

ONLINE RESULT MANAGEMENT SYSTEM

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This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Computer Science and Engineering

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APPROVAL

This Project titled “**Online Result Management system**”, Submitted by. **Teertha Mazumder, ID No:162-15-7818 and Progga Irin Mim, ID No:163-15-8508** to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 14 September 2019.

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We hereby declare that, this project has been done by us under the supervision of **Md. Swakshar Mahmud, Lecturer, Department of CSE, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree..

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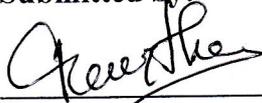
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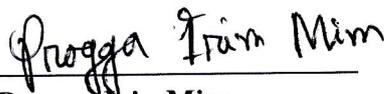


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ABSTRACT

In modern age where computer and Internet has become a way of life, with the fast changing technology, a majority of the Organizations still do not adapt the high technology. So we need to fully automate our existing manual system, and thus comes the concept of computerization. Online Result Management System is one of them. Particularly in most polytechnic Institute facilities, daily clinic activities are still done on paper. Online Result management system could be a great help for the students, where a teacher can make a tabulation of individual student with the help of a computer through internet connection. This system covers Teachers Details, Students Records, Online marks sheet, etc. a system that is fully automated, user-friendly, time effective and efficient. After implementation of all functions, the system is tested in different ways and the output is found in desired format.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Over populated Country like Bangladesh where population is increasing day by day, but every works on every sector is not digital yet .For that result sometimes we face different kinds of trouble where the works need to complete with adjustment of time. But we could not cause of lack of technological development. If we consider the educational system it will be a good example where we can say this is not updated yet. And on the educational site polytechnic institute are not capable enough to walk with our modern generation that's why I proposed **Online Student Result Management system of Polytechnic Institute** which is fully automated and operates through internet. Using this system teacher can make an tabulation sheet through online and can print the student's history and make online transcripts for a particular student.

1.2 Existing System

At present time people in Bangladesh like Teachers and students have become more conscious and are taking necessary steps to ensure that they have a digital technology to fulfil the print of tabulation sheet. – that is why everyday many student come to university for check-ups their update marks to the teacher. But in our country students spend a substantial amount of time in universities to get a marks sheet manually one by one teacher for a tabulation sheet. We observe that the main problem in Result management system at present time all polytechnic institute or Diploma course maintain their student serial manually. Particularly in most polytechnic institute facilities, daily marks sheet transactions are still done on paper.

1.3 Proposed System

The Proposed system of the project will emulate the existing paper based system of a polytechnic institute and it will help the student to make an marks sheet in online .The system allow the teachers to browse the students information. To make an marks sheet the teachers need to log in by using the User ID and Password, which are given during the registration on the website. It gives the opportunity to the admin to create user,

delete user and to see the student list and it will increase the working performance all of the institute. A student can easily check his/her result details by using this system.

1.4 Methodology to be used for this project

Using this method a teacher can make marks sheet through internet using online result management system. Once the teachers finished their entries the information of that particular students will saved in the system database. An admin or teacher can retrieve that information from the server and also can get the whole student's marks list. A teacher can make tabulation with the software and store history of the admitted students as well.

1.5 Aim of this project

Main aim is to develop an **Online Result Management System** successfully, which will be a fully automated. The goal of this project is to make every task of the student and teacher about the marks sheet of the student much easier than the present system. This system will ensure that, the student can get their tabulation without any harassment.

CHAPTER 2

SYSTEM REVIEW

2.1 Online student result management system

Online result management system is the automatic web based enactment system. There is no need to install the application. All you have to need a web site, domain name and a host to upload the website. To make appointment or prescription user get request from the server and saves or retrieves data format or enter the data system. And appeared information required in the browser windows.

2.2 Accomplishment challenges

The type of task are challenges of accomplishment which is actually very tough to overcome. Thus problem can be corrected. Lots of challenges came modified by the online result management system such as teachers availability, students data collection, tabulation data collection, to retrain the result system with the tabulation making etc.

2.3 Benefits of the project

Using online doctor appointment management system, a patient can give online appointment without going to doctor's chamber physically and also will get all information about a specific doctor. A doctor can also get the patients appointment list for each day and can make a prescription as well. Our online patient management system will be able to performed like

- Information about Student.
- Student admission.
- Semester/Department wise student list.
- Student marks entry by class teacher.
- Print Mark Sheet.
- Print Tabulation Sheet

2.4 Information about student

A student or general user can search over internet to get information about their result by using our online result management system. If a teacher enter the marks/total query

about a student like which subject they want to see their result .It will be helpful for them to get the whole result. It is very easy and convenient to inquiry about their result, using this system without go to course teacher or college.

2.5 Student Admission

Student admission is the easiest way to admit without hassle. Using result management system a student can make online online admission with the desired subject he/she wants to admit. All they need a computer with internet connection to get this facility. And now a day's internet connection is very economical in our country which is a vital point for our project.

2.6 Marks Entry by Class teacher

For using this system in the admin level, a user must be created or registered. To complete this task a general blank form needs to be filled with user information, Student ID and Information. A teacher can modify the entered data or information about them with the help of administration later. Administration has all the rights to delete any Student and create them.

2.7 Make Marks Sheet

nce the teacher finished to give their marks all information of students will store system database. When a teacher log in his/her account he/she can see all result each of single student .From that list if teacher want he/she can print any of them result or all of them.

2.8 Make Tabulation Sheet

Teacher can make tabulation sheet with the help of our online software tool. They do not need to write any entity of marks on the paper. All they have to do is select a format of the tabulation sheet and set the student id and technology and then click select. Online tabulation sheet making is very time saving and convenient for a teacher.

CHAPTER 3

TECHNOLOGIES USED IN THE PROJECT

3.1 Introduction

Whole system proceeding totally dynamic web rule based. By doing this system, we utilize some web programming language are HTML, CSS, JAVASCRIPT, and PHP, MYSQL. If someone concerned in achieving particular and complete intuition into the PHP language and MYSQL database server and to create database, dynamic driven web application, this project will be very helpful for them. The important technologies will be essential to make all of these.

3.2 HTML and CSS overview

HTML is W3C based for improving intersect browser suited web system. The fuses of all elements of display of HTML with few of the action of XML. By burst open the a web designer to create a program more sincerely and adhere the code strict ideal, HTML permits a huge percentage of code and browser parser to correctly parse our report. In less geeky session, it means large people can see our site the way we meant for them to observe this, and small percentage of people see our site with material strewn entire our pages. For abbreviating the presentation CSS is the perfect language of Web pages, layout, adding colors, and fonts. This accept one to modify the presentation to various types of accessories, alike big screens, little screens, or printers. CSS is self standing of HTML and can be useful for work with any XML-based markup language. The differentiation of HTML from CSS creates it not difficult to conserve sites, provide style sheets across files, and tailor pages to different circumstance. This is referred to as the differentiation of structure from presentation.

3.3 Introduction to the PHP Language and the OOP Concept

Encapsulation is the mechanism to bind data and actions and hide it from outside world. PHP class does the same. we have private, protected and public access to data members. We can restrict and use setter and getter methods to access them. Abstract class is to create a template so that all the sub classes should implement abstract methods or mark themselves as abstract. We can't create objects for abstract classes.

Abstract methods are methods definitions without implementations. PHP implements this using “abstract” key word, we can mark methods and classes as abstract.

3.3.1 PHP Language

PHP based out as a little open source project which developed as huge and more public can find out how essential it is!.Rasmus Lerdorf unleashed the start-up version of PHP way back in 1994.

