



**ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)**  
**ORGANIZATION OF ISLAMIC COOPERATION (OIC)**

## **Online Schooling WebSite**

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## CERTIFICATE OF SUCCESSFUL COMPLETION OF THE PROJECT

During a period of one academic year, we successfully completed the implementation of our project named online schooling. This project is undertaken by students under the supervision of his excellence **Mr. Ferdous Ahmed**, lecturer in the department of Computer Science and Engineering (CSE), at the Islamic University of Technology (IUT). We also to mention that neither of this report or any part has been submitted anywhere else for the award of any degree or diploma. This report is submitted by the authors as a partial fulfillment for their award of Bachelor of Science in Technical Education (B.Sc.T.E) in the department of Technical and Vocational Education (TVE) with the specialization in Computer Science and Engineering

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## Dedication

We dedicate this work to our parents that always carry about us and give us their love but also support us during our educative life. You will always remain in our hearts. We also dedicate this work to our brothers and sisters but also our friends who are always there to us.

## Chapter 1 Introduction

### 1.1 Background

The idea of the Online Schooling is focused for helping the education for a deep learning.

We have three parts accessible one by the students and the for teachers and the other by the administrator.

In the students part they can access and share ideas and learning.

In the other side administrator is designed for the website management.

This has the ability to edit, add, insert students and teachers etc.

In our days the technology is become the field of learning then we take this opportunity to help students in education.

### 1.2 Project overview

Most of school in the world has been seen that the optimization of their requirements in many domains ensured by the implementation of website which responses the needs of developing the knowledge of students and helping teacher's facilities.

Behind this new technology Online Schooling website is more important by which it will facilitate the need of students, teachers and administrator by making an easy communication between students and students or students to teachers to be able to maintain an open system through the World Wide Web.

This is done by fact to introduce a social network which included communication, this network facilitates all students to communicate any time and allow them to ask any question from other and sending query message through the internet. Furthermore to avoid waste of time students requirement has been identified that the implementation of a system which facilitates the students and teachers.

Consequently during our implementation of this project we decide to response the maximum need mostly of students to know everything belonging their desired.



### 1.3 Problem description

Online education becomes the famous website that provide large number of students and teachers in the world in the earlier years some of the processing were difficult to ensure an optimized result because of internet.

Now a day due to the development in information technologies there is need to apply these technologies to tackle the stated problems.

The ultimate goal is to design a system that can help sharing knowledge from every part of the world.

In order to facilitate the processing of the education we implement a system which could help administrator to optimize the number of students' requests as well as a great security.

As we look lots of websites of learning we found that there was no much interaction between students and teachers and there no much information.

So our objective is to creating a social network by implementation a system to facilitate those students.

### 1.4 Motivation

We are motivated to apply what we learn in class into practice to help such as creating this website that can be used in purpose of learning by sharing and discussing together online.

Also we are motivated to help to facilitate work for the desired and required of such school or university. Desire to understand how a practical system functions. The tradition system risk students of failing to ask their question during class. Some students are afraid to ask their questions before teacher so this king of system can give them the opportunities to ask any kind of question beside on class lecture and some of them can get some benefits form others students as well as much possible.

In other hand teacher can also complete some class online using the system to set a time to be online for class or assign students marks online.

## 1.5 Contribution of Dissertation

The system has been identified to be presented with the following modules:

Sharing, discussing and helping and administration notice.

This module deals with managing everything according to education.

The administration module centralizes all activities to be done in this application.

It provides class routines; notify students and parents for any information of education.

Administrator also can add, delete and edit information.

Sharing part students and teachers can share together as well.

Teachers can guide students as in the classroom; they can take class online also.

## 1.6 Necessity of the project

It was very clear that all requirements were required to have such a web –based site readily available. That is to say, the web designers and programmers, the required technologies and knowledge bases for comparison, were all available at the starting of our project.

Students and teachers also revealed that once the system is able to link an environment of learning to fit their mutual interest, they can greatly and positively impact their study. This was as a result of the discussion and information sharing platform that would be created in this site.

The site will also include other relevant pieces of information including some like

Advising, helping and so on.

## Chapter 2: Online Schooling.

### 2.1 sharing complexity

Most of sharing complexity we are facing is caused by unlimited number of file and comments that can access the large information in our website. All students and teachers can access information such information like marks, attendances.

### 2.2 Administrator complexity

- This difficult is not unconnected with multiple sharing complexity in that case administrator is the one who has the abilities and power to view the number of students, teachers also delete any information that is not related to education in this website.
- Registration of students and teachers can be done by administrator by adding of the students or teachers information then finally they complete the rest of information themselves.
- The system has a well organize database which handles all the data entered by the students and teacher and retrieve by administrator.

### 2.3 Benefits website of Online Schooling

A social networking site can be a good way to make connection with students and teachers especially in particular university with similar inverse and goals. They can be a way to connect with student to student or student to teacher that students may not had the opportunity before.

Social networking sites offers information that communicates each other. Most importantly, social networking sites offers student and teacher more opportunity.

## 2.4 Project main goals

Provide a web-based site which would ensure the maximum need of the school administrator and manager.

Facilitate students for education purpose and learning that can be organized by sharing information and live conversation with different students and teachers. So provide an easy channel for communication between student and teacher or student and student or it can be administrator.

We want to give the chance to each student, teacher, and parent to access to the system using the World Wide Web.

But also get the possibility to update all information regarding the administrator require.

And to provide an easy way to learn more to discover others with Provide facilitates which can be easy for student to open learning discussion with other student.

## 2.5 Features

Our first feature is to build a dynamic online application system based on the different tools of school that can help administrator to control all activities and class works for each teacher and student.

To help the developing learning of student, we create a communication system to the entire social network. This communication system can be done by live public chat, video chat and private messages between student, teacher, parent and administrator.

Developing a sharing area is more necessary to provide a system forum to each student for sharing ideas. Student or teacher can post one idea and get different comment from the other students and teacher on real time.

The administrator will manage all event and provide information regarding the school or university that can help the parent and student to know all the development and activities.

As we see first, the communication between administrator and other member can help the good collaboration and development of the school. So we develop a system that can be give the administrator the chance to send to the parent, student or teacher different information.

To make more security, online attendance will be marked by teachers morning and evening session. This attendance will be accessed by the administrator, parent and student. But also the quizzes marks and exam marks can be provided by the teacher and view by the student, parent and administrator.

## Chapter 3: Collection of information

### 3.1 Introduction

As any kind of project information gathering is very necessary to start the work from the first step up the final step. It is become mandatory from the system analyst to use any possibilities to collect data information which help the programmer to complete his job. In this case our project we use many ways to collect information such as the internet, asked some questions from different people, most ideas from our supervisor **Mr. Ferdous Ahmed**, from document, and others peoples who have knowledge about web development specially in the case of online schooling.

### 3.2 Largest searching engine

Let first think to google.com which gave us the chance to find out many solutions regarding of our problems that we face during our project implementation.

During the implementation of this project we collected more information in the internet by using the largest motor of searching known as Google.com.

These information can be pictures or others data which we have seen interested to our project implementation.

The IUT internet and Grammenphone societies which are provided us the high data rate to browse through the internet we discovered many ways to follow until we reach at that point of the project.

### 3.3 Data collection from university

Before we start our work we decided to ask more question to the manager of Chamsi University of technology in order to give us more details about the functionality of their system, as we decided to implement a system that might response to the need of students it was obligatory to collect information from the administrator.

After many information and documents provided by administrator we had more ideas about the system itself, such as:

- ✓ Student's information's and needs.
- ✓ Administrator management
- ✓ Teacher objective
- ✓ Parents needs

### 3.4 Face to face with our supervisor

From the beginning of this project up the last day of this project; we met our supervisor **Mr. Ferdous Ahmed**, IUT lecture in the CSE Department more than seven times.

During each meeting we benefit more ideas about this project. Because of his ideas on this field and gentleness we were very glad to see him every day but unfortunately the time doesn't allow him. We were very thanks to him because he suggested us right and good way to follow which helped us to reach the maximum features of our project.

### 3.5 One –to- one contact

Most of thing after many times of discussions with some administrators of university using the learning system online we discovered that most of them will be so happy for us to implement a system which will facilitate their students that why we decided to implement the system and also we have seen that it will be better to implement the website which can help mostly of students to share and learn from teachers or students online regarding their demand and so on.

### 3.6 Documentations

One of the data gathering mechanisms which helped us mostly is the documentation. Through many books we have discovered many ways to follow until to find solution of the problem that we had. In this case let us thank to New Market which provides us always the cheapness books that make forward our studies. Especially in the implementation of code we used some programming books such as:

PHP, Apache, MySQL web Development 2010 Edition by Michael K.Glass, Tann le Scouarnec, Elizabeth naramore , Gary Mailer, Jeremy stolz, Jason Garner.

Teacher Yourself Third Edition by Hebert Shildt.

In other case we collect information from other peoples who have vision in the field of programming, even they are not member of school administration but they contributed us some ideas which we were very interested for the design phase.

We accepted their suggestions because after we discussed about their suggestion we found that it will be fine to implement.



## Chapter 4: Technology Used

### 4.1 Operating System Platform

In the development of this project we have used Windows 7 and Windows 8 as operating system, this operation system we have seen that it is easy for working in a project such as project that the others operation system such as Windows XP and Vista.

