



**Islamic University of Technology (IUT)
The Organization of the Islamic Cooperation (OIC)**

Project title

MIH SECONDARY SCHOOL

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CERTIFICATION

This is to certify that the project title “**MIH**” we are responsible for the work submitted in this dissertation, that the original work is our own except as specified in acknowledgements, footnotes or references, and that neither the dissertation or the original work contained therein has been submitted to this or any other institution for a degree..

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ACKNOWLEDGMENT

First we wish to acknowledge our profound gratitude to Allah (SWA), the gracious and the merciful who has granted us the ability to start and finish this project.

Our most great thankfulness goes to our supervisor [Mrs. shahala farzana] for her endless patience, scholarly guidance, continuous encouragement, constant and energetic supervision, valuable advice that made our project possible to arrive at this stage.

In addition we wish to thank our dearest family members, friends, lecturers and the department of Computer Science and Engineering of Islamic University of technology (IUT) for their support and understanding in difficult times.

Finally our special thanks to Organization of Islamic Cooperation (OIC) for its support to the field of education.

Thank you.

DEDICATION

This thesis is dedicated to our father, who have always encouraged and supported our enthusiasm for education. We also wish to dedicate it to our family members that did not live to see the completion of this thesis but who we know would be very proud of the achievement.

ABSTRACT

We are in the age of big changes, particularly the technology revolution and this has affected all aspect of our life. This modern-day revolution, at the global level, has manifested itself in the form of many innovations and breakthroughs and giant leaps in internetworking technology. With these changes, we have new opportunities, people can now transcend the barriers of time and distance with the internet's speed. This has completely changed our living style, and every sector got changed and most of the traditional activities are going on now online like jobs, study.

The aim of our project is to develop a document management system that is able to deliver access to anyone authorized anytime, anyplace on any device. The system developed makes use of rich internet technology to replace desktop application with rich internet application. The system shares the advantage of both web application and desktop application, and removes the most disadvantages of both.

The main purpose of this project is designed for better interaction between students, teachers, parents & management. It has also student's Forum where students can post and discuss any topic.

This project has four major parts, the admin part is for manage all the system, the teachers' part using to perform various teaching related activities, the students part to get and view their attendance as well as to communicate each other, the parents part to view their children's details, performance and to communicate with the school.

Table of Contents

CHAPTER 1	8
BACKGROUND	8
PROJECT OVERVIEW	8
WHY DO WE NEED A WEBSITE?	9
SYSTEM COMPLEXITY	10
ADMINISTRATION COMPLEXITY	10
CHAPTER 2	11
INTRODUCTION	11
DEFINITION OF MIH SECONDARY SCHOOL WEBSITE	11
ADVANTAGE OF THE SYSTEM	12
SYSTEM DESCRIPTION	12
VARIOUS PORTALS OF THE SYSTEM	13
FEATURES	13
REQUIREMENTS	14
MOTIVATIONS	14
CONSTRAINTS	15
CHAPTER 3	15
FEASIBILITY STUDY IN BREIF	16
TECHNICAL FEASIBILTY	16
ECONOMIC FEASIBILTY	17
OPERATIONAL FEASIBILTY	18
CHAPTER 4	18
ADMIN PORTAL DIAGRAM	18
TEACHER PORTAL DIAGRAM	19
STUDENTS PORTAL DIAGRAM	21
CHAPTER 5	22
System Design and Implementation	22
HOME PAGE	23
ADMIN HOME PAGE	25
TEACHER PAGE	27
STUDENT PAGE	28
CHAPTER 6	29

EVALUATION OF THE PROJECT OBJECTIVES.....	Error! Bookmark not defined.
EVALUATION BY REAL USERS	Error! Bookmark not defined.
PROBLEMS FACED DURING SYSTEM IMPLEMENTATION.....	Error! Bookmark not defined.
SYSTEM SECURITY	Error! Bookmark not defined.
Session Hijacking.....	Error! Bookmark not defined.
Validation	Error! Bookmark not defined.
Client Side Validation	Error! Bookmark not defined.
Future Scope of the Project	Error! Bookmark not defined.
Conclusion.....	33

CHAPTER 1

BACKGROUND

Thoughtlessly that the system today accomplish the importance of having an online presence whether that is through a website, or Facebook page, or a Twitter profile, etc. If an institution does not have an online presence, the chances are you could be losing valuable business to your competitors who do have effective and active online presences.