- PHP is a intake acronym for "PHP: Hypertext Pre-processor".
- PHP is the web site scrawl language which is absorbed in HTML. It's worked for maintain dynamic content, databases, session tracking, even build entire e-commerce sites.
- This is pointed to with a number of famous databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.
- PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.
- PHP supports a huge number of major procedure such as POP3, IMAP, and LDAP. PHP4 added support for Java and distributed object architectures (COM and CORBA), making n-tier development a possibility for the first time.
- PHP is forgiving: PHP language tries to be as forgiving as possible.
- PHP Syntax is C-Like.

Uses of PHP

- PHP acts system functions, i.e. from files on a system it can generate, maintain, enclose, editing, and disclose them.
- PHP can handle forms, i.e. gather data from documents, prevent data to a file, by using email we can send data, return data to the user.
- We can add, delete, modify any components within your database through PHP.
- Entrance cookies variables and put cookies.
- By the using PHP, we can limit users to access some pages of your website.
- PHP can inscribe data.

Features of PHP

Most essential characteristics that make PHP's practical nature possible –

- Clarity
- Productivity
- Certainty
- Pliability
- Acquaintance

3.3.2 Object Oriented Programming Concept

An Object Oriented programming is a programming way which is connected with the notions like category, gadget, legacy, summarization, distraction, diversity etc. Most familiar programming languages like PHP, Java C++, C#, Ruby, etc. follow an object-oriented programming pattern. Though PHP being the highly sought-after skill, we will talk about object-oriented programming conception in PHP. An object-based application in PHP is situated on proclaiming classes, building objects from them and interchange between those particular object.

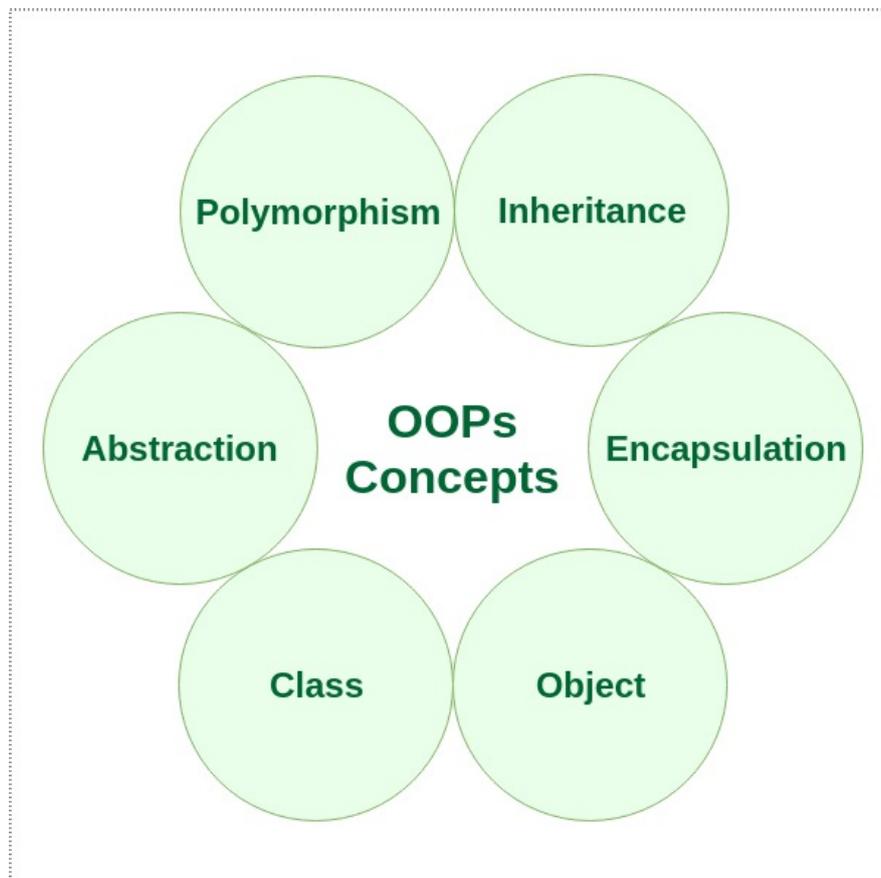


Figure 3.1: Object Oriented Programming Concept

3.4 INTRODUCTION TO PHPMYADMIN

3.4.1 What is SQL?

Structured Query Language (SQL) is a standard computer language for relational database management and data manipulation. SQL is used to query, insert, update and modify data. Most relational databases support SQL, which is an added benefit for database administrators (DBAs), as they are often required to support databases across several different platforms.

First developed in the early 1970s at IBM by Raymond Boyce and Donald Chamberlin, SQL was commercially released by Relational Software Inc. (now known as Oracle Corporation) in 1979. The current standard SQL version is voluntary, vendor-compliant and monitored by the American National Standards Institute (ANSI). Most major vendors also have proprietary versions that are incorporated and built on ANSI SQL, e.g., SQL*Plus (Oracle), and Transact-SQL (T-SQL) (Microsoft).

3.4.2 Why SQL?

- Allows users to access data in relational database management systems.
- Allows users to describe the data.
- Allows users to define the data in database and manipulate that data.
- Allows to embed within other languages using SQL modules, libraries & pre-compilers.
- Allows users to create and drop databases and tables.
- Allows users to create view, stored procedure, functions in a database.
- Allows users to set permissions on tables, procedures, and views

3.4.3 SQL Process

When you are executing an SQL command for any RDBMS, the system determines the best way to carry out your request and SQL engine figures out how to interpret the task.

There are various components included in the process. These components are Query Dispatcher, Optimization Engines, Classic Query Engine and SQL Query Engine, etc. Classic query engine handles all non-SQL queries but SQL query engine won't handle logical files.

Following is a simple diagram showing SQL Architecture:

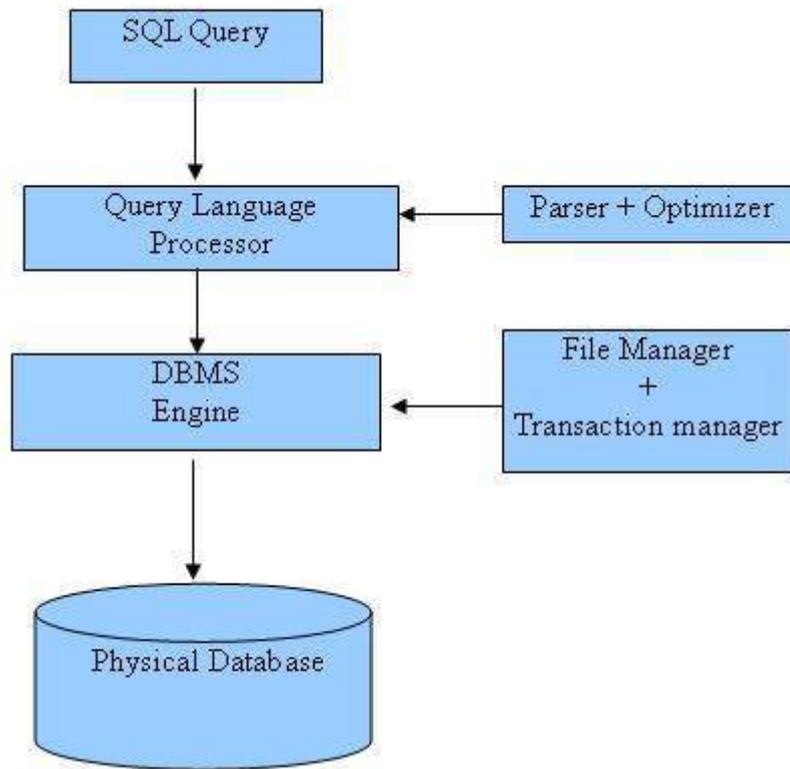


Figure 3.2: SQL Process

This is how total procedure of SQL process is working in that particular segment and we know this total process is worked on that procedure.

