Learn IT

A Project Report
Submitted in partial fulfillment of the
Requirements for the award of the Degree of

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

By

_____

Roll Number – _____

Under the esteemed guidance of
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DEPARTMENT OF INFORMATION TECHNOLOGY

Pillai College of Arts Commerce & Science

(Autonomous)

NEW PANVEL-410206 MAHARASHTRA

2019-20

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NEW PANVEL - 410206 MAHARASHTRA

2019 - 20

DEPARTMENT OF INFORMATION TECHNOLOGY

CERTIFICATE

This is to certify that the project entitled, **"Learn IT"**, is bonafied work of
_____ bearing Roll no.-_____ submitted in partial
fulfillment of the requirements for the award of degree of BACHELOR OF
SCIENCE in INFORMATION TECHNOLOGY from University of Mumbai.

Internal Guide   **Coordinator**

External Examiner

Date: **College Seal**

Abstract

This document describes E-Learning website and web based application for Information and Technology. This website is used for online learning and Admin can able to manage content and data of their website from any were and on any device.

With this web application user can easily view and choose study material, blogs, courses links and many more features directly through website. They can also easily get access to various contents. It will help them to get an idea about various subjects. They can also download available content.

This system is implemented using html5, CSS, JavaScript, ASP.Net and C#.Net. For database SQL server has been used.

ACKNOWLEDGEMENT

No project is ever complete without the guidance of those experts who have already traded this past before and hence become master of it and as a result, our leader. So I would like to take this opportunity to take all those individuals how have helped me in visualizing this project.

I would like to express my deep gratitude to our project guide Mr. Omkar Sherkhane for providing timely assistant to my query and guidance that he gave owing to his experience in this field for past many years. He had indeed been a lighthouse for me in this journey.

I extend my sincere appreciation to all our Professors from Pillai College of Arts, Commerce and Science for their valuable insights and tips during the designing of the project. Their contributions have been valuable in so many ways that I find it difficult to acknowledge of them individually.

I am also great full to our HOD Prof. Deepika Sharma for extending her help directly and indirectly through various channels in our project work.

DECLARATION

I hereby declare that the project entitled, "**Learn IT**" done at New Panvel, has not been in any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other university.

The project is done in partial fulfillment of the requirements for the award of degree of **BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)** to be submitted as final semester project as part of our curriculum.

Name and Signature of the Student

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Chapter 1

Introduction

Our project is an E-Learning website for online immersive learning experience on a computer or mobile device that is perfect for stimulating a student and encouraging learning.

Admin will be able to manage contents, working system and data of the server/website.

In this website users can view and download various contents available in the web pages. They can also share any desired content.

This system is implemented using html5, CSS, JavaScript, ASP.NET, C#. For database SQL server has been used.

1.1 Background:

E-Learning, also referred to as Web-based training, is available anywhere, anytime. It is self-paced interactive instruction, presented over the Internet to browser-equipped learners. E-Learning courses span the spectrum from desktop applications to technical certification meeting the needs of today's life-long learners. The E-Learning solution is empowering, engaging, effective and economical.

E-Learning is easy and engaging. It is available to everyone at any time - all you need is a standard browser like Internet Explorer etc. You do not have to install programs, there are no CDs, it is all done over the Internet and the courses are interactive.

1.2 Objectives:

To create an E-learning website or web based learning application so that users can learn and share information about IT and Admin can manage site, perform different operations including that of users.

To make the information and study materials better available for learners.

1.3 Purpose, Scope and Applicability

1.3.1 Purpose

- To increase access to learning opportunities/increase flexibility for students.
- To enhance the general quality of teaching/learning.
- To meet the learning styles/needs of millennial students.
- To improve the cost-effectiveness of the post-secondary education system
- To digitalize learning.
- To de-institutionalize learning/to enable self-managed learning.
- To embark on a journey of mystery to see where it will take me.

1.3.2 Scope

- To develop E-Learning website for Information Technology/Computer Science, so that users can choose the desired content about IT and use it for their benefits. Admin will manage, control database and manage site by uploading, removing and performing other operations to its contents.
- Admin can also add and update various other aspects of the system. Users can see their viewed contents, profile, etc by just logging in into the login panel.

1.3.3 Applicability

Though traditional education cannot be replaced, but in this era of fast technological advance and minimization of distance through the use of the Internet, everyone must be equipped with basic knowledge in technology, as well as use it as a medium to reach a particular goal.

- Provides complete web site solution, including site administration.
- All subjects are categorized by course, and all courses are categorized by department.
- Site must be accessed by college student only, after registration administrator must activate the student details. After successful registration student can login into site.
- After successful login student can view his profile, download the subject materials, read contents.
- System has powerful logical access management in place, each user must be identified by login id and strict password policy is applied to secure the system.

Chapter 2

System Planning

2.1 Survey of Technologies

2.1.1 ASP.NET with C#:

ASP.NET is a set of Web development tools offered by Microsoft. Programs like Visual Studio .NET and Visual Web Developer allow Web developers to create dynamic websites using a visual interface. ASP.NET also supports Visual Basic.NET, JScript .NET and open-source languages like Python and Perl.

ASP.NET is built on the .NET framework, which provides an application program interface (API) for software programmers. The .NET development tools can be used to create applications for both the Windows operating system and the Web. Programs like Visual Studio .NET provide a visual interface for developers to create their applications, which makes .NET a reasonable choice for designing Web-based interfaces as well.

C# (pronounced "C Sharp") is a programming language developed by Microsoft. It was introduced in 2002 with version 1.0 of Microsoft's .NET Framework. Since then, C# has gone through several revisions, corresponding with each .NET update. Today, it is one of the most popular programming languages for creating Windows programs and web applications. C# is a derivative of the C programming language and is similar to C++. It uses the same basic operators as C++, is object oriented, case sensitive, and has nearly identical syntax.

2.1.2 SQL Server:

SQL Server is Microsoft's relational database management system (RDBMS). It is a full-featured database primarily designed to compete against competitors Oracle Database (DB) and MySQL. Like all major RBDMS, SQL Server supports ANSI SQL, the standard SQL language. However, SQL Server also contains T-SQL, its own SQL implementation. SQL Server Management Studio (SSMS) (previously known as Enterprise Manager) is SQL Server's main interface tool, and it supports 32-bit and 64-bit environments. SQL Server is sometimes referred to as MSSQL and Microsoft SQL Server.

2.2 Fact-finding Techniques

2.2.1 Observations:

The method compliments the requisites of the current era where in everyone is racing against time to fetch their share of affluence. Due to the all-inclusive set of advantages, it offers to the learners, eLearning has matured into popular and apprehended way amongst scholars all around the world.

The process undoubtedly has its limitations. For those with hard economic background and lack of accessibility to technology it is definitely a long shot to exploit its luxury to the fullest. The unprivileged populations of developing countries are saddled with this phase of digital divide.

But with an attempt to make internet more affordable and far reaching, it is possible to bridge the gap between low income community and tech access to dissipate the plight of economic divide.

2.2.2 Research:

E-learning is a growing field. Traditionally it has referred to full-scale distance education (elements such as platforms, online classrooms, teaching roles, tutors, multimedia, interactive tools, resources, and computer-supported collaborative learning). Normally it has been practised in higher education and corporate and occupational training convarchars as a part of lifelong learning. However, with the emergence of new open and mobile platforms and web apps, a range of possibilities has opened to facilitate teaching and learning processes in fully on-site or blended environments. As a result, e-learning has been implemented in all educational systems. Technological innovations have led to the development of effective new methods that have been identified in reports on e-learning trends and have been taken to all stages of education. Examples include experiences based on mobile learning, game-based learning, MOOCs, the flipped classroom, and learning analytics, all of which are becoming increasingly visible.

2.3 Feasibility Study

A feasibility analysis is used to determine the viability of an idea, such as ensuring a project is legally and technically feasible as well as economically justifiable. It tells us whether a project is worth the investment—in some cases, a project may not be doable. There can be many reasons for this, including requiring too many resources, which not only prevents those resources from performing other tasks but also may cost more than an organization would earn back by taking on a project that isn't profitable.

2.3.1 Technical Feasibility

This assessment focuses on the technical resources available to the organization. It helps organizations determine whether the technical resources meet capacity and whether the technical team is capable of converting the ideas into working systems. Technical feasibility also involves evaluation of the hardware, software, and other technical requirements of the proposed system.

2.3.2 Economic Feasibility

This assessment typically involves a cost/ benefits analysis of the project, helping organizations determine the viability, cost, and benefits associated with a project before financial resources are allocated. It also serves as an independent project assessment and enhances project credibility—helping decision-makers determine the positive economic benefits to the organization that the proposed project will provide.

2.3.3 Operational Feasibility

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

2.4 Stakeholders

A stakeholder is any person or entity that has an interest in the success or failure of a business or project. Stakeholders can have a significant impact on decisions regarding the operations and finances of an organization. Examples of stakeholders are creditors, employees, and even the local community. Here is more information about the various categories of stakeholder:

i)   Students

ii)   Teachers

iii)   Educational institutes

In short, stakeholders can comprise a substantially larger pool of entities than the more traditional group of shareholders who actually own a business.

Chapter 3

Requirement and Analysis

3.1 Problem Definition

Students take down notes from different sources. People buy costly books to study. They had to cover different sites or other sources for latest technology news.

The students as well other users had to rely on physical books, notes and other educational content. For soft documents they have to access as well as had to go through different websites and procedures.

Thus current situation leads to wastage of time as well as efforts during critical situation (ex: Exams...).

Current situation doesn't have any centralized solution or location for required resources by users.

3.2 Requirement Specification

3.2.1 Functional Requirements

User/Admin Registration requirements

User must be able to register through valid details. On opening the site, user must be prompted to register their email or username. The username will be the unique identifier of his/her account on the site.

3.2.2 Non Functional Requirements/ Software Attributes

● **Scalability**

Website should be able to provide access to contents and services to as much users as possible at any given time.

● **Privacy**

User's data should be encrypted to maintain privacy.

● **Performance**

Application must be lightweight and must work smoothly and response instantly.

3.3 Planning and Scheduling

3.3.1 Project Planning

Project planning (or it is frequently called "Project Management Application Software" is a computer program that helps people involved in the project management process to initiate, plan, execute, monitor and close projects of any size and type.

Project planning is designed to plan and document project tasks and activities, build schedules and timelines, solve project issues, manage risks and threats, assign budgets and control costs, establish collaboration and cooperation between project participants, assure and control quality, assemble project teams and organize human resources, and share information.

Actually, the list of project planning software capabilities is large enough but the main idea of PP application is to allow you to take your project through all the stages of project life cycle, from project conceptualization and initiation through project execution, control and completion.

The importance of project planning consists in providing you with tools that allow keeping ahead of rivals and continuously working on improvement of tasks, services and processes with very short time-to-market. The best software for project planning significantly helps achieve success in developing, producing and delivering your product allowing combining project activities with cross-functional expertise

3.3.2 Project Scheduling

Project scheduling is a mechanism to communicate what tasks need to get done and which organizational resources will be allocated to complete those tasks in what timeframe. A project schedule is a document collecting all the work needed to deliver the project on time. A Gantt chart is a type of bar chart that illustrates a project schedule, named after its inventor, Henry Gantt, who designed such a chart around the years 1910–1915. Modern Gantt charts also show the dependency relationships between activities and current schedule status.

Gantt chart

Sr NO.	TASK	JUNE				JULY				AUGUST				SEPTEMBER		
		6	12	18	24	6	12	18	24	6	12	18	24	5	10	15
1.	INTRODUCTION A)BACKGROUND	▬	▬													
	B)OBJECTIVE		▬	▬												
	C)PURPOSE,SCOPE & APPLICABILITY			▬	▬											
2.	SYSTEM PLANNING A)SURVEY of TECHNOLOGY					▬	▬									
	B) FACT FINDING TECHNIQUE					▬	▬									
	C) FEASIBILITY study STACK holder						▬	▬								
3.	REQUIREMENT & ANALYSIS A)PROBLEM definition									▬	▬					
	B) REQUIREMENT SPECIFICATION										▬					
	C) PLANNING & SCHEDULING										▬					
	D) SOFTWARE & HARDWARE REQUIREMENT										▬	▬				
	E) CONCEPTUAL MODELS											▬				
4.	SYSTEM DESIGN A)BASIC MODULES													▬		
	B)DATA DESIGN													▬		
	C)USER INTERFACE DESIGN													▬		
	D)SECURITY ISSUE														▬	
	E)TEST CASE DESIGN														▬	

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Sr NO.	TASK	NOVEMBER				DECEMBER				JANUARY				FEBRUARY		
		5	8	15	29	3	10	20	30	7	13	21	28	4	11	18
5.	IMPLEMENTATION AND TESTING A)CODING		▬	▬												
	B)CODING					▬	▬									
	C)CODING							▬	▬							
6.	TESTING APPROACH A)UNIT TESTING									▬	▬					
	B) INTEGRATION TESTING										▬	▬				
7.	RESULTS AND DISCUSSION												▬			
8.	CONCLUSION AND FUTURE WORK													▬	▬	
9.	FINAL SUBMISSION															▬

3.4 Software & Hardware Requirements

3.4.1 Interface:

- This application interacts with the user through G.U.I. The interface is simple, easy to handle and self-explanatory.

- Once opened, user will easily come into the flow with the application and easily uses all interfaces properly.

3.4.2 Software requirements

Software's can be defined as programs which run on our computer .it act as petrol in the vehicle. It provides the relationship between the human and a computer. It is very important to run software to function the computer. Various software are needed in this project for its development.

- Visual Studio 2015
- Google Chrome
- O.S -Windows 10

3.4.3 Hardware requirements

- **R.A.M** - 4 GB
- **Processor** - Intel I3 2nd Gen
- **System Type** - 64 bit
- **Hard-Disk-** 500 GB

- **Frontend-**
  HTML5, CSS, JavaScript, ASP .NET

- **Backend-**
  SQL, C#

3.5 Conceptual Models

E-R Diagram

The Entity-Relationship (ER) model was originally proposed by Peter in 1976 as a way to unify the network and relational database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since Chen wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

● It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.

● It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.

In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.

● **Entities**, which are represented by rectangles. An entity is an object or concept about which you want to store information. A weak entity is an entity that must defined by a foreign key relationship with another entity as it cannot be uniquely identified by its own attributes alone.
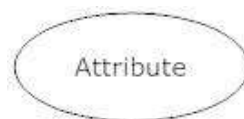
● **Actions**, which are represented by diamond shapes, show how two entities share
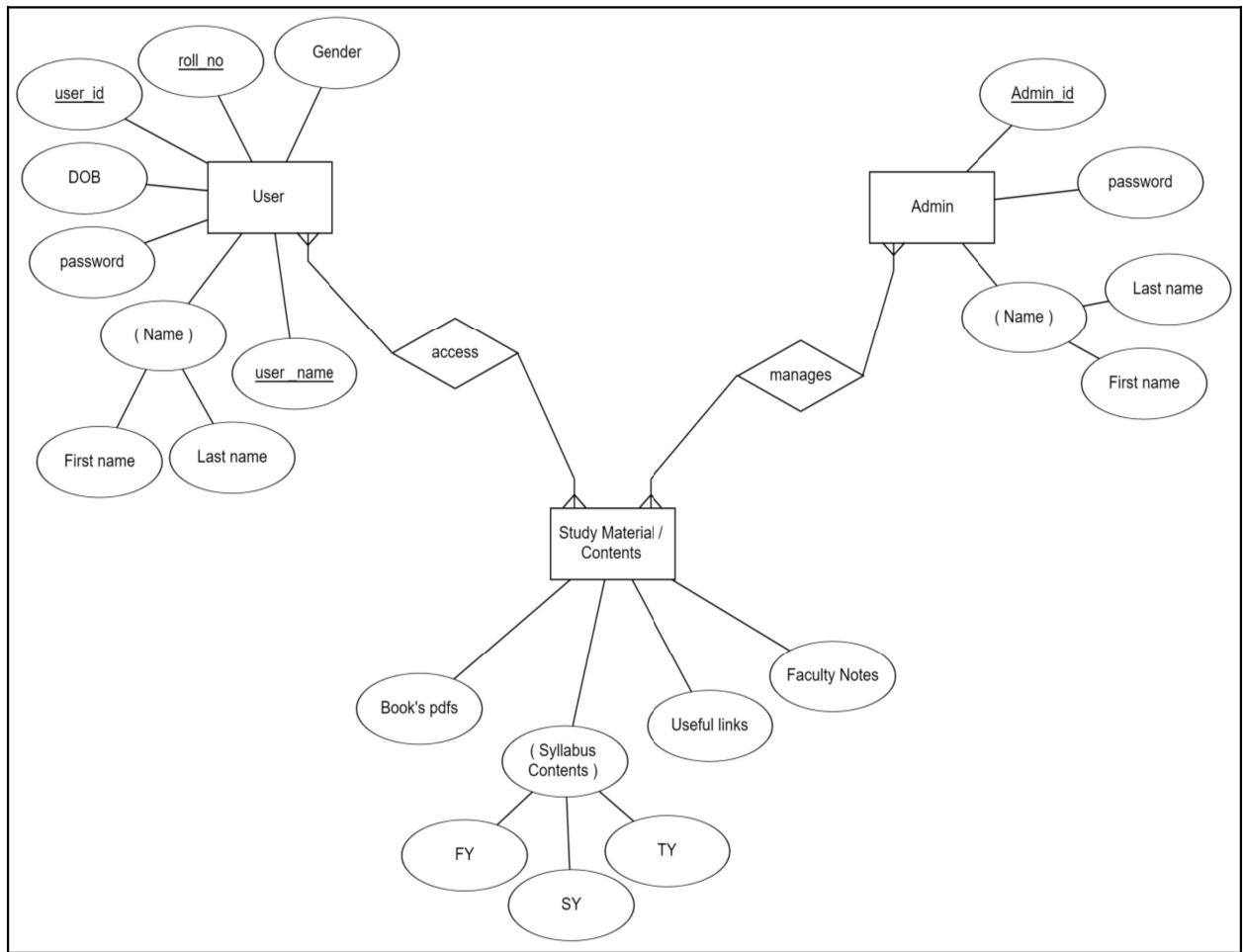

information in the database. .