The relationship between users and internet communication has been established, such that internet is now internationally or worldwide accepted as a key development index.

Education is a backbone of the human society. So, it is important to provide the elegant, strong and quality education to every child of the generation to make sure that their personality is developed in a better way.

This technological era can play a crucial role by giving the students, teachers and parents a single but salable and efficient platform.

It consists of the modules such as registration of students, keeping the academic records, generating time tables, generating report card of the students etc.

PROJECT OVERVIEW

The main purpose of using computerized system is to avoid manual problems and also documentation storage problem can't maintain long period data that's why we used computerized system to overcome all problem related to school's data storing and other areas.

The web must be designed to allow the school to record the details of teachers and student' date of joining, full name, address, phone no., date of birth, etc.

The web processing of all examination related activities is also required to be achieved by the system.

The student and teacher attendance activities must also be captured by the new system so that they could be analyzed in future by school administration.

The system should be able to generate annual collection summary, employees' report, etc. so that they could be used by the management authorities of the school for making decisions and deciding guidelines.

This is web based project that provide privilege facility for security purpose and provide login facility according to designation and restrict unauthorized used, if user is not admin then it can't access everything, this project provides four type of designation facility and access permission.

Above all, the software system should be able to eliminate all the paper work required in implementing the task of data maintenance, which previously was tedious, time consuming and error prone.

1.3 PROBLEM STATEMENT

In the offline system, it is an overhead to keep the records related to faculty, student, parents and other school staffs on the papers.

Everything related to their progress in the system is marked manually. E.g. A report of a student's attendance generated monthly is shown to his / her parents.

Now, a regular student, going to the school every day, is marked absent for a day by mistake. It is a burden to take out the register and view the records.

As you can see, it is a very time consuming process and it costs much.

So, we thought why we should not help these young guns of the nations to help them to have the bright future and to make an online centralized platform which can be accessed from anywhere across the world.

WHY DO WE NEED WEBSITE?

Users are more and more likely to expect an institution to have their own website. In the eyes of a user's, having a website is a measure of viability of stability.

In short, if you do not own a website, then your users might not take you quite as seriously as they would if you did, that is the necessity of having website for your own institutions. Another excellent reason to have a website for your institutions is that it provides you with numerous options for a cost-effective saving you some money for manual display of information. Simply having a website gives you a spot in search results for your targeted keywords, no matter how small your target is, you will just find it in a minute and preview it.

In addition, having a website provides your current and potential users a means by which to measure your worth to their needs, without actually having to visit your authority in person. Beyond the importance of simply having a website though, it is important to have an effective website, one that is an asset to your business and that pays for itself in the amount of business or user it converts.

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Simply having a website gives you a spot in search results for your targeted keywords, no matter how small your target is you will just find it in a minute and preview it.

SYSTEM COMPLEXITY

This difficulty is not unconnected with applicant Multiple applicant complexity in that administrator are the users that have the overall power to view the number of applicant, approve applications and decline applications.

The system has a well organize database which handles all the data enter by applicant and retrieve by administrator. One more thing is that admin has overall power to update other sections information. Once again another difficulty we need to mention is based on the overall system implementations which include the following.

- Applicant Registration Process
- Flow Control
- Dynamic Webpages

ADMINISTRATION COMPLEXITY

This difficulty is not unconnected with applicant Multiple complexity in that administrator are the thing that have the overall power to view the number of applicant, approve application and decline applications. Application approval can be done by admin with mailing of applicant. The

system has a well organize database which handles all the data enter by applicant and retrieve by administrator.

CHAPTER 2

INTRODUCTION

MIH Secondary School is a comprehensive web-based School Management Software. It is designed for better interaction between students, teachers & management. This management software very gracefully handles all the requirements for easy school management.

DEFINITION OF MIH SECONDARY SCHOOL WEBSITE

MIH Secondary School is web based project that maintain all the activity related to School, it store all the information of student.

MIH Secondary school Project provide sending message to parent regarding student activity detail.