CHAPTER 4

SYSTEM USE CASE OVERVIEW

4.1 What is use case?

Use case diagrams are able to identify a set of actions that some system or systems should or perform in collaboration with external user of the system. More specifically, a use case describes a sequence of actions that provided something of measurable value to an actor and is drawn as a horizontal ellipse. The most common parts of a use case are actor, association, system boundary and packages. Our online patients management system is consist of many subsystems and each one contains an individual use case. The subsystems are:

- Admin use case
- Teacher use case
- Make prescription.

4.2 Admin use case

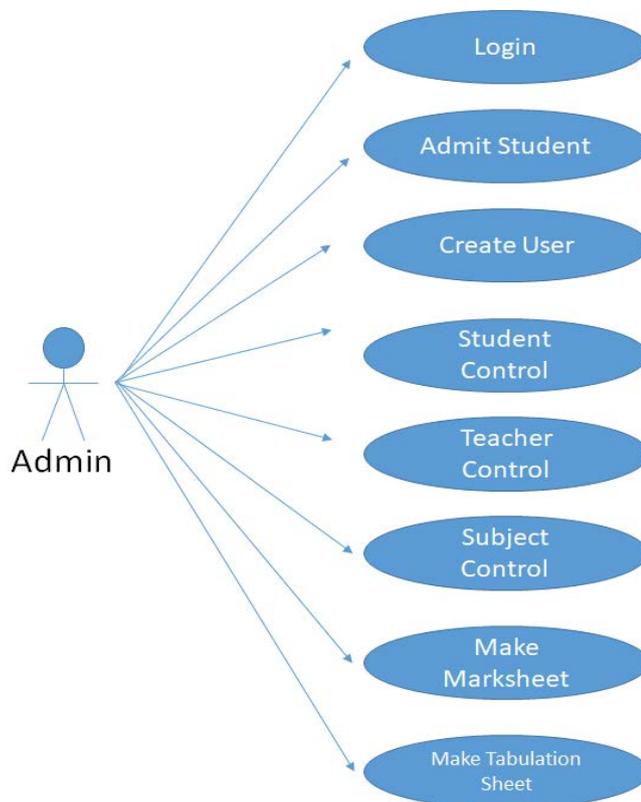


Figure 4.1: Admin use case

A admin can make an admission using this subsystem. Once the admission is confirmed in the system, a confirmation will be appeared on the screen which is print able.

Step by step description

1. Put the student's name, Id, technology and address on the information fields.
2. Go to student control for giving subject for particular technology .
3. Then posting a teacher for that particular subject.
4. Wait for teacher's marks entry.
5. Make marks sheet for individual student.
6. Print marks sheet.

4.3 Teacher use case

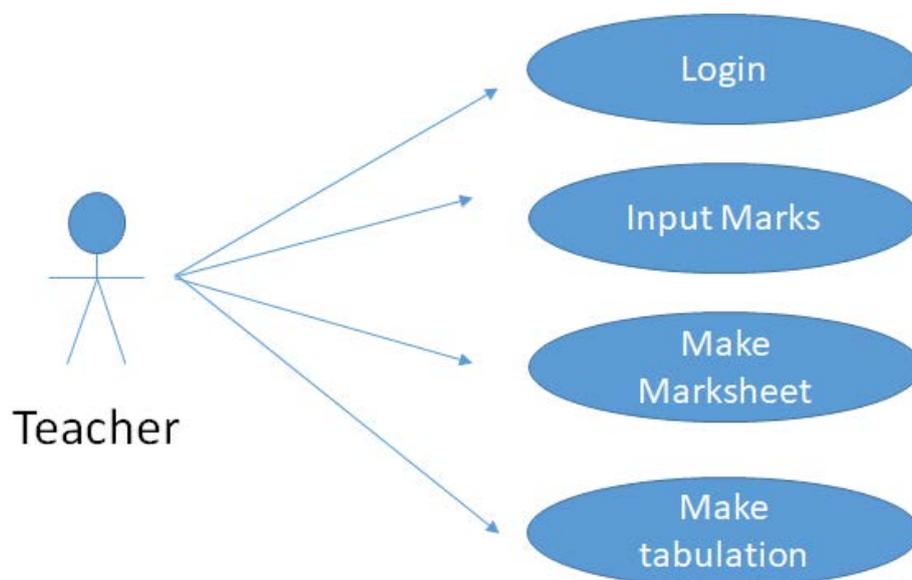


Figure 4.2: Teacher use case

In the system, after login teacher all the information of the students will see the teacher and according to performance teacher will enter students marks and according to performance teacher will make the tabulation.

Step by step description

1. Teacher needs to login.
2. Put all marks of student.
3. Make marks sheet for each of the student.
4. Make a Tabulation.

CHAPTER 5

DATABASE SYSTEM

5.1 Overview of database system

Database server made with a program of computer and this give us database services to other computers. Actually it based on the server of client model. Here this process is worked to refer system database relevance using server architecture model by use this term or procedure. For the back-ends for a sort time it called a database server. Database server works on tasks as data analysis, storage, data-manipulation, archiving, backup and recovery also. In this lesson, we will explore about our server database system which is beneficial for our project; we take advantage of SQL server for our project.

5.2 Advantage for using MySQL

My SQL is worldly declared for being the most sensitive, taut and reliable database management system take advantages of famous web-based applications adding Word Press, Drupal, Facebook and Twitter. MySQL refers unmatched flexibility to make easy the management of deeply implant apps using a smaller footprint, even in huge warehouses that store terabytes of data. On-demand pliability is the star characteristic of My SQL. My SQL pliability a distinct storage-engine framework that provision system administrators to build the My SQL database server for a flawless act. Though it is an e Commerce website that collects a million queries every single moment or a high-speed transforming processing system, My SQL is the outline to meet even the most testing applications while shield optimum speed, full-text clues and unique memory caches for magnify performance.

5.3 Online Student Result management database module

The protocol of our system is fully designed an developing on an online module system. It uses MYSQL the whole system developed with PHP and PHP is totally comfortable with SQL database server. Firstly we developed our total database design that means, quantity of entity and attributes are essential for our system, and then we choose the remark about the integrity and choose acerbity. Lastly we build our total database module.

5.4 Total ERD for building our system

Last result of ER-modeling is called the ER-Diagrams (ERD). ER-modeling is a development modeling techniques used in software engineering to create a hypothetical data modeling of a details system. All the diagrams are using this ER-modeling technique which are called Entity-Relationship Diagrams, or ER diagrams or ERDs. So from here anyone can say that the total Entity Relationship Diagrams decorate the logical structure of databases. Dr. Peter Chen is the creator of the Entity-Relationship Model. His original paper about ER-modeling is one of the most specific papers in the computer software field. Currently the ER model carries out as the invention of many protocols analysis and design methodologies, computer-aided software engineering (CASE) tools, and store place of the systems.

5.5 Tables used in our system

This picture that is taken from our system database after creating all tables:-

Table	Action	Rows	Type	Collation	Size	Overhead
65711	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 KiB	-
65712	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 KiB	-
65812	Browse Structure Search Insert Empty Drop	2	MyISAM	latin1_swedish_ci	2 KiB	-
65911	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 KiB	-
65912	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 KiB	-
66611	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 KiB	-
66712	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 KiB	-
semester	Browse Structure Search Insert Empty Drop	3	InnoDB	latin1_swedish_ci	16 KiB	-
session	Browse Structure Search Insert Empty Drop	6	InnoDB	latin1_swedish_ci	16 KiB	-
studentinformation	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	64 KiB	-
subject	Browse Structure Search Insert Empty Drop	7	InnoDB	latin1_swedish_ci	16 KiB	-
subjectcontrol	Browse Structure Search Insert Empty Drop	7	InnoDB	latin1_swedish_ci	16 KiB	-
technology	Browse Structure Search Insert Empty Drop	10	InnoDB	latin1_swedish_ci	16 KiB	-
users	Browse Structure Search Insert Empty Drop	2	InnoDB	latin1_swedish_ci	16 KiB	-
userssubject	Browse Structure Search Insert Empty Drop	7	InnoDB	latin1_swedish_ci	16 KiB	-
15 tables	Sum	58	InnoDB	latin1_swedish_ci	274 KiB	0 B

Figure 5.1: Total Database Table

In Figure shows, Total Fifteen table designed for online student result management system database. These are semester, session, student information, subject, subject control, technology, users, user subject and subject code table(65711,65712 etc) table.