● **Attributes**, which are represented by ovals. A key attribute is the unique, distinguishing characteristic of the entity. For example, an employee's social security number might be


the employee's key attribute.

● **Connecting lines**, solid lines that connect attributes to show the relationships of entities in the diagram.

Activity Diagram

The focus of activity modelling is the sequence and conditions for coordinating lower-level behaviours, rather than which classifiers own those behaviours. These are commonly called control flow and object flow models.

The behaviours coordinated by these models can be initiated because other behaviours finish executing, because objects and data become available, or because events occur external to the flow.
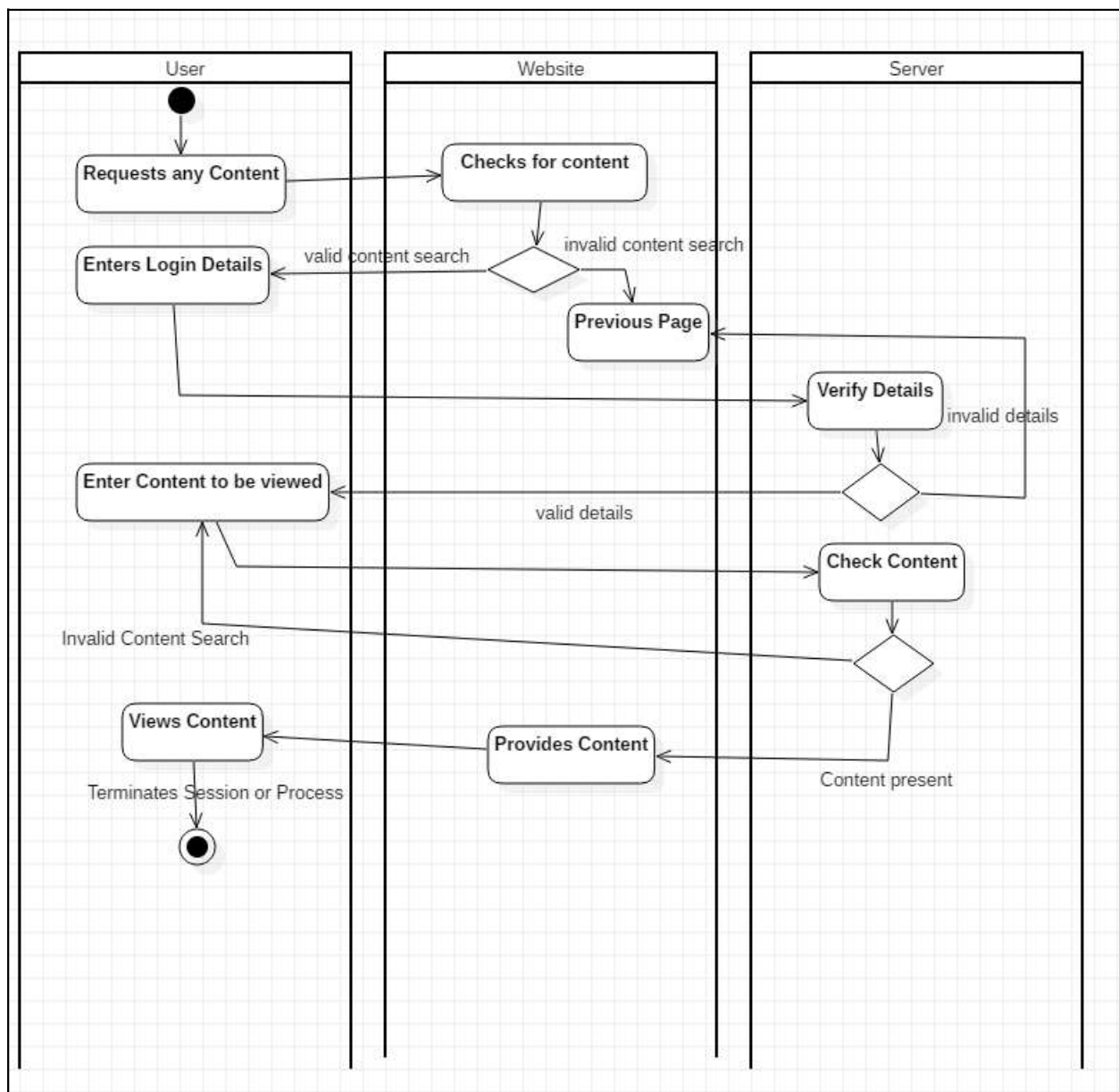
Use Case Diagram

A use case diagram is a dynamic or behavior diagram in UML. Use case diagrams model the functionality of a system using actors and use cases. Use cases are a set of actions, services, and functions that the system needs to perform. In this conVarchar, a "system" is something being developed or operated, such as a web site. The "actors" are people or entities operating under defined roles within the system.

Use Case

Draw use cases using ovals. Label the ovals with verbs that represent the system's functions.

Use case   Use case

Actors

Actors are the users of a system. When one system is the actor of another system, label the actor system with the actor stereotype.

Actor

Relationship

Illustrate relationships between an actor and a use case with a simple line. For relationships among use cases, use arrows labeled either "uses" or "extends." A "uses" relationship indicates that one use case is needed by another in order to perform a task. An "extends" relationship indicates alternative options under a certain use case.

<<include>>

<<extend>>

Relationships
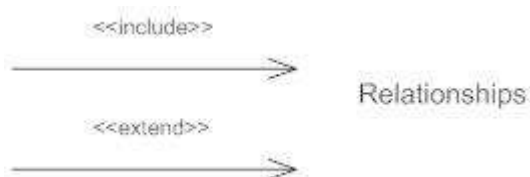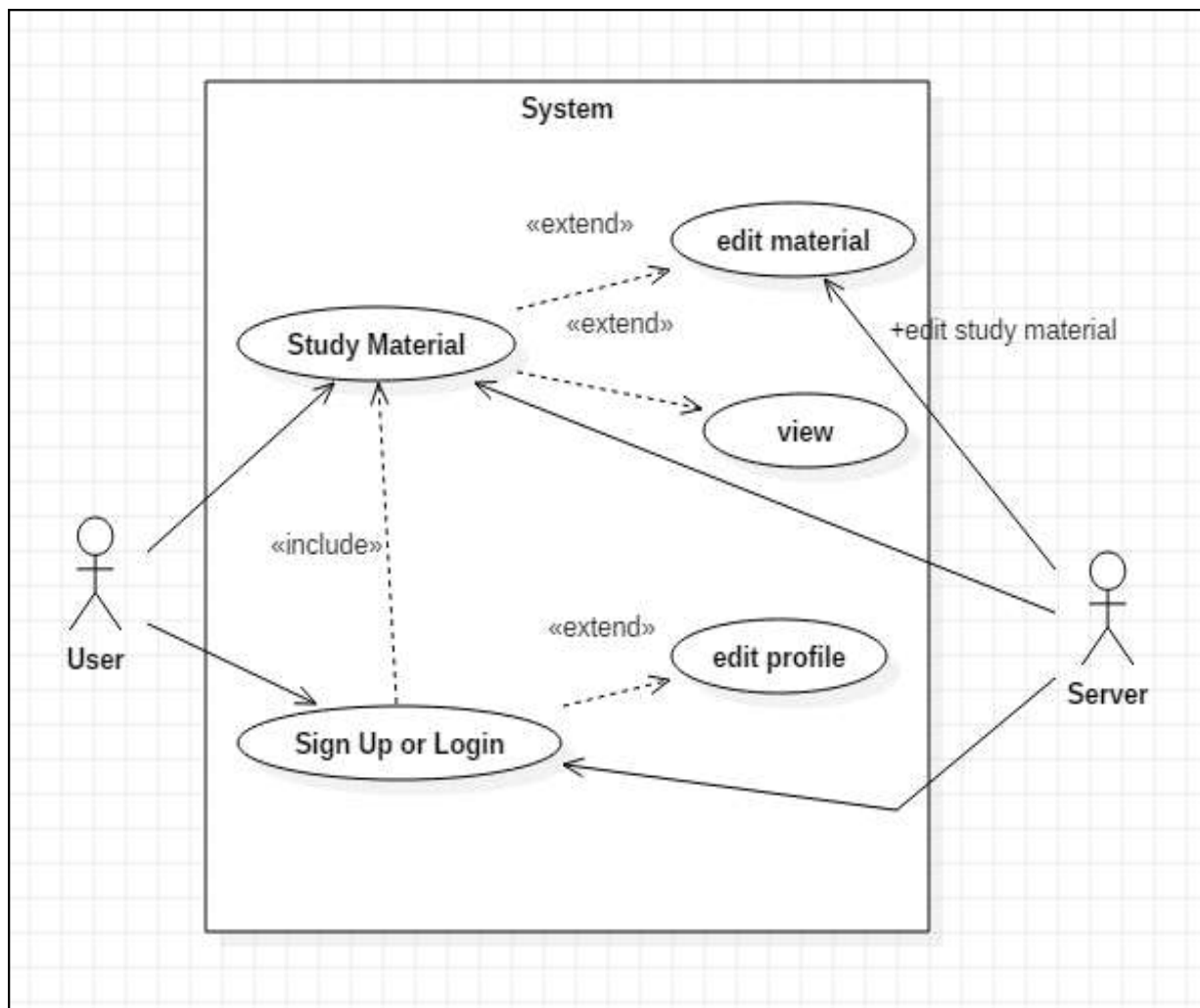
User Login Sequence Diagram

A sequence diagram is an interaction diagram that shows how processes operate with one another and in what orders sequence diagram emphasizes on time sequence of messages.

A sequence diagram shows as parallel, vertical lines different processes or objects that live simultaneously and as horizontal arrows, the message exchanged between them in order in which they occur. An important characteristic of a sequence diagram is that time passes from top to bottom.
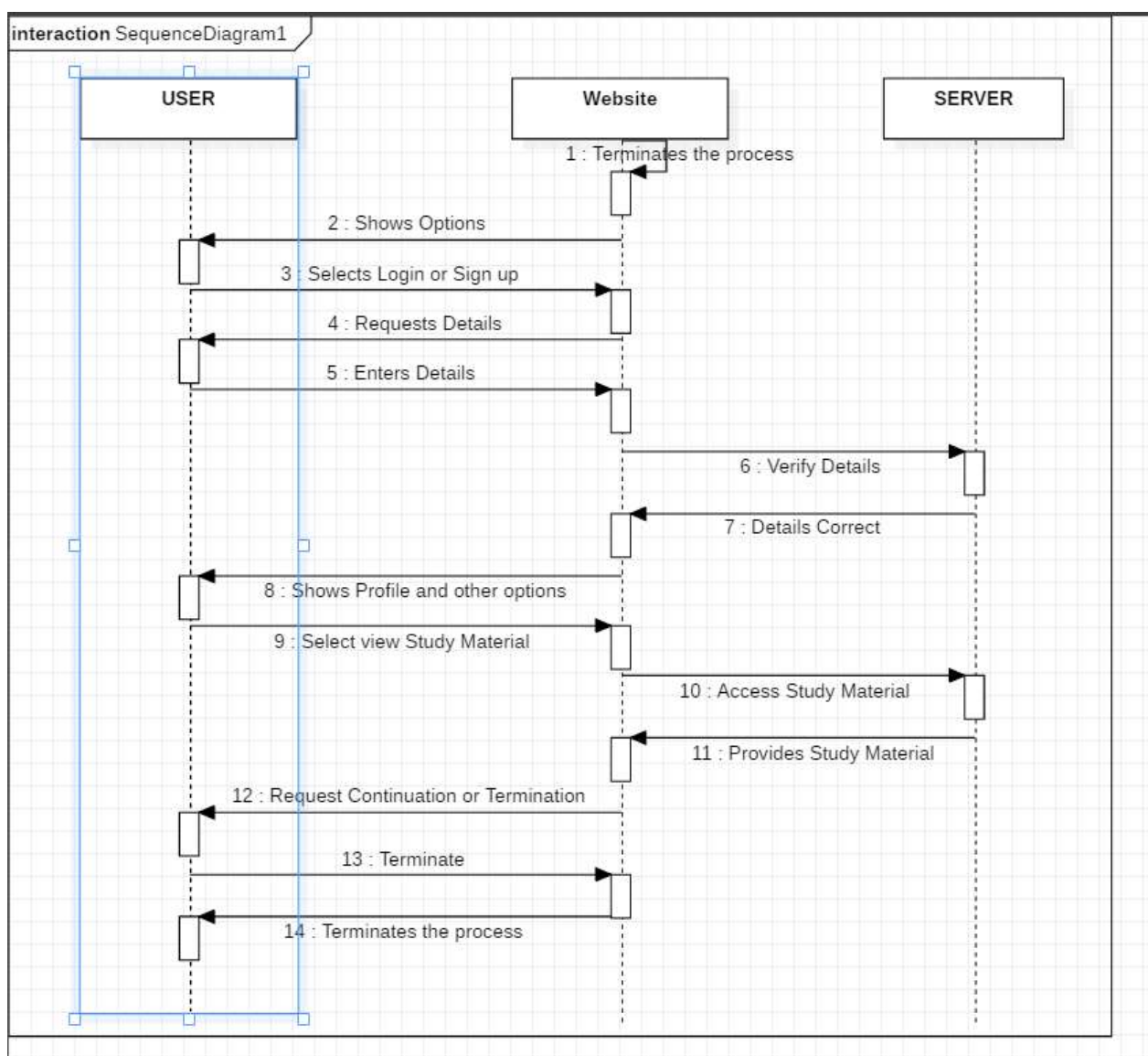
Class Diagram

A class diagram models the static structure of a system. It shows relationships between classes, objects, attributes, and operations.

Classes

Classes represent an abstraction of entities with common characteristics. Associations represent the relationships between classes.

Illustrate classes with rectangles divided into compartments. Place the name of the class in the first partition (centered, bolded, and capitalized), list the attributes in the second partition (left-aligned, not bolded, and lowercase), and write operations into the third.
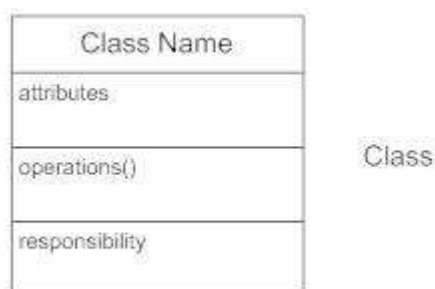
Active Classes

Active classes initiate and control the flow of activity, while passive classes store data and serve other classes. Illustrate active classes with a thicker border.
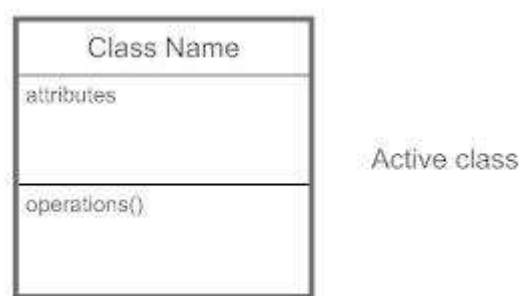
Associations

Associations represent static relationships between classes. Place association names above, on, or below the association line. Use a filled arrow to indicate the direction of the relationship. Place roles near the end of an association. Roles represent the way the two classes see each other.

Class Diagram (Legend)

Class Name	
attributes	
operations()	
responsibility	

◄ association

Class Name	
attributes	
operations()	
responsibility	

Class Diagram

User
+user id
+password
+name
+address
+DOB
+adddetails()
+displaydetails()

+access →

Other Study Material
+Curriculum
+Other IT topics
+editmaterial()
+view()

Admin
+Adminid
+password
+edit_study_material()

+edits →

+contains ↓

Curriculum
+Subjects
+Refference_book_pdf
+previous_question_papers
+Multemedia files
+Notes_by_teachers
+view()

+contains ↓

Other IT related Topics
+Topic Details
+Courses
+Related Links
+Multimedia files
+view_content()

Collaboration Diagram:

A collaboration diagram, also known as a communication diagram, is an illustration of the relationships and interactions among software objects in the Unified Modeling Language (UML). These diagrams can be used to portray the dynamic behavior of a particular use case and define the role of each object.