- ✓ To provide student detailed information and faculty details.
- ✓ To make communication among the admin, students, teachers fast and easy.
- ✓ To inform student with time to time event information and notices.
- ✓ To inform parents about student activities through message.

ADVANTAGE OF THE SYSTEM

MIH website offers the following advantages:

- The website helps students to access the information about the programs.
- Frequent interaction with teachers.
- Computerized management of marks and grades.

SYSTEM DESCRIPTION

- User registration: - Before a user can apply he/she must register to the system by filling user registration form.
- Application process: - To apply for MIH our system provides user friendly interfaces that enhance scalability during application process. For all applicant Users are to fill all the following forms.
- Personal details: - User has to provide his/her personal Information such as first name, last name, and fathers name.
- Manage applicant: - In this section administration as the right to view list of applicant and to approved or decline.
- Admin Login: - Administrator can be able to log in by providing user name and password, the admin can also manage the information of Teacher, Student.
- Teacher Login: - A teacher can be able to log in by providing username and password.

- Student login: - A student can be able to log in by providing username and password

VARIOUS PORTALS OF THE SYSTEM

❖ ADMIN PORTAL:

- The school administrator's uses this portal to manage the school.
- Managing different users.
- Managing class schedules.
- Taking makeup attendance.
- Publish results.

❖ TEACHERS PORTAL:

- Teachers can access this portal to perform various teaching related activities.
- Taking and viewing attendance.
- Managing their profile.
- Viewing class schedule.

❖ STUDENTS PORTAL:

- This portal is being accessed by students.
- Viewing and editing their profile.
- Viewing their attendance.
- Viewing their result.

FEATURES

❖ Admin

- Admin login
- Update
- View records
- Schools clubs
- View calendar

❖ Student

- Student login
- View Result
- View Transcript
- View Profile

❖ Exam Results

- View Student
- Upload Student Photo

❖ Teacher

- Teacher login
- Registration
- Enter Student Marks
- Update Student Mark
- Student Report
- View Student

REQUIREMENTS

- ✓ The System Must Be Secured.
- ✓ Only those users will be part of this system or will be able to log in.
- ✓ Admin, students, teachers, parents everyone has his own page.

MOTIVATIONS

- ✓ Get your exam result where ever you are.

- ✓ Check your course names.

CONSTRAINTS

- The current system should be ready by the end of this year.
- The current system is completely free for use.

CHAPTER 3

FEASIBILITY STUDY IN BREIF

A feasibility study is defined as an evolution of an existing system and a way of selecting the best system that meets performance requirements. This entails identification, description, evolution of candidate systems and selection of the best system for the job. The feasibility study is conducted once the problem is clearly understood. It is a high-level capsule version of the entire system analysis and design process. The core objective of feasibility study is to determine whether the proposed system is feasible or not and it helps to minimize the expenses of how to solve the problem and to determine, if the problem is worth solving.

The feasibility of the proposed system can be determined if the following are accomplished in different phases.

- i. To create an efficient and effective backup system so that important information will never lost
- ii. To maintain a computerized database for the website

In practical terms, while doing feasibility study, there are a number of tests that are to be performed as part of caution, better determination of favorable features and assurance of accuracy of the proposed system.

The following is a summary of the different feasibilities carried out in developing the website:

- i. Technical feasibility
- ii. Economic feasibility
- iii. Operational feasibility

TECHNICAL FEASIBILTY

The use of CSS and PHP makes form design easy and convenient. The project can be run on any system with minimum requirements. It reduces data entry errors because of data entry validation, it can be easily handled by any user, and it also helps in faster data update. Also the project though developed in GUI, it is very easy to operate. Hence the project is technically feasible.

In the technical feasibility study, we had to test whether the proposed system can be developed using existing technologies or not. It is planned to implement the proposed system using PHP, JavaScript, CSS and HTML.

The project entitled **MIH SECONDARY SCHOOL** is technically feasible because of the following reasons:

- i. All the necessary enabling technologies exist to develop the system.
- ii. Existing system is so flexible that it can be easily developed and modified.
- iii. System requirements, both hardware and software is readily available and affordable by the members of the school.

