

## ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)

## **School Result Management System (SRMS)**

#### **SUBMITTED**

In partial fulfilment of the requirements for the degree of Higher Diploma in Computer Science and Engineering

BY

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#### **DECLARATION**

This is to certify that the work presented in this Project Report is the outcome of the analysis and experiments carried out by under the supervision of **Faisal Hussain**, Lecturer of the Department of Computer Science and Engineering (CSE), Islamic University of Technology (IUT), Dhaka, Bangladesh. It is also declared that neither of this project report nor has any part of this report been submitted anywhere else for any degree or diploma.

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And last but not the least we are thankful to our family, friends and well-wishers for their support and inspiration. Without them it would never have been possible for us to make it this far.

## **ABSTRACT**

The main objective of the project is to provide the examination result to the student in a simple way. This project is useful for students and institutions for getting the results in simple manner. By a result analyzer with subject status and marks is an application tool for displaying the results in secure way. The system is intended for the student. Moreover the privileges that are provided to student are to read and print his/her result by providing Student ID and Class. The whole result analyzer will be under the control of the administrator and the admin as the full privileges to read, write and execute the result, Admin gives the privileges to the student access the result.

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## **CHAPTER 1**

### INTRODUCTION

### **OVERVIEW**

Student Result management system (SRMS) is a technological opportunity for the school, college, university and coaching center institutions searching for a secure, simple and alternative solution to the conventional paper-based exam results evaluation, reporting and distribution. Like any other software, the system comes with certain advantage and disadvantage.

The software application unbelievably unravels and quickens the result management system withunique templates by providing the administration a secure database system for storing, evaluating and publishing the test scores and grades of candidates online. The database likewise allows the students to observe and gander at the exam results on the web at whatever point necessary.

The software exhibits some effortlessness in solving, adjusting and eradicating the problems in traditional result and examination management with automation system. One of the principal purposes of the system is to give the test results to the students in the as fundamental and exact way as possible. The administrator, modify and assess marks for the students whenever needed.

### **MODULES OF THE SYSTEM**

### Student Result management system (SRMS) divided in two modules-

- Student
- Admin

#### **Admin Features**

- Admin Dashboard
- Admin can add/update/ Class
- Admin can add/update/ Subjects
- Admin can add/update/ Active/Inactive Subject combination with class
- Admin can register new student and also edit info of the student
- Admin can declare/edit result of a student.
- Admin can change own password

#### **Students Features**

- Student can search their result using valid roll ID.
- Student can view result with their grade and percentage.
- Student can print out the result sheets.

### PROBLEM STATEMENT

Currently, the process of declaring and managing the students' results at the schools, is performed manually with extensive human intervention. The students' results are generated through a spreadsheet application or excel sheets and then printed on a paper. Despite having an application that generates the result, it is not very effective as the system consumes a lot of time and human resources in performing various tasks, it is costly, and it lacks data security and efficiency. At present, the institution needs an advanced and computerized environment. Once implemented, it will minimize all the problems mentioned.

### **BACKGROUND AND MOTIVATION**

One thing that's very certain about today's youth is that get pissed pretty fast. The thing that pisses them the most is an out of order system. If you run an educational institution then you know what we're talking about here. You don't want to piss off a student by making them stand in a line for their result or making them use an old result system. Furthermore, this thing can impact the reputation of your institute. But, thankfully there's a way out of this, for you to have the best Student Result management system (SRMS) out there, As this System is very Straigh forward and easy to manage, the Motivation Behind this system is that in Pakistan and Afghanistan Where we both live in those areas there are Many schools which are still keeping their Record of School in Microsoft Excel Sheets, Which is very hard to maintain.

So we purposed this system in the way that it can be used in those schools to manage their school Result Records Digitally

## **CHAPTER 2**

### LITERATURE REVIEW

According to Freund et al. (2017), nowadays people interact directly with technology in fields such as education, government, finance, retail, entertainment, health care, science, travel, publishing, and manufacturing. And they also state that, educators and teaching institutions use technology to assist with education.