Collaboration diagrams are created by first identifying the structural elements required to carry out the functionality of an interaction. A model is then built using the relationships between those elements. Several vendors offer software for creating and editing collaboration diagrams.
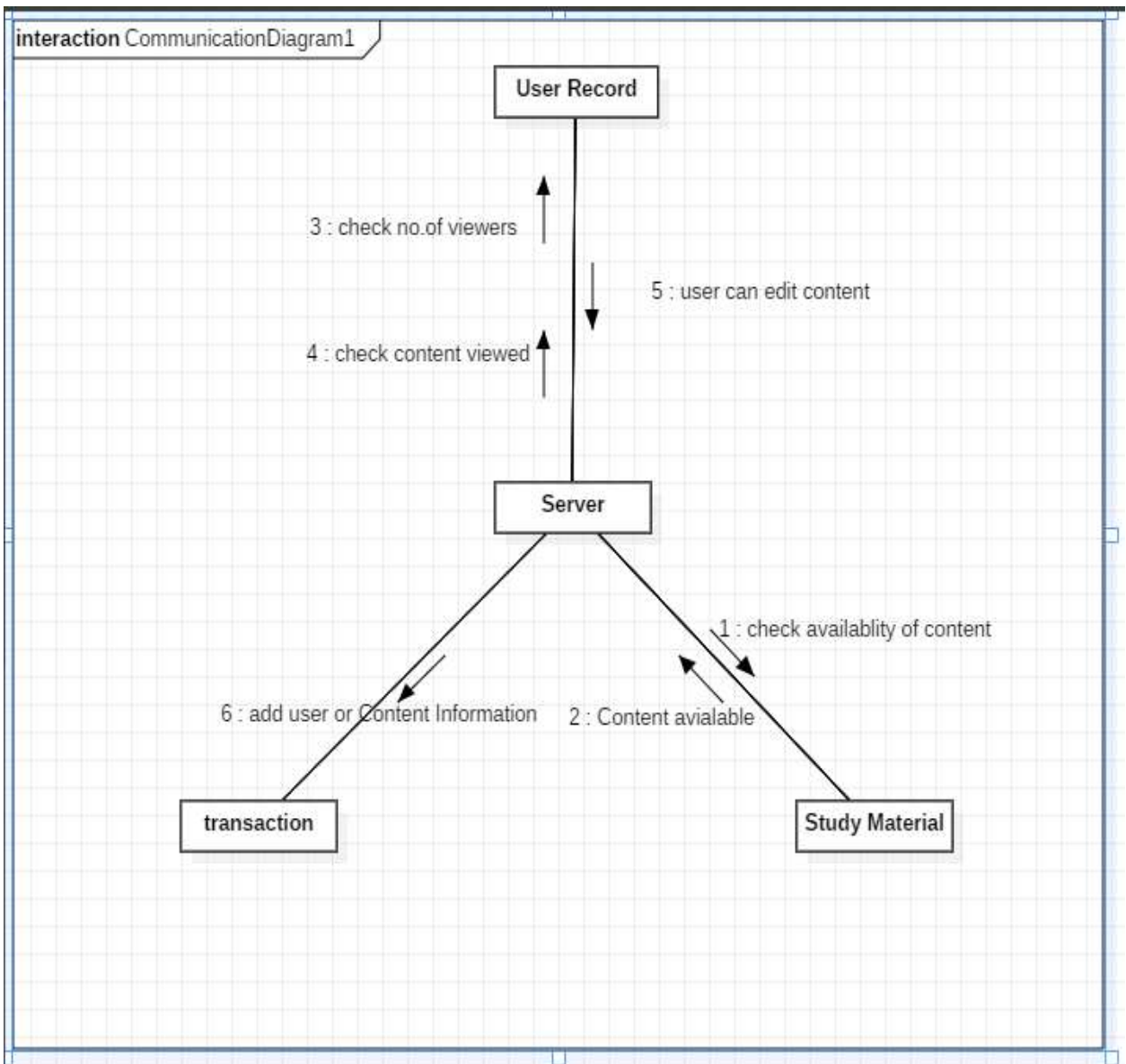
Notations of a collaboration diagram

A collaboration diagram resembles a flowchart that portrays the roles, functionality and behavior of individual objects as well as the overall operation of the system in real time. The four major components of a collaboration diagram are:

1. Objects- Objects are shown as rectangles with naming labels inside. The naming label follows the convention of object name: class name. If an object has a property or state that specifically influences the collaboration, this should also be noted.

2. Actors- Actors are instances that invoke the interaction in the diagram. Each actor has a name and a role, with one actor initiating the entire use case.

3. Links- Links connect objects with actors and are depicted using a solid line between two elements. Each link is an instance where messages can be sent.

4. Messages- Messages between objects are shown as a labeled arrow placed near a link. These messages are communications between objects that convey information about the activity and can include the sequence number.

The most important objects are placed in the center of the diagram, with all other participating objects branching off. After all objects are placed, links and messages should be added in between.

interaction CommunicationDiagram1

User Record

3 : check no.of viewers

5 : user can edit content

4 : check content viewed

Server

1 : check availablity of content

6 : add user or Content Information

2 : Content avialable

transaction

Study Material

Deployment Diagram

A deployment diagram is a UML diagram type that shows the execution architecture of a system, including nodes such as hardware or software execution environments, and the middleware connecting them.

Deployment diagrams are typically used to visualize the physical hardware and software of a system. Using it you can understand how the system will be physically deployed on the hardware.

Deployment diagrams help model the hardware topology of a system compared to other UML diagram types which mostly outline the logical components of a system.

Deployment Diagram Notations

In order to draw a deployment diagram, you need to first become familiar with the following deployment diagram notations and deployment diagram elements.

Node: A node, represented as a cube, is a physical entity that executes one or more components, subsystems or executables. A node could be a hardware or software element.
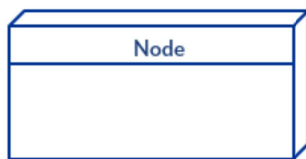
Artifacts: Artifacts are concrete elements that are caused by a development process. Examples of artifacts are libraries, archives, configuration files, executable files etc.

Communication Association: This is represented by a solid line between two nodes. It shows the path of communication between nodes.
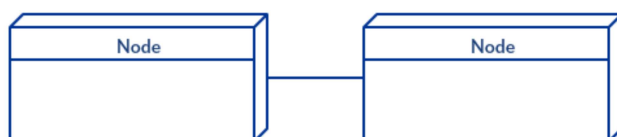
Devices: A device is a node that is used to represent a physical computational resource in a system. An example of a device is an application server.
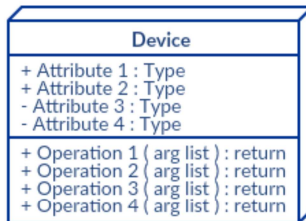
Deployment Specifications: A deployment specification is a configuration file, such as a Varchar file or an XML document. It describes how an artifact is deployed on a node.
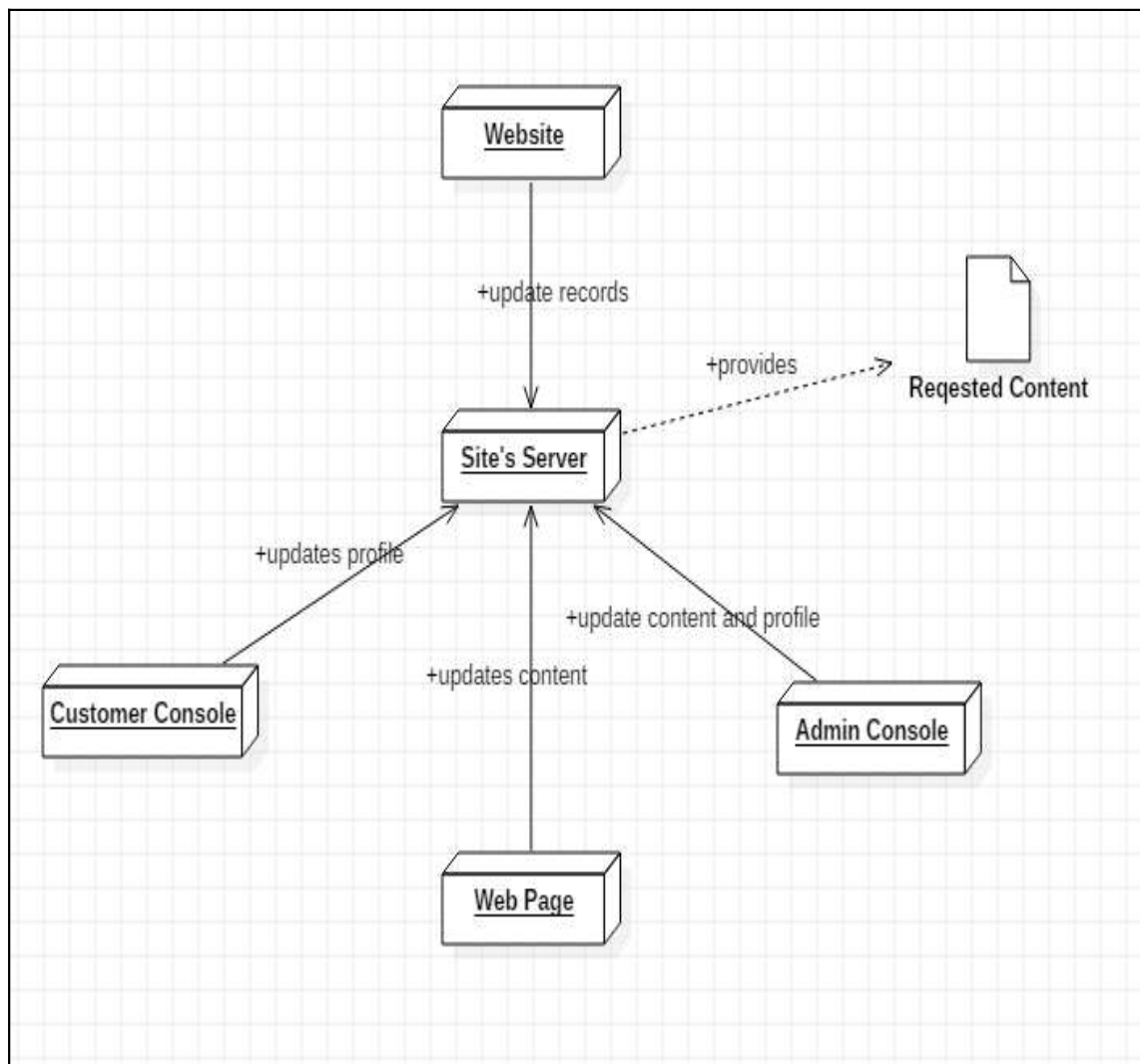
System Flow chart Diagram:

A flowchart is a diagram that depicts a process, system or computer algorithm. They are widely used in multiple fields to document, study, plan, improve and communicate often complex processes in clear, easy-to-understand diagrams
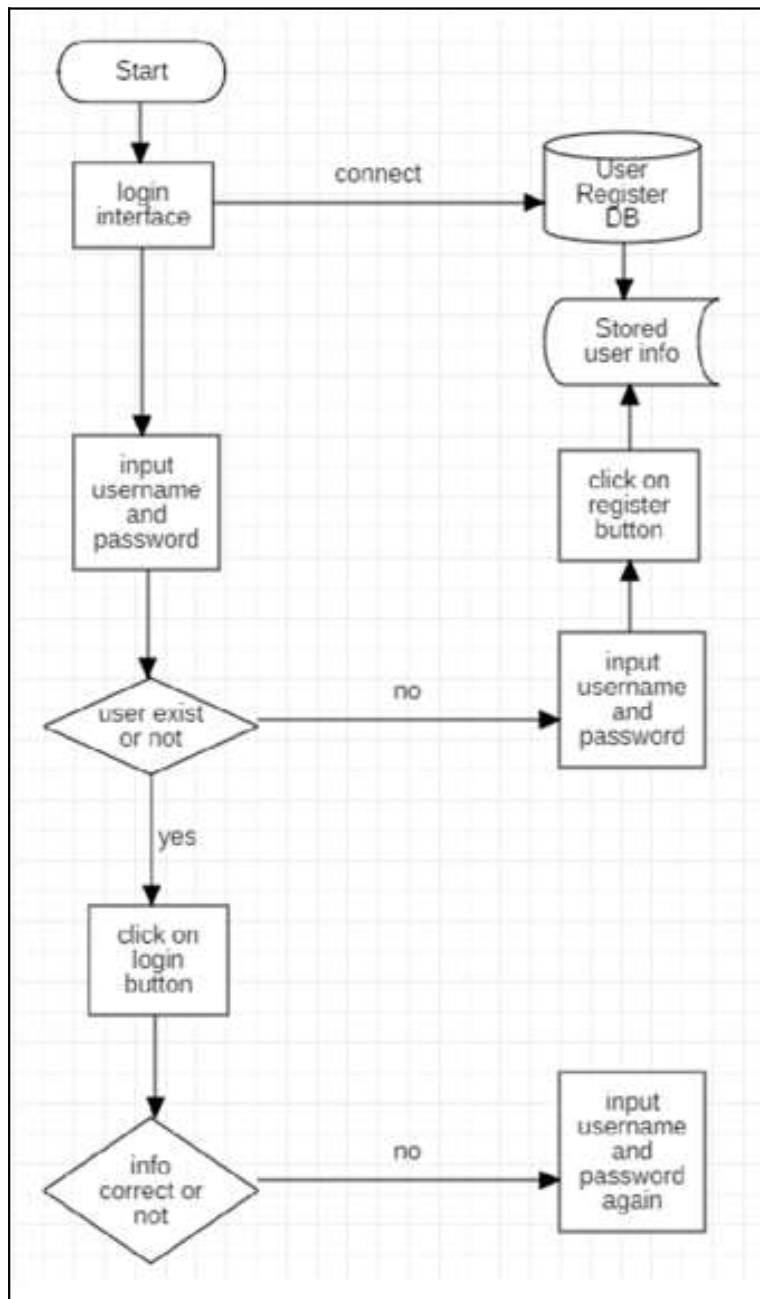
Chapter 4

System Design

4.1 Basic Modules:

The system comprises of 2 major modules with their sub-modules as follows:

1) **User / Student**

    ● Login: User can login his account using id and password.

    ● Main Menu: User will have access of main menu.

    ● Upload: User can submit for consideration of upload any document.

    ● Knowledge: User read the uploaded knowledge articles, study materials.

2) **Admin**

    ● Login: Admin can login using credentials.

    ● Manage User: Admin can manage users.

    ● Editing: Admin can add, update, access and delete contents.

3) **Contents**

    ● Books

    ● Pdfs

    ● Links

    ● Videos

    ● Notes

    ● Question Papers

4.2 Data Integrity and constraints

Table name: User

Description: It contains registration information of User.

Field	Data type	Size	Constraint	Description
username	Varchar	30	Primary Key	User's Username
password	Varchar	30		User's Password
DOB	date			User's Date of Birth
roll_no	int			User's roll no.
First-name	Varchar	30		User's First Name
Last-name	Varchar	30		User's Last Name
profile_pic	Varchar	Max		User's profile pic location
privilege	Varchar	Max		User's Privilege(Admin/User)

Table name: Content

Description: It contains information of contents.

Field	Data type	Size	Constraint	Description
Id	int		Primary key	auto assigned id
Name	Varchar	Max		Content's name
Type	Varchar	50		Type of content
Sem	Varchar	10		Semester of particular content
Year	Varchar	10		Year of particular content
Location	Varchar	Max		Location of content in storage.
Subject	Varchar	50		Subject of the content

Table name: User

Description: It contains registration information of User.