This operating system has the following advantages:

- It supports most of the hardware without need of external drives.
- It offers good and easy to use Graphical User Interface (GUI).
- It supports wireless networking.
- Our project would still run perfectly on other OS platform.
- It offers universal plug and play features.
- It is readily available in the market.
- All our development tools had no problem running on Windows XP platform.
- It is generally user friendly as compared to other OS in market.

### 4.2 Web server

#### 4.2.1 History of Web server

In 1989 Tim Berners-Lee a new project with the goal of easing the exchange of information between scientists by using a hypertext system to this employer CERN.

The project results in Berners-Lee writing two programs in 1990.

A browser called world wide web and the world' fist web server, later known as CERN http, which ran on NEXTSTEP.

Between 1991 and 1994, the simplicity and effectiveness of early technologies used surf and exchange data through the World Wide Web helped to port them to many

different operating system and spread their use among socially diverse groups of people, first in scientific organization, then in universities and finally in industry.

In 1994 Tim Berners-Lee decided to constitute the World Wide Web consortium to regulate the further development of the many technologies involved (HTTP, HTML, etc.) through a standardization process.

### 4.2.2 Overview

A web server is a computer or software program on the internet that host websites, the main function of this computer is to send request to a client computer after received a request from any page web. It will delivered HTML page which can contain information such as images, style sheet, scripts, and so on.

The request could be a web page, image or other files. // imply that follows from this point until encounter of / is a host address, the 80 port is the one which http used and the 172.0.0.1 is the Apache IP Address instead to write: Localhost.

Along this project we have used Apache because we have understood that Apache has more advantages and easy to use than some other web server. Some of the advantages that Apache web server contains are:

**Features:** Apache has various useful features, including implementation of the latest protocols.

**Customizable:** Apache's modular architecture allows you to build a server that is made to measure.

**Administration:** Apache configuration files are in ASCLL, have a simple format, and can edited using any text editor. They are transferable so one can effectively clone a server. Once can control he server from command line, which makes remote administration very convenient.

**Extensible:** Apache server and API source code are open to public, if there is any feature that you want but not exist in Apache, you can write your own server resources better than many other servers.

**Portability:** Apache runs on a wide variety of operating system including of all variants of UNIX, Windows 9x/NT, Mac OS, and various others.

**Stability/Reliability:** Apache's source code is open to public. When any bugs are found, they are often quickly communicated, and rapidly fixed.

Update are made and announced thereafter this has resulted Apache becoming more stable. And hence reliable server over the time.

**Support:** Apache is supported by the Apache group, a large number of dedicated users and by companies who market commercial version of Apache.

### 4.3 Integrated Development Environment (IDE)

An Integrated Development Environment is software that provides comprehension facilities to computer programmers' development. Through our project we have seen that adobe Dreamweaver (Dreamweaver CS5) is very powerful with more functionalities to use. It is the industry-leading web development tool that lets you efficiency design, develop and maintain standards-based websites and applications. Dreamweaver 8 provides a powerful combination of visual layout tools, application development features and edition support.

It provided a good Graphical user interface and also has the capability to make integration with windows 7 and 8 Operation System by which we used along our project.

### 4.4 Scripting Languages used

A script language or extension language is a programming running in the client side or in the server- side that allow control of one or more application.

### 4.4.1 Html, JQuery, JavaScript and Ajax

**HTML:** The hypertext markup language is a standardization system for tagging text files to achieve font, color, graphic, and hyperlink effects on World Wide Web pages. HTML is written in the form of html elements consisting of tags. Enclosed in angle brackets (like <html>) within the web page content.

Html tags normally come in pairs like <h1>and</h1>. The first tag in the pair is the start tag, the second tag is the end tag. In between these tags web designers can add text, tables, images, etc...

**JavaScript:** Is an implementation of the ECMAScript language standard and is typically used to enable programmatic access to computational objects within a host environment.

**Ajax:** Is a group of interrelated web development methods used on the client-side to create interactive web applications. With Ajax, a web application can send data to, and retrieve data from a server asynchronously without interfering with the display and behavior of the existing page. Data is usually retrieved using the XMLHttpRequest object. Despite the name, the use of XML is not needed and the requests don't need to be asynchronous. Ajax is not one technology but a group of technologies. JavaScript and the XMLHttpRequest object provide a method for exchanging data asynchronously between browser and server to avoid full page reloads.

### 4.4.2 Server-side Scripting

Server-side Scripting is a web server technology in which a user's request is verified by running a script directly on the web server to generate dynamic web pages. It is usually used to provide interactive web sites that interface to databases or other data stores. This is

Different from client-side scripting where scripts are run by the viewing web browser. Usually in JavaScript. The primary advantage to server-side scripting is the ability to highly customize the response based on the user's requirements, access rights, or queries into data stores.

**PHP:** Hypertext preprocessor is a widely used, general-purpose scripting language that was originally designed for web development to produce dynamic web pages. Had we used only HTML or JavaScript scripting, then likely our project would consist of the features of this project.

## 4.5 Graphical Design and Edition tools

As other web development work it is very important to use some of the software by which the editing of picture, audio, and video will be powerful that is why along this project we have used some of the graphical design and editing tools to let our project looking very nice.

### 4.5.1 Adobe Photoshop

Which is a graphics edition program developed and published by Adobe System incorporated.

Now it is the leading professional image-edition program released by Adobe Photoshop is useful for both creating and editing images to be used in print or online.

### 4.5.2 Microsoft Office 2010 paint

This tool also used for creating some snapshots for our project. It help us more times like in case where we had big pictures and we need to put it in a small area so in that time Microsoft Office 2010 Paint can be used. As we have original version we didn't face any problem along the editing of the pictures.

## 4.6 Database used

In this project we used Server based database which is MySQL database. It is a comfortable server which can handle a large number of data enclosed in different tables.

**MySQL** Database provides both GUI and command line interface. Either way, it can be integrated within PHP code.

We stored our data in the tables and wrote queries to retrieve and manipulate them within PHP scripts. Once well configured a **MySQL** database can be used to serve several clients in a server-client environment.

#### 4.7 Different Web browses

This project has been tested in several web browsers to ensure that whatever the browser that our project can be used, user should not face any problem. As we know some time user might need to brows but it may happen that page which want to access cannot be found or the page can be found but with bad design while it was designed nicely.

We have tested our project in the following browser:

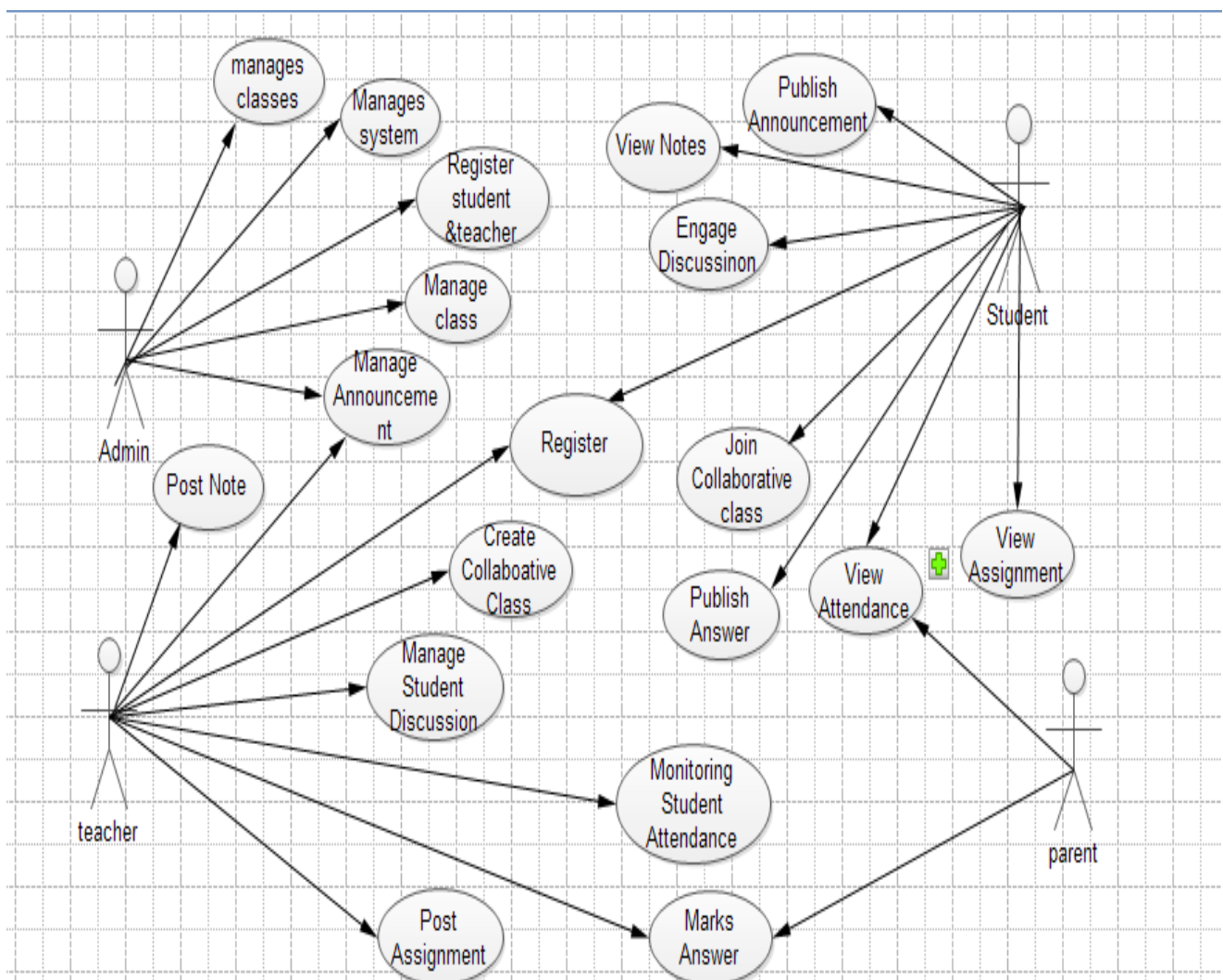
- Google Chrome
- Mozilla Firefox
- Internet Explorer