ECONOMIC FEASIBILITY

Cost benefit analysis is very important in deciding whether the project is economically feasible or not. It is alone sufficient to save our time and money. It is one time investment and does not require regular maintenance. Through cost benefit analysis it was concluded that the benefits outweigh costs and thus the project is economically feasible.

Launching a website for and MIH SECONDARY SCHOOL involves a great deal of financial issues which needs to be considered and given proper considerations. Many systems fail to reach their destination due to lack of proper budgeting and utilization of resources. A school should only adopt a new system if the cost-benefit analysis gives out a positive response even though the initial expenditure might look greater.

In short, the project is economically feasible only if tangible and intangible benefits outweigh the cost and we can say the proposed system is feasible based on the following conclusions:

- i. The cost of developing the full system is reasonable and within the reach of all the users to put together.
- ii. The cost of hardware and software for the application is very minimal.
- iii. System requirements, both hardware and software are easily available and economically sustainable in the short, medium and long term as well.

OPERATIONAL FEASIBILITY

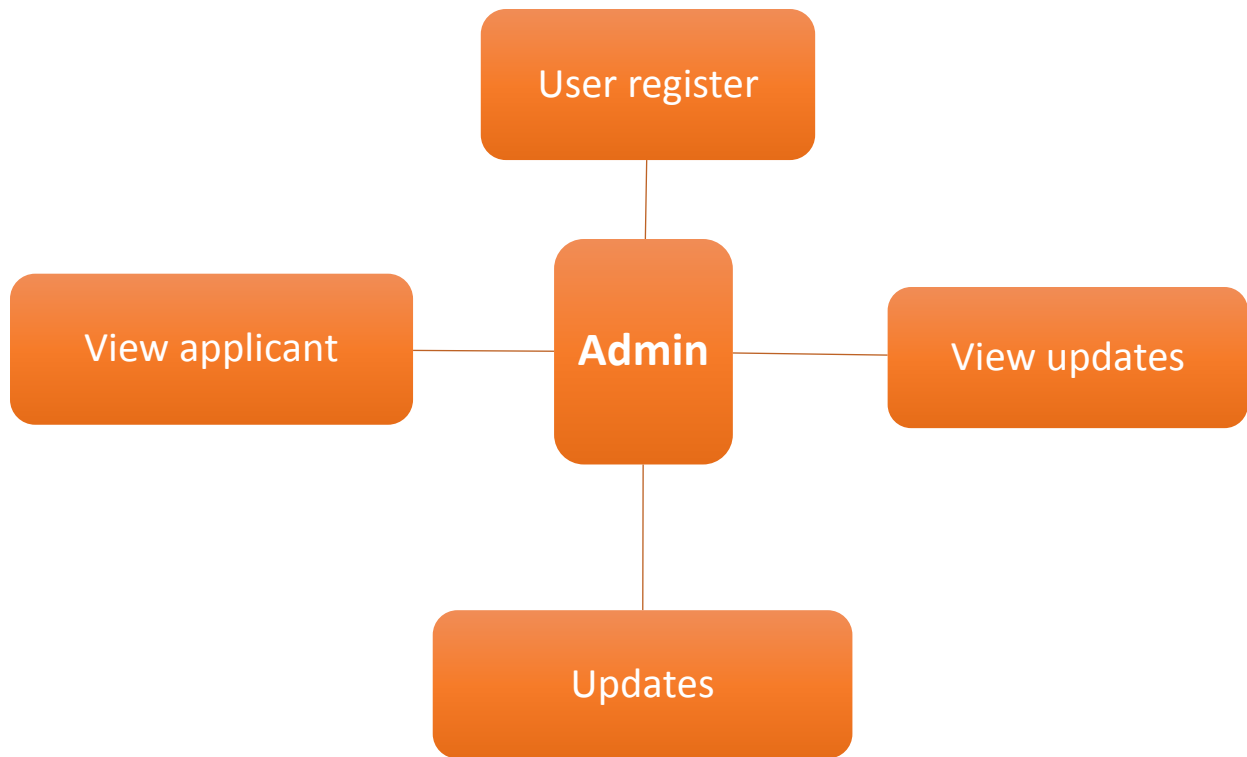
In our **MIH SECONDARY SCHOOL** website, we used MySQL database. Much of the dynamic content in the website comes in real-time using the data fetched from a database. The specific information presented to a member's panel or interface is created dynamically after the user has made a request. To accomplish this operational exigency, the following steps were taken:

- i. Some large database rich in content is queried.
- ii. Relevant data are extracted from database
- iii. The extracted data are organized as a content object
- iv. The content objects are transmitted to the client's environment for display.