Most equip labs and classrooms with laptops or desktops. Some even provide computers or mobile devices to students. Many require students to have a mobile computer or mobile device to access the school's network or Internet wirelessly, or to access digital-only content provided by a textbook publisher. And educators may use a Course Management System (CMS) or systems like this called a Learning Management System (LMS), which is a software that contains tools for class preparation, distribution, and management.

For example, through the course management system, students access course materials, grades, assessments, and a variety of collaboration tools. Many schools offer distance learning classes, where the delivery of education occurs at one place while the learning occurs at other locations. Distance learning courses provide time, distance, and place advantages for students who live far from a campus or work full time.

Referencing Wallace (2015), the LMS or systems like this is an information system used to track student progress, and manage educational records. Many offer other features, such as online registration, assessment tools, collaborative technologies, and payment processing. They also offer tools for creating or importing content.

Referencing Wundenberg (2015), LMS characterizes a complex, often web based software system which pools multiple task specific subprograms under a shared User Interface (UI). These subprograms support, for instance:

- Allocation and organization of learning content for different learning scenarios
- School administration
- Information management

### RESEARCH SIGNIFICANCE

The computerization of the current system will have an impact on the way the students access their results and, how it is managed and generated by the institution's employees. The system will make the life much easier for the institution as they will be able to store data much better than how they were able to do earlier. The students will have a smart management of their results and will be able to keep track of their progress with an ease of access, from anywhere, anytime and any device that has an internet connection, and just by entering their respective credentials provided by the institution, the students could easily access and print them. This avoids the teachers from doing all the work manually, and have a better work quality and management that would reduce time, human effort and errors.

### **METHODOLOGY**

The tools used for physical and database design are: Unified Modeling Language (UML) diagrams for description of the class diagram, and Entity-Relationship Diagrams (ERD) used for the design of the database table structures. The description covers the logical and database Structural designs as well as its database normalization. The entire web-based program is designed and developed with object-oriented codes, mainly with server side PHP scripts.

The application will be developed in the form of a database, using a Database Management System (DBMS). The decision to implement the application in the form of a database was informed by the consideration that various types of data would need to be held, and a database approach would be more appropriate due to the advantages that the database file system has over other forms of file systems. A database management system permits organizations to efficiently create databases for will be used to create the database tables and Personal Home Page Pre-Processor (PHP), a Scripting language to communicate with and manipulate the database. The primary features of the PHP are that it is object-oriented and a cross platform language. By cross platform, it means that the programs can run across several platforms such as Microsoft Windows, Apple Macintosh, Linux, and so on.

## METHOD OF DATA COLLECTION

A thorough investigation of the current system was carried out in order to obtain detailed information about the application area to be designed. In the course of our findings, several effective methods of information gathering or data collection were employed which include: interviewing the examination officers; discussion with pertinent stakeholders of the system such as the HODs and lecturers; evaluation and inspection of relevant documents such as result reporting sheet, raw score samples, and transcript format.

## **CHAPTER 3**

### PROPOSED SYSTEM

### PURPOSE OF THE PROJECT

The main purpose of this project to develop an institutional activities by computerized system that will manage the activities in student result system thereby providing easy access to students result data for administration, faculty/teacher and student. It will also help to keep data secured and reduce time to find out student data which may be occurred into conventional exam result paper

### **SCOPE**

The study aims at developing and implementing a web-based Student Result management system (SRMS) for the schools in rural areas, replacing the old manually done paper work and to minimize the security issues and the problems it possesses. The proposed is a multi-user system, developed using php language with XAMPP Server and MySQL DBMS (Database Management System) Support. The system is confined to and intended for the students. They possess privileges to heck their results after he/she is provided with a specific roll id and class. The entire system is managed by a system administrator, who possesses the full control of the system. Automatically and each student will have access to their results only, using their respective Details.