Field	Data type	Size	Constraint	Description
Sem	Varchar	10	Primary Key	Semester of the subject
Sub1	Varchar	Max		Subject 1
Sub2	Varchar	Max		Subject 2
Sub3	Varchar	Max		Subject 3
Sub4	Varchar	Max		Subject 4
Sub5	Varchar	Max		Subject 5

4.3 User Interface Design

Home Page:

index.aspx
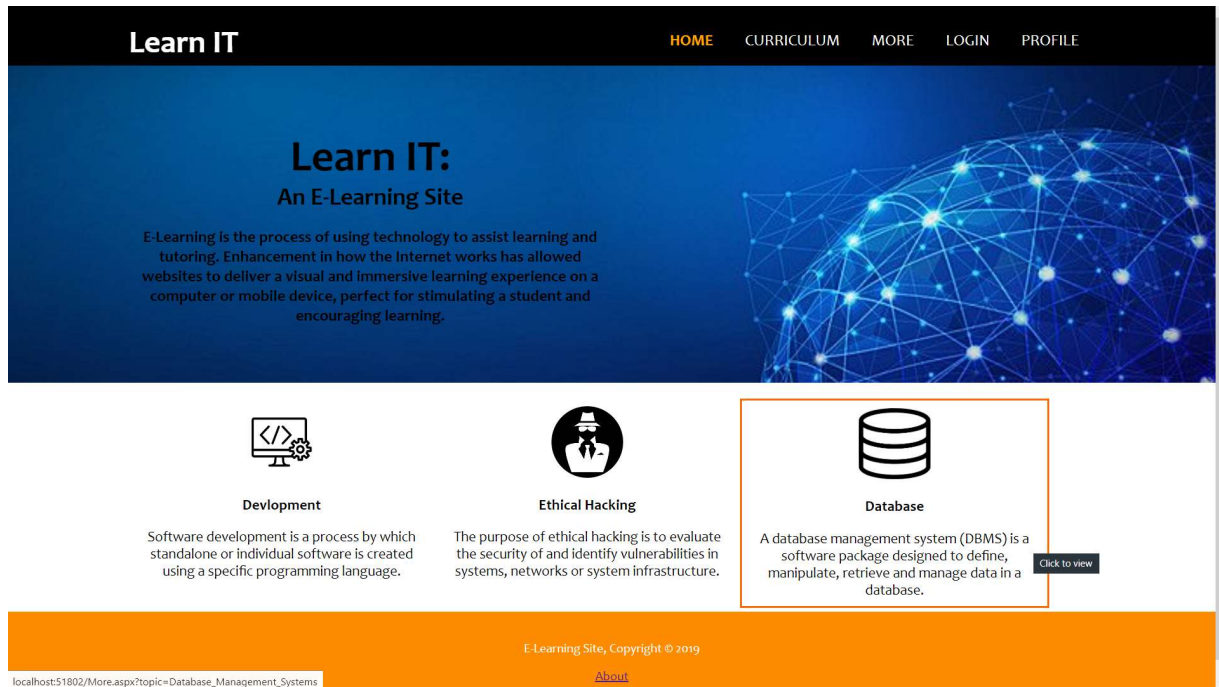
Login Page:

LogIn.aspx

Sign Up Page:

SignUp.aspx

Forgot Password:

Reset_Password.aspx

Curriculum Page:

Curriculum.aspx

Profile Page:

Profile.aspx

Learn IT

HOME   CURRICULUM   MORE   LOGIN   PROFILE

Welcome!! Omkar Surve

user name:	osurve6@gmail.com
DOB:	01-09-1999
Roll NO.:	7396
First Name:	Omkar
Last_name:	Surve

Reset Password   EDIT PROFILE   Log Out

Delete Account
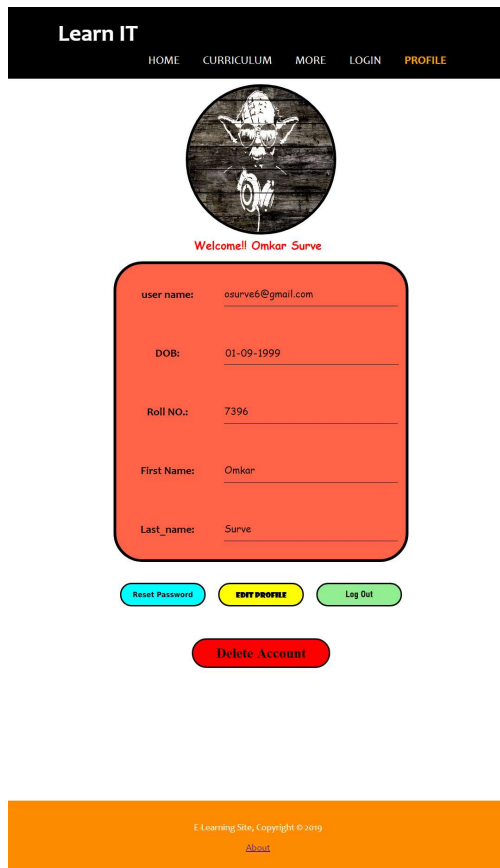
4.4 Security issue

E-learning security plays a very important role in e-learning systems development despite its huge benefits. There are numerous challenges faced by learners, Higher learning Institutions and e-learning service providers in today's internet age. Some of these challenges include:

(a) Interoperability of applications:

Despite current technological advances in e-learning, emerging trends are demanding a greater level of interoperability for components, systems, applications, and environments which are often developed for a particular institutions or organization and provide very similar functionalities (Cardenas and Sanchez, 2005).

(b) Standardization and compatibility:

These are vital for both e-learning service providers and end users (learners) to be able to inter-change components in the market. These are very important where different e-learning systems must interact with one another.

(c) Security policy and enforcement Mechanism:

The security policy is defined as the set of laws, rules and practices that regulate how an organization manages, protects and distributes sensitive information. Once the security policy is defined, it must be captured and followed at application runtime via

enforcement mechanism which represents the set of centralized and distribute software to ensure that the security policy is maintained and never violated.

(d) E-learning Infrastructure:

This refers to Hardware, Software and connectivity required for e-learning development and implementation (Taurus et al., 2015).

Possible attacks on e-learning system and countermeasures

(1) Availability attack:

This is an attack that occurs when services of a system and contents are unavailable to legitimate users for some time. Examples of such attacks include Denial of Service, Node attacks, Line Adetoba et al. 98 attacks, Network infrastructure attacks. A Good backup system is a way of countering these attacks.

(2) Integrity attack:

This aims to destroy or modify the contents of the system. Due to the integrity attack, the legitimate users will not get the correct contents; examples are malicious code attacks, message injection, traffic modification, traffic deletion. To counter integrity attacks, digital signature, data hashing and shining can be used effectively. Authorization should be strong enough to keep unauthorized users at bay to stop them from many chances to alter the information. Protocols should be tempered resistant across communication links.

(3) Confidentiality attack:

This attack tries to expose the confidential data to unauthorized users. This may be transfer of e-contents to the unauthorized persons or obtaining secret passwords; example includes: Group session eavesdropping, Group session traffic analysis, and Group identity disclosure. Strong encryption methods should to be used to counter confidentiality attack.

(4) Authentication attack:

The attack is to gain access to system information by using stolen passwords, key or credentials or an attack device pretending as legitimate device trying to gain access to the system. These types of attacks may lead to unauthorized modification of contents and breach of confidentiality, examples includes brute force attack, dictionary attack, login spoofing attacks, key management attacks, replay attacks, Man-in-middle attacks. To counter these attacks, strong authentication method such as Biometric based security should be considered.

(5) Authorization attacks:

An attack that occurs as a result of unauthorised access to specific content. Unauthorized use or elevation of access can be countered by using the principle of least privilege; strong access control lists (ACL's) or Strong role based security mechanism should be used.

(6) Countering non-Repudiation:

To counter the problem of non-repudiation, digital signature can be used and Audit trails should be created.

4.5 Test Case Designs

System testing is a critical aspect of Software Quality Assurance and represents the ultimate review of specification, design and coding. Testing is a process of executing a program with the intent of finding an error.

A good test is one that has a probability of finding a yet undiscovered error. The purpose of testing is to identify and correct bugs in the developed system. Nothing is complete without testing. Testing is vital in the success of the system.

In the code testing the logic of the developed system is tested. For this every module of the program is executed to find an error. To perform specification test, the examination of the specifications stating what the program should do and how it should perform under various conditions.

Email_id	Result	Examples
Character	Not accepted	abcmail.com
Without domain name	Not accepted	xyzgmail@z
Fields with 2 @	Not accepted	m@nogmai@l
Correct email_id	Accepted	email@gmail.com

Test id	Test Cases	Test Data	Actual	Expected	Status
	Login				
1	Open Login page Enter username Enter Password Click login	user 123	Open Or Invalid username and password page	Open Or Invalid username and password page	Pass
	Registration				

1	Enter registration details Click submit	Valid details	User registered	User registered	
2	Enter registration details Click submit	Invalid details	User registered	Try again	Fail
3	User Login Enter Username Enter Password Click Login	XYZ XYZ@1	Open Home Page Or Invalid username & password	Open Home Page Or Invalid username & password page	Pass Fail

Chapter 5

Implementation

5.1 Coding Details and Code Efficiency

index.aspx

```
<%@ Page Language="C#" AutoEventWireup="true" %>

<!DOCTYPE html>
<script runat="server">
</script>


<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width" />
    <meta name="description" content="Affordable and professional web design" />
    <meta name="keywords" content="web design, affordable web design, professional web design" />
    <meta name="author" content="Omkar Surve" />
    <title>Home Page</title>

    <link rel="stylesheet" href="style.css" />
</head>

<body>

    <form id="form1" runat="server">

        <header id="navbar">
            <div class="container">
                <div id="branding">
                    <h1>Learn IT</h1>
                </div>
                <nav>
                    <ul>
                        <li class="current"><a href="index.aspx">Home</a></li>
                        <li><a href="Curriculum.aspx">Curriculum</a></li>
                        <li><a href="More.aspx">More</a></li>
                        <li><a href="LogIn.aspx">Login</a></li>
                        <li><a href="Profile.aspx">Profile</a></li>
                    </ul>
                </nav>
            </div>
```

```
    </header>
    <div id="add_padd">
       <section id="showcase">
          <div class="container">
             <div id="inside_container">
                <h1>Learn IT:</h1><h2> An E-Learning Site</h2>
                <p>E-Learning is the process of using technology to assist learning and
tutoring. Enhancement in how the Internet works has allowed websites to deliver a visual and
immersive learning experience on a computer or mobile device, perfect for stimulating a
student and encouraging learning.</p>
             </div>
          </div>
       </section>

       <section id="boxes">
          <div class="container">
             <div class="box">
                <asp:HyperLink ID="development" Style="text-decoration: none; color:
black;" runat="server" NavigateUrl="More.aspx?topic=Web_Development" ToolTip="Click
to view">
                   <img src="img/development.png" />
                <h3>Devlopment</h3>
                <p style="color: rgb(0, 0, 0); font-size: 18px; font-style: normal; font-variant-
ligatures: normal; font-variant-caps: normal; font-weight: normal; letter-spacing: normal;
orphans: 2; text-align: start; text-indent: 0px; text-transform: none; white-space: normal;
widows: 2; word-spacing: 0px; -webkit-text-stroke-width: 0px; background-color: rgb(255,
255, 255); text-decoration-style: initial; text-decoration-color: initial; display: inline !
important; float: none;">Software development is a process by which standalone or
individual software is created using a specific programming language.</p>
                </asp:HyperLink>
             </div>
             <div class="box">
                <asp:HyperLink ID="HyperLink2" Style="text-decoration: none; color:
black;" runat="server" NavigateUrl="More.aspx?topic=Ethical_Hacking" ToolTip="Click to
view">
                    <img src="img/hack.png" />
                <h3>Ethical Hacking</h3>
                <p style="color: rgb(0, 0, 0); font-size: 18px; font-style: normal; font-variant-
ligatures: normal; font-variant-caps: normal; font-weight: normal; letter-spacing: normal;
orphans: 2; text-align: start; text-indent: 0px; text-transform: none; white-space: normal;
widows: 2; word-spacing: 0px; -webkit-text-stroke-width: 0px; background-color: rgb(255,
255, 255); text-decoration-style: initial; text-decoration-color: initial; display: inline !
important; float: none;">The purpose of ethical hacking is to evaluate the security of and
identify vulnerabilities in systems, networks or system infrastructure.</p>
                </asp:HyperLink></div>
             <div class="box">
                <asp:HyperLink ID="HyperLink1" Style="text-decoration: none; color:
black;" runat="server" NavigateUrl="More.aspx?topic=Database_Management_Systems"
ToolTip="Click to view">
                    <img src="img/database.png" />
```

```
            <h3>Database</h3>
            <p style="color: rgb(0, 0, 0); font-size: 18px; font-style: normal; font-variant-
ligatures: normal; font-variant-caps: normal; font-weight: normal; letter-spacing: normal;
orphans: 2; text-align: start; text-indent: 0px; text-transform: none; white-space: normal;
widows: 2; word-spacing: 0px; -webkit-text-stroke-width: 0px; background-color: rgb(255,
255, 255); text-decoration-style: initial; text-decoration-color: initial; display: inline !
important; float: none;">
                A database
        management system (DBMS) is a software package designed to define, manipulate,
retrieve and manage data in a database.
            </p></asp:HyperLink>
          </div>
        </div>
      </section>
    </div>
    <footer>
      <p>E-Learning Site, Copyright &copy; 2019</p>
      <p><a href="About.aspx">About</a></p>
    </footer>

  </form>
  <script type="text/javascript">
    window.onscroll = function () { myFunction() };

    var navbar = document.getElementById("navbar");
    var sticky = navbar.offsetTop;

    function myFunction() {
      if (window.pageYOffset >= sticky) {
        navbar.classList.add("sticky")
      } else {
        navbar.classList.remove("sticky");
      }
    }
  </script>
</body>
</html>
```