As a result, we have designed the database to keep the efficiency and performance of the whole application at optimal levels.

CHAPTER 4

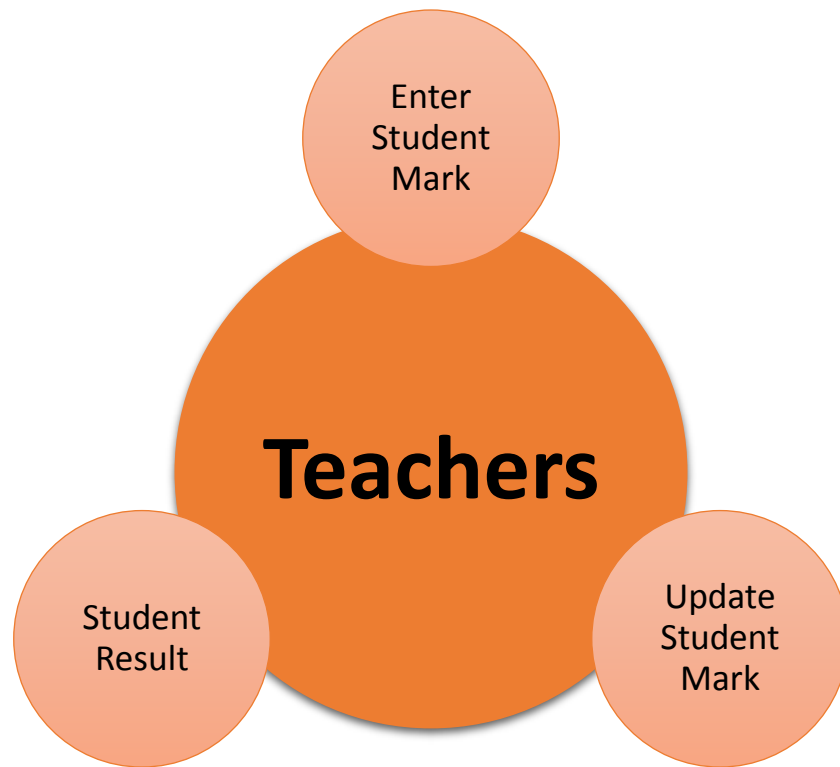
ADMIN PORTAL DIAGRAM



▪ **ADMIN**

- ✓ User registration
- ✓ Student
- ✓ Teacher
- ✓ Update
- ✓ View applicant

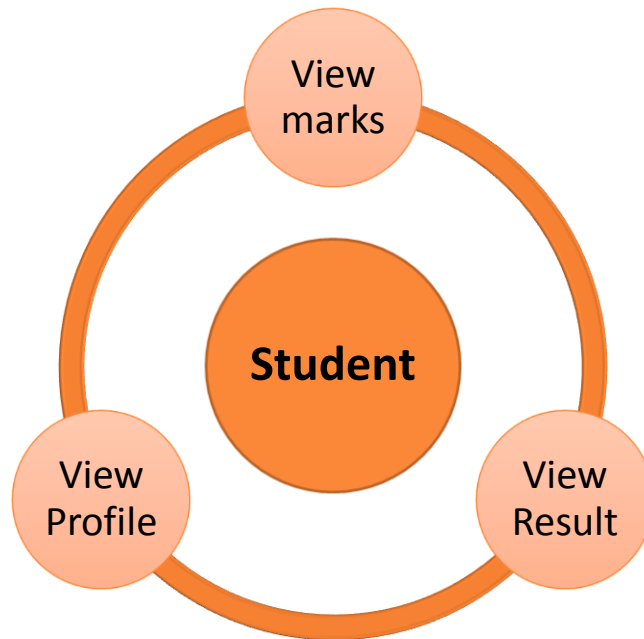
TEACHER PORTAL DIAGRAM



▪ **TEACHER**

- ✓ Enter Student Mark
- ✓ Update Student Mark
- ✓ Student Result

STUDENTS PORTAL DIAGRAM



▪ STUDENT

- ✓ View Marks
- ✓ View Result
- ✓ View Profile

CHAPTER 5

System Design and Implementation

5.1 Functional Requirement

- **Hardware requirements**
 - Processor
 - Ram
 - Hard disk
 - Internet Connection