The whole system is controlled by institutional administration. Administration section will edit and update this system and they have the permit to view whole system.

Lastly end users are students. They can check their result by giving their credentials (Student Id and Class) in this system. They could not update/edit something. But they can get there result report with fully formatted design and format.

## **OUR SYSTEM**

Although most of the institute (college/University) now follow to computerized result management system but most of the other schools or rural side colleges still follow conventional paper based result still now. That is not an easy way. May be the paper will be lost or damaged by another way. And when need a student record, it is not an easy way to find out this.

So, to develop a management system will be managed different things in a single way.

- Login System only for admin.
- It can manage information about students.
- It can manage information about subjects offered in different classes
- Not only it will record a student result for a time but also it could be update/delete when need.
- And more important thing is, Whole system is secured and little bit chance to lost information.
- This system have User friendly interface
- It has Less load on Administration
- System have Fast access to database
- Search facility
- Easy to update and delete
- Generation of result Report
- Password Protection

## **SYSTEM ENVIRONMENT**

## **Hardware Configuration**

- 1. Pentium IV Processor or higher
- 2.512 MB RAM or more
- 3.40GB HDD or more
- 4. 1024 X 768 Resolution Color Monitor or more

### **Software Configuration**

- 1. OS: Windows XP, Linux
- 2. PHP (PHP5.6, MySQL, Apache, and PHPMyAdmin, code editor)
- 3. Browser: Chrome or any

#### **DESIGN**

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization.

Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software.

The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made.

These decisions have the final bearing upon reliability and maintainability of the system. Design is the only way to accurately translate the customer's requirements into finished software or a system.

Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data.

## **CHAPTER 4**

### SYSTEM ANALYSIS AND DESIGN

## **INTRODUCTION**

Framework is an efficient gathering of related segments connected together as indicated by an arrangement to accomplish a particular goal. System analysis is a critical thinking strategy that includes taking a gander at the more extensive framework, breaking separated the parts, and making sense of how it functions so as to accomplish a specific objective. And System Design is the way toward characterizing the engineering, segments, and information of a system to fulfill indicated necessities. In this section, Data flow diagram, Use case diagram, ER diagram and different parts are portrayed extensively.

## **REQUIREMENT ANALYSIS**

Student Result management system (SRMS) is a web platform for students, where they can easily find out their whole result and print. It is a platform for performing different activities such as result history, student information, and student contact with administrator platform. In this platform there are two actors:

- 1. Administrator
- 2. Student

## PROCESS REQUIREMENT

The following process requirement have been recognized for the system.

- A valid login is required for playing out the entirety of the features.
- Administrator can edit student information to the database.
- Administrator can make search for a specific student
- Administrator can add/update/delete whole system features.

## **Context Diagram 0**

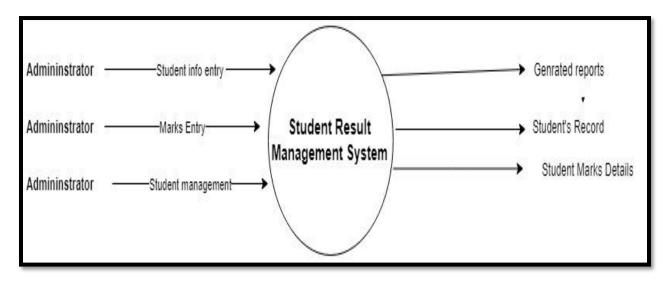


Figure 1 this diagram shows how the system works

## **Context Diagram 1**

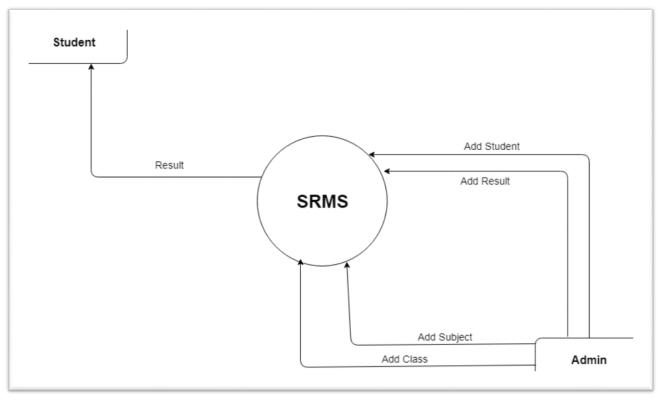


Figure 2 this diagram shows how the admin updates the data and how the student get the result