Curriculum.aspx

```
<%@ Page Title="Curriculum" Language="C#" MaintainScrollPositionOnPostback="true"
MasterPageFile="~/Site1.Master" AutoEventWireup="true"
CodeBehind="Curriculum.aspx.cs" Inherits="WebApplication1.Properties.Curriculum" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
  <style type="text/css">
    .auto-style1 {
      width: 100%;
      padding: 0px;
    }
```

```css
.years_table {
    width: 100%;
    border-collapse: collapse;
    text-align: center;
}

.years_table th {
    font-size: 25px;
    padding: 5px;
    border-top: 2px solid black;
    border-bottom: 2px solid black;
    background-color: gray;
}

.years_table td {
    font-size: 20px;
    padding: 5px;
    background-color: orange;
}

.content {
    height: 100vh;
    padding: 0px;
}

.auto-style4 {
    height: 27px;
}

.auto-style5 {
    position: fixed;
    z-index: 1;
    top: 75px;
    left: 0px;
    overflow-x: hidden;
    padding: 8px 0;
    width: 18.4%;
    font-size: medium;
    padding: 0px;
    vertical-align: top;
    border: 2px solid black;
}


.auto-style6 {
    height: 500px;
    padding: 0px;
}

.heading {
```

```
            font-size: 50px;
            background-color: grey;
            font-family: 'Times New Roman';
            font-weight: bold;
            color: orange;
            border-radius: 10px;
            border: 2px solid black;
        }

        .table {
            margin-left: auto;
            margin-right: auto;
            width: 90%;
            text-align: center;
            background-color: rgba(0,0,0,0.8);
        }

        .s_sub {
            color: #fff;
            font-size: 18px;
            padding: 5px 10px;
            border-radius: 5px 12px;
            background-color: #292929;
            font-weight: bold;
        }
        .sub_list_div{
            position: fixed;
            z-index: 1;
            top: 430px;
            left: 0px;
            overflow-x: hidden;
            vertical-align: top;
            width:18.4%;
        }
    </style>
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">
    <table class="auto-style1">
        <tr>
            <td class="auto-style5">
                <div class="table_div">
                    <table class="years_table">
                        <tr>
                            <th>FY</th>
                        </tr>
                        <tr>
                            <td class="auto-style4">
                                <asp:HyperLink ID="sem1" runat="server"
NavigateUrl="~/Curriculum.aspx?sem=Sem1&year=I" ForeColor="Blue">SEM
```

```
I</asp:HyperLink>
              </td>
           </tr>
           <tr>
              <td>
                 <asp:HyperLink ID="sem2" runat="server"
NavigateUrl="~/Curriculum.aspx?sem=Sem2&year=I" ForeColor="Blue">SEM
II</asp:HyperLink>
              </td>
           </tr>
           <tr>
              <th>SY</th>
           </tr>
           <tr>
              <td>
                 <asp:HyperLink ID="sem3" runat="server"
NavigateUrl="~/Curriculum.aspx?sem=Sem3&year=II" ForeColor="Blue">SEM
III</asp:HyperLink>
              </td>
           </tr>
           <tr>
              <td>
                 <asp:HyperLink ID="sem4" runat="server"
NavigateUrl="~/Curriculum.aspx?sem=Sem4&year=II" ForeColor="Blue">SEM
IV</asp:HyperLink>
              </td>
           </tr>
           <tr>
              <th>TY</th>
           </tr>
           <tr>
              <td>
                 <asp:HyperLink ID="sem5" runat="server"
NavigateUrl="~/Curriculum.aspx?sem=Sem5&year=III" ForeColor="Blue">SEM
V</asp:HyperLink>
              </td>
           </tr>
           <tr>
              <td class="auto-style4">
                 <asp:HyperLink ID="sem6" runat="server"
NavigateUrl="~/Curriculum.aspx?sem=Sem6&year=III" ForeColor="Blue">SEM
VI</asp:HyperLink>
                 <br />
              </td>
           </tr>
        </table>
      </div>
    </td>
    <td class="auto-style6">
      <div id="d1" style="margin-left: 18.7%; height: 100%" runat="server">
```

```
<div id="default_div" style="height: 100%" runat="server">
    <asp:Image ID="Image1" runat="server" Height="100%"
ImageUrl="~/img/syllabus_diagram.jpg" Width="100%" />
</div>

<div id="sem_page" style="height: 100%; text-align: center; margin-top: 10px"
runat="server">
    <asp:Label ID="Heading" CssClass="heading" runat="server"></asp:Label>
    <div id="subject_list" class="sub_list_div">
        <asp:DropDownList ID="select_sub" class="s_sub" runat="server"
AutoPostBack="True" AppendDataBoundItems="True" DataSourceID="get_sub"
DataTextField="field" DataValueField="field" Width="100%">
            <asp:ListItem Text="Please select any subject" Value="" />
        </asp:DropDownList>
        <asp:SqlDataSource ID="get_sub" runat="server" ConnectionString="<%$
ConnectionStrings:DBCS %>" SelectCommand="SELECT field FROM [Subjects]
UNPIVOT( field FOR [sub] IN ([Sub1], [Sub2], [Sub3], [Sub4],[Sub5])) unpvt where
sem=@sem">
            <SelectParameters>
                <asp:QueryStringParameter Name="Sem" QueryStringField="sem"
Type="String" />
            </SelectParameters>
        </asp:SqlDataSource>
    </div>
    <br />
    <div id="syllabus_div" style="margin-top: 10px">
        <fieldset style="border-radius: 50px; border-width: 5px; text-align: center;
margin-bottom: 20px; margin-right: auto; margin-left: auto; width: 70%">
            <legend>
                <asp:Label ID="syllabus_title" runat="server" Width="100%" Font-
Bold="False" Font-Names="Stencil" Font-Size="X-Large"
ForeColor="#0066FF">Syllabus</asp:Label>
            </legend>
            <asp:GridView ID="Syllabus" runat="server" CssClass="table"
AutoGenerateColumns="False" DataKeyNames="Id" DataSourceID="get_syllabus">
                <Columns>
                    <asp:TemplateField HeaderText="Id" InsertVisible="False"
SortExpression="Id">
                        <ItemTemplate>
                            <asp:Label ID="Label1" runat="server" Font-Bold="True"
ForeColor="Orange" Text='<%# Bind("Id") %>'></asp:Label>
                        </ItemTemplate>
                    </asp:TemplateField>
                    <asp:TemplateField HeaderText="File / Link"
SortExpression="Name">
                        <ItemTemplate>
                            <asp:HyperLink ID="HyperLink1" runat="server"
NavigateUrl='<%# Eval("Location") %>' Target="_blank" Font-Bold="True"
ForeColor="#9999FF" ToolTip="click to view" Text='<%# Eval("Name")
%>'></asp:HyperLink>
```

```
        </ItemTemplate>
        </asp:TemplateField>
        <asp:BoundField DataField="Location" HeaderText="Location"
SortExpression="Location" Visible="False" />
        </Columns>
        <HeaderStyle BackColor="#ffa500" />
        <RowStyle Font-Size="Large" />
        </asp:GridView>
        <asp:SqlDataSource ID="get_syllabus" runat="server"
ConnectionString="<%$ ConnectionStrings:DBCS %>" SelectCommand="SELECT [Id],
[Name], [Location] FROM [Content] WHERE (([Year] = @Year) AND ([Type] =
@Type))">
        <SelectParameters>
        <asp:QueryStringParameter Name="Year" QueryStringField="year"
Type="String" />
        <asp:Parameter DefaultValue="Syllabus" Name="Type"
Type="String" />
        </SelectParameters>
        </asp:SqlDataSource>
      </fieldset>
    </div>
    <br />
    <div id="notes_div">
      <fieldset style="border-radius: 50px; border-width: 5px; text-align: center;
margin-bottom: 20px; margin-right: auto; margin-left: auto; width: 70%">
        <legend>
        <asp:Label ID="notes_title" Text="Notes" runat="server"
Width="100%" Font-Bold="False" Font-Names="Stencil" Font-Size="X-Large"
ForeColor="#0066FF"></asp:Label>
        </legend>
        <asp:GridView ID="Notes" runat="server" CssClass="table"
AutoGenerateColumns="False" DataKeyNames="Id" DataSourceID="get_notes">
        <Columns>
        <asp:TemplateField HeaderText="Id" InsertVisible="False"
SortExpression="Id">
        <ItemTemplate>
        <asp:Label ID="Label1" runat="server" Font-Bold="True"
ForeColor="Orange" Text='<%# Bind("Id") %>'></asp:Label>
        </ItemTemplate>
        </asp:TemplateField>
        <asp:TemplateField HeaderText="File / Link"
SortExpression="Name">
        <ItemTemplate>
        <asp:HyperLink ID="HyperLink1" runat="server" Font-
Bold="True" ForeColor="#9999FF" ToolTip="click to view" NavigateUrl='<%#
Eval("Location") %>' Target="_blank" Text='<%# Eval("Name") %>'></asp:HyperLink>
        </ItemTemplate>
        </asp:TemplateField>
        <asp:BoundField DataField="Location" HeaderText="Location"
SortExpression="Location" Visible="False" />
```

```
                </Columns>
                <HeaderStyle BackColor="#ffa500" />
                <RowStyle Font-Size="Large" />
            </asp:GridView>
            <asp:SqlDataSource ID="get_notes" runat="server"
ConnectionString="<%$ ConnectionStrings:DBCS %>" SelectCommand="SELECT [Id],
[Name], [Location] FROM [Content] WHERE (([Sem] = @Sem) AND ([Subject] =
@Subject) AND ([Type] = @Type))">
                <SelectParameters>
                    <asp:QueryStringParameter Name="Sem" QueryStringField="sem"
Type="String" />
                    <asp:ControlParameter ControlID="select_sub" Name="Subject"
PropertyName="SelectedValue" Type="String" />
                    <asp:Parameter DefaultValue="Notes" Name="Type"
Type="String" />
                </SelectParameters>
            </asp:SqlDataSource>
          </fieldset>
        </div>
        <br />
        <div id="books_div">
          <fieldset style="border-radius: 50px; border-width: 5px; text-align: center;
margin-bottom: 20px; margin-right: auto; margin-left: auto; width: 70%">
            <legend>
            <asp:Label ID="books_title" runat="server" Text="Books"
Width="100%" Font-Bold="False" Font-Names="Stencil" Font-Size="X-Large"
ForeColor="#0066FF"></asp:Label>
            </legend>
            <asp:GridView ID="Book" CssClass="table" runat="server"
AutoGenerateColumns="False" DataKeyNames="Id" DataSourceID="get_books">
                <Columns>
                    <asp:TemplateField HeaderText="Id" InsertVisible="False"
SortExpression="Id">

                        <ItemTemplate>
                            <asp:Label ID="Label1" runat="server" Font-Bold="True"
ForeColor="Orange" Text='<%# Bind("Id") %>'></asp:Label>
                        </ItemTemplate>
                    </asp:TemplateField>
                    <asp:TemplateField HeaderText="File / Link"
SortExpression="Name">

                        <ItemTemplate>
                            <asp:HyperLink ID="HyperLink1" runat="server" Font-
Bold="True" ForeColor="#9999FF" ToolTip="click to view" NavigateUrl='<%#
Eval("Location") %>' Target="_blank" Text='<%# Eval("Name") %>'></asp:HyperLink>
                        </ItemTemplate>
                    </asp:TemplateField>
                    <asp:BoundField DataField="Location" HeaderText="Location"
SortExpression="Location" Visible="False" />
```

```
            </Columns>
            <HeaderStyle BackColor="#ffa500" />
            <RowStyle Font-Size="Large" />
        </asp:GridView>
        <asp:SqlDataSource ID="get_books" runat="server"
ConnectionString="<%$ ConnectionStrings:DBCS %>" SelectCommand="SELECT [Id],
[Name], [Location] FROM [Content] WHERE (([Sem] = @Sem) AND ([Subject] =
@Subject) AND ([Type] = @Type))">
            <SelectParameters>
                <asp:QueryStringParameter Name="Sem" QueryStringField="sem"
Type="String" />
                <asp:ControlParameter ControlID="select_sub" Name="Subject"
PropertyName="SelectedValue" Type="String" />
                <asp:Parameter DefaultValue="Book" Name="Type"
Type="String" />
            </SelectParameters>
        </asp:SqlDataSource>
    </fieldset>
</div>
<br />
<div id="qp_div">
    <fieldset style="border-radius: 50px; border-width: 5px; text-align: center;
margin-bottom: 20px; margin-right: auto; margin-left: auto; width: 70%">
        <legend>
            <asp:Label ID="qp_title" runat="server" Text="Question Papers"
Width="100%" Font-Bold="False" Font-Names="Stencil" Font-Size="X-Large"
ForeColor="#0066FF"></asp:Label>
        </legend>
        <asp:GridView ID="Question_Paper" runat="server" CssClass="table"
AutoGenerateColumns="False" DataKeyNames="Id" DataSourceID="get_qp">
            <Columns>
                <asp:TemplateField HeaderText="Id" InsertVisible="False"
SortExpression="Id">
                    <ItemTemplate>
                        <asp:Label ID="Label1" runat="server" Font-Bold="True"
ForeColor="Orange" Text='<%# Bind("Id") %>'></asp:Label>
                    </ItemTemplate>
                </asp:TemplateField>
                <asp:TemplateField HeaderText="File / Link"
SortExpression="Name">
                    <ItemTemplate>
                        <asp:HyperLink ID="HyperLink1" runat="server" Font-
Bold="True" ForeColor="#9999FF" ToolTip="click to view" NavigateUrl='<%#
Eval("Location") %>' Target="_blank" Text='<%# Eval("Name") %>'></asp:HyperLink>
                    </ItemTemplate>
                </asp:TemplateField>
                <asp:BoundField DataField="Location" HeaderText="Location"
SortExpression="Location" Visible="False" />
            </Columns>
            <HeaderStyle BackColor="#ffa500" />
```

```
                        <RowStyle Font-Size="Large" />
                    </asp:GridView>
                    <asp:SqlDataSource ID="get_qp" runat="server" ConnectionString="<%
$ ConnectionStrings:DBCS %>" SelectCommand="SELECT [Id], [Name], [Location]
FROM [Content] WHERE (([Sem] = @Sem) AND ([Subject] = @Subject) AND ([Type] =
@Type))">
                        <SelectParameters>
                            <asp:QueryStringParameter Name="Sem" QueryStringField="sem"
Type="String" />
                            <asp:ControlParameter ControlID="select_sub" Name="Subject"
PropertyName="SelectedValue" Type="String" />
                            <asp:Parameter DefaultValue="Question_Paper" Name="Type"
Type="String" />
                        </SelectParameters>
                    </asp:SqlDataSource>
                </fieldset>
            </div>
            <br />
            <div id="course_div">
                <fieldset style="border-radius: 50px; border-width: 5px; text-align: center;
margin-bottom: 20px; margin-right: auto; margin-left: auto; width: 70%">
                    <legend>
                        <asp:Label ID="course_title" runat="server" Text="Courses"
Width="100%" Font-Bold="False" Font-Names="Stencil" Font-Size="X-Large"
ForeColor="#0066FF"></asp:Label>
                    </legend>
                    <asp:GridView ID="Course" CssClass="table" runat="server"
AutoGenerateColumns="False" DataKeyNames="Id" DataSourceID="get_course">
                        <Columns>
                            <asp:TemplateField HeaderText="Id" InsertVisible="False"
SortExpression="Id">
                                <ItemTemplate>
                                    <asp:Label ID="Label1" runat="server" Font-Bold="True"
ForeColor="Orange" Text='<%# Bind("Id") %>'></asp:Label>
                                </ItemTemplate>
                            </asp:TemplateField>
                            <asp:TemplateField HeaderText="File / Link"
SortExpression="Name">
                                <ItemTemplate>
                                    <asp:HyperLink ID="HyperLink1" runat="server" Font-
Bold="True" ForeColor="#9999FF" ToolTip="click to view" NavigateUrl='<%#
Eval("Location") %>' Target="_blank" Text='<%# Eval("Name") %>'></asp:HyperLink>
                                </ItemTemplate>
                            </asp:TemplateField>
                            <asp:BoundField DataField="Location" HeaderText="Location"
SortExpression="Location" Visible="False" />
                        </Columns>
                        <HeaderStyle BackColor="#ffa500" />
                        <RowStyle Font-Size="Large" />
                    </asp:GridView>
```

```aspx
                    <asp:SqlDataSource ID="get_course" runat="server"
ConnectionString="<%$ ConnectionStrings:DBCS %>" SelectCommand="SELECT [Id],
[Name], [Location] FROM [Content] WHERE (([Sem] = @Sem) AND ([Subject] =
@Subject) AND ([Type] = @Type))">
                        <SelectParameters>
                            <asp:QueryStringParameter Name="Sem" QueryStringField="sem"
Type="String" />
                            <asp:ControlParameter ControlID="select_sub" Name="Subject"
PropertyName="SelectedValue" Type="String" />
                            <asp:Parameter DefaultValue="Course" Name="Type"
Type="String" />
                        </SelectParameters>
                    </asp:SqlDataSource>
                </fieldset>
            </div>
            <br />
            <div id="others_div">
                <fieldset style="border-radius: 50px; border-width: 5px; text-align: center;
margin-bottom: 20px; margin-right: auto; margin-left: auto; width: 70%">
                    <legend>
                    <asp:Label ID="others_title" runat="server" Text="Others"
Width="100%" Font-Bold="False" Font-Names="Stencil" Font-Size="X-Large"
ForeColor="#0066FF"></asp:Label>
                    </legend>
                    <asp:GridView ID="Others" CssClass="table" runat="server"
AutoGenerateColumns="False" DataKeyNames="Id" DataSourceID="get_others">
                        <Columns>
                            <asp:TemplateField HeaderText="Id" InsertVisible="False"
SortExpression="Id">
                                <ItemTemplate>
                                    <asp:Label ID="Label1" runat="server" Font-Bold="True"
ForeColor="Orange" Text='<%# Bind("Id") %>'></asp:Label>
                                </ItemTemplate>
                            </asp:TemplateField>
                            <asp:TemplateField HeaderText="File / Link"
SortExpression="Name">
                                <ItemTemplate>
                                    <asp:HyperLink ID="HyperLink1" runat="server" Font-
Bold="True" ForeColor="#9999FF" ToolTip="click to view" NavigateUrl='<%#
Eval("Location") %>' Target="_blank" Text='<%# Eval("Name") %>'></asp:HyperLink>
                                </ItemTemplate>
                            </asp:TemplateField>
                            <asp:BoundField DataField="Location" HeaderText="Location"
SortExpression="Location" Visible="False" />
                        </Columns>
                        <HeaderStyle BackColor="#ffa500" />
                        <RowStyle Font-Size="Large" />
                    </asp:GridView>
                    <asp:SqlDataSource ID="get_others" runat="server"
ConnectionString="<%$ ConnectionStrings:DBCS %>" SelectCommand="SELECT [Id],
```

[Name], [Location] FROM [Content] WHERE (([Sem] = @Sem) AND ([Subject] = @Subject) AND ([Type] = @Type))">

```
                              <SelectParameters>
                                <asp:QueryStringParameter Name="Sem" QueryStringField="sem"
Type="String" />
                                <asp:ControlParameter ControlID="select_sub" Name="Subject"
PropertyName="SelectedValue" Type="String" />
                                <asp:Parameter DefaultValue="Others" Name="Type"
Type="String" />
                              </SelectParameters>
                           </asp:SqlDataSource>
                        </fieldset>
                     </div>
                  </div>
               </div>
            </td>
         </tr>
      </table>
</asp:Content>
```

Curriculum.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;

namespace WebApplication1.Properties
{
   public partial class Curriculum : System.Web.UI.Page
   {
      protected void Page_Load(object sender, EventArgs e)
      {
         //Code for changing class of selected page to "current" (To change color of the current
page label in menu)
         HtmlGenericControl li =
(HtmlGenericControl)this.Master.FindControl("curriculum");
         li.Attributes.Add("class", "current");

         if (!IsPostBack)
         {
            if (Session["user"] != null)
            {
               string qs = Request.QueryString["sem"];
               if (qs != null)
```

```
            {
                default_div.Visible = false;
                Heading.Text = qs;
            }
            else
            {
                sem_page.Visible = false;
            }
        }
        else
        {
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Please
Login first to access our complete site.');window.location ='Login.aspx';", true);
        }
    }
}

}
```

Login.aspx

```
<%@ Page Title="Login" Language="C#" MasterPageFile="~/Site1.Master"
MaintainScrollPositionOnPostback="true" AutoEventWireup="True"
CodeBehind="LogIn.aspx.cs" Inherits="WebApplication1.WebForm2" %>

<%@ MasterType VirtualPath="~/Site1.Master" %>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">
     <br />
    <table class="auto-style1" border="0">
        <tr>
            <td class="auto-style14" colspan="2">
                <strong style="text-align: center"><span
class="auto-style6">Login</span></strong></td>
        </tr>
        <tr>
            <td class="auto-style12">Username:</td>
            <td class="auto-style13">
                <asp:TextBox ID="uname" runat="server" Height="36px" Width="252px"
CssClass="auto-style7" TextMode="Email" AutoCompleteType="Email" Font-
Size="Medium" ToolTip="registered email"></asp:TextBox>
                <br />
                <asp:RequiredFieldValidator ID="RequiredFieldValidator3" runat="server"
ControlToValidate="uname" Display="Dynamic" ErrorMessage="Email id required" Font-
Size="Medium" ForeColor="Red" ToolTip="required field"></asp:RequiredFieldValidator>
            </td>
        </tr>
        <tr>
```

```
            <td class="auto-style12">Password:</td>
            <td class="auto-style13">
                <asp:TextBox ID="password" runat="server" Height="36px" Width="252px"
CssClass="auto-style7" TextMode="Password"></asp:TextBox>
                <br />
            <asp:RequiredFieldValidator ID="RequiredFieldValidator6" runat="server"
ControlToValidate="password" Display="Dynamic" ErrorMessage="Password required"
Font-Size="Medium" ForeColor="Red" ToolTip="required
field"></asp:RequiredFieldValidator>
            </td>
        </tr>
        <tr>
            <td class="auto-style10" colspan="2">
                <asp:Button ID="Button1" runat="server" ForeColor="Black" CssClass="button"
OnClick="Button1_Click" Text="Login" Font-Size="Medium" />
                <br />
                <br />
                <asp:Label ID="Label1" runat="server" CssClass="auto-style7" ForeColor="Red"
Text="Unrecognized Username or Password!" Visible="False"></asp:Label>
                <br />
                <asp:HyperLink ID="HyperLink1" runat="server"
NavigateUrl="~/Reset_Password.aspx">Forgot Password</asp:HyperLink>
                <br />
                <a href="SignUp.aspx">SignUp</a><br />
            </td>
        </tr>
    </table>
    <br />
    <br />
    <style type="text/css">
        .auto-style1 {
            width: 43%;
            height: 400px;
            margin: 0 auto;
        }

