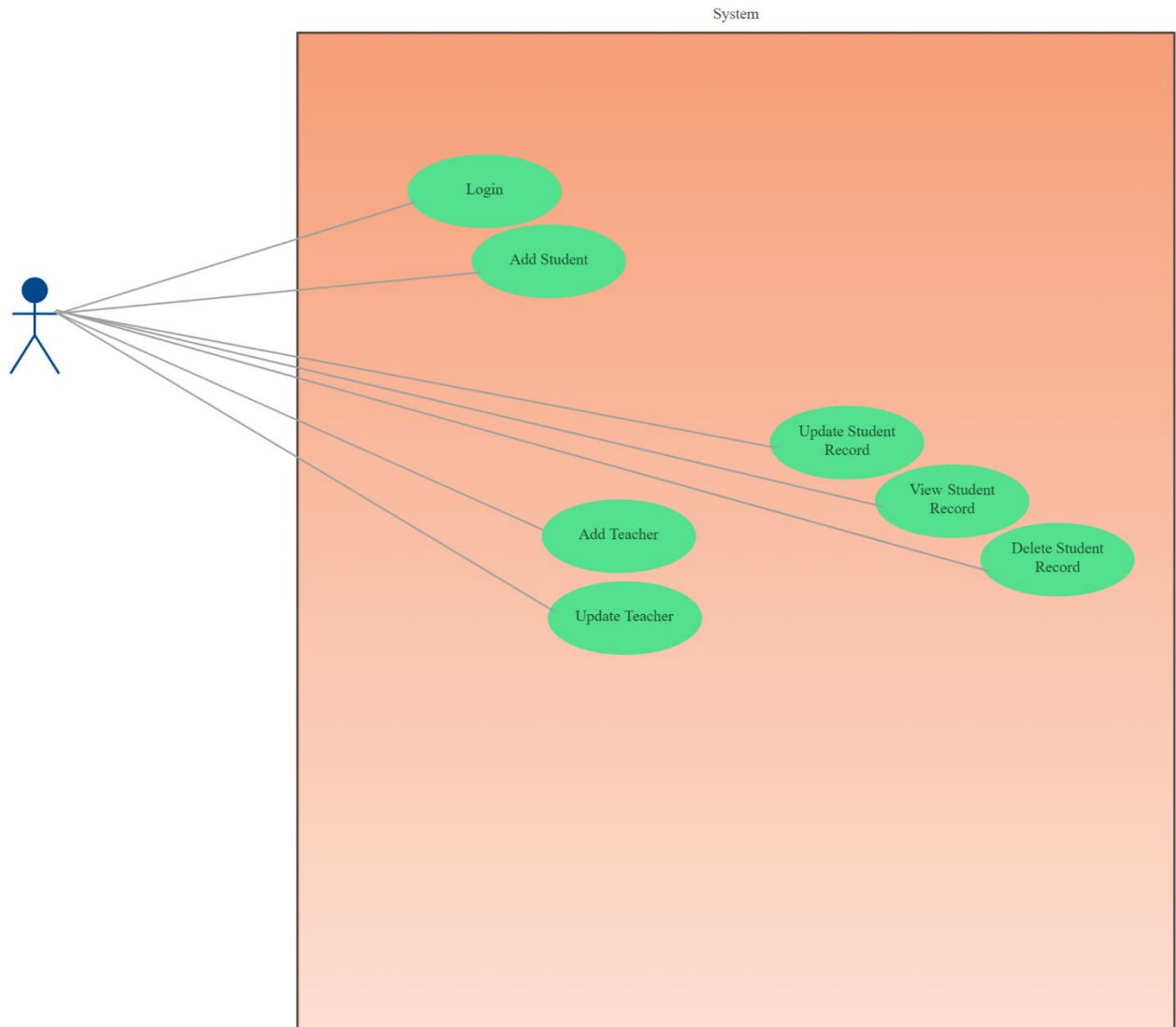
There shall be a strong security mechanism should be place in the server side of the system to keep unwanted users to hack or damage the system. However, all users of the system give and store the details of privacy related to personal information and many other. However, our system can be accessed online so we need very secured system as far as security is concerned.