## **Student Use Case Diagram**

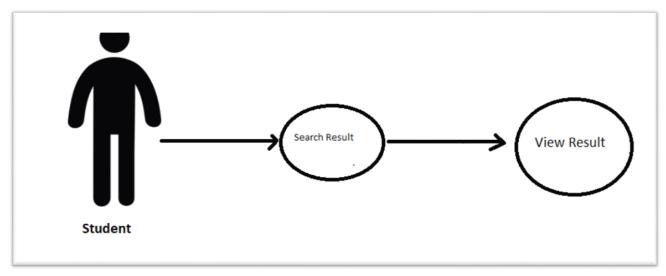


Figure 3 this diagram shows the path of student to get his result

### **Admin Use Case Diagram**

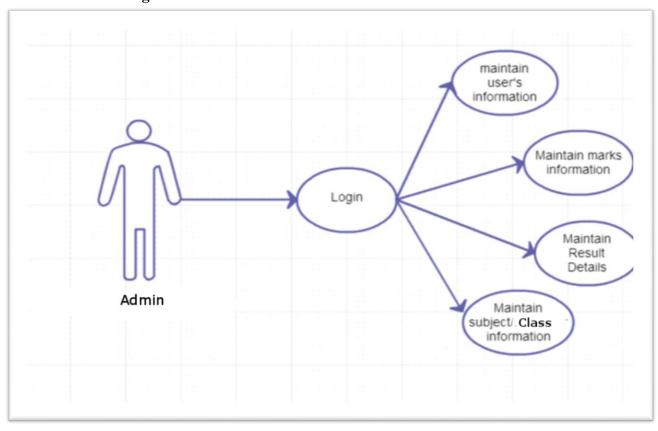


Figure 4 This Diagram Shows how the admin maintain all the fields

## **ENTITY RELATIONSHIP (ER)**

Entity Relationship Diagram (ERD) shows the relationship of element sets put away in an information base. ER Diagram in database engineering guarantees to produce high-quality database design to use in database creation, management, and maintenance. An element in this setting is an item, a part of information. An element set is an assortment of comparable elements. These elements can have characteristics that characterize its properties.

### Here is the ER-Diagram of this proposed system

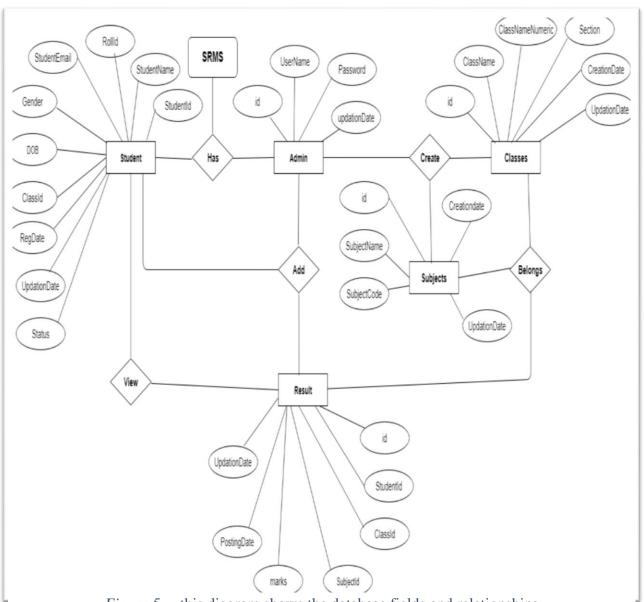


Figure 5 this diagram shows the database fields and relationships

## **DATABASE DESIGN**

Student Result management system (SRMS) contains 6 MySQL tables:

admin: This tables stores admin login details.