## Chapter 5: System Architecture

### 5.1 Use Case Diagram

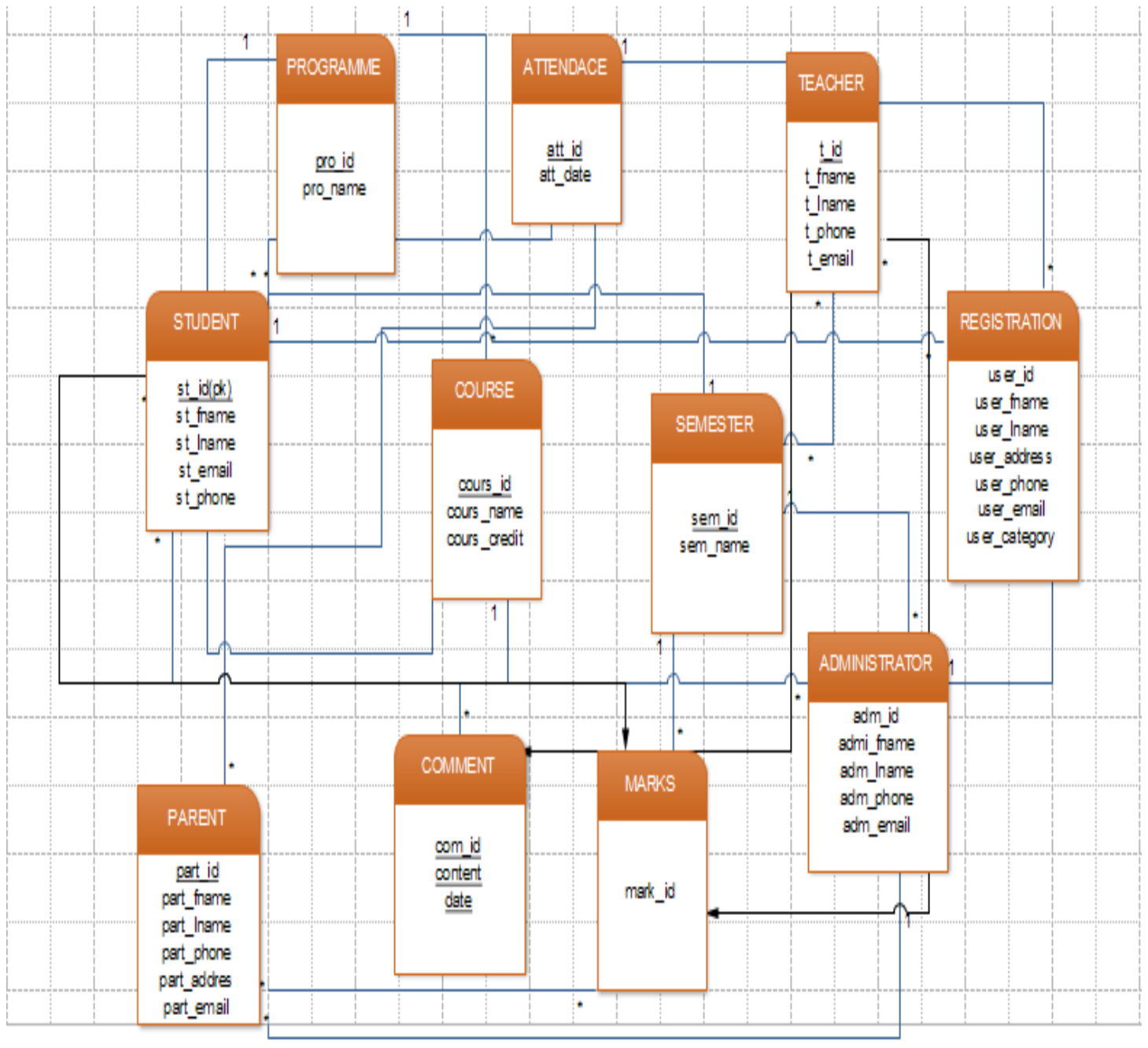
Use Case Diagram consists of use cases and actors and shows the interaction between the use cases and Actors. The purpose is to show the interactions between use cases and actors to represent the system requirement from user's perspective. It must be remembered that the use cases are the function that are to be performed in the module. An actor could be the end user of the system or the external system.

#### Use Case diagram (Online Schooling)



## 5.2 ER Diagram

### E-R Online Schooling Diagram





## Chapter 6: Implementation

### Introduction

**Module:** The system has been identified to be presented with the following modules:

Student, Teacher, parent, Administration.

#### **Student:**

Students have the chance to share information, documents, books, and also he/she can receive messages from teachers and administrators. Students can access his/her information like quiz marks, attendance, assignments, files, and personal information as well as possible.

Students can engage in a discussion with other students and join a collaboration class. He/she can access live public videos with multiple teachers and students.

#### **Teacher:**

Teachers manage students' discussions about previous classes or new topics regarding the learning environment.

Creates collaborative classes and also he/she can post an assignment

Assigns quiz marks for each student, live videos with students but also can send and receive messages from students, parents, and administrators.

#### **Parent:**

With the new technology, all parents need to control and see how the student progresses during the academic year. In this opportunity, the parent can have access to the schedule, quiz marks, attendances, and personal information of the student. He/she can also have direct contact with the different teachers and administration by messages.

**Administration:** The Administration module centralizes all activities to be done in this application.

Administration also can add, delete and edit information related to the administration rules of the system.

## 6.1 Some tables used
















Through the project implementation we have use many table but we represent few of them.

### 6.1.1 Admin table

We represent here how create this table and the different entities:

```
CREATE TABLE IF NOT EXISTS `admin_part` (  
  `id` int(11) NOT NULL AUTO_INCREMENT,  
  `ad_username` varchar(100) NOT NULL,  
  `ad_password` varchar(100) NOT NULL,  
  `full_name` varchar(100) NOT NULL,  
  `ad_status` varchar(100) NOT NULL,  
  PRIMARY KEY (`id`),  
  UNIQUE KEY `ad_username` (`ad_username`)  
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=3 ;
```

And we get the result like:

#	Column	Type	Collation	Attributes	Null	Default	Extra	Action
1	<u>id</u>	int(11)			No	None	AUTO_INCREMENT	 Change  Drop  More ▼
2	ad_username	varchar(100)	latin1_swedish_ci		No	None		 Change  Drop  More ▼
3	ad_password	varchar(100)	latin1_swedish_ci		No	None		 Change  Drop  More ▼
4	full_name	varchar(100)	latin1_swedish_ci		No	None		 Change  Drop  More ▼
5	ad_status	varchar(100)	latin1_swedish_ci		No	None		 Change  Drop  More ▼

### 6.1.2 Student table

This table represent all student personal information that we store with us and determine the different between students to another. So we create this table using this code:

```
CREATE TABLE IF NOT EXISTS `student_info` (
  `id` int(11) NOT NULL AUTO_INCREMENT,
  `St_id` int(11) NOT NULL,
  `St_name` varchar(100) NOT NULL,
  `st_country` varchar(100) NOT NULL,
  `s_phone` varchar(30) NOT NULL,
  `st_address` varchar(100) NOT NULL,
  `st_email` varchar(100) NOT NULL,
  `st_password` varchar(100) NOT NULL,
  `st_gender` varchar(100) NOT NULL,
  `par_id` int(11) NOT NULL,
```

```

`st_class` varchar(30) NOT NULL,

`photo` varchar(150) NOT NULL,

PRIMARY KEY (`id`),

UNIQUE KEY `St_id` (`St_id`,`st_email`),

UNIQUE KEY `St_id_2` (`St_id`)

) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=1 ;

```

And we get the result showing in this table :

#	Column	Type	Collation	Attributes	Null	Default	Extra	Action
1	<u>id</u>	int(11)			No	None	AUTO_INCREMENT	Change  Drop  More ▼
2	St_id	int(11)			No	None		Change  Drop  More ▼
3	St_name	varchar(100)	latin1_swedish_ci		No	None		Change  Drop  More ▼
4	st_country	varchar(100)	latin1_swedish_ci		No	None		Change  Drop  More ▼
5	s_phone	varchar(30)	latin1_swedish_ci		No	None		Change  Drop  More ▼
6	st_address	varchar(100)	latin1_swedish_ci		No	None		Change  Drop  More ▼
7	st_email	varchar(100)	latin1_swedish_ci		No	None		Change  Drop  More ▼
8	st_password	varchar(100)	latin1_swedish_ci		No	None		Change  Drop  More ▼
9	st_gender	varchar(100)	latin1_swedish_ci		No	None		Change  Drop  More ▼
10	par_id	int(11)			No	None		Change  Drop  More ▼
11	st_class	varchar(30)	latin1_swedish_ci		No	None		Change  Drop  More ▼
12	photo	varchar(150)	latin1_swedish_ci		No	None		Change  Drop  More ▼