5.6 Design and description of all total database table:-

5.6.1 User Registration table design

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(4)			No	None		AUTO_INCREMENT	Change Drop More
2	roll	int(8)			No	None			Change Drop More
3	registrationNo	int(8)			No	None			Change Drop More
4	sessionId	int(2)			No	None			Change Drop More
5	technologyId	int(4)			No	None			Change Drop More
6	shift	int(1)			No	None			Change Drop More
7	semesterId	int(1)			No	None			Change Drop More
8	name	varchar(30)	latin1_swedish_ci		No	None			Change Drop More
9	fatherName	varchar(30)	latin1_swedish_ci		Yes	NULL			Change Drop More
10	motherName	varchar(30)	latin1_swedish_ci		Yes	NULL			Change Drop More
11	irregular	tinyint(1)			Yes	0			Change Drop More

Figure 5.2: Student Information Table

In Figureure shows, this table is design for user registration. User can register the system by using their father-name, mother-name, Id, roll, registration number, technology, semester Id and session Id. All information will save system database and system will give a login id to login their course teacher account. After login the account teacher can make a tabulation sheet.

5.6.2 Technology Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	technologyId	int(3)			No	None		AUTO_INCREMENT	Change Drop More
2	technologyCode	varchar(6)	latin1_swedish_ci		No	None			Change Drop More
3	technologyName	varchar(40)	latin1_swedish_ci		No	None			Change Drop More

Figure 5.3: Technology Table

In Figurer shows the technology Id, code, name and its attributes. Technology table stores information about student's technology of the system. Academic info table is needed to store all academic information about the employees in the creation of user and technology table store all technology related information.

5.6.3 Session table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	sessionId	int(2)		No	None		AUTO_INCREMENT	
<input type="checkbox"/>	2	session	varchar(7)	latin1_swedish_ci	No	None			

Figure 5.4 : Session Table

In Figurer shows the session Id, session period student profile info entity and its attributes as well as. User table stores all information of all users of the system, user profile saves all the user brief history like student Id, their session and session profile table is needed to ensure a student when the student come to admit to the particular academy.

5.6.4 Semester Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	sessionId	int(2)		No	None		AUTO_INCREMENT	
<input type="checkbox"/>	2	session	varchar(7)	latin1_swedish_ci	No	None			

Figure 5.5: Semester Table

In this Figurer show the semester Id, semester date and semester path as well as. Here semester table store all semester name and semester path the create a session id against semester name. There is a close connection between semester and session table.

5.6.5 Subject Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	subjectId	int(4)		No	None		AUTO_INCREMENT	
<input type="checkbox"/>	2	subjectCode	varchar(7)	latin1_swedish_ci	No	None			
<input type="checkbox"/>	3	subjectName	varchar(70)	latin1_swedish_ci	No	None			
<input type="checkbox"/>	4	tc	int(3)		Yes	NULL			
<input type="checkbox"/>	5	tf	int(3)		Yes	NULL			
<input type="checkbox"/>	6	pc	int(3)		Yes	NULL			
<input type="checkbox"/>	7	pf	int(3)		Yes	NULL			

Figure 5.6: Subject Table

In this Figureure show the subject Id, subject_code and subject_name, tc, tf, pc, pf as well as. Here, subject table sore subject_ID,code,name and its marks individual from subject_table. All column are return int data type.

5.6.6 Subject Control Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	subjectControlld		int(3)	No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2	subjectId		int(3)	No	None			Change Drop More
<input type="checkbox"/>	3	technologyId		int(2)	No	None			Change Drop More
<input type="checkbox"/>	4	sessionId		int(2)	No	None			Change Drop More
<input type="checkbox"/>	5	semesterId		int(2)	No	None			Change Drop More

Figure 5.7: Subject Control Table

In this Figureure show Subject control table which is actually controlled by admin.where the subject control table includes all the types of needed which is essential such as subject_control_Id, subject_id, technology_id,session_id and semester_id. When teacher or admin login website. Then put user name and password from database. And it will show all the details of a student.

5.6.7 User Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	userId		int(4)	No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2	type	latin1_swedish_ci	varchar(7)	Yes	NULL			Change Drop More
<input type="checkbox"/>	3	userEmail	latin1_swedish_ci	varchar(50)	No	None			Change Drop More
<input type="checkbox"/>	4	userPassword	latin1_swedish_ci	varchar(150)	No	None			Change Drop More

Figure 5.8: User Table

In this Figureure show User Id ,Type ,User email and User password . When any user (admin or teacher) login this system. If any teacher login the system , then his/her user role is teacher and any teacher login the system , then his/her user role is admin. When admin login system her/his show menu different.

5.6.8 User Control Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	userSubjectId	int(4)		No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/>	2	userId	int(4)		No	None			Change Drop More
<input type="checkbox"/>	3	subjectId	int(4)		Yes	NULL			Change Drop More
<input type="checkbox"/>	4	technologyId	int(2)		Yes	NULL			Change Drop More
<input type="checkbox"/>	5	sessionId	int(2)		Yes	NULL			Change Drop More
<input type="checkbox"/>	6	semesterId	int(2)		Yes	NULL			Change Drop More
<input type="checkbox"/>	7	shiftId	int(11)		Yes	NULL			Change Drop More

Figure 5.9: User Control Table

In this Figureure show User subject Id, User Id, Subject Id, Technology Id, Session Id, Semester Id and Shift Id. When any teacher wants to print tabulation for any student then all information will gather a tabulation sheet for a particular student.

5.6.9 Subject Code Details

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	roll	int(11)		No	None			Change Drop More
<input type="checkbox"/>	2	tc	int(11)		No	None			Change Drop More
<input type="checkbox"/>	3	tf	int(11)		No	None			Change Drop More
<input type="checkbox"/>	4	pc	int(11)		No	None			Change Drop More
<input type="checkbox"/>	5	pf	int(11)		No	None			Change Drop More

Figure 5.10: Subject Code Details

In this Figure show Roll, Tc, Tf, Pc, Pf which is include to subject control unit. Teacher put the acquire marks on that particular sector then save the data for students details table. If one or more marks are similar for one student then save different line but same student roll.

CHAPTER 6

DEVELOPMENT AND TESTING

6.1 Overview of development and testing

In this section; we will describe our total development process as well as the screenshot. First we design our total system, and then we designed our database system. Implementation is a very challenging task. As each module has described, it is must be checked out to remove any errors that means all demo design are tested. The Demo modules are then assembled to integrate to the real form of the system. When the integration is finished, the total system is being tested. Testing is one of the most important parts for a system or software. Testing the behaviour of the whole software/system as defined in software requirements specification (SRS) is known as system testing, its main focus is to verify that the customer requirements are fulfilled. System testing is done after integration testing is complete. System testing should test functional and non functional requirements of the software.