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra
1	id 🔑	int(11)			No	None		AUTO_INCREMENT
2	UserName	varchar(100)	latin1_swedish_ci		Yes	NULL		
3	Password	varchar(100)	latin1_swedish_ci		Yes	NULL		
4	updationDate	timestamp			Yes	NULL		

Table 1

**tblclasses:** This tables stores class information.

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra
1	id 🔑	int(11)			No	None		AUTO_INCREMENT
2	ClassName	varchar(80)	latin1_swedish_ci		Yes	NULL		
3	ClassNameNumeric	int(4)			Yes	NULL		
4	Section	varchar(5)	latin1_swedish_ci		Yes	NULL		
5	CreationDate	timestamp			Yes	current_timestamp()		
6	UpdationDate	timestamp			Yes	NULL		

Table 2

tblsubjects: This table store subject details.

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra
1	id 🔑	int(11)			No	None		AUTO_INCREMENT
2	SubjectName	varchar(100)	latin1_swedish_ci		No	None		
3	SubjectCode	varchar(100)	latin1_swedish_ci		Yes	NULL		
4	Creationdate	timestamp			Yes	current_timestamp()		
5	UpdationDate	timestamp			Yes	NULL		

Table 3

## Tblsubjectcombination: This Table stores class and subject combination details.

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra
1	id 🔎	int(11)			No	None		AUTO_INCREMENT
2	ClassId	int(11)			Yes	NULL		
3	SubjectId	int(11)			Yes	NULL		
4	status	int(1)			Yes	NULL		
5	CreationDate	timestamp			Yes	current_timestamp()		
6	Updationdate	timestamp			Yes	NULL		ON UPDATE CURRENT_TIMESTAMP()

Table 4

### **tblstudents:** This table stores student details.

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra
1	StudentId 🔑	int(11)			No	None		AUTO_INCREMENT
2	StudentName	varchar(100)	latin1_swedish_ci		Yes	NULL		
3	Rollid	varchar(100)	latin1_swedish_ci		Yes	NULL		
4	StudentEmail	varchar(100)	latin1_swedish_ci		Yes	NULL		
5	Gender	varchar(10)	latin1_swedish_ci		Yes	NULL		
6	DOB	varchar(100)	latin1_swedish_ci		Yes	NULL		
7	ClassId	int(11)			Yes	NULL		
8	RegDate	timestamp			Yes	current_timestamp()		
9	UpdationDate	timestamp			Yes	NULL		
10	Status	int(1)			Yes	NULL		

Table 5

## **tblresult:** This stores the result details.

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra
1	id 🔑	int(11)			No	None		AUTO_INCREMENT
2	Studentld	int(11)			Yes	NULL		
3	ClassId	int(11)			Yes	NULL		
4	SubjectId	int(11)			Yes	NULL		
5	marks	int(11)			Yes	NULL		
6	PostingDate	timestamp			Yes	current_timestamp()		
7	UpdationDate	timestamp			Yes	NULL		