### 6.1.3 Attendance table

The attendance part is more important in our system. This is why create table of attendance must be done. In this table we show all the entities that we need to take attendance. We create this table using this code:

```
CREATE TABLE IF NOT EXISTS `attendance` (
  `id` int(11) NOT NULL AUTO_INCREMENT,
  `att_id` int(11) NOT NULL,
  `att_value` varchar(30) NOT NULL,
  `course_id` varchar(30) NOT NULL,
  `st_id` int(11) NOT NULL,
  `att_date` datetime NOT NULL,
  `period_id` int(11) NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=1;
```

And we get the result :

#	Column	Type	Collation	Attributes	Null	Default	Extra	Action
1	<u>id</u>	int(11)			No	None	AUTO_INCREMENT	Change  Drop  More ▼
2	att_id	int(11)			No	None		Change  Drop  More ▼
3	att_value	varchar(30)	latin1_swedish_ci		No	None		Change  Drop  More ▼
4	course_id	varchar(30)	latin1_swedish_ci		No	None		Change  Drop  More ▼
5	st_id	int(11)			No	None		Change  Drop  More ▼
6	att_date	datetime			No	None		Change  Drop  More ▼
7	period_id	int(11)			No	None		Change  Drop  More ▼

We cannot represent all the table one by one, but here we give the overview of all the tables used in this project:

Server: localhost Database: onlineschooling

Structure SQL Search Query Export Import Designer Operations Privileges Drop

<input type="checkbox"/>	Table	Action	Records <sup>1</sup>	Type	Collation	Size	Overhead
<input type="checkbox"/>	admin_part	     	2	MyISAM	latin1_swedish_ci	3.1 KiB	-
<input type="checkbox"/>	announcement	     	0	MyISAM	latin1_swedish_ci	1.0 KiB	-
<input type="checkbox"/>	assignment	     	3	MyISAM	latin1_swedish_ci	2.3 KiB	-
<input type="checkbox"/>	attendance	     	54	MyISAM	latin1_swedish_ci	4.5 KiB	-
<input type="checkbox"/>	chat	     	14	MyISAM	latin1_swedish_ci	2.8 KiB	-
<input type="checkbox"/>	classes	     	6	MyISAM	latin1_swedish_ci	1.2 KiB	-
<input type="checkbox"/>	class_routine	     	29	MyISAM	latin1_swedish_ci	3.1 KiB	-
<input type="checkbox"/>	comment	     	10	MyISAM	latin1_swedish_ci	2.9 KiB	128 B
<input type="checkbox"/>	course	     	17	MyISAM	latin1_swedish_ci	5.8 KiB	-
<input type="checkbox"/>	fileupload	     	5	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/>	marks	     	16	InnoDB	latin1_swedish_ci	16.0 KiB	-
<input type="checkbox"/>	messages	     	6	MyISAM	latin1_swedish_ci	3.3 KiB	-
<input type="checkbox"/>	parent	     	6	MyISAM	latin1_swedish_ci	3.6 KiB	-
<input type="checkbox"/>	period	     	12	MyISAM	latin1_swedish_ci	2.1 KiB	-
<input type="checkbox"/>	post	     	7	MyISAM	latin1_swedish_ci	2.8 KiB	-
<input type="checkbox"/>	student_info	     	10	MyISAM	latin1_swedish_ci	5.1 KiB	-
<input type="checkbox"/>	sub_assignment	     	0	MyISAM	latin1_swedish_ci	1.0 KiB	-
<input type="checkbox"/>	teacher	     	11	MyISAM	latin1_swedish_ci	4.1 KiB	-
<input type="checkbox"/>	videos	     	6	MyISAM	latin1_swedish_ci	3.3 KiB	252 B
19 table(s)		Sum	214	MyISAM	latin1_swedish_ci	84.0 KiB	380 B

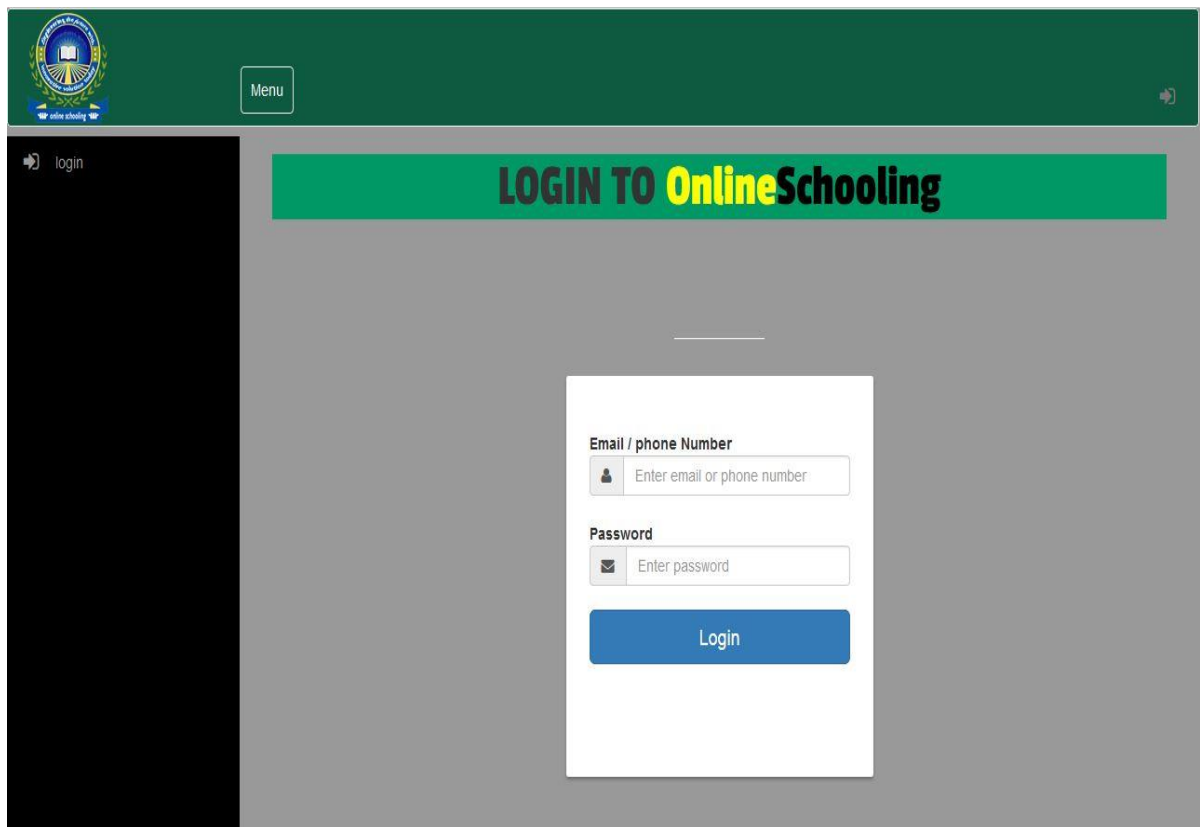
↑ Check All / Uncheck All / Check tables having overhead With selected: ▾

## 6.2 Screen Shorts

Here we will see some important pages that student, teacher, parent or administrator can have access.

### 6.2.1 User Login page

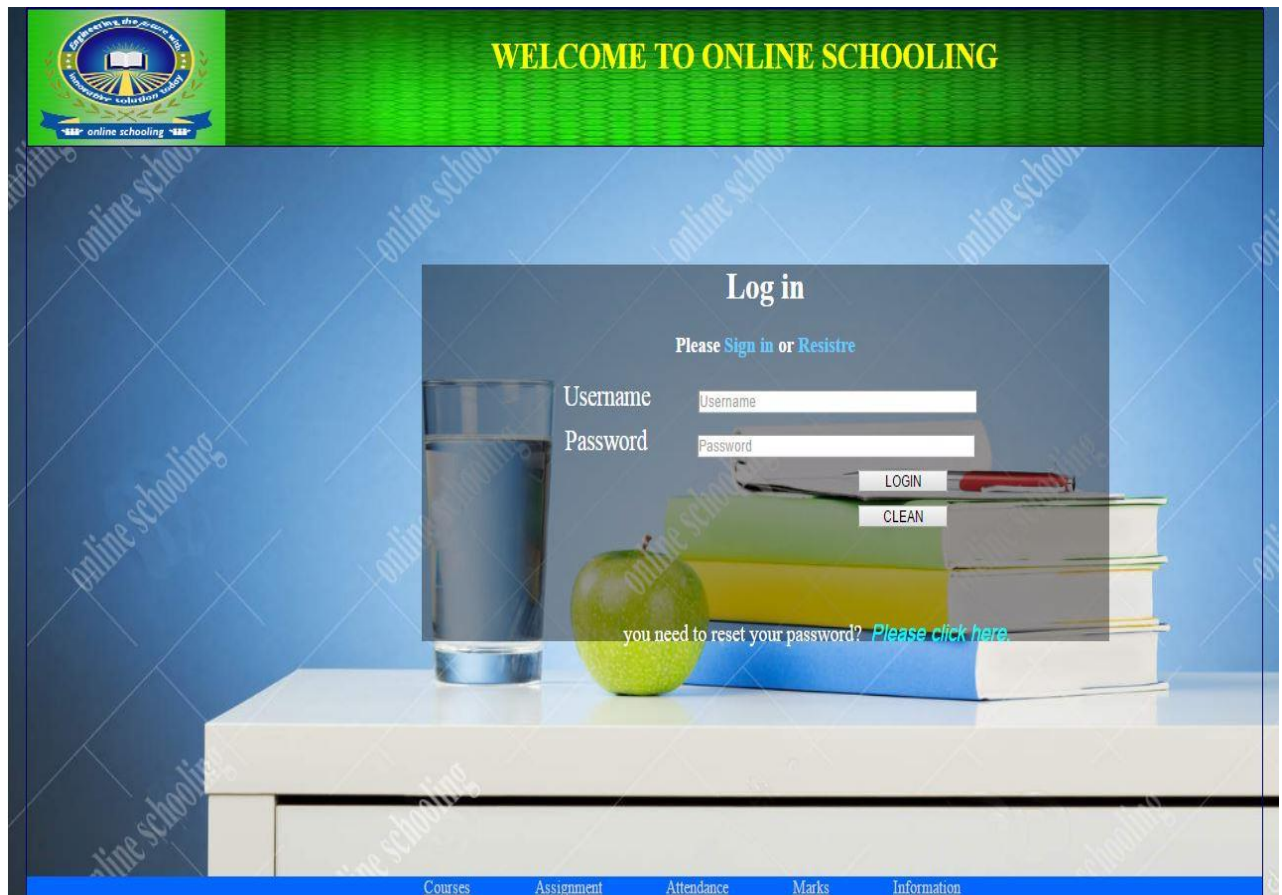
The User Login Page is the first page that will be displayed after open this website. The student, teacher or parent will give the personal email and password to have access in the main project. Without the personal information, the user cannot have access to any information in this website. Our user login Page will look like:



The screenshot displays the user login interface. At the top, there is a dark green header with a logo on the left, a 'Menu' button in the center, and a small icon on the right. Below the header, a black sidebar on the left contains a 'login' link. The main content area features a green banner with the text 'LOGIN TO OnlineSchooling'. Below the banner is a white login form with two input fields: 'Email / phone Number' (with a person icon) and 'Password' (with a lock icon). A blue 'Login' button is positioned below the password field.

## 6.2.2 Admin login

The admin part is a strict part that cannot be accessed by anyone. In this case, the admin has a specific login page. This page will look like:



## 6.2.3 Student home page

Student home page will show the schedule of the student and the different menu needed by the student.



On the left side, is the navigation that will allow the student to browse thru each part of the website. The links are represented with text, images and in some cases Videos.

The student home page will look like:

**WELCOME**

Welcome to online schooling. On your left side, is the navigation that will allow you to browse thru each chapter. The chapters are represented with text, images and in some cases Videos. At the end of chapters, you will also find Assessment tests that you would need to complete and submit here for evaluation.

Routine						
Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
07:30:00 - 08:25:00						
08:25:00 - 09:20:00						
09:20:00 - 10:15:00	Bio 98002					
10:30:00 - 11:25:00						
11:25:00 - 12:20:00			Bio 98002			
12:20:00 - 13:15:00			Lang 7830			
15:15:00 - 14:30:00						
14:30:00 - 15:25:00						
15:25:00 - 16:20:00					Bio 98002	
16:20:00 - 17:15:00						

## 6.2.4 Teacher Home Page

On the teacher home page, we will show the teacher all their courses that can directly take attendance and assign quiz marks. So the teacher can evaluate student, set marks, give attendance, send note to a specific parent but also can upload the courses, video etc.

The teacher home page will look like:

**WELCOME Mr Mohamed Hassane**

Welcome to online schooling. On your left side, is the navigation that will allow you to browse thru each part of this website. you can evaluate student, set marks, give attendance, send note to a specific parent but also you can upload the courses, video etc.

you have the part of share public infomation depend to your desir to show and other manythings to do.

thank you to logout when you finish your work.

subject(s)			
course id	course name	Credit	Option
math 78001	Analysis I	4	attendance marks Schedule
Bio 98002	Biology Animal II	4	attendance marks Schedule

Academic year 2015 - 2016

## 6.2.5 Taking attendance page

Getting attendance and assign marks are the important works of the teacher in this website but also upload different files. Here the page for getting attendance after specifying the course id.

**Attendance**

Welcome to online schooling. On your left side, is the navigation that will allow you to browse thru each part of this website. you can evaluate student, set marks, give attendance, send note to a specific parent but also you can upload the courses, video etc. you have the part of share public information depend to your desir to show and other manythings to do. thank you to logout when you finish your work.

select Course Id

Student Information		Option		
Student ID	Student Name	Present	Late	Absente
4145004	Mohamed Said	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4145000	Ahmed Ali	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Normal day and time  Date:

Academic year 2015-2016

## 6.2.6 Live public chat page

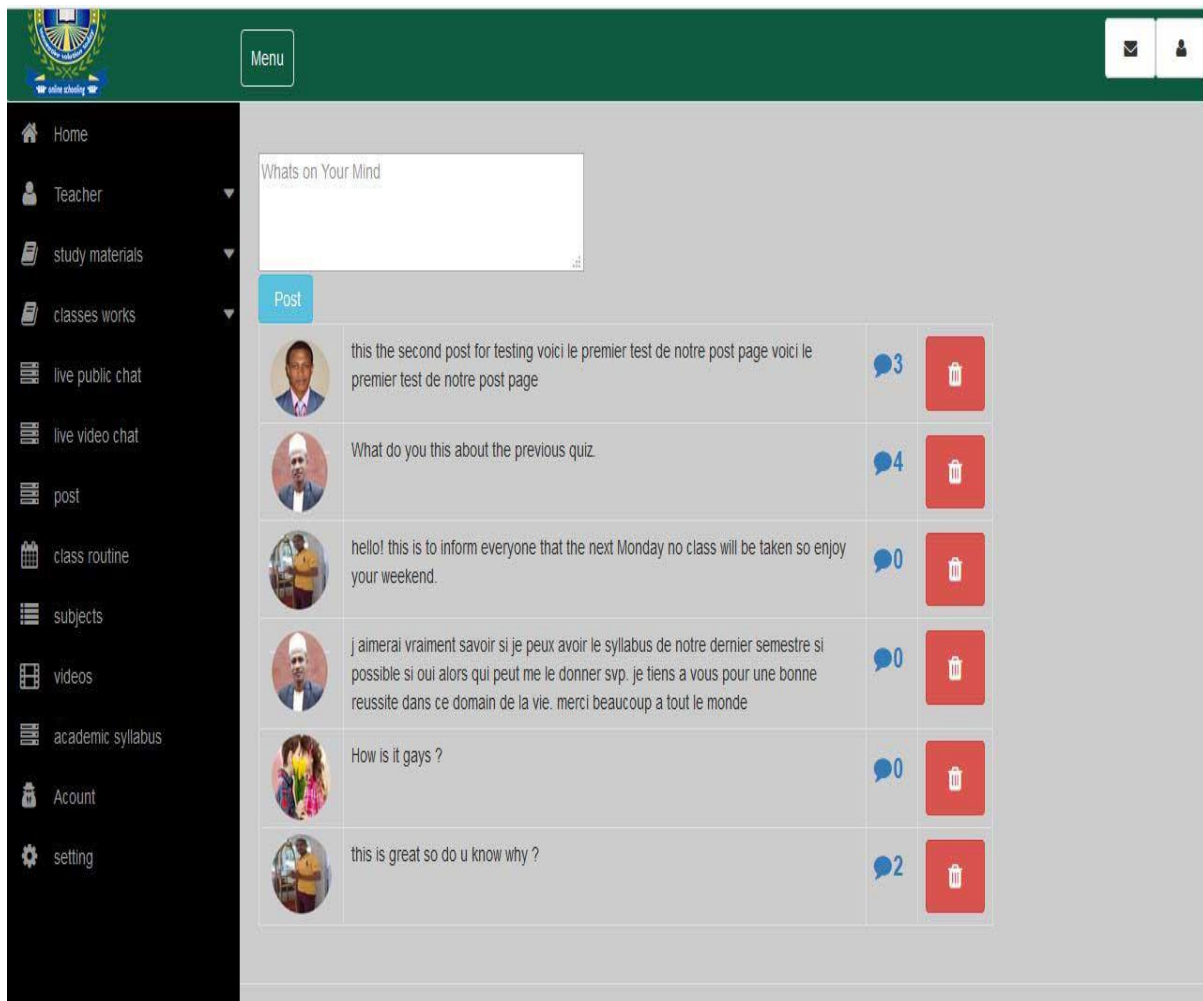
This part based to collaborate from student to another students by sending a live messages. Here we have the page:

The screenshot displays a 'live public chat' interface. On the left, a dark sidebar lists navigation options: Home, Teacher, study materials, classes works, live public chat, live video chat, post, class routine, subjects, videos, academic syllabus, Account, and setting. The main chat area features a green header 'live public chat' and a text input field 'Type your message' with a 'Send message' button. The chat history shows messages from 'Nadjim Youssouf' and another user. Messages include: 'just follow the corresponding map lol', 'so how can we meet?', 'nothing wrong', 'what wrong', 'hi how are you', and 'what going on here'. Each message is timestamped and includes a profile picture.