6.2 System testing hierarchy

As with almost any technical process, software testing has a prescribed order in which things should be done. The following is a list of software testing categories arranged in chronological order. These are the steps taken to fully test new software in preparation for marketing it:

- ✓ **Unit testing** – testing performed on each module or block of code during development. Unit testing is normally done by the programmer who writes the code.
- ✓ **Integration testing** – testing done before, during and after integration of a new module into the main software package. This involves testing of each individual code module. One piece of software can contain several modules which are often created by several different programmers. It is crucial to test each module's effect on the entire program model.
- ✓ **System testing** – testing done by a professional testing agent on the completed software product before it is introduced to the market

6.3 Total system for the admin/teacher

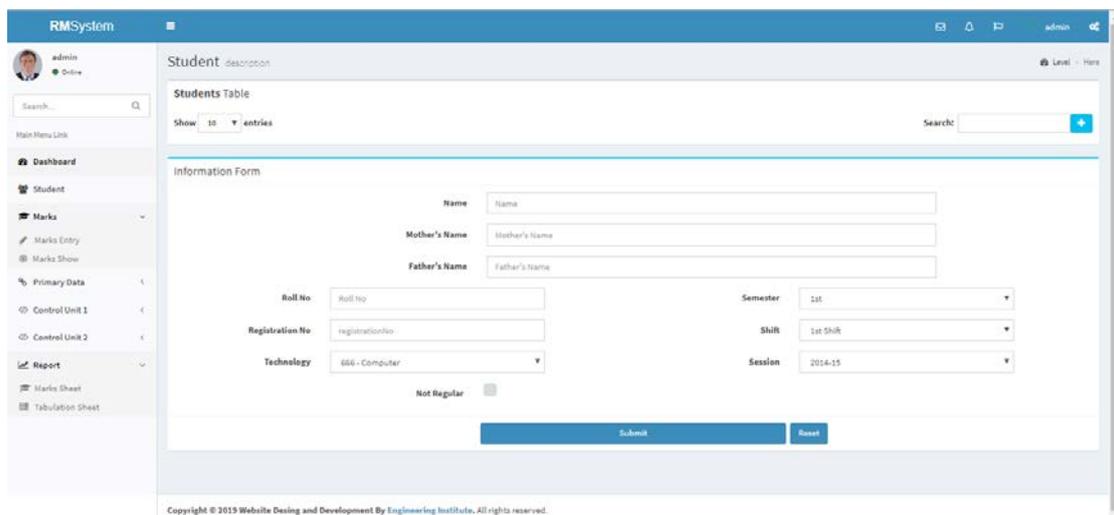
This is our Home page, when any teacher visits through this page he/she can know about our system, our services, about us, contact us. After making an appointment of a teacher he/she need to register in our system. After registration he/she will able to login by using email id and password. She/he can make an entity of marks of student for particular subject, gather information about our result and can print tabulation sheet about each of the single student.



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Figure 6.1: Home Page

6.3.1 Online Student Registration



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Figure 6.2: Online Student Registration Page

6.3.2 Student Information

All the students information will gather for a several purpose. For each of single student with proper identification there have 10 entities. For register each of them they must have to do several entity which will represent a student when we want to know about his/her semester result. Thus the all processing system will save all the students information will gather our database when we want to print their result this all entities will show. That is how we can maintain our details with proper security.

The screenshot displays the 'Student' information page in the RMSystem. The page features a sidebar menu on the left with options like Dashboard, Student, Marks, Primary Data, Control Unit 1, Control Unit 2, and Report. The main content area shows a table titled 'Students Table' with 16 entries. The table columns are Name, Father Name, Mother Name, Roll, Regl., Session, Technology, Semester, and Actions. The first 10 entries are visible, and the table is paginated to show 1 to 10 of 16 entries.

Name	Father Name	Mother Name	Roll	Regl.	Session	Technology	Semester	Actions
Taslima Akter			966962	827784	2017-18	Architecture & Interior Design	1st	
SHEKH NAYEM RAHMAN			966954	827792	2017-18	Computer	1st	
SAIKAT ISLAM SHAFOLLOW			966958	827788	2017-18	Computer	1st	
Rakib Hasan			966951	827795	2017-18	Computer	1st	
NAYEMUL ALAM SIFAT			966963	827783	2017-18	Computer	1st	
MEHEDI HASAN			966959	827787	2017-18	Computer	1st	
Md. Shohel Ahmed			966952	827794	2017-18	Computer	1st	
MD. SHAHARUK HOSSAIN SOHAN			966960	827786	2017-18	Computer	1st	
MD. FAHIM FOYSAL KHAN			966955	827791	2017-18	Computer	1st	
MD. ABTAHI AHSAN SAMIN			966957	827789	2017-18	Computer	1st	

Figure: 6.3: Student Information Page

6.3.3 Technology Page

By visiting our technology page user can entry any technology which the admin wants to do provide for the teachers and students.

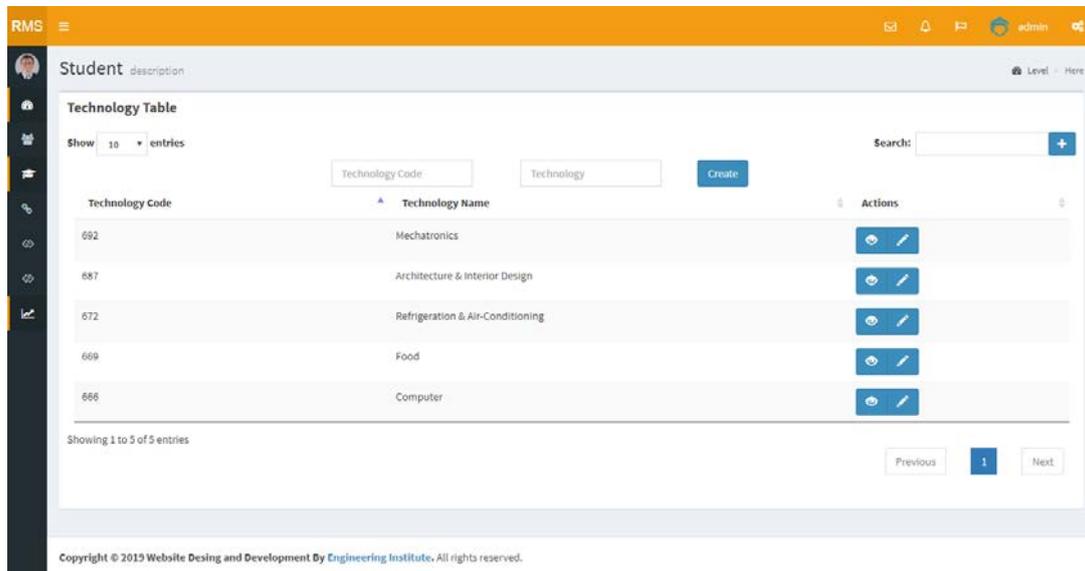


Figure 6.4: Technology Page

6.3.4 Session Overview

From session table we can see there are 5 sessions 2014-2020. this session is very important for admin and teacher cause when they add student, subject or technology they must have to fulfil the session section otherwise the database wont show the details of particular student marks cause each semester is separated from other and their course teacher too. Teaches appointment is also dependent on this session.