Table 6

### Relationship Diagram between Tables

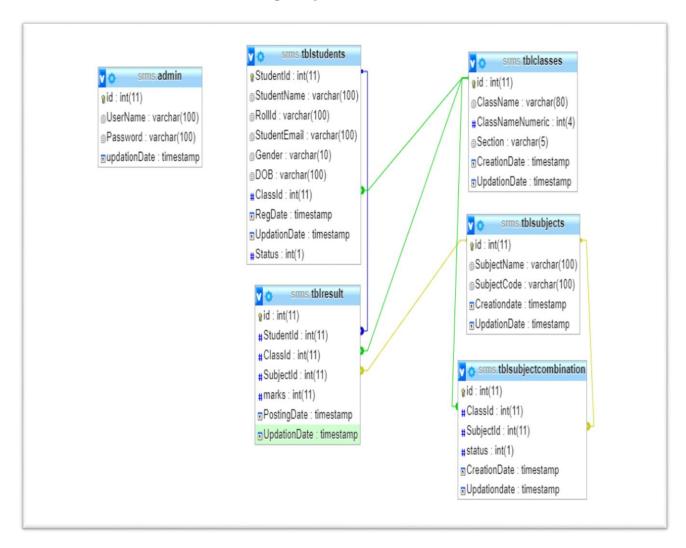


Figure 6

# **CHAPTER 5**

### **IMPLEMENTATION**

### INTRODUCTION

Several open source tools, Programming Languages and Database have been used here to complement and improve this system.

- 1. Sublime text and code editor
- 2. XAMPP cross-platform web server
- 3. MySQL as web server Database

### **DATABASE**

• MySQL, is an open-source relational database management system used for storing data.

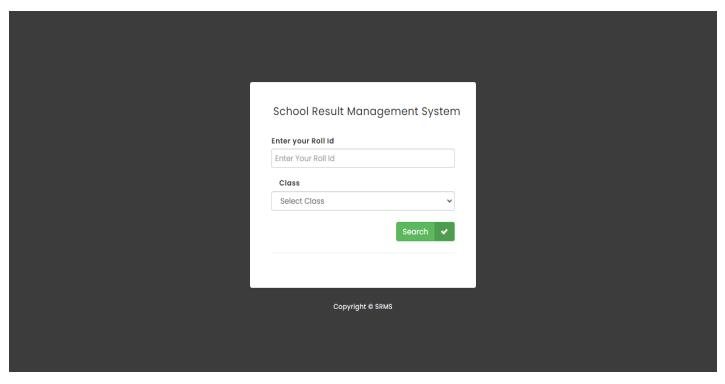
### PROGRAMMING LANGUAGE

- CSS, Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language like HTML.
- HTML, Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser.
- Bootstrap, contains CSS- and JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.
- PHP, hypertext preprocessor is used for backend development
- JavaScript, Used for Animations and login authentication and session management.
- Some online 3<sup>rd</sup> party resources are used to get the job done.

## **USER INTERFACE**

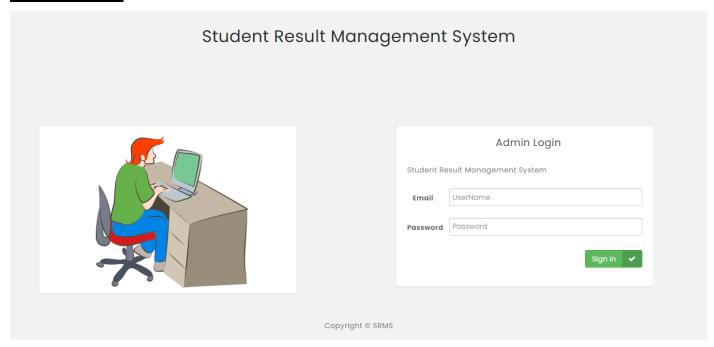
In data innovation, the user interface is everything into a data information with which an individual may cooperate. This can incorporate presentation screens, peripherals gadgets and appearance of a work area. It is likewise a path through which a client cooperates with an application or site.