- **Software requirements**
 - ❖ **Languages**
 - ✓ HTML
 - ✓ PHP
 - ✓ CSS
 - ✓ JQUERY

- **Database**
 - ✓ MYSQL

- **Server**
 - ✓ XAMPP

- **Framework**
 - ✓ BOOTSTRAP

- **Browsers**
 - ✓ Internet Explorer 8 or higher
 - ✓ Firefox7 or higher
 - ✓ Opera
 - ✓ Google Chrome

5.2 Hardware specifications

There is no restriction to the hardware with which we want to access the website. Any device that has internet connection with a modern browser can be used to access the website. That means the website can be accessed by using:

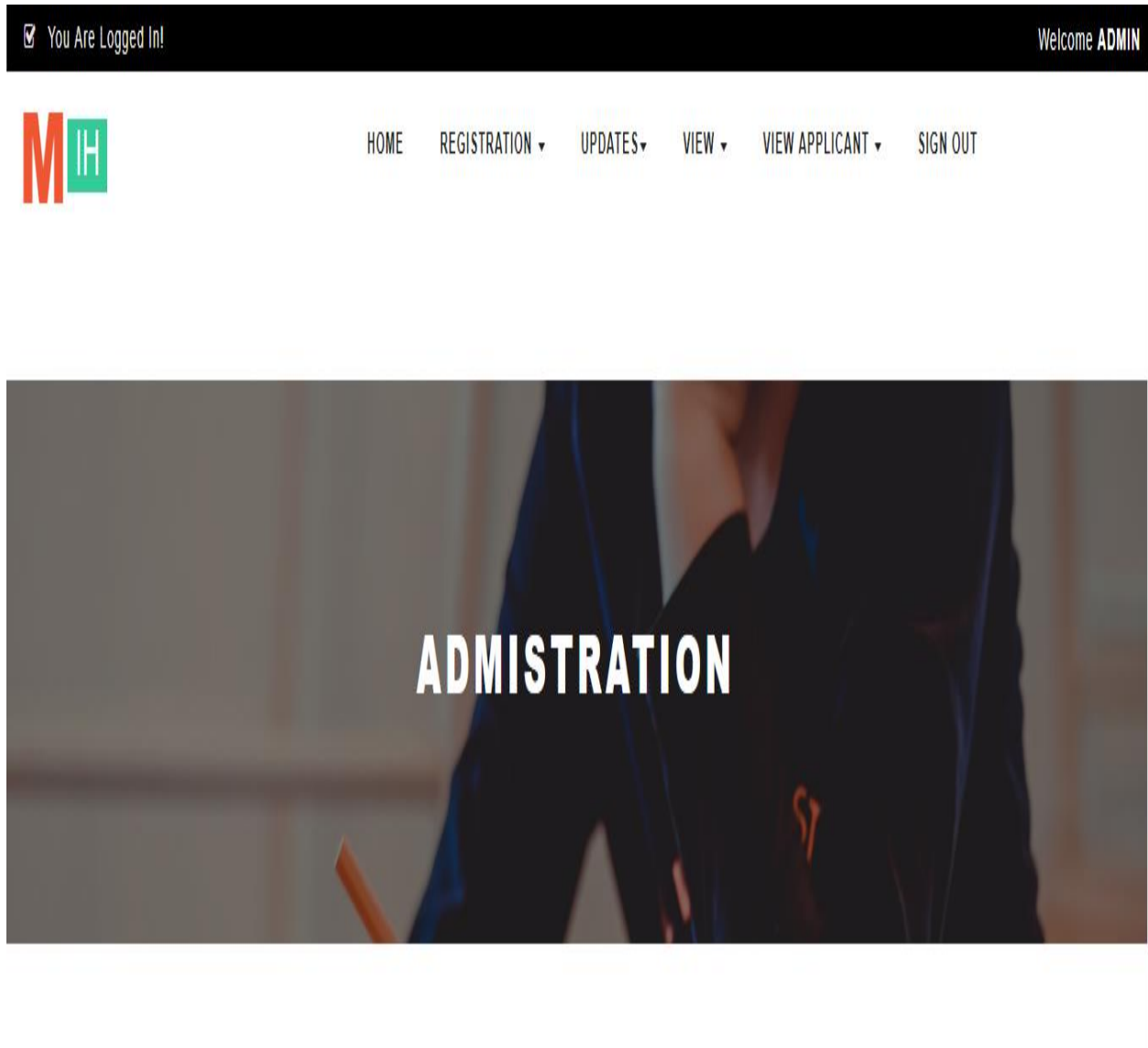
- i. A personal computer
- ii. Smart phone
- iii. Tablet
- iv. A TV which has internet connection
- v. Any device that can access internet