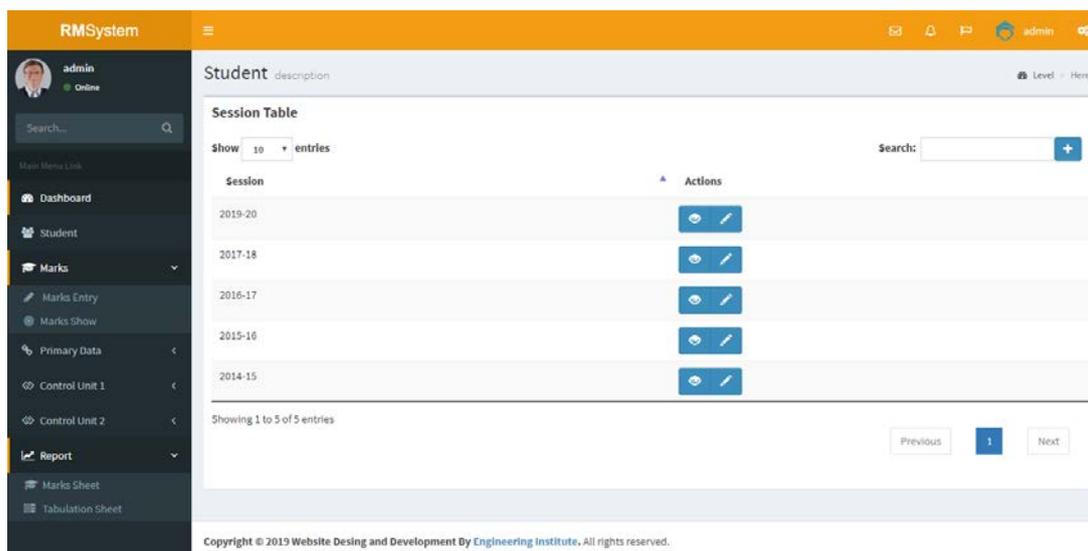


Figure 6.5: Session Overview

6.3.5 Subject Overview

For subject overview we can see which subject we added for the courses ,their name and the subject code also.we will see the TC, TF, PC, PF from the subject overview.

The screenshot displays the 'Subject Overview' page in the RMSSystem. The page features a sidebar with navigation options like 'Dashboard', 'Student', 'Marks', and 'Report'. The main content area shows a table of subjects with columns for Subject Code, Subject Name, TC, TF, PC, PF, and Actions. The table lists 15 subjects, with the first 10 visible. A search bar and a 'Create' button are located at the top right of the table area. The footer of the page contains the copyright notice: 'Copyright © 2019 Website Desing and Development By Engineering Institute. All rights reserved.'

Subject Code	Subject Name	TC	TF	PC	PF	Actions
66712	Architectural Design and Drawing-1	20	30	75	75	[Edit] [Delete]
66711	Architectural Materials and Product	60	90	25	25	[Edit] [Delete]
66611	Basic Electronics	40	60	25	25	[Edit] [Delete]
66713	Electrical Engineering Materials	40	60	0	0	[Edit] [Delete]
66712	Electrical Engineering Fundamental	60	90	25	25	[Edit] [Delete]
66711	Basic Electricity	60	90	25	25	[Edit] [Delete]
66611	Computer Application	0	0	50	50	[Edit] [Delete]
65913	Chemistry	60	90	25	25	[Edit] [Delete]
65912	physics-1	60	90	25	25	[Edit] [Delete]
65911	Mathematics-1	60	90	50	0	[Edit] [Delete]

Figure 6.6: Subject Overview

6.3.6 Semester Overview

The screenshot displays the 'Semester Overview' page in the RMSSystem. The page features a sidebar with navigation options like 'Dashboard', 'Student', 'Marks', and 'Report'. The main content area shows a table of semesters with columns for Semester and Actions. The table lists 3 semesters: 3rd, 2nd, and 1st. A search bar and a 'Create' button are located at the top right of the table area. The footer of the page contains the copyright notice: 'Copyright © 2019 Website Desing and Development By Engineering Institute. All rights reserved.'

Semester	Actions
3rd	[Edit] [Delete]
2nd	[Edit] [Delete]
1st	[Edit] [Delete]

Fig 6.7: Semester Overview

6.4.1 Subject Control

For subject control admin have to go subject table there are several options that need to be fulfilled. For individual subject there is a subject code then he/she has to fill up which technology is preferred for the subject, important sector is session. Admin needs to mention the session and semester. he/she can add subjects as much as he/she wants.

The screenshot displays the 'Subjects Table' in the RMSystem. The table lists subjects with their corresponding technologies, sessions, and semesters. The 'Actions' column provides edit and delete options for each entry.

Subject	Technology	Session	Semester	Actions
Social Science (65611)	Architecture & Interior Design	2019-20	1st	[Edit] [Delete]
physics-1 (65912)	Computer	2019-20	1st	[Edit] [Delete]
Physical Education & Life Skill Dev. (65812)	Computer	2019-20	1st	[Edit] [Delete]
Physical Education & Life Skill Dev. (65812)	Architecture & Interior Design	2019-20	1st	[Edit] [Delete]
Physical Education & Life Skill Dev. (65812)	Electrical	2019-20	1st	[Edit] [Delete]
Mathematics-1 (65911)	Electrical	2019-20	1st	[Edit] [Delete]
Mathematics-1 (65911)	Computer	2019-20	1st	[Edit] [Delete]
Mathematics-1 (65911)	Architecture & Interior Design	2019-20	1st	[Edit] [Delete]
english (65712)	Computer	2019-20	1st	[Edit] [Delete]
Engineering Drawing (61011)	Electrical	2019-20	1st	[Edit] [Delete]

Showing 1 to 10 of 20 entries

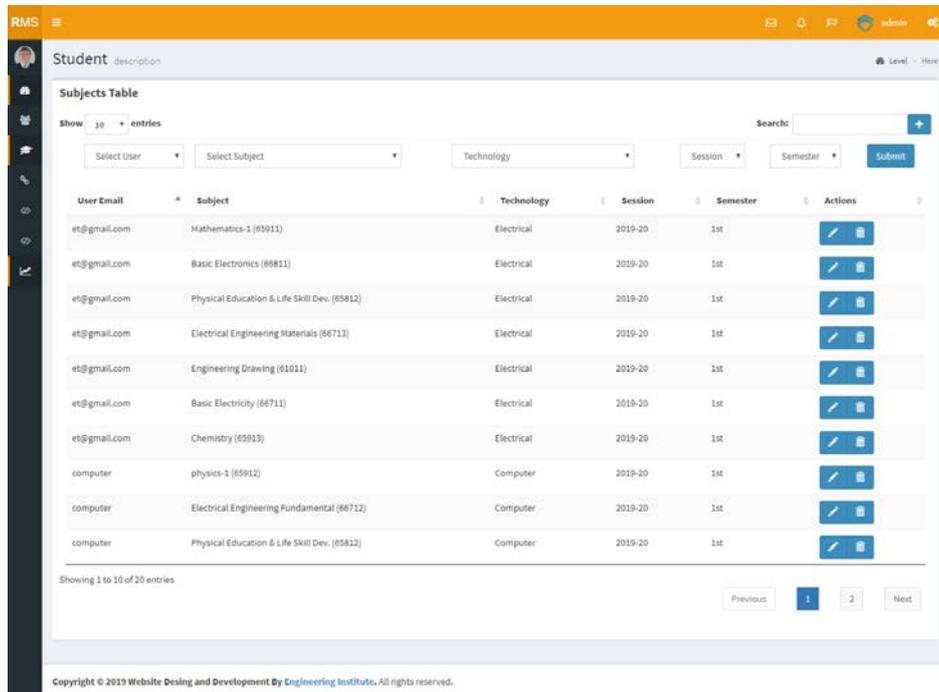
Previous 1 2 Next

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Figure 6.8: Subject Control

6.4.2 Teacher Control

In this table admin will give the responsibilities to the particular teacher which subject they are recommended. Admin will give the subject to the expert on that subject.