#### **HOMEPAGE**



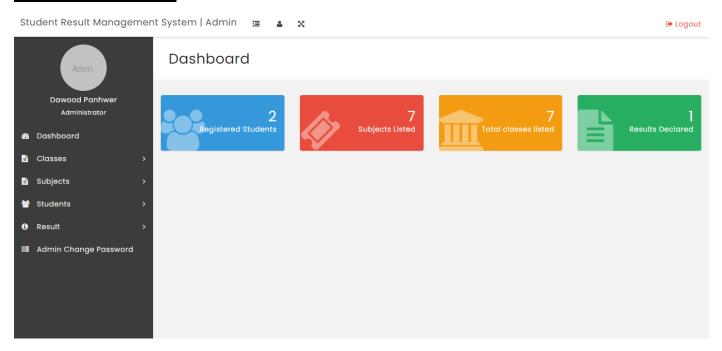
Screen 1 Shows the screen where a student can search the result

### **ADMIN LOGIN**



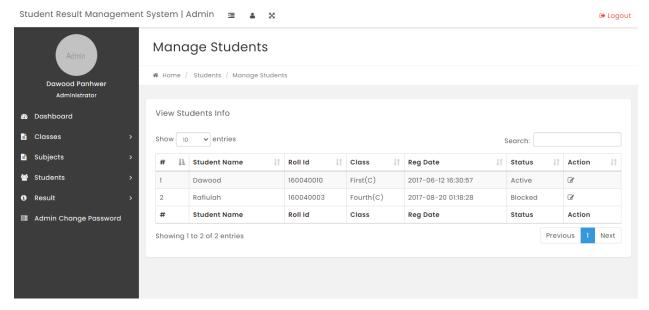
Screen 2 in this screen shows how the admin logins

#### **ADMIN DASHBOARD**



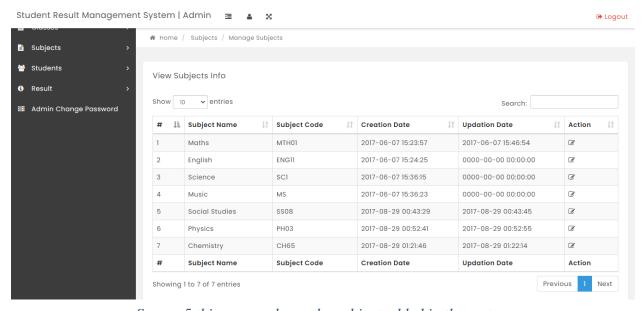
Screen 3 this screen shows the main dashboard of the admin panel

#### **REGISTERED STUDENTS PAGE**



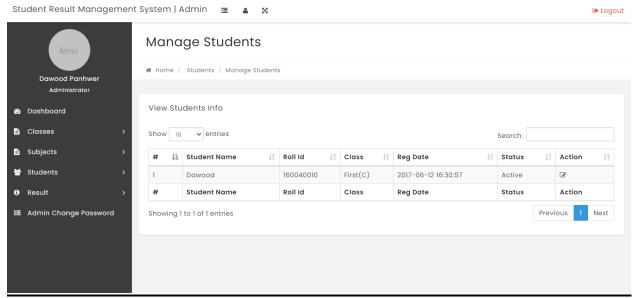
Screen 4 this screen shows the managing of the students

#### **SUBJECTS LISTED PAGE**



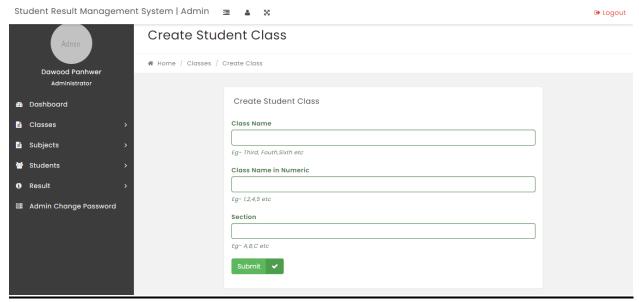
Screen 5 this screen shows the subject added in the system

#### **RESULT DECLARED PAGE**



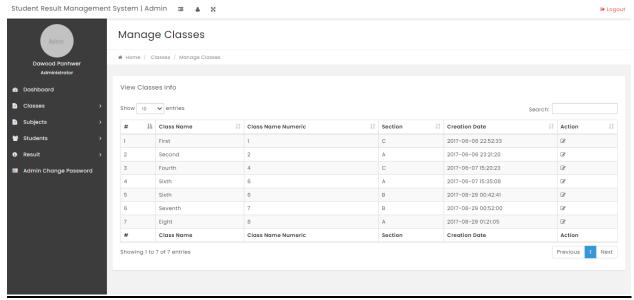
Screen 6 this screen shows the students whose result is decleared