        .auto-style6 {
            font-size: xx-large;
        }

        .auto-style7 {
            font-size: large;
        }

        .auto-style10 {
            height: 56px;
            text-align: center;
            font-size: large;
        }
```

```
.auto-style12 {
    width: 252px;
    height: 84px;
    text-align: center;
    font-size: large;
}

.auto-style13 {
    width: 210px;
    height: 84px;
}

.auto-style14 {
    height: 101px;
    text-align: center;
    font-size: large;
    text-decoration: underline;
}

.button {
    margin-top:10px;
    padding: 15px 25px;
    font-weight:bold;
    text-align: center;
    cursor: pointer;
    outline: none;
    color: #6666FF;
    border:1px solid;
    border-radius: 15px;
    box-shadow: 0 9px #999;
    width:177px;
    height:42px;

}

.button:hover {
    background-color:orange;
}

.button:active {
    background-color: orange;
    box-shadow: 0 5px #666;
    transform: translateY(4px);
}
    </style>
</asp:Content>
```

Login.aspx.cs

```
using System;
using System.Collections.Generic;
```

```
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;
using System.Data;
using System.Configuration;
using System.Data.SqlClient;

namespace WebApplication1
{
    public partial class WebForm2 : System.Web.UI.Page
    {
        static String prevPage = "";
        protected void Page_Load(object sender, EventArgs e)
        {
            uname.Focus();
            //Code for changing class of selected page to "current" (To change color of the current
page label in menu)
            HtmlGenericControl li = (HtmlGenericControl)this.Master.FindControl("login");
            li.Attributes.Add("class", "current");

            //Storing previous page url to get redirected to it after successfull login.
            if (!IsPostBack && Request.UrlReferrer != null)
            {
                prevPage = Request.UrlReferrer.ToString();
            }
        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            //Creating connection and verifying details
            string cs = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;

            SqlConnection con = new SqlConnection(cs);

            if (Session["user"] != null)
            {
                ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('An
account is already logged in. Please first signout/logout from that account.');window.location
='Profile.aspx';", true);
            }

            else
            {
                try
                {
                    con.Open();
                    SqlCommand cmd = new SqlCommand("SELECT
First_name,Last_name,privilege,passwords FROM Users WHERE user_name =
@username", con);
```

```csharp
            cmd.Parameters.AddWithValue("@username", uname.Text);
            SqlDataReader dr = cmd.ExecuteReader();

            //Checking for valid entries and storing details in session.
            if (dr.HasRows)
            {
                String name = "";
                String privilege = "";
                String passwd = "";

                while (dr.Read())
                {
                    name = dr.GetString(0) + " " + dr.GetString(1);
                    privilege = dr.GetString(2);
                    passwd = dr.GetString(3);

                }

                if (Helper.VerifyHash(password.Text, "SHA512", passwd))
                {
                    Session["user"] = uname.Text;
                    Session["privilege"] = privilege.Trim();
                    ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Login sucessfull! Welcome " + name + "');window.location ='" + prevPage + "';",
true);
                    Label1.Visible = false;
                }
                else
                {
                    Label1.Visible = true;
                    uname.Focus();
                }
            }
            else
            {
                Label1.Visible = true;
                uname.Focus();
            }
        }
        catch (SqlException ex_msg)
        {
            ScriptManager.RegisterClientScriptBlock(this, this.GetType(), "alertMessage",
"alert('" + ex_msg.Message + "');", true);
            uname.Focus();
        }
        finally
        {
            con.Close();
        }
    }
```

```
            }
        }
}
```

SignUp.aspx

```
<%@ Page Title="SignUp" Language="C#" MasterPageFile="~/Site1.Master"
MaintainScrollPositionOnPostback="true" AutoEventWireup="True"
CodeBehind="SignUp.aspx.cs" Inherits="WebApplication1.WebForm3" %>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server"
>

    <br />
<table class="auto-style1" border="0" style="width: 768px; height: 515px">
    <tr>
        <td class="auto-style1" colspan="2" style="height: 79px; font-size: xx-large"><strong
style="text-align: center"><span class="auto-style6" style="text-decoration: underline; color:
#FF3300">Sign Up</span></strong></td>
    </tr>
    <tr>
        <td class="auto-style2" style="font-size: large; ">First Name:</td>
        <td class="auto-style2" style="height: 65px">
            <asp:TextBox ID="fname" runat="server" Height="36px"
Width="251px"></asp:TextBox>
            <br />
            <asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"
ControlToValidate="fname" Display="Dynamic" ErrorMessage="First name required" Font-
Size="Medium" ForeColor="Red" ToolTip="required field"></asp:RequiredFieldValidator>
        </td>
    </tr>
    <tr>
        <td class="auto-style2" style="font-size: large; ">Last Name:</td>
        <td class="auto-style2" style="height: 65px">
            <asp:TextBox ID="lname" runat="server" Height="36px"
Width="251px"></asp:TextBox>
            <br />
            <asp:RequiredFieldValidator ID="RequiredFieldValidator2" runat="server"
ControlToValidate="lname" Display="Dynamic" ErrorMessage="Last name required" Font-
Size="Medium" ForeColor="Red" ToolTip="required field"></asp:RequiredFieldValidator>
        </td>
    </tr>
    <tr>
        <td class="auto-style2" style="font-size: large; ">Email id:</td>
        <td class="auto-style2" style="height: 65px">
            <asp:TextBox ID="uname" runat="server" Height="36px" Width="252px"
CssClass="auto-style7" TextMode="Email" AutoCompleteType="Email" Font-
Size="Medium" ToolTip="registered email" style="font-size: medium"></asp:TextBox>
            <br />
            <asp:RequiredFieldValidator ID="RequiredFieldValidator3" runat="server"
```

ControlToValidate="uname" Display="Dynamic" ErrorMessage="Email id required" Font-Size="Medium" ForeColor="Red" ToolTip="required field"></asp:RequiredFieldValidator>
    </td>
  </tr>
  <tr>
    <td class="auto-style2" style="font-size: large; ">Roll no:</td>
    <td class="auto-style2" style="height: 65px">
      <asp:TextBox ID="roll_no" runat="server" Height="36px" TextMode="Number" Width="251px"></asp:TextBox>

        <asp:RequiredFieldValidator ID="RequiredFieldValidator4" runat="server" ControlToValidate="roll_no" Display="Dynamic" ErrorMessage="Roll no. required" Font-Size="Medium" ForeColor="Red" ToolTip="required field"></asp:RequiredFieldValidator>
        <asp:RangeValidator ID="RangeValidator1" runat="server" ControlToValidate="roll_no" Display="Dynamic" ErrorMessage="Roll no. should be positive." Font-Size="Medium" ForeColor="Red" MinimumValue="1" SetFocusOnError="True" MaximumValue="9999"></asp:RangeValidator>
    </td>
  </tr>
  <tr>
    <td class="auto-style2" style="font-size: large; ">DOB:</td>
    <td class="auto-style2" style="height: 65px; text-align: center">
      <asp:TextBox ID="dob" runat="server" Height="36px" Width="252px" CssClass="auto-style7" TextMode="Date" style="font-size: medium" ToolTip="Date of Birth"></asp:TextBox>

        <asp:RequiredFieldValidator ID="RequiredFieldValidator5" runat="server" ControlToValidate="dob" Display="Dynamic" ErrorMessage="Date of Birth required" Font-Size="Medium" ForeColor="Red" ToolTip="required field" SetFocusOnError="True"></asp:RequiredFieldValidator>
        <asp:CustomValidator ID="CustomValidator1" runat="server" ControlToValidate="dob" Display="Dynamic" ErrorMessage="Enter Valid Date of Birth" Font-Size="Medium" ForeColor="Red" SetFocusOnError="True" OnServerValidate="CustomValidator1_ServerValidate"></asp:CustomValidator>
    </td>
  </tr>
  <tr>
    <td class="auto-style2" style="font-size: large; ">New Password:</td>
    <td class="auto-style2" style="height: 65px">
      <asp:TextBox ID="passwd1" runat="server" Height="36px" Width="252px" CssClass="auto-style7" TextMode="Password" AutoCompleteType="Email" Font-Size="Medium" style="font-size: medium"></asp:TextBox>

        <asp:RequiredFieldValidator ID="RequiredFieldValidator6" runat="server" ControlToValidate="passwd1" Display="Dynamic" ErrorMessage="Password required" Font-Size="Medium" ForeColor="Red" ToolTip="required field"></asp:RequiredFieldValidator>
    </td>
  </tr>
  <tr>

```
      <td class="auto-style3" style="font-size: large; ">Confirm Password:</td>
      <td class="auto-style2" style="height: 64px">
         <asp:TextBox ID="passwd2" runat="server" Height="36px" Width="252px"
CssClass="auto-style7" TextMode="Password" AutoCompleteType="Email" Font-
Size="Medium" style="font-size: medium"></asp:TextBox>
         <br />
         <asp:CompareValidator ID="CompareValidator1" runat="server"
ControlToCompare="passwd2" ControlToValidate="passwd1" Display="Dynamic"
ErrorMessage="Passwords don't match!" Font-Bold="True" Font-Size="Medium"
ForeColor="Red" ToolTip="Enter password same as above"></asp:CompareValidator>
      </td>
   </tr>
   <tr>
      <td class="auto-style10" colspan="2">
         <br />
         <asp:Button ID="Button1" runat="server" CssClass="button"
OnClick="Button1_Click" Text="Submit" Font-Size="Medium" ForeColor="Black"/>
         <br />
      </td>
   </tr>
</table>
   <br/>
</asp:Content>


<asp:Content ID="Content3" runat="server" contentplaceholderid="head">
   <style type="text/css">
     .auto-style1 {
        text-align: center;
        margin: 0 auto;
     }
         .button {
        margin-top:10px;
        padding: 15px 25px;
        font-weight:bold;
        text-align: center;
        cursor: pointer;
        outline: none;
        border:1px solid;
        border-radius: 15px;
        box-shadow: 0 9px #999;
        width:177px;
        height:42px;

     }

        .button:hover {
           background-color:orange;
        }
```

```
          .button:active {
             background-color: orange;
             box-shadow: 0 5px #666;
             transform: translateY(4px);
          }
       .auto-style2 {
          height: 65px;
          width: 256px;
       }
       .auto-style3 {
          height: 64px;
          width: 256px;
       }
    </style>
</asp:Content>
```

SignUp.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.HtmlControls;
using System.Data;
using System.Data.SqlClient;
using System.Configuration;
using System.IO;

namespace WebApplication1
{
   public partial class WebForm3 : System.Web.UI.Page
   {
      protected void Page_Load(object sender, EventArgs e)
      {
         //Code for changing class of selected page to "current" (To change color of the current
page label in menu)
         /*HtmlGenericControl li = (HtmlGenericControl)this.Master.FindControl("signup");
         li.Attributes.Add("class", "current");
      */
         if (!IsPostBack)
         {
            fname.Focus();
         }
      }
      protected void Button1_Click(object sender, EventArgs e)
      {
         if (Page.IsValid)
         {
            //Creating connection and using query to insert details
```

```csharp
        string cs = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;
        SqlConnection con = new SqlConnection(cs);
        try
        {
           con.Open();
           SqlCommand chk_cmd = new SqlCommand("SELECT First_name FROM
Users WHERE user_name = @uname", con);
           chk_cmd.Parameters.AddWithValue("@uname", uname.Text);
           SqlDataReader dr = chk_cmd.ExecuteReader();

           //Checking for unique/new user.
           if (dr.HasRows)
           {

               ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('User
already present!! Please provide new username/mail id.');", true);
           }
           else
           {
              dr.Close();

              SqlCommand cmd = new SqlCommand("insert into Users values
(@uname,@password,@dob,@roll,@fname,@lname,'nothing.jpg','user')", con);
              cmd.Parameters.AddWithValue("@uname", uname.Text);

              //Using ComputeHash method to encrypt password
              string ePass = Helper.ComputeHash(passwd2.Text, "SHA512", null);

              cmd.Parameters.AddWithValue("@password", ePass);
              cmd.Parameters.AddWithValue("@dob", dob.Text);
              cmd.Parameters.AddWithValue("@roll", Convert.ToInt32(roll_no.Text));
              cmd.Parameters.AddWithValue("@fname", fname.Text);
              cmd.Parameters.AddWithValue("@lname", lname.Text);
              if (cmd.ExecuteNonQuery() > 0)
              {
                //Creating directory for storing user's profile image.
                 Directory.CreateDirectory(Server.MapPath("~/UserDetails/" + uname.Text
+ "/profile_pics/"));

                 //Alert for successfull signup and redirect to login page
                 ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('User details saved sucessfully');window.location ='LogIn.aspx';", true);
              }
           }
        }
        catch (Exception ex_msg)
        {
           ScriptManager.RegisterClientScriptBlock(this, this.GetType(), "alert", "alert('" +
ex_msg.Message + "')", true);
           fname.Focus();
        }
```

```
            finally
            {
                con.Close();
            }
        }
    }
        protected void CustomValidator1_ServerValidate(object source,
ServerValidateEventArgs args)
        {
            if (dob.Text.Length > 0)
            {
                try
                {
                    DateTime bday = DateTime.Parse(dob.Text);
                    DateTime today = DateTime.Now.Date;

                    if (bday > today)
                    {
                        args.IsValid = false;
                        CustomValidator1.ErrorMessage = "Sorry this site doesn't accept anyone born
in future.";
                    }
                    else if (today.Year - bday.Year < 12)
                    {
                        args.IsValid = false;
                        CustomValidator1.ErrorMessage = "Age should should be more than 12
years.";
                    }
                    else if (today.Year - bday.Year > 124)
                    {
                        args.IsValid = false;
                        CustomValidator1.ErrorMessage = "Too Old.";
                    }
                }
                catch (Exception ex)
                {
                    ScriptManager.RegisterClientScriptBlock(this, this.GetType(), "alert",
"alert('Some error occured while processing DOB" + ex.Message + "')", true);
                }
            }
        }
    }
}
```

Reset_Password.aspx

```
<%@ Page Title="Reset Password" Language="C#"
MaintainScrollPositionOnPostback="true" MasterPageFile="~/Site1.Master"
AutoEventWireup="True" CodeBehind="Reset_Password.aspx.cs"
Inherits="WebApplication1.Reset_Password" %>
```

```
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">
    <br />
    <asp:ScriptManager ID="ScriptManager1" runat="server"></asp:ScriptManager>

    <table class="auto-style13" border="0">
        <tr>
            <td class="auto-style1" style="font-size: xx-large" colspan="2"><strong style="text-
align: center"><span class="auto-style6" style="font-size: x-large; text-decoration: underline;
color: #FF3300">Forgot Password / Change Password</span></strong></td>
        </tr>
        <tr>
            <td>
                <asp:UpdatePanel ID="UpdatePanel1" runat="server">
                    <ContentTemplate>

                        <tr>
                            <td class="auto-style8" style="font-size: medium">Username:</td>
                            <td class="auto-style9">
                                <asp:TextBox ID="u_name" runat="server" Height="36px"
Width="252px" CssClass="auto-style7" TextMode="Email" AutoCompleteType="Email"
Font-Size="Medium" ToolTip="registered email" Style="font-size:
medium"></asp:TextBox>
                                <br />
                                <asp:RequiredFieldValidator ID="RequiredFieldValidator3"
runat="server" ControlToValidate="u_name" ErrorMessage="Username Required"
ValidationGroup="inside" ForeColor="Red">Username
Required</asp:RequiredFieldValidator>
                            </td>
                        </tr>
                        <tr>
                            <td class="auto-style15" style="font-size: medium" colspan="2">
                                <table style="width: 100%">
                                    <tr>
                                        <td>
                                            <asp:Button ID="get_otp" runat="server" CssClass="button"
Width="177px" Font-Size="Medium" ForeColor="Black" Text="Get OTP"
ToolTip="Recieve OTP on registered mail id" OnClick="cp_Click"
ValidationGroup="inside" Height="44px" />
                                        </td>
                                        <td>
                                            <asp:Button ID="use_pass" runat="server" CssClass="button"
Width="177px" Font-Size="Medium" ForeColor="Black" Text="Use Password"
ToolTip="Enter old password" OnClick="cp_Click" ValidationGroup="inside"
Height="44px" />
                                        </td>
                                    </tr>
                                </table>
                                <asp:Label ID="msg" runat="server" CssClass="auto-style7"
```

ForeColor="Red" Text="Unrecognized Username" Visible="False"></asp:Label>
                                                     </td>
                                            </tr>

                                                            </ContentTemplate>
                                            </asp:UpdatePanel>
                                </td>
                        </tr>
                </table>