3.3 User interface requirements (main goals)

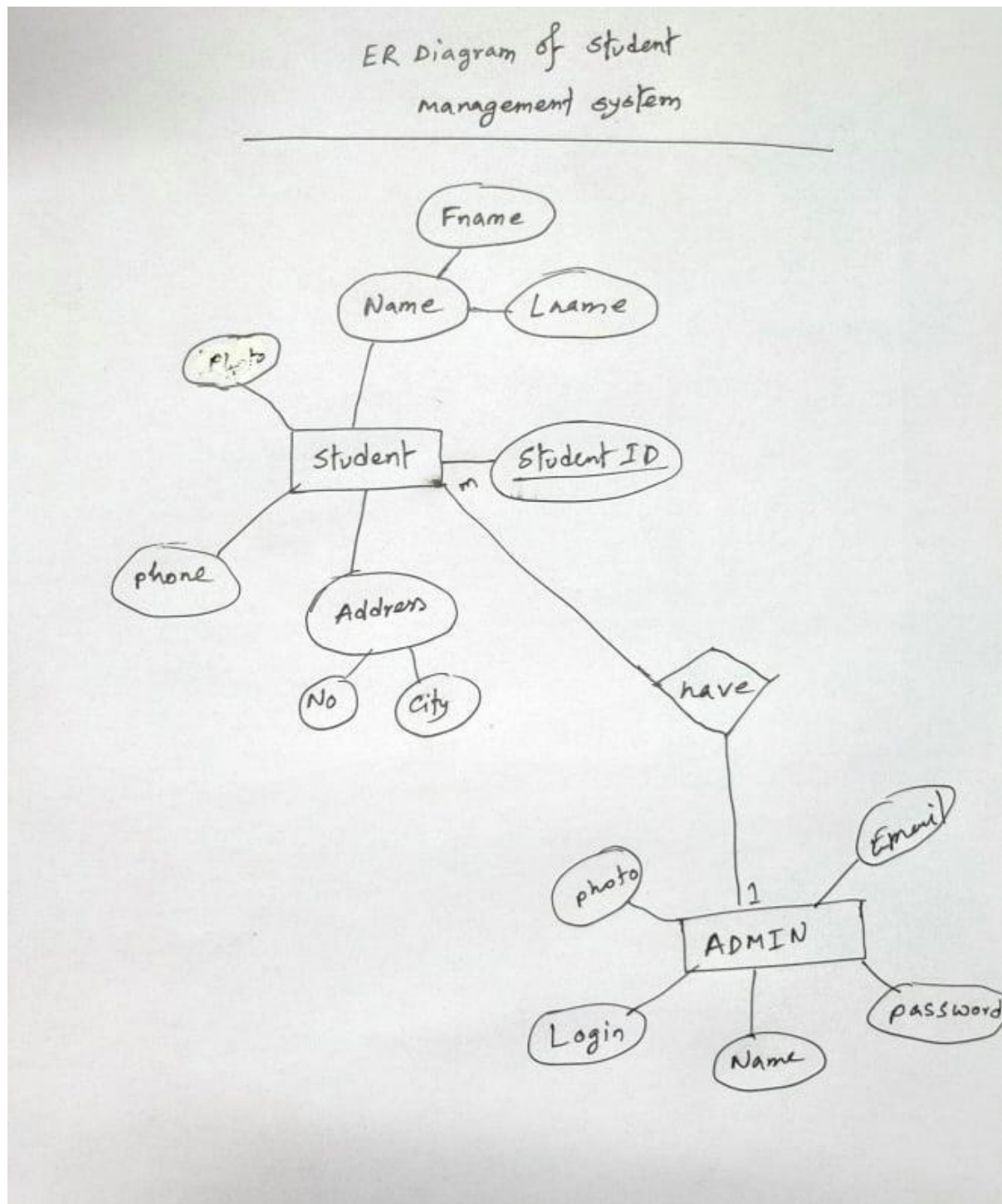
- Register new user (Teacher/Admin).
- Record the internal marks of students.
- Record the feed details of students.
- Register a new teacher/employee.
- Register a new user for the system.
- Record the course details and subject information.
- Record the contacts of students.
- Record the address of students.
- Record the ID of students.

System Design

4.1 Use Case Diagram



4.2 E-R Diagram



4.3 Prototype

Create

Create an account

Full Name

Username

roni972

Email

Cell

Password

.....

Profile Picture

Choose File No file chosen

Sign Up

[Log In now](#)

Login

Login Now

Username / Email

Password

Log In

[Create an account](#)

Add Student

Detailed Reports

Add new student

Student Name

Student ID

Batch No

Student Cell

Address

Student Photo

Choose File




No file chosen

Add student

All Student


All Students


All Students Information

SL	Student ID	Name	Batch	Address	Cell	Photo	Action
1	181-15-1819	Lokman Hakim Sumon	49	Mirpur 6	0123456789		<div><div>View</div><div>Edit</div><div>Delete</div></div>
2	171-15-1188	Muhammad Redwan	48	Savar	0123456789		<div><div>View</div><div>Edit</div><div>Delete</div></div>
3	181-15-1234	Tania Sultana	49	mirpur	0123456789		<div><div>View</div><div>Edit</div><div>Delete</div></div>

Edit Student Information

Single Student

Student ID	181-15-1234
Student Name	Tania Sultana
Batch	49
Cell	0123456789
Address	mirpur
Profile Photo	
Upload Photo	<input type="button" value="Choose File"/> No file chosen
<input type="button" value="Update"/>	



Dashboard ‘After clear students’

Dashboard

Students

- All Students
- Add new Students

All Students

All Students Information

SL	Student ID	Name	Batch	Address	Cell	Photo	Action

Risk management

Risk management is the process of identifying, monitoring, assessing and neutralizing threats and roadblocks to a project. Risks could stem from a wide variety of situations such as technical complexities, dropouts, management errors etc. Severe scenarios may cause the project to fail partially or completely.

Implementing a risk management plan could significantly help reduce the chances of a project failure. Carefully monitoring and estimation of potential risks shall certainly help making the project a success.

5.1 Risk list

Table Project risks.

Risk ID	Explanation, severity/impact, probability, size/importance
Productivity issues	<ul style="list-style-type: none">• Less functions• 0 Feedback• Limited work section
Technical risk	<ul style="list-style-type: none">• Password is not encrypted• Password reset option

5.2 RISK MONITORING

Monitoring risks and keeping them in checks are essential to avoid any unexpected circumstances that may jeopardize the project.

Risk management is done at MMT tool.

Steps we would take to monitor risks are:

- Weekly meetings
- Task progress
- Re-assign task to another person if necessary

References

1. <https://www.phptpoint.com/projects/student-management-system-project-in-codeigniter>
2. <https://www.creatrixcampus.com/blog/top-5-data-risks-affect-school-information-management-systems>

Ideas for further development

In future, we will add many more features, some sample features are given below that we will add in future:

- Attendance system
- Scholarship information
- Transection details

APPENDIX

There is no client demand in our project, because our project is a demo project, so there is no client demand at the moment. When a client wants to see our project, we will provide that feature to them according to the client's needs.