#### **CREATE CLASS PAGE**



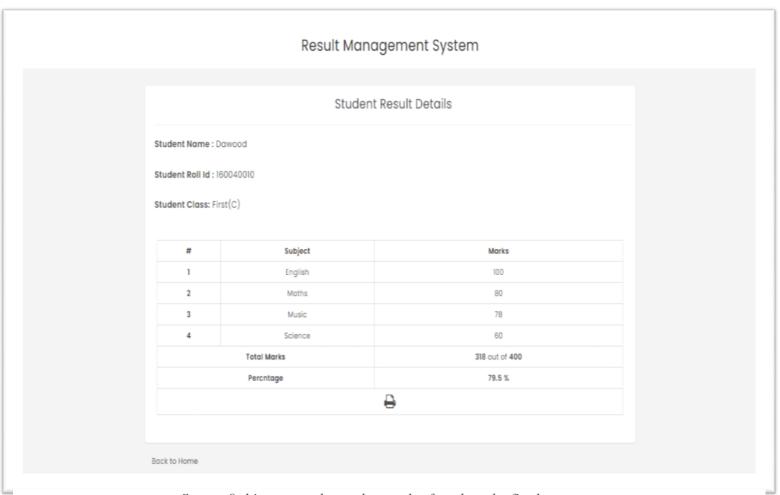
Screen 7 this screen shows the how admin can create new class

### **MANAGE CLASSES PAGE**



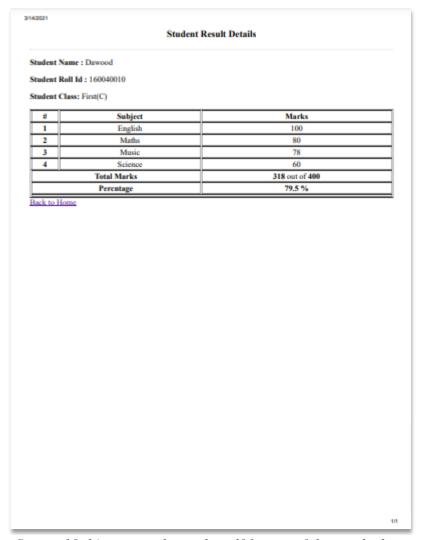
Screen 8 this screen shows the how admin can manage classes

## STUDENT RESULT



Screen 9 this screen shows the result of student the final outcome

## **Result Sheet PDF**



Screen 10 this screen shows the pdf format of the result sheet

# **CHAPTER 6**

### **CONCLUSION**

Student Result management system (SRMS) lead to a better organization structure since the Result management of the students is well structured and also lead to better as well as efficient utilization of resources.

The system is designed to achieve maximum user satisfaction. The goal of this system is to make it easier for teachers and students to keep up with the times. This will definitely make the institute authorities more comfortable as they do not have to think of keeping the results of their students on a conventional paper.

Student Result management system (SRMS) can be utilized by training foundations to keep up the records of understudies without any problem. Accomplishing this goal is troublesome utilizing a manual framework as the data is dissipated, can be repetitive and gathering significant data might be very tedious. Every one of these issues are understood utilizing this venture.

The project will be upgraded and extended in the following features:

- Improving the design, implementation, and documentation in such a way that anyone can use this project for better performance.
- Anyone can give more data input to the data server if they want. This will make the database stronger.
- The web here is very commonly displayed. It can be further equipped.
- The Web page can be made lighter so that with low internet speed that page can be browsed
- Bio-metric attendance system will be implemented.
- We will add new user as Teacher
- Teacher can view the list of students assigned to them.
- Sign up option for new user

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