This is possible due to responsive capacity of the website which can adapt itself to the any device to give to user a very high experience.

HOME PAGE



ADMIN HOME PAGE



Admin login

ADMIN LOGIN

abba

...

Submit

Teacher login

TEACHER LOGIN

Username

Password

Submit

Student login

STUDENT LOGIN

TEACHER PAGE

You Are Logged In! Welcome **hussain**

M **I** **H** INSERT CLASSES MARKS ▾ RE-CHECK DELETE MARKS CHANGE PASSWORD SIGN OUT

TEACHER PROFILE :

Full Name:	Hussaini Alkasim
Department:	Science
Class Assign:	class2
Age:	24
Gender:	male
Email:	a@gmail.com

STUDENT PAGE

You Are Logged In!

Welcome **142301**



[VIEW MARKS](#) ▾

[CHANGE PASSWORD](#)

[SIGN OUT](#)

STUDENT PROFILE :

Student ID:	142301
Full Name:	Ibrahim Haruna
Department:	Science
Class:	Class2
Gender:	male
Age:	22
E-mail:	a@gmail.com

CHAPTER 6

6.1 EVALUATION

This phase is basically based on the client what they want to update in the software. In the project evaluation the main thing is how the project will work in the client-side or server-side, and how much better performance in the system. The project is web based application so it will be do proper work in the client side and properly interact with the hardware.

Steps

- ✓ Install the software on a clean system.
- ✓ Check for proper operation of software.
- ✓ Check for php file conflicts.
- ✓ Check for registry entry problems.
- ✓ Check for file conflicts.
- ✓ Create Application item.
- ✓ Push application to test station and check for proper operation.

After performing all the above steps, it is justified as project has been implemented successfully.

The MIH SECONDARY SCHOOL website is a new system which has to be run to see whether it works efficiently and perfectly. After running it for a few days we are now sure that the new system's purpose is maintained. Software evaluation and selection can become an innovative issue by some measures and considerations.

We are satisfied with the following objectives that have been achieved:

- The system contains various types of user-defined checking methods like data duplicity, integrity, and inconsistency.
- The system checks each and every data being input by performing the above-mentioned methods.
- The site has an attractive, flexible and efficient interface.
- Now for the primary version we have designed the website efficiently, aesthetically appealing and given it all the flexibility it requires. We have emphasized on function rather than just designing attractive interfaces.
- Generating errors- the minimum error generated by a system is clearly defined by the system and our system also fulfills this criterion.
- Stimulation- the experience of working in a team made us to perform better and have more enthusiasm to work even harder.

6.2 REAL USERS

During the last decade, the use of an assortment of usability inspection methods has become prevalent as project schedule become shorter and budgets become tighter. In general, the expense and effort involved in testing the real end users has been viewed by the development of MIH SECONDARY SCHOOL website as independence to software development.

The evaluation by the real end users has attained a very satisfactory level after so many rounds of adjustments, modifications and improvements in the initial friendly and dynamic in all its functional aspects.