## 6.2.7 Post page

Sharing information and idea is more important in the domain of learning. So this page help the student and teacher to post some idea and get some feedback or comment.

The page will look like:



So we have multiple pages that we cannot show all of them but for more information please visit our website online in [nadaonlineschooling.com](http://nadaonlineschooling.com) (not available right now)

### 6.3 Code and Script Code

In this part, we will see some programming code used to develop this website.

### 6.3.1 User Login Page

Like we see before, this page is to help student, teacher or parent to login in the system.

First we have to redirect the user to his home page if he/give the necessary and correct information but also connect to the database. This part is coding by:

```
<?php session_start();
if(isset($_SESSION["t_username"])){ // if is teacher connected
    header("location:home_teacher.php"); // go to teacher home page
    exit();
}else if(isset($_SESSION["st_username"])){ // or if student connected
    header("location:home_student.php"); // go to student home page
    exit();
}else if(isset($_SESSION["par_username"])){ // or if parent connected
    header("location:home_parent.php"); // go to parent home page
    exit();
}

if(file_exists("dbconfig.php"))
    include("dbconfig.php"); // connection to the database file
else echo 'Database Connectivity Information Missing!';
?>
```

If no one log in on the system then we need the form to get the user information and check them from the database and give him/her the access in our system. Here the code for this form:

```
<form class="form-horizontal" name="myform" method="post" action="login_action.php">
    <div class="form-group">
        <label for="name" class="cols-sm-2 control-label">
            Email / phone Number
        </label>
        <div class="cols-sm-10">
            <div class="input-group">
                <span class="input-group-addon">
                    <i class="fa fa-user fa" aria-hidden="true"></i>
                </span>
                <input type="text" class="form-control" name="username" id="username"
                placeholder="Enter email or phone number" required/>
            </div>
        </div>
    </div>
```

```

</div>

<div class="form-group">
  <label for="email" class="cols-sm-2 control-label">
    Password
  </label>

<div class="cols-sm-10">
  <div class="input-group">
    <span class="input-group-addon">
      <i class="fa fa-envelope fa" aria-hidden="true"></i>
    </span>

    <input type="password" class="form-control" name="password" id="password"
placeholder="Enter password" required/>
  </div>
</div>
</div>

<div class="form-group ">
  <input type="submit" name="login" class="btn btn-primary btn-lg btn-block login-
button" value="Login" />
</div>

</form>

```

After sending this for to the page call “logging\_action.php”, this one will process the date from the different table (student\_info, teacher, or parent). If the user email or phone and password are found in the same user then we give him/her access depending to the information. Here the script to check those information:

```

<?php
session_start();
include("dbconfig.php");
$username=$_POST["username"];
$password=$_POST["password"];
// first we check for student information
$sql=mysql_query("select * from student_info where (st_email='$username' and
st_password='$password') || (St_id='$username' and st_password='$password') ");
$count=mysql_num_rows($sql);
if($count>0){
  $result=mysql_fetch_array($sql);
  //echo $result["ad_username"];
  $_SESSION["full_name"]=$result["St_name"];
  $_SESSION["st_username"]=$result["st_email"];
  $_SESSION["class_name"]=$result["st_class"];
  $_SESSION["st_id"]=$result["St_id"];
  $_SESSION["photo"]=$result["photo"];
}

```

```

?>
<script type="text/javascript">
    window.location.href = 'home_student.php?status=login_success';
</script>
<?php
    //header("location:home.php");
}
// no student found, we check for teacher information
else{
    $sql1=mysql_query("select * from teacher where (t_email='$username' and
t_password='$password') || (t_id='$username' and t_password='$password') ");
    if(mysql_num_rows($sql1)>0){
        $result=mysql_fetch_array($sql1);
        //echo $result["ad_username"];
        $_SESSION["full_name"]=$result["t_name"];
        $_SESSION["t_username"]=$result["t_email"];
        $_SESSION["t_id"]=$result["t_id"];
        ?>
        <script type="text/javascript">
            window.location.href = 'home_teacher.php?status=login_success';
        </script>
        <?php }
    // no student or teacher found, now we check for parent information
    else {
        $sql2=mysql_query("select * from parent where
(parent_email='$username' and parent_pwd='$password') || (parent_id='$username' and
parent_pwd='$password') ");
        if(mysql_num_rows($sql2)>0){
            $result=mysql_fetch_array($sql2);
            //echo $result["ad_username"];
            $_SESSION["full_name"]=$result["parent_name"];
            $_SESSION["par_username"]=$result["parent_email"];
            $_SESSION["par_id"]=$result["parent_id"];
        ?>
        <script type="text/javascript">
            window.location.href = 'home_parent.php';
        </script>
        <?php }else
// no student or teacher or parent found, we return in the login home page.
{ ?>
        <script type="text/javascript">
            alert("Wrong Email or Password, please try again");
            window.location.href = 'index.php';
        </script>
        <?php
    }
}
?>

```



### 6.3.2 live public chat

In this page, the different student can have a real live chat between them. Here the code for that.

This is the form to get the message form the user:

```
<form method ="POST" action="" >
    <input type="hidden" name ="name" value="<?php echo
$_SESSION["st_id"];?>">
    <textarea name="msg" placeholder="Type your message"
class="form-control" required></textarea>
    <input type="submit" name="submit_chat" class="form-control
btn-success" value="Send message"><br>
</form>
```

Now we have to send the message to our database and save it. Here the core for that:

```
<?php
if(isset($_POST['submit_chat'])){
$name = $_POST['name'];
$msg = $_POST['msg'];
date_default_timezone_set('Asia/Dhaka');
$date = date('Y-m-d h:i:s', time());
$query = "INSERT INTO chat(user_id, message, date, status)
VALUES('$name','$msg','$date','1')";
$run = mysql_query($query);
}
?>
```

After sending the message, we have to show it and all coming message. In this case we need another script. But before give the script let us show where we will display the different messages. Here the place:

```
<div id="chat" ></div>
```

We call an Ajax function that will call the script and display it in the corresponding place. Here the Ajax function:

```

function ajax(){
var req = new XMLHttpRequest();
req.onreadystatechange = function(){
if(req.readyState == 4 && req.status == 200){
document.getElementById('chat').innerHTML = req.responseText;
}
}
req.open('GET','chat.php',true);
req.send();
}
setInterval(function(){ajax()},1000);

```

In this function, we get the script from the chat.php page and display it in our div

Here the programming code for take message from the database:

```

<?php session_start();
include('dbconfig.php');
$query = "SELECT * FROM chat ORDER BY chat_id DESC";
$run = mysql_query($query);
while($row = mysql_fetch_array($run)){
    $stu_id=$row["user_id"];
    $my_id=$_SESSION["st_id"];
    $user_in=mysql_query("select * from student_info where
St_id='$stu_id'");
    while($user_re=mysql_fetch_array($user_in)){
        ?>
        <div id="chat_data" style="width:100%; ">
        <?php if($stu_id != $my_id){ ?>
        <table width="100%" >
        <tr>
        <td rowspan="3" width="90px">
        <?php $photo=$user_re["photo"];?>
        <?php if(!empty($photo)){ ?>
            
        <?php }else {?>
            
        <?php }?>
        </td>
        <td>
        <tr >

```

```

        <td><span style="color:brown;"><?php echo
$user_re['St_name'];?></span> :
        <span style="color:#F00; font-size:12px; font-
style:italic;"><?php echo $row['date'];?></span></td>
    </tr>
    <tr>
        <td colspan="2"><span style="float:left;"><?php echo
$row['message'];?></span></td></tr>
    </td>
</tr>
</table>
<hr style="width:100%;" />
<?php } else { ?>
    <table width="90%" style="float:left;">
        <tr>
            <td rowspan="3" width="2px" height="60px">
            </td>
            <td width="90%">
                <tr>
                    <td align="right">
                        <span style="color:#0CC; font-size:12px; font-style:italic;"><?php
echo $row['date'];?></span></td>
                    </tr>
                    <tr>
                        <td colspan="2"><span style="float:right;"><?php echo
$row['message'];?></span></td>
                    </tr>
                </td>
            </tr>
        </table>
        <div style="width:9%; float:right; ">
            <?php $photo=$user_re["photo"];?>

            <?php if(!empty($photo)){ ?>
                
                <?php }else {?>
                    
                <?php }?>
            </div>
        <hr style="width:100%;" />
        <?php }?>
    </div>
    <?php } }?>

```

## Chapter 7: Teaching and learning Online Course

### 7.1: Online teaching

As we plan, online course, it is helpful to remember that in any environment online instructors stress that teaching online is less about the mechanics of distance education and “more about what makes for an effective educational experience, regardless of where or when it is delivered .

### 7.2: Students Learning Online

Students new to online learning may initially find this kind of learning disorienting without the physical classroom space and guidance from the physical presence of a teacher.

Other students may initially misperceive learning online as “easier” than learning in a physical classroom space. In reality, students often find the workload in an online course heavier because they must cover course material on their own and type their discussion comments.

There are a number of suggestions for how to help prepare students for online learning:

### 7.3: the differences in learning online versus learning in a traditional classroom

- Emphasize the amount of time needed for taking an online class and the importance of working independently. Because all class discussions are written, students must be prepared for the amount of time needed to type their comments. A 3-credit online course can easily require more than six hours of time, especially for students who type slowly.

- Emphasize the extensiveness of reading and writing in an online course. Because all class assignments are provided in written format with no opportunity for class questions, teachers detail class assignments thoroughly in online courses.