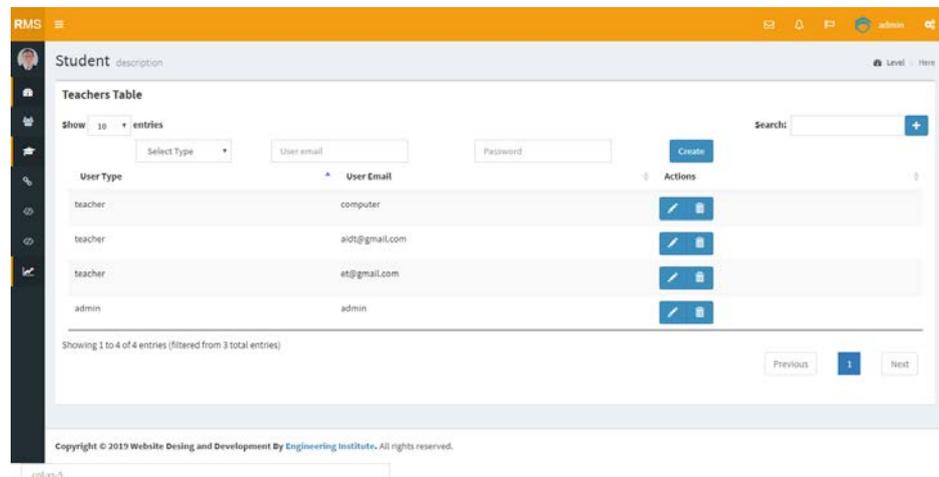
The screenshot shows the 'Subjects Table' in the RMS system. It features a search bar and filters for 'Select User', 'Select Subject', 'Technology', 'Session', and 'Semester'. The table contains 10 entries, each with a 'User Email', 'Subject', 'Technology', 'Session', 'Semester', and 'Actions' column. The 'Actions' column includes edit and delete icons.

User Email	Subject	Technology	Session	Semester	Actions
et@gmail.com	Mathematics-1 (65911)	Electrical	2019-20	1st	[Edit] [Delete]
et@gmail.com	Basic Electronics (66811)	Electrical	2019-20	1st	[Edit] [Delete]
et@gmail.com	Physical Education & Life Skill Dev. (65812)	Electrical	2019-20	1st	[Edit] [Delete]
et@gmail.com	Electrical Engineering Materials (66713)	Electrical	2019-20	1st	[Edit] [Delete]
et@gmail.com	Engineering Drawing (61011)	Electrical	2019-20	1st	[Edit] [Delete]
et@gmail.com	Basic Electricity (66711)	Electrical	2019-20	1st	[Edit] [Delete]
et@gmail.com	Chemistry (65913)	Electrical	2019-20	1st	[Edit] [Delete]
computer	physics-1 (65912)	Computer	2019-20	1st	[Edit] [Delete]
computer	Electrical Engineering Fundamental (66712)	Computer	2019-20	1st	[Edit] [Delete]
computer	Physical Education & Life Skill Dev. (65812)	Computer	2019-20	1st	[Edit] [Delete]

Figure 6.9: Teacher Control

6.4.3 Create User

Creating user means admin appointment teacher as a user. There are two types of user one is Admin and another is Teacher. Here the select type admin need to mention type as teacher, then put a user email as regarding as teacher's email and password. Teacher can login the site by using their User Id and Password.



The screenshot shows the 'Teachers Table' in the RMS system. It features a search bar and filters for 'Select Type', 'User email', and 'Password'. The table contains 4 entries, each with a 'User Type', 'User Email', and 'Actions' column. The 'Actions' column includes edit and delete icons.

User Type	User Email	Actions
teacher	computer	[Edit] [Delete]
teacher	aidh@gmail.com	[Edit] [Delete]
teacher	et@gmail.com	[Edit] [Delete]
admin	admin	[Edit] [Delete]

Figure 6.10: Create User

6.4.4 Admin/Teacher Login

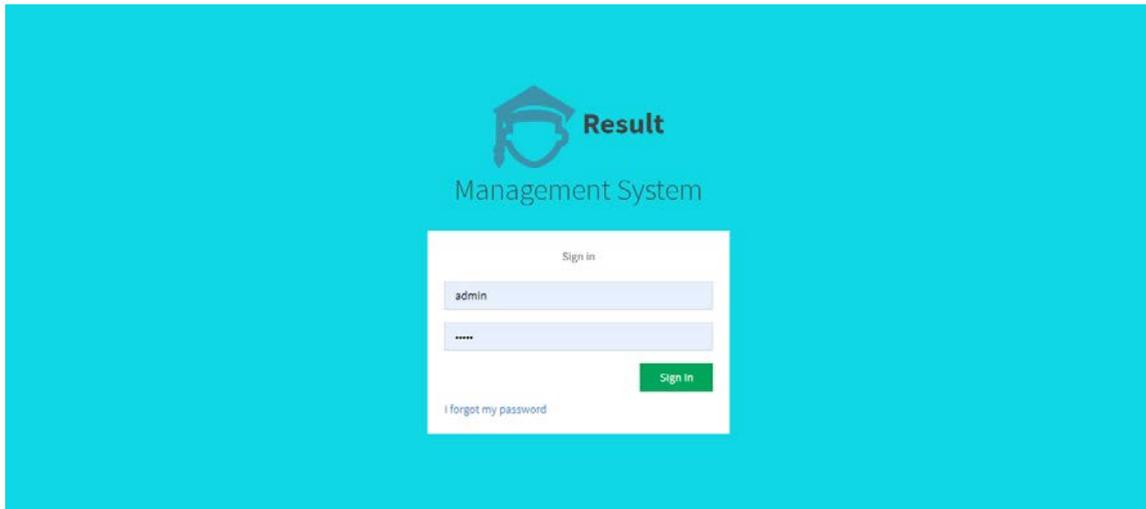


Figure 6.11: Admin/Teacher Login

6.4.5 Marks Entry

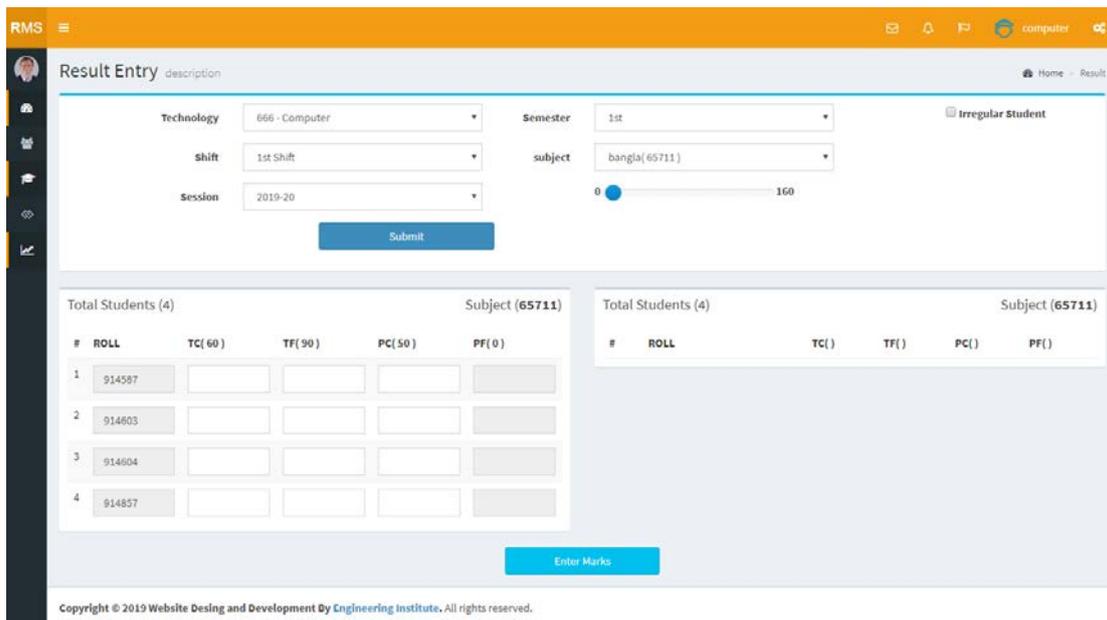


Figure 6.12: Marks Entry

6.4.6 Make Mark sheet:

Only Teacher can make mark sheet .For those he/she need to mention the technology, shift, session, semester and subject and he/she must have to mention that about a student that he/she is regular or irregular. After completing these procedure Teacher have to enter the marks of TC, TF ,PC ,PF. After completing all the required subjects marks which was taken by student it will not able be change again by teacher .Online tabulation making form like the followings-