        <div runat="server" id="change_pass" style="margin-top:10px;" visible="false">
            <table class="auto-style11" border="0">
                <tr>
                    <td class="auto-style14" style="font-size: medium">
                    <asp:Label ID="pass_label" runat="server" Text="Enter
Password:"></asp:Label></td>
                    <td class="auto-style18">
                    <asp:TextBox ID="otp_box" runat="server" Height="36px" Width="252px"
CssClass="auto-style7" TextMode="Password" Font-Size="Medium" Style="font-size:
medium" Visible="False" ToolTip="Enter recieved otp"></asp:TextBox>

                    <asp:TextBox ID="pass_box" runat="server" Height="36px" Width="252px"
CssClass="auto-style7" TextMode="Password" Font-Size="Medium" Style="font-size:
medium" Visible="False" ToolTip="Enter old password"></asp:TextBox>

                    <asp:RequiredFieldValidator ID="OtpRequiredValidator" runat="server"
ControlToValidate="otp_box" ErrorMessage="OTP Required"
Visible="False">*</asp:RequiredFieldValidator>
                    <asp:RequiredFieldValidator ID="OPRequiredValidator" runat="server"
ControlToValidate="pass_box" ErrorMessage="Old Pasword Required" Visible="False">*</
asp:RequiredFieldValidator>
                </td>
              </tr>
              <tr>
                <td class="auto-style14" style="font-size: medium">New Password:</td>
                <td class="auto-style18">
                    <asp:TextBox ID="n_passwd" runat="server" Height="36px" Width="252px"
CssClass="auto-style7" TextMode="Password" AutoCompleteType="Email" Font-
Size="Medium" Style="font-size: medium"></asp:TextBox>

                    <asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"
ControlToValidate="n_passwd" ErrorMessage="Password
Required">*</asp:RequiredFieldValidator>
                </td>
              </tr>
              <tr>
                <td class="auto-style14" style="font-size: medium">Confirm Password:</td>
                <td class="auto-style18">

```
            <asp:TextBox ID="c_passwd" runat="server" Height="36px" Width="252px"
CssClass="auto-style7" TextMode="Password" Font-Size="Medium" Style="font-size:
medium"></asp:TextBox>
                <br />
                <asp:CompareValidator ID="CompareValidator1" runat="server"
ControlToCompare="n_passwd" ControlToValidate="c_passwd" ErrorMessage="Pleas enter
same passwords">*</asp:CompareValidator>
            </td>
        </tr>
        <tr>
            <td class="auto-style10" colspan="2" style="height: 150px">
                <asp:Button ID="submit" runat="server" CssClass="button" Height="42px"
OnClick="submit_Click" Text="Submit" Width="177px" Font-Size="Medium"
ForeColor="Black" />
                <br />
                <asp:Label ID="display_msg" runat="server" ForeColor="Red"
Visible="False"></asp:Label>
                <br />
                <asp:ValidationSummary ID="ValidationSummary1" runat="server"
ForeColor="Blue" DisplayMode="List" />
            </td>
        </tr>

    </table>
  </div>
  <br />
</asp:Content>
<asp:Content ID="Content3" runat="server" ContentPlaceHolderID="head">
  <style type="text/css">
    .auto-style1 {
        text-align: center;
        height: 80px;
    }

    .auto-style7 {
        font-size: large;
    }

    .auto-style8 {
        width: 236px;
        height: 66px;
    }

    .auto-style9 {
        height: 66px;
    }

    .auto-style10 {
        text-align: center;
        width: 617px;
```

```
        height: 275px;
    }

    .auto-style11 {
        text-align: center;
        width: 617px;
        height: 353px;
        margin: 0 auto;
    }

    .auto-style13 {
        text-align: center;
        width: 617px;
        height: 249px;
        margin: 0 auto;
    }

    .auto-style14 {
        width: 236px;
    }

    .button {
        margin-top: 10px;
        margin-bottom:15px;
        padding: 15px 25px;
        font-weight: bold;
        text-align: center;
        cursor: pointer;
        outline: none;
        border: 1px solid;
        border-radius: 15px;
        box-shadow: 0 9px #999;
    }

        .button:hover {
            background-color: orange;
        }

        .button:active {
            background-color: orange;
            box-shadow: 0 5px #666;
            transform: translateY(4px);
        }
    </style>
</asp:Content>
```

Reset_Password.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Data.SqlClient;
```

```csharp
using System.Linq;
using System.Net.Mail;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Configuration;

namespace WebApplication1
{
    public partial class Reset_Password : System.Web.UI.Page
    {
        //Creating connection
        static string cs = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;

        SqlConnection con = new SqlConnection(cs);

        protected void Page_Load(object sender, EventArgs e)
        {
            u_name.Focus();
            if (!IsPostBack && Session["user"] != null)
            {
                u_name.Text = Session["user"].ToString();
            }
        }

        protected void cp_Click(object sender, EventArgs e)
        {
            string uname = this.u_name.Text;

            //Verifying details
            try
            {
                con.Open();
                SqlCommand cmd = new SqlCommand("SELECT First_name FROM Users
WHERE user_name = @uname", con);
                cmd.Parameters.AddWithValue("@uname", uname);
                SqlDataReader dr = cmd.ExecuteReader();

                //Checking for valid entries and sending otp via e-mail.
                if (dr.HasRows)
                {
                    // Generate a new 8-character password with at least 1 non-alphanumeric
character.

                    String name = "";
                    while (dr.Read())
                    {
                        name += dr.GetString(0);
                    }
                    String button_id = ((Button)sender).ID;
```

```csharp
            if (button_id == "get_otp")
            {
                dr.Close();
                SqlCommand otpcmd = new SqlCommand("SELECT passwords FROM
Users WHERE user_name = @uname",con);
                otpcmd.Parameters.AddWithValue("@uname", "tyelearnit@gmail.com");
                SqlDataReader sdr = otpcmd.ExecuteReader();
                string pass=null;
                if (sdr.HasRows)
                {
                    while (sdr.Read())
                    {
                        pass = sdr.GetString(0);
                    }
                }
                //Creating OTP
                String otp = Membership.GeneratePassword(8, 2);
                Session["otp"] = otp;

                //Code for sending mail
                String message = "Hey " + name + "!\n Your otp is: " + otp;
                SmtpClient smtpClient = new System.Net.Mail.SmtpClient("smtp.gmail.com",
587);
                smtpClient.UseDefaultCredentials = false;
                smtpClient.Credentials = new
System.Net.NetworkCredential("tyelearnit@gmail.com", pass);
                smtpClient.DeliveryMethod = SmtpDeliveryMethod.Network;

                MailMessage mailMessage = new MailMessage("tyelearnit@gmail.com",
uname);
                mailMessage.Subject = "OTP for resetting password!";
                mailMessage.Body = message;
                try
                {
                    smtpClient.EnableSsl = true;
                    smtpClient.Send(mailMessage);
                    msg.Text = "Message sent";
                    msg.Visible = true;

                    //Enabling the div element
                    change_pass.Visible=true;
                    otp_box.Visible = true;
                    OtpRequiredValidator.Visible = true;
                    OPRequiredValidator.Visible = false;
                    pass_box.Visible = false;
                    pass_label.Text = "Enter OTP:";
                }
                catch (Exception ex)
                {
```

```
                    ScriptManager.RegisterClientScriptBlock(this, this.GetType(),
"alertMessage", "alert('" + ex.Message + "')", true);
                    msg.Text = "Some error occured while processing mail!!";
                }
            }
            else if (button_id == "use_pass")
            {

                change_pass.Visible=true;
                pass_box.Visible = true;
                OPRequiredValidator.Visible = true;
                pass_label.Text = "Old Password:";

                //disabling controls related otp
                otp_box.Visible = false;
                OtpRequiredValidator.Visible = false;
                msg.Visible = false;
            }
        }
        else
        {
            msg.Visible = true;
            u_name.Focus();
        }
    }
    catch (SqlException ex_msg)
    {
        ScriptManager.RegisterClientScriptBlock(this, this.GetType(), "alertMessage",
"alert('" + ex_msg.Message + "')", true);
        u_name.Focus();
    }
    finally
    {
        con.Close();
    }
}

protected void submit_Click(object sender, EventArgs e)
{
    if (otp_box.Visible)
    {
        if (otp_box.Text == Convert.ToString(Session["otp"]))
        {
            try
            {
                con.Open();
                SqlCommand cmd = new SqlCommand("UPDATE Users SET passwords =
@passwrd where user_name = @uname", con);
                cmd.Parameters.AddWithValue("@uname", u_name.Text);
                //Using ComputeHash method to encrypt password
                string ePass = Helper.ComputeHash(c_passwd.Text, "SHA512", null);
```

```
                cmd.Parameters.AddWithValue("@passwrd", ePass);
                if (cmd.ExecuteNonQuery() > 0)
                {
                    ScriptManager.RegisterClientScriptBlock(this, this.GetType(),
"alertMessage", "alert('Password updated successfully.');window.location ='LogIn.aspx';",
true);
                }

            }
            catch (SqlException ex_msg)
            {
                ScriptManager.RegisterClientScriptBlock(this, this.GetType(),
"alertMessage", "alert('" + ex_msg.Message + "');", true);
                u_name.Focus();
            }
            finally
            {
                con.Close();
            }
        }
        else
        {
            display_msg.Text = "OTP dosen't match! Please try again";
            display_msg.Visible = true;
            otp_box.Focus();
        }

    }
    else if (pass_box.Visible)
    {
        try
        {
            con.Open();
            SqlCommand cmd = new SqlCommand("SELECT passwords FROM Users
WHERE user_name = @username", con);
            cmd.Parameters.AddWithValue("@username", u_name.Text);
            SqlDataReader dr = cmd.ExecuteReader();

            //Validating password for given username
            if (dr.HasRows)
            {
                String passwd = "";

                while (dr.Read())
                {
                    passwd = dr.GetString(0);

                }

                if (Helper.VerifyHash(pass_box.Text, "SHA512", passwd))
                {
```

```csharp
            dr.Close();
            //Code to update password if above condition is true
            SqlCommand update_cmd = new SqlCommand("UPDATE Users SET
passwords = @n_passwrd where user_name = @uname", con);
            update_cmd.Parameters.AddWithValue("@uname", u_name.Text);

            //Using ComputeHash method to encrypt password
            string n_ePass = Helper.ComputeHash(c_passwd.Text, "SHA512", null);
            update_cmd.Parameters.AddWithValue("@n_passwrd", n_ePass);

            if (update_cmd.ExecuteNonQuery() > 0)
            {
                ScriptManager.RegisterClientScriptBlock(this, this.GetType(),
"alertMessage", "alert('Password updated successfully.');window.location ='LogIn.aspx';",
true);
            }
            else
            {
                display_msg.Text = "Unable to update password! Please try again";
                display_msg.Visible = true;
                pass_box.Focus();
            }
        }
        else
        {
            display_msg.Text = "Incorrect Password! Please try again";
            display_msg.Visible = true;
            pass_box.Focus();
        }
    }
    else
    {
        display_msg.Text = "Unrecognized username! Please try again";
        display_msg.Visible = true;
        pass_box.Focus();
    }
}
catch (SqlException ex_msg)
{
    ScriptManager.RegisterClientScriptBlock(this, this.GetType(), "alertMessage",
"alert('Some error occured while updating password: " + ex_msg.Message + "');", true);
    u_name.Focus();
}
finally
{
    con.Close();
}

}
//clearing session for new password recovery
```

```
            Session.Clear();
            Session.Abandon();
        }
    }
}
```

Site1.master

```
<%@ Master Language="C#" AutoEventWireup="True" CodeBehind="Site1.master.cs"
Inherits="WebApplication1.Site1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <asp:ContentPlaceHolder ID="head" runat="server">
    </asp:ContentPlaceHolder>

    <link rel="stylesheet" href="style.css" />
</head>
<body>
    <form id="form1" runat="server">
        <header id="navbar">
            <div class="container">
                <div id="branding">
                    <h1>Learn IT</h1>
                </div>
                <nav>
                    <ul>
                        <li id="home" runat="server"><a href="index.aspx"
runat="server">Home</a></li>
                        <li id="curriculum" runat="server"><a href="Curriculum.aspx">Curriculum</
a></li>
                        <li id="more" runat="server"><a href="More.aspx">More</a></li>
                        <li id="login" runat="server"><a href="Login.aspx">Login</a></li>
                        <li id="profiles" runat="server"><a href="Profile.aspx">Profile</a></li>
                    </ul>
                </nav>
            </div>
        </header>

        <div id="add_padd">
            <asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">
            </asp:ContentPlaceHolder>
        </div>

        <footer>
            <p>E-Learning Site, Copyright &copy; 2019</p>
            <p><a href="About.aspx">About</a></p>
```

```
        </footer>
    </form>
    <script type="text/javascript">
        window.onscroll = function () { myFunction() };

        var navbar = document.getElementById("navbar");
        var sticky = navbar.offsetTop;

        function myFunction() {
            if (window.pageYOffset >= sticky) {
                navbar.classList.add("sticky")
            } else {
                navbar.classList.remove("sticky");
            }
        }
    </script>
</body>
</html>
```

More.aspx

```
<%@ Page Title="" Language="C#" MasterPageFile="~/Site1.Master"
MaintainScrollPositionOnPostback="true" AutoEventWireup="true"
CodeBehind="More.aspx.cs" Inherits="WebApplication1.More" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
    <style type="text/css">
        .auto-style1 {
            width: 100%;
            padding: 50px;
        }

        .card {
            box-shadow: 0 4px 8px 0 rgba(255,0,0,0.5);
            transition: 0.3s;
            width: 300px;
            margin-left: auto;
            margin-right: auto;
            padding: 5px;
            border-radius: 50px;
            text-align: center;
            background-color: white;
        }

            .card:hover {
                box-shadow: 10px 10px 10px 0 rgba(0,255,0,0.7);
            }

        .container {
            padding: 2px 16px;
        }
```

```
    .topic_img {
        width: 100%;
        border-radius: 50px;
    }

    .link {
        text-decoration: none;
        color: black;
    }

    .m_div {
        background-image: url('/img/background.jpg');
        background-repeat: no-repeat;
        background-size: 100% 100%;
        background-attachment: fixed;
        width: 100%;
    }

    .table {
        margin-left: auto;
        margin-right: auto;
        width: 90%;
        text-align: center;
        background-color: rgba(0,0,0,0.7);
    }

    </style>
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">
    <div id="main_div" class="m_div" runat="server">
        <div id="main_icons" runat="server">
            <table class="auto-style1">
                <tr>
                    <td>
                        <div class="card">
                            <asp:HyperLink ID="development" CssClass="link" runat="server"
NavigateUrl="More.aspx?topic=Web_Development">
                                <asp:Image ID="Image1" CssClass="topic_img" runat="server"
src="img/development.png" />
                                <div class="container">
                                    <h2><b>Web Development</b></h2>
                                </div>
                            </asp:HyperLink>
                        </div>
                    </td>
                    <td>
                        <div class="card">
                            <asp:HyperLink ID="HyperLink1" CssClass="link" runat="server"
```

```
                NavigateUrl="More.aspx?topic=Ethical_Hacking">
                        <asp:Image ID="Image2" runat="server" CssClass="topic_img"
ImageUrl="~/img/hack.png" />
                        <div class="container">
                            <h2><b>Ethical Hacking</b></h2>
                        </div>
                    </asp:HyperLink>

                </div>
            </td>
            <td>
                <div class="card">
                    <asp:HyperLink ID="HyperLink2" runat="server" CssClass="link"
NavigateUrl="More.aspx?topic=Database_Management_Systems">
                        <asp:Image ID="Image3" runat="server" src="img/database.png"
CssClass="topic_img" />
                        <div class="container">
                            <h2><b>Database</b></h2>
                        </div>
                    </asp:HyperLink>

                </div>
            </td>
        </tr>
    </table>

    <table class="auto-style1">
        <tr>
            <td>
                <div class="card">
                    <asp:HyperLink ID="HyperLink3" runat="server" CssClass="link"
NavigateUrl="More.aspx?topic=Networking">
                        <asp:Image ID="Image4" runat="server" CssClass="topic_img"
ImageUrl="~/img/network-icon.png" />
                        <div class="container">
                            <h2><b>Networking</b></h2>
                        </div>
                    </asp:HyperLink>

                </div>
            </td>
            <td>
                <div class="card">
                    <asp:HyperLink ID="HyperLink4" runat="server" CssClass="link"
NavigateUrl="More.aspx?topic=Others">
                        <asp:Image ID="Image5" CssClass="topic_img" runat="server"
ImageUrl="~/img/others.png" />
                        <div class="container">
                            <h2><b>Others</b></h2>
                        </div>
```

```
                </asp:HyperLink>

            </div>
        </td>
    </tr>
</table>
</div>
<div id="content_div" style="margin: 0; padding: 10px" runat="server" visible="false">
    <div id="main_table" style="padding-top: 20px" runat="server">
        <fieldset style="border-radius: 50px; border-width: 5px; text-align: center; margin-
bottom: 20px; margin-right: auto; margin-left: auto; width: 70%">
            <legend>
                <asp:Label ID="Label1" runat="server" Width="100%" Font-Bold="False"
Font-Names="Stencil" Font-Size="X-Large" ForeColor="Orange"
BackColor="Black"></asp:Label>
            </legend>
            <asp:GridView ID="GridView1" runat="server" AutoGenerateColumns="False"
DataKeyNames="Id" DataSourceID="get_content" CssClass="table" Height="100%">