Consequently, students must become careful readers in order to ensure that they understand the assignment.

- To help students understand the communication differences of learning online, provide a detailed worksheet with instructions on communication guidelines.

Tip: See the Appendix: Conventions for Communicating Online to this chapter for an example.

Tip: One instructor uses the following explanation to clarify to her students the definition of a threaded discussion post.

#### **7.4: How much to post, and what makes a "good" post?**

These are hard questions to answer because discussions are organic, developing and evolving depending upon what is said by whom. . . In general, posting only once is not enough to really engage in a discussion. I am expecting probably 3-6 posts depending upon the amount of time I've allotted for the discussion and how in-depth your posts are. . . What I expect and hope to see is a dialogue evolving, with give and take, back and forth, questions asked and ideas explored like in a face-to-face class discussion. . . So as you post be cognizant that you are engaging in a discussion. Do not post long pages of responses--probably a couple of paragraphs at most, sometimes a sentence or two can be effective, especially if you're asking a question.

#### **7.5: Clarify expectations**

- Post guidelines for participation on the class homepage. For example, explain to students how many days each week they should login to the course website. In online courses, it is not uncommon to expect students to login every week day.

- Give a detailed, conspicuous course outline. Because you must clarify course expectations only in writing, make sure that you give students enough detail to complete class assignments. Even simple assignments like a journal need detailed explanations.

Tip: One instructor uses the following explanation for the weekly journal exercise.

She /he posts this explanation in every unit to remind students weekly of the assignment.

The forum is the place for you to keep thinking about, wrestling with, exploring the issues we've discussed online. Feel free to add your own day-to-day observations about issues related to our course.. teacher can or not comment on the students questions or comments; he/she only check to see if students have completed the assignment.

- Set clear expectations with regard to students performance/activity. Help students understand expectations for the course and encourage them to ask questions.

One way to help students understand course expectations is to post examples of model assignments. You can post examples of model assignments from other web pages or upload sample papers. In our system onlineschooling course website allow teachers to easily upload files, such as MS Word and Excel documents. Pdf etc.

- Remind students frequently of course expectations. Tip: During the semester, one teacher posted reminders to keep students up-to-date with the course material.

Following is an example of one such reminder:

## Chapter 8: Student Guide to Conventions of Online Communication

### 8.1 Introduction

In order to participate in this course, you must obtain access to a computer with a connection to the World Wide Web.

### 8.2 Communication

#### 8.2.1 General

- Realize that typed messages lack the vocal and nonverbal cues that normally carry a lot of meaning in a face-to-face conversation. Without this supporting context, satire or sarcasm can come across as meanness.
- Avoid criticizing people's spelling. Typos are more accepted on the Internet, so sending a message pointing out all the spelling errors or grammatical mistakes in someone's messages may be counterproductive.
- Even so, spell-check your own messages and quickly review them for punctuation and grammar.
- DON'T USE ALL CAPITAL LETTERS! Occasional capitals are OK for emphasis, but typing in all caps is the Internet equivalent of shouting (plus messages in all caps are hard to read).
- Avoid using all lowercase letters. It's viewed as mumbling.
- Avoid using text features like boldface, italics, underlining, or diacritical marks---many online systems won't display them.
- Underscored Text indicates underline or italic.
- \*asterisks\* are used in place of bold text.
- Be brief and to the point. People expect brevity and won't read lengthy messages. Plus, it's harder to read words on a computer monitor than on paper.
- Have backup copies of files and email messages.

## 8.3 Discussions

In the discussion part students have the abilities to ask any kind of questions regarding the subjects or anything about assignment or students help.

Discussion can be teachers and student or students to student or a group of students between them.

When students are assigned some work they can discuss it together on discussion block to be more clear about the subject.

In the discussion students have to follow some rules:

- ✓ Follow the current discussion
- ✓ Post or ask a class subject not personal information's
- ✓ Question/answer should be readable it means understanding
- ✓ No critical about spelling words between students.

## 8.4 Chat

Students remember that chat rooms are "logged" (i.e., a record is kept of conversations).

•Do not disrupt chat rooms by pasting large blocks of text into the input box (thus causing the screen to scroll faster than other users are able to type) or otherwise act in a manner that negatively affects other users' ability to engage in real time exchanges.

•If students are having a conversation that is off the main topic, please move to another chat room any social media like Facebook or other.

•If some students are a fast typist, should pause occasionally to let slower typists contribute to the discussion.



## Chap 9: System Design

In the previous chapters we have identified the implementation, the system design and functionalities requirements of the system and produced the analysis model. The following are discussed in these chapters now we have a new structure such as: The design goal, performance criteria ,maintenances and so on.

### 9.1 Design Goals

Design goals describe the qualities of the system that we should optimize. Such goals are normally derived from the implementation requirements of the system. Design goals are grouped into five categories. These are • Performance • Dependability • Maintenance • End User Criteria

#### 9.1.1 Performance Criteria

The part of the system to be used for the record office or administration should have a fast response time (real time) with maximum throughput. Furthermore, the system should not be taking up too much space in memory. The record officer or administrator has chosen fast response time over throughput and hence the system should try to be more interactive. In the case of the timetabling subsystem, the system should be more reliable in order to satisfy the constraints than fast response time.

#### 9.1.2 Dependability

The school needs the system to be highly dependable as it is expected to be used by nonIT professionals. The system should be robust and fault tolerant. Furthermore, as the system is handling sensitive data of the school, high emphasis should be given with regards to security, as there are subsystems to be accessed through web.

### 9.1.3 Maintenance

The system should be easily extensible to add new functionalities at a later stage. It should also be easily modifiable to make changes to the features and functionalities.

### 9.1.4 End User Criteria

#### Usability:

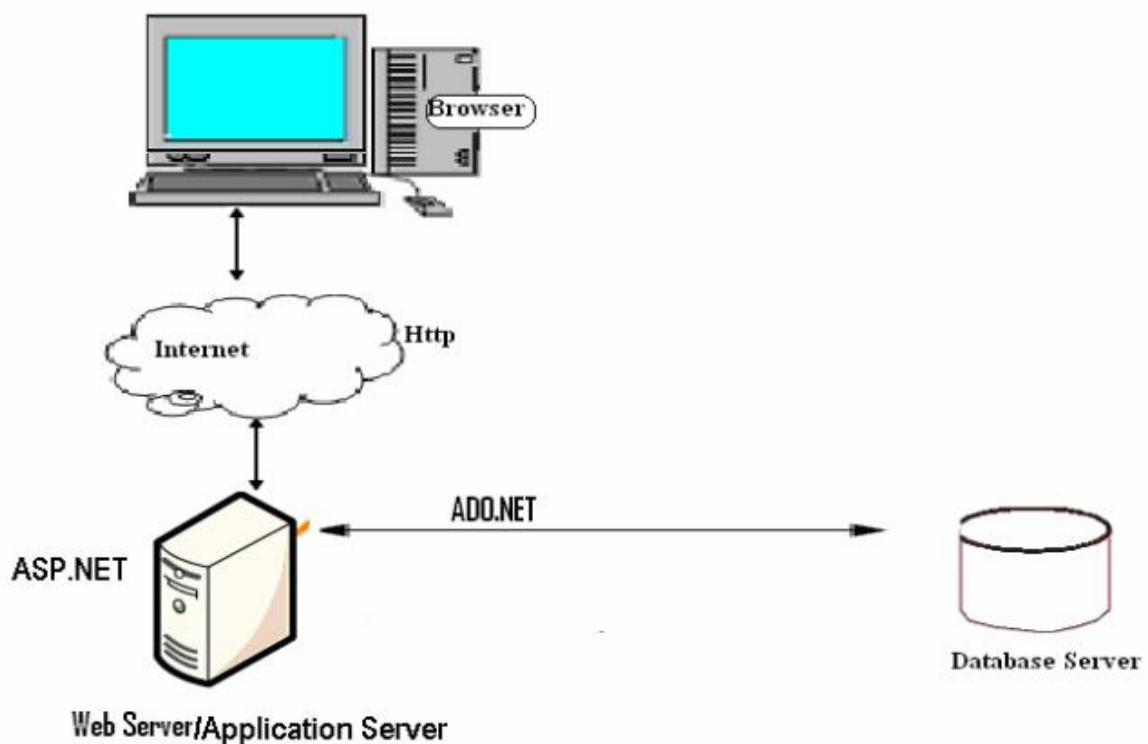
Usability is the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use. From the end users' perspective the system should be designed in such a way that it is easy to learn and use, efficient and having few errors if any. Trade-off is inevitable in trying to achieve a particular design goal. One best case is the issue of security versus response time. Checking User-Id and Password before a member can enter to the SMS creates response time problem/overhead. The other case is the issue of response time versus quality. There is some amount of time taken by the system to generate the user's information's. So the user has to wait a little after telling the system to generate the timetable and getting the result to get a quality user's information's.

## 9.2 Architecture of the System

The proposed system is expected to replace the existing manual system by an automated system in all facets. It is mainly based on the system Analysis.

The architecture used for the system is a 3 tier Client/Server Architecture where a client can use Internet browsers to access the online report provided by the system within the local area network of the school or anywhere using the Internet. Figure 9.1 shows the architecture of the proposed system. The data tier maintains the applications data such as student data, teacher data, parent's data etc. It stores these data in a relational database management system (RDBMS). The middle tier (web/application server) implements the business logic, controller logic and presentation logic to control the interaction between the application's clients and data.