BANGLADESH TECHNICAL EDUCATION BOARD
DIPLOMA IN ENGINEERING
 Year of Examination : 2017
 (Held in December 2017-January 2018)
First Semester
 Engineering Institute
ACADEMIC TRANSCRIPT

Serial No : 6660649
 Technology : Computer

Student's Name : **Johir Ahemmod Chowdhury**
 Father's Name : **Mst. Ferdous Ara**
 Mother's Name : **Jafor Ahemmod Chowdhury**

Board Roll : 914603 Registration No : 874587 Session : 2019-20 Shift : 1st

Equivalent Mark	Letter/Grade	Grade point
80 - 100%	A+	4.00
75 - 79%	A	3.75
70 - 74%	A-	3.50
65 - 69%	B+	3.25
60 - 64%	B	3.00
55 - 59%	B-	2.75
50 - 54%	C+	2.50
45 - 49%	C	2.25
40 - 44%	D	2.00
00 - 39%	F	0.0

S/N	Subject Code	Name of Subject	Full Marks	Marks Obtained	Grader Letter (GL)	Grade Point (GP)	Grade Point Average (GPA)
1	66611	Computer Application	100	90	A+	4.00	
2	65812	Physical Education&Life Skills Dev.	50	38	A	3.75	
3	66712	Electrical Engineering Fundamentals	200	154	A	3.75	
4	65911	Mathematics-1	200	159	A	3.75	
5	65912	Physics-1	200	159	A	3.75	
6	65712	English	100	81	A+	4.00	
7	65711	Bangla	200	134	B+	3.25	3.7

Prepared by: _____ Head of the Department: _____
 Vice Principal: _____ Principal: _____
 Engineering Institute

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Figure 6.12: Make Mark sheet

6.4.7 Make Tabulation Sheet

Only Teacher can make mark sheet .For those he/she need to mention the technology, shift, session, semester and subject and he/she must have to mention that about a student that he/she is regular or irregular. After completing these procedure Teacher have to enter the marks of TC, TF ,PC ,PF. After completing all the required subjects marks which was taken by student it will not able be change again by teacher .When all the course marks will submit teacher or admin can print out of the particular student tabulation . Online tabulation making form like the followings-

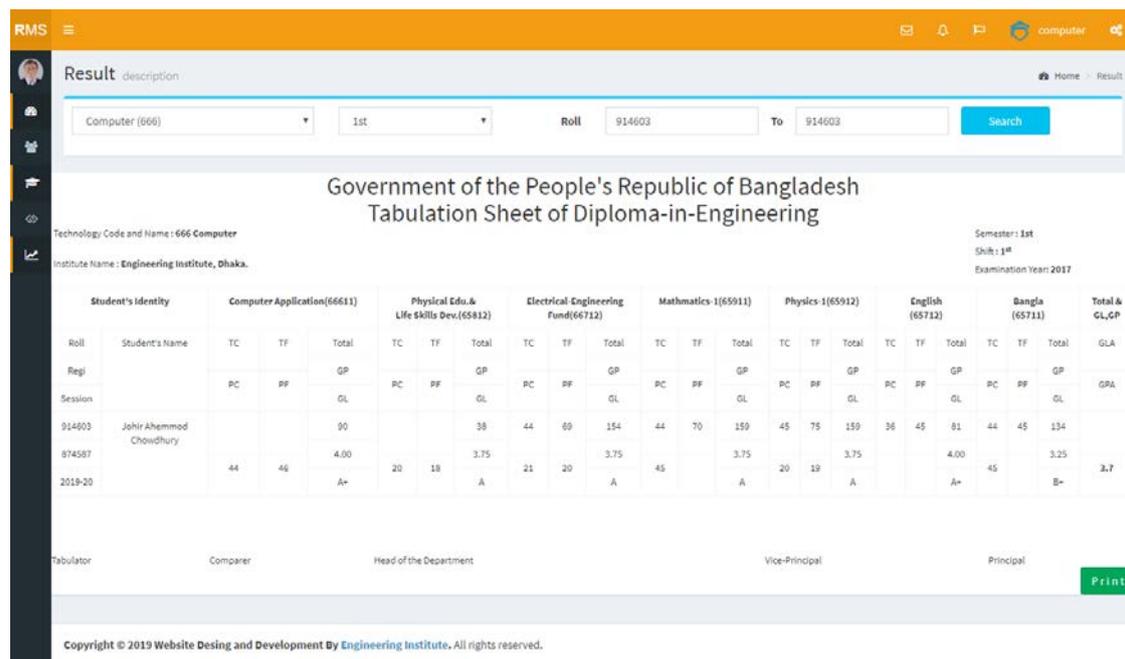


Figure 6.13: Make Tabulation Sheet

6.5 Input/output testing for our system

We tested our system by submit data and saw the output of given data. We tested every component of our system by follow this method. The result of the test is the followings-

We tested our all pages of database by submit data. All fields are capable to work. In the contact page after filling the all information it publishes all the database what given

We also tested our admin login system in this way. All the fields are worked properly. Admin can able to create the user and show user list, teacher can able to make marks sheet and save it, then print the marks sheet.

User can also capable to register the system and after login the account he/she can make an tabulation and view the all information of students.

Our total system is fully verified and tested by inserting the value/all information. So, we can say that our system is working well as it designed and developed.

6.6 Summary

This is the most important chapter of this documentation. Here, the total system implementation is discussed. In another part, we discussed about the system testing and its approach. We also give here the real system's screen shoots. That is very helpful to understand the total approach of our system. In the future we will develop our system for the client need basis. Now we are waiting for taking the feedback from our client.

CHAPTER 7

CONCLUSION

7.1 Goal

The goal of my project is to improve our result management system cause Bangladesh Technical Education Board (BTEB) Permitted Diploma In Engineering has 1st,2nd & 3rd term exam hold by its own institution and they have to build its own results. Each institute directs almost 5-15 technologies. Each technology has 3 terms. Each term has 7 subject and each subject has to give marks 4 different ways. If this process works manually this will be so lengthy.

Its a system develop where we can do all this process within a minute.

7.2 Limitations

There are few limitations for applying our proposed system, there are lots of synchronized process are going through such as students login,check the live result by students, updated notice which will be useful for every student so that student can maintain or become more careful about his/her result.This is essential cause if they can see their performance they will be serious about their study.

7.3 Future development

1. Other related features will be developed in the future.
2. The overall system introduces result support facilities to reduce some of the problems faced in general by teacher or authority and to provide the digital result management system of diploma polytechnic institute of Bangladesh.
3. Online result management system will be more popular and easy to use.

7.4 Conclusion

In the modern world, there is no doubt that the web page is most important for any small or big organization. Now a days we depends on the web sites very much for everything like advertising, buying goods, searching jobs etc. A right web site can fulfill the users demand. It is more important for the users, that they can visit right web site for right information. There are lots of web sites in worldwide. The web site we developed is for individual requirement of the specific company and their clients. This developed system is suitable for any polytechnic institute where the total

processing system worked by manually but by doing these all the works will be easy for both the teacher and organization. The platform we used in our developed system is HTML, CSS, JQuery, PHP and SQL. In the purpose of the future use the website can be altered according to the organizations needs. And also able to add more features on the sites and remove from the sites. The intention of us to take this project is to improve the infrastructure of our polytechnic institute which is much neglected in our country. Our steps is very small to implement the online result management system but we hope one day we will contribute on educational area enormously and our developed system will be the great inspiration for all of IT professional who wanted to contribute in our education sector.

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Online Result Management System

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