6.3 PROBLEMS FACED

- Complexities and difficulties related to prototyping, gathering of user requirements and adjusting the website according to their changing needs.
- Integrating the difficulties modules of the website also turned out to be a very challenging task during our work.
- Then came to the problem of coding where we faced numerous syntax errors related to the various programming languages we used.

6.4 SECURITY

Security is one of the most aspects that focused during the development of our website; there are several threads we're able to exposed them and used concrete solution that our website is secured.

6.4.1 SQL Injection

SQL injection attacks are extremely simple to defend against, but many applications are still vulnerable. Consider the following SQL statement:

For example, depending on the database you are using, it might be possible to send multiple queries to the database server in a single call. Thus, a user can potentially terminate the existing query with a semicolon and follow this with a query of the user's choosing.

MySQL, until recently, does not allow multiple queries, so this particular risk is mitigated. Newer versions of MySQL allow multiple queries, but the corresponding PHP extension (ext/mysqli) requires that you use a separate function if you want to send multiple queries (mysqli_multi_query ()) instead of mysqli_query (). Only allowing a single query is safer, because it limits what an attacker can potentially do.

Protecting against SQL injection is easy:

Data Filtering:

This cannot be overstressed. With good data filtering in place, most security concerns are mitigated, and some are practically eliminated.

Quote your data.

If your database allows it (MySQL does), put a single quote around all values in your SQL statements, regardless of the data type.

Escape your data.

Sometimes valid data can unintentionally interfere with the format of the SQL statement itself. Use `mysql_escape_string ()` or an escaping function native to your particular database. If there isn't a specific one, `addslashes ()` is a good last resort.

6.4.2 Session Hijacking

Arguably the most common session attack, session hijacking refers to all attacks that attempt to gain access to another user's session.

As with session fixation, if your session mechanism only consists of `session start()`, you are vulnerable, although the exploit isn't as simple.

Rather than focusing on how to keep the session identifier from being captured, we are going to focus on how to make such a capture less problematic. The goal is to complicate impersonation, since every complication increases security. To do this, we will examine the steps necessary to successfully hijack a session. In each scenario, we will assume that the session identifiers have been compromised.

With the most simplistic session mechanism, a valid session identifier is all that is needed to successfully hijack a session. In order to improve this, we need to see if there is anything extra in an HTTP request that we use for extra identification.

6.4.3 Validation

the most important part of the security system is not allowing garbage data to be stored inside the database, to that we need to validate each data that user may provide during either login or making complain we use two ways to do that by using server side and client side validations.

6.4.3.1 Client Side Validation

When we start out validation, we want to make it as easy as possible for the user to fix the problem with the least additional load on our servers. This leans towards doing the client –side validation first, then server-side later if we have time. Client-side validation is faster, typically looks prettier, often has better association between messages and inputs, and just generally looks like the better choice from the product owner or customer perspective.

6.4.3.2 Server Side Validation

Why we use the server side validation between a user’s may try to turn off his JavaScript on the browser which will make our website vulnerable to some attackers in other to have a solid security system we need a backend where user has no authority in changing the security system. Server side validation is very important.

6.5 Future Scope of the Project

Future work is what we intend to do in future to improve on our website, make it more modern and integrate some of the most recent technologies that would have evolved by then. These future plans among others include:

- Presently the website is used for primary school students but in future it can be utilized for middle school, high school and colleges by some minor modifications.
- Database may be available in future for long times and information may be use anytime.
- SMS facility in future
- Use of Advanced security system: Security is a big issue in all online project especially in social networking sites where privacy of individuals need to be kept confidential. We intend to use higher levels of security in future to keep private message secret and to protect the profile information of our members from theft.
- Greater user friendliness: It must be easily accessible, more flexible and very easy to use even by non-computer literates.
- More powerful database like Oracle will be used in future.

Conclusion

MIH SECONDARY SCHOOL is to construct such dynamic website which will provide information about school activities such as exam results, calendar, news, job vacancies and so on.

The end of the MIH SECONDARY SCHOOL project, I would like to say that the target, which was initially set up, was achieved to a good extent. The project made us realise the significance of developing software for client, where the sole aim is to learn.

During the MIH SECONDARY SCHOOL project, the real importance for following all principle of system analysis and design. We felt the necessity of going through the several stages.