The controller logic processes client requests such as requests to view student's result, to record attendance or to retrieve data from the database. Business rules enforced by the business logic dictate how clients can and cannot access application data and how applications process data. A web server is a program that runs on a network server (computer) to respond to HTTP requests. The most commonly used web servers are Internet Information Server (IIS) and Apache. The web server used in this system is IIS. HTTP is used to transfer data across an Intranet or the Internet. It is the standard protocol for moving data across the internet. The client tier is the applications user interface containing data entry forms and client side applications. It displays data to the user. Users interact directly with the application through user interface. The client tier interacts with the web/application server to make requests and to retrieve data from the database. It then displays to the user the data retrieved from the server.



**Figure 9.1 Architecture of the System**

### 9.3 Subsystem Decomposition

Subsystem decompositions will help reduce the complexity of the system. The subsystems can be considered as packages holding related classes/objects. The message under consideration is decomposed into subsystems.

These subsystems are further decomposed into other subsystems. The major subsystems identified are “Student Registration”, “Login”, “Attendance”, and “Report” subsystems. Users are classified into roles. The “Login” subsystem authenticates a user to grant access based on the role of the user. The “Student Registration” subsystem registers a student offline. It allows recording the detail information of the student including parental and emergency person.

Subsystems are used to generate students’ marks and student’s attendance.

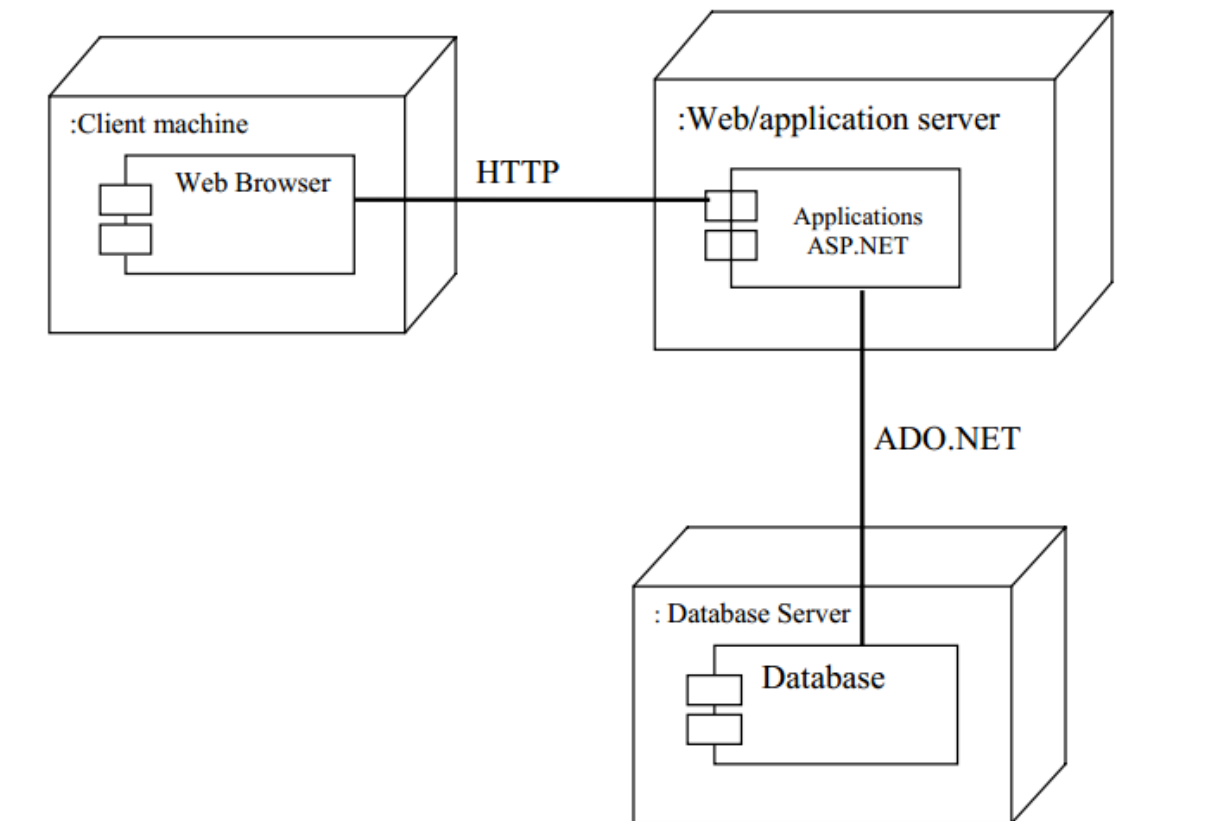
The “Attendance” subsystem facilitates recording absent students on the school day by the homeroom teacher to control absentees and to report to parents and the administrator to take corrective measures. The “Report” subsystem generates reports to parents, and teachers in order to facilitate viewing students’ status and course achievement online.

Parents also can view the students status and progress of students.

### 9.4 Hardware/Software Mapping

One of the major tasks in system design deals with hardware/software mapping which deals with which components would be part in which hardware and so on. The message is a broad system that performs many functions. It consists of web based system used by homeroom teachers to record attendance. The web based system also assists parents and officials to get or view status and report on students’ achievement and progress. The system assists the record officer to generate students marks and other staffs. So the web based part is expected to run on a networked environment on different Operating System platforms. The client/server architecture of the system enables different clients to connect to the server remotely through Internet connection. The system has two nodes such as the **Web server** and **Clients**. These nodes are shown as UML Deployment diagrams in Figure 9.2. The nodes can

represent specific instances (workstations) or a class of computers (web server), which is a virtual machine. The applications of the system will run on the web server connected to the database server by ado.net



**Fig 9.2 Deployment Diagram of the System.**

The system has two applications to be developed on the same database, Windows and Web applications. When dealing with windows applications, there are compiled program that must be distributed to the user's desktop before they can use it. Depending on the application, there may also be one or more supporting DLLs or other executable. While in thin-client applications (Web applications) there is typically no program or DLL to be distributed.

Users merely need to start their browsers and enter the URL of the application Web site. The server hosting the Web site is responsible for allocating all the resources the Web application requires.

## 9.5 Persistent Data Management

Persistent data management deals with how the persistent data (file, database, etc) are stored and managed and it outlives a single execution of the system. Information related to student basic information, student's attendance and grade mark, and other related information are persistent data and hence stored on a database management system. This allows all the programs that operate on the data to do consistently. Moreover, storing data in a database enables the system to perform complex queries on a large data set. The schools register students every year in thousands per grade level. For complex queries over attributes and large dataset Microsoft SQL Server is implemented, which is a Relational Database Management System.

### 9.5.1 Mapping

In order to store information persistently we map objects into tables and the attributes into fields to the specific table based on the objects found on the system. Therefore, we identified the major tables that will be implemented on the selected DBMS.

## Chapter 10: Evaluation and conclusion

We consider our work in this project to have gone very overall. We are happy with the end this point and think that with some polishing, our prototype could certainly be used as the basis of new product that would markedly improve the efficiency of the education system of online learning. Still, this very first try at evaluating an interactive system, and so there has naturally been some things that we have missed and some processes that we have failed to optimize. We use just a few information collecting from some administrator.

It would have been very useful to discuss the findings of our evaluation, in order to eliminate misconceptions as well as getting help with prioritizing the problems that we find. It would have been very valuable to get user feedback on our design decisions before finalizing the prototype. Ideally, we should have implemented a working interactive prototype of our redesigned system, which the users try out. This would have allowed us to actually measure and determine the impact of our changes. However, the time was limited and such a prototype would have had to very complex in order to be useful.

One problem that we noticed during the design process was that we didn't have enough information about the details of the user's work routines. The information we had in this regard came from our research; we had not done a proper task analysis. This resulted in difficulties when we tried to redesign the database forms. However, working efficiently was not the main purpose of our project. Doing the work together in meeting probably improved learning. Miscellaneous thoughts:

- We tried to study the user's mental models, but did not manage to extract any useful information about problem with the system. In order for a study of mental models to be useful it needs to be a lot deeper and more detailed than we did.
- In summary, this project has proven to be a very valuable learning experience for all of us. In addition this project has been a valuable experience in project management.
- We have designed the website efficiently, esthetically appealing and given it all the flexibility it requires. We have emphasized on functions rather than just designing attractive interface.
- This system contains various types of learning online.

- The website has an attractive, flexible and efficient interface.
- Learning we all acquired new knowledge and insight from each other and this has helped us enormously in realizing our work on time and with no major hitches.

## 10.1 Problems faced During the Implementation of the System

The problem we are faced while implementing the project start right from the design of the architecture of the website itself. These including among others:

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

## 10.2 Benefits

The project is identified by the merits of the system offered to the user. The merits of this project are as follows: -

It's a web-enabled project.

This project offers user to enter the data through simple and interactive forms.

This is very helpful for the students and teacher to enter the desired information through so much simplicity.

The user is mainly more concerned about the validity of the data, whatever he is entering. There are checks on every stages of any new creation, data entry so that the user cannot enter the invalid data, which can create problems at a later data.

Data storage and retrieval will become faster and easier to maintain because data is stored in a systematic manner and in single database.

Decision making process would be greatly enhanced because of faster processing of information since data collection from information available on computer takes much less time than manual system.