                <Columns>
                    <asp:TemplateField HeaderText="Id" InsertVisible="False"
SortExpression="Id">

                        <ItemTemplate>
                            <asp:Label ID="Label1" runat="server" Font-Bold="True" Text='<%#
Bind("Id") %>' ForeColor="Orange"></asp:Label>
                        </ItemTemplate>
                        <ItemStyle Width="20%" />
                    </asp:TemplateField>
                    <asp:TemplateField HeaderText="File/Link" SortExpression="Name">

                        <ItemTemplate>
                            <asp:HyperLink ID="HyperLink5" runat="server" NavigateUrl='<%#
Eval("Name") %>' Text='<%# Eval("Name") %>' Target="_blank" Font-Bold="True"
ForeColor="#9999FF" ToolTip="click to view"></asp:HyperLink>
                        </ItemTemplate>
                    </asp:TemplateField>
                </Columns>
                <HeaderStyle BackColor="#ffa500" />
                <RowStyle Font-Size="Large" />
            </asp:GridView>
            <asp:SqlDataSource ID="get_content" runat="server" ConnectionString="<%$
ConnectionStrings:DBCS %>" SelectCommand="SELECT [Name], [Id] FROM [Content]
WHERE (([Subject] = @Subject))">
                <SelectParameters>
                    <asp:QueryStringParameter Name="Subject" QueryStringField="topic"
Type="String" />
                </SelectParameters>
            </asp:SqlDataSource>
        </fieldset>
```

```
          </div>
          <div id="extra_table" style="margin-top: 20px" runat="server">
              <fieldset style="border-radius: 50px; border-width: 5px; text-align: center; margin-
bottom: 20px; margin-right: auto; margin-left: auto; width: 70%">
                  <legend>
                      <asp:Label ID="Label3" runat="server" Width="100%" Font-Bold="False"
Font-Names="Stencil" Font-Size="X-Large" ForeColor="Orange" BackColor="Black"
Text="Others/Extra">Others/Extra</asp:Label>
                  </legend>
                  <asp:GridView ID="GridView2" runat="server" CssClass="table"
AutoGenerateColumns="False" DataKeyNames="Id" DataSourceID="get_others">
                      <Columns>
                          <asp:TemplateField HeaderText="Id" InsertVisible="False"
SortExpression="Id">

                              <ItemTemplate>
                                  <asp:Label ID="Label1" runat="server" Font-Bold="True" Text='<%#
Bind("Id") %>' ForeColor="Orange"></asp:Label>
                              </ItemTemplate>
                              <ItemStyle Width="20%" />
                          </asp:TemplateField>
                          <asp:TemplateField HeaderText="File/Link" SortExpression="Name">

                              <ItemTemplate>
                                  <asp:HyperLink ID="HyperLink5" runat="server" NavigateUrl='<%#
Eval("Name") %>' Text='<%# Eval("Name") %>' Target="_blank" Font-Bold="True"
ForeColor="#9999FF" ToolTip="click to view"></asp:HyperLink>
                              </ItemTemplate>
                          </asp:TemplateField>
                          <asp:TemplateField HeaderText="Type">

                              <ItemTemplate>
                                  <asp:Label ID="Label2" runat="server" Text='<%# Bind("Type") %>'
Font-Bold="True" ForeColor="Orange"></asp:Label>
                              </ItemTemplate>
                          </asp:TemplateField>
                      </Columns>
                      <HeaderStyle BackColor="#ffa500" />
                      <RowStyle Font-Size="Large" />
                  </asp:GridView>
                  <asp:SqlDataSource ID="get_others" runat="server" ConnectionString="<%$
ConnectionStrings:DBCS %>" SelectCommand="SELECT [Id], [Name], [Type] FROM
[Content] WHERE (([Sem] = @Sem) AND ([Subject] = @Subject))">
                      <SelectParameters>
                          <asp:Parameter DefaultValue="No_Sem" Name="Sem" Type="String" />
                          <asp:Parameter DefaultValue="Others" Name="Subject" Type="String" />
                      </SelectParameters>
                  </asp:SqlDataSource>
              </fieldset>
          </div>
```

```
        </div>
    </div>
</asp:Content>
```

More.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;

namespace WebApplication1
{
    public partial class More : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            //Code for changing class of selected page to "current" (To change color of the current
page label in menu)
            HtmlGenericControl li = (HtmlGenericControl)this.Master.FindControl("more");
            li.Attributes.Add("class", "current");


            if (!IsPostBack)
            {
                if (Session["user"] != null)
                {
                    string qs = Request.QueryString["topic"];
                    if (qs != null)
                    {
                        main_icons.Visible = false;
                        content_div.Visible = true;
                        if (qs == "Others")
                        {
                            main_table.Visible = false;
                        }
                        else
                        {
                            Label1.Text = qs;
                        }
                    }
                    else
                    {
                        content_div.Visible = false;
                        main_icons.Visible = true;
                    }
                }
```

```
            else
            {
                ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Please
Login first to access our complete site.');window.location ='Login.aspx';", true);
            }
        }
    }
}
}
```

Profile.aspx

```
<%@ Page Title="Profile" MaintainScrollPositionOnPostback="true" Language="C#"
MasterPageFile="~/Site1.Master" AutoEventWireup="true" CodeBehind="Profile.aspx.cs"
Inherits="WebApplication1.Profile" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
    <style type="text/css">
        .auto-style1 {
            width: 100%;
            height: 100%;
            margin-left: auto;
            margin-right: auto;
        }

        .profile_pic {
            margin-top: 10px;
            margin-bottom: 15px;
            height: 250px;
            width: 250px;
            margin-right: auto;
            margin-left: auto;
        }

        .image {
            border-radius: 145px;
            border: 5px solid Black;
            height: 100%;
            width: 100%;
        }

        .upload_img {
            width: 393px;
            margin-top: 15px;
            border: 2px solid Black;
            border-radius: 50px;
            margin-right: auto;
            margin-left: auto;
        }
```

```css
.card {
    margin: 15px auto 5px auto;
    border-radius: 50px;
    background-color: tomato;
    border-color: Black;
    border-width: 5px;
    border-style: Solid;
    width: 500px;
    height: 75%;
}

th, td {
    width: 200px;
    height: 80px;
    padding: 10px;
    font-size: 19px;
}

.text {
    height: 40px;
    width: 300px;
    font: normal 17px 'Comic Sans MS';
    background-color: tomato;
    border: none;
    border-bottom: 1px solid black;
}

.center {
    margin-right: auto;
    margin-left: auto;
    width: 500px;
}

.aligning {
    text-align: center;
}

.auto-style2 {
    height: 80px;
}

.u_button_class {
    border-radius: 50px;
    transition-duration: 0.4s;
    border: 2px solid black;
    background-color: #CC00FF;
}

.rs_button_class {
    border-radius: 50px;
    transition-duration: 0.4s;
```

```css
      border: 2px solid black;
      background-color: aqua;
   }

   .e_button_class {
      border-radius: 50px;
      transition-duration: 0.4s;
      border: 2px solid black;
      background-color: yellow;
   }

   .lo_button_class {
      border-radius: 50px;
      transition-duration: 0.4s;
      border: 2px solid black;
      background-color: lightgreen;
   }

      .u_button_class:hover, .rs_button_class:hover, .e_button_class:hover, .lo_button_class
:hover, .cancel_button_class:hover {
         background-color: black;
         color: white;
      }

   .FU {
      border-radius: 50px;
   }

   .da_button_class {
      border-radius: 50px;
      border: 2px solid black;
      background-color: red;
   }

      .da_button_class:hover {
         animation: blinkingText 1.0s infinite;
      }

   .cancel_button_class {
      border-radius: 50px;
      border: 2px solid black;
      background-color: green;
   }

   @keyframes blinkingText {
      0% {
         color: #000;
      }

      60% {
         color: transparent;
```

```
            }

        100% {
            color: #000;
        }
    }
</style>
</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">
    <div runat="server" class="center">
        <div style="margin-left: auto; margin-top: 15px; margin-right: auto; text-align: center"
runat="server" id="blink_privilege" visible="false">

            <asp:ScriptManager ID="ScriptManager1" runat="server"></asp:ScriptManager>
            <asp:UpdatePanel ID="UpdatePanel1" runat="server">
                <ContentTemplate>
                    <asp:Timer ID="Timer1" runat="server" Interval="500"
OnTick="Timer1_Tick1">
                    </asp:Timer>
                    <asp:Label ID="show_privilege" runat="server" Font-Bold="True" Font-
Names="Copperplate Gothic Bold" Font-Size="XX-Large" ForeColor="Red" server=""
Text="*Privilege*" ToolTip="You are an Admin. Scroll down to access admin controlled
pages."></asp:Label>
                </ContentTemplate>
            </asp:UpdatePanel>
        </div>
        <div class="profile_pic">
            <img runat="server" class="image" src="http://localhost:51802/img/profile.jpg"
id="dp" alt="Click update button to view changes/updates applied." /><br />
        </div>

        <div style="text-align: center">
            <asp:Label ID="name_label" runat="server" Text="Welcome!!" Font-Bold="True"
Font-Names="Comic Sans MS" Font-Size="Larger" ForeColor="Red"></asp:Label>
        </div>
        <div runat="server" id="upload_img" class="upload_img" visible="false">
            <asp:FileUpload ID="FileUpload1" runat="server" Width="250px" CssClass="FU" /
>
             <asp:Button ID="Button1" CssClass="u_button_class" runat="server"
Text="Upload Profile Pic" Width="136px" OnClick="upload_btn_Click"></asp:Button>
        </div>

        <div class="card">
            <table class="auto-style1">
                <tr>
                    <th scope="col">user name:</th>
                    <td>
                        <asp:TextBox ID="uname" class="text" runat="server" ReadOnly="True"
```

```
TextMode="Email" ToolTip="user name"></asp:TextBox>
            </td>
        </tr>
        <tr>
            <th scope="col">DOB:</th>

            <td>
                <asp:TextBox ID="dob" runat="server" class="text" TextMode="Date"
ToolTip="Date of Birth" ReadOnly="True"></asp:TextBox>
                <asp:RequiredFieldValidator ID="rfv1" runat="server"
ControlToValidate="dob" Display="Dynamic" ErrorMessage="Date of Birth required" Font-
Size="Medium" ForeColor="Red" ToolTip="required field"
Visible="False">*</asp:RequiredFieldValidator>
            </td>
        </tr>
        <tr>
            <th scope="col">Roll NO.:</th>

            <td>
                <asp:TextBox ID="roll_no" class="text" runat="server" TextMode="Number"
ToolTip="Roll number" ReadOnly="True"></asp:TextBox>
                <asp:RequiredFieldValidator ID="rfv2" runat="server"
ControlToValidate="roll_no" Display="Dynamic" ErrorMessage="Roll no. required" Font-
Size="Medium" ForeColor="Red" ToolTip="required field"
Visible="False">*</asp:RequiredFieldValidator>
            </td>
        </tr>

        <tr>
            <th scope="col">First Name:</th>
            <td>
                <asp:TextBox ID="fname" runat="server" class="text" ToolTip="First Name"
ReadOnly="True"></asp:TextBox>
                <asp:RequiredFieldValidator ID="rfv3" runat="server"
ControlToValidate="fname" Display="Dynamic" ErrorMessage="First name required" Font-
Size="Medium" ForeColor="Red" ToolTip="required field"
Visible="False">*</asp:RequiredFieldValidator>
            </td>
        </tr>
        <tr>
            <th scope="col">Last_name:</th>
            <td>
                <asp:TextBox ID="lname" runat="server" class="text" ToolTip="Last Name"
ReadOnly="True"></asp:TextBox>
                <asp:RequiredFieldValidator ID="rfv4" runat="server"
ControlToValidate="lname" Display="Dynamic" ErrorMessage="Last name required" Font-
Size="Medium" ForeColor="Red" ToolTip="required field"
Visible="False">*</asp:RequiredFieldValidator>
            </td>
        </tr>
```

```
            </table>
        </div>
        <table class="center">
            <tr>
                <td class="auto-style2">
                    <asp:Button ID="reset_pass" CssClass="rs_button_class" runat="server"
Height="41px" Text="Reset Password" Width="148px"
PostBackUrl="~/Reset_Password.aspx" Font-Bold="True" Font-Names="DejaVu Sans
Condensed" Font-Size="Small" />
                </td>
                <td class="auto-style2">
                    <asp:Button ID="chng_button" CssClass="e_button_class" runat="server"
Height="41px" OnClick="Edit_Click" Text="Edit Profile" Width="148px" Font-
Bold="True" Font-Names="Showcard Gothic" Font-Size="Small" />
                </td>
                <td class="auto-style2">
                    <asp:Button ID="log_out_btn" CssClass="lo_button_class" runat="server"
Height="41px" Text="Log Out" Width="148px" Font-Bold="True" Font-
Names="Bahnschrift SemiCondensed" Font-Size="Medium" OnClick="lo_account_Click1" /
>
                </td>
            </tr>
            <tr>
                <td colspan="3" style="text-align: center; width: 100%">
                    <asp:UpdatePanel ID="UpdatePanel2" runat="server"
UpdateMode="Conditional">
                        <ContentTemplate>
                            <asp:Button ID="rmv_account" CssClass="da_button_class"
runat="server" Height="51px" Text="Delete Account" Width="239px" Font-Bold="True"
Font-Names="Times New Roman" Font-Size="X-Large" OnClick="da_account_Click1"
Font-Overline="False" />
                            <br />
                            <div id="delete_div" runat="server" visible="false">
                                <asp:TextBox ID="verify_pass" CssClass="FU" runat="server"
placeholder="Enter your password" TextMode="Password"></asp:TextBox>
                                <br />
                                <asp:Button ID="confirm_delete" CssClass="da_button_class"
runat="server" Text="Confirm" Font-Bold="True" Font-Names="Algerian"
OnClick="Confirm_Click" Width="110px" />
                                 <asp:Button ID="cancel_delete" runat="server"
CssClass="cancel_button_class" Font-Bold="True" Font-Names="Algerian"
OnClick="Cancel_Click" Text="Cancel" Width="110px" />
                                <br />
                                <asp:Label ID="error_label" runat="server" Font-Bold="True"
ForeColor="#0033CC" Text="Label" Visible="False"></asp:Label>
                            </div>
                        </ContentTemplate>
                    </asp:UpdatePanel>
                </td>
            </tr>
```

```
            <tr>
                <td colspan="3" class="auto-style2">
                    <div id="admin_content_div" runat="server" visible="false" class="auto-
style1">
                        <fieldset style="border-radius: 50px; border-width: 5px; text-align: center">
                            <legend>
                                <asp:Label ID="Label1" runat="server" Width="100%" Text="Pages
under admin control." Font-Bold="False" Font-Names="Stencil"></asp:Label>
                            </legend>
                            <div style="">
                                <asp:HyperLink ID="HyperLink1" runat="server"
NavigateUrl="~/AdminView.aspx" ForeColor="Blue">Manage Site&#39;s
Data</asp:HyperLink>
                                <br />
                                <asp:HyperLink ID="HyperLink2" runat="server"
NavigateUrl="~/AddContent.aspx" ForeColor="Blue">Add Contents</asp:HyperLink>
                            </div>
                        </fieldset>
                    </div>
                     </td>
            </tr>

            <tr>
                <td colspan="3" class="auto-style2">
                    <asp:ValidationSummary ID="ValidationSummary" runat="server" Font-
Size="Medium" ForeColor="Blue" HeaderText="Errors:" ShowMessageBox="True"
ShowSummary="False" Width="100%" />
                    <br />
                </td>
            </tr>
        </table>
    </div>

</asp:Content>
```

style.css

```
body {
    font: 15px;
    font-family: Candara;
    padding: 0;
    margin: 0;
    background-color: white;
}

/* Global */
.container {
    width: 80%;
    margin-left: auto;
    margin-right: auto;
```

```css
    overflow: hidden;
    height: 100%;
}

.sticky {
    position: fixed;
    top: 0;
    width: 100%;
}

    .sticky + #add_padd {
        padding-top: 75px;
    }

ul {
    margin: 0;
    padding: 0;
}

/* Header **/
header {
    background: black;
    color: #ffffff;
    padding-top: 20px;
}

    header a {
        color: #ffffff;
        text-decoration: none;
        text-transform: uppercase;
        font-size: 20px;
    }

    header li {
        float: left;
        display: inline;
        padding: 0 20px 20px 20px;
    }

    header #branding {
        float: left;
        font-size: 20px;
        margin-top: 0;
    }

        header #branding h1 {
            margin: 0;
        }

    header nav {
        float: right;
```

```css
      margin-top: 10px;
   }

   header .current a {
      color: orange;
      font-weight: bold;
   }

   header a:hover {
      color: black;
      background-color: darkorange;
   }

/* Showcase */
#showcase {
   min-height: 400px;
   background: url("img/download.jpg");
   background-size: cover;
   background-repeat: no-repeat;
   background-position: center;
}

#inside_container {
   width: 50%;
   text-align: center;
   color: black;
   font-weight: bold;
}

#showcase h1 {
   margin-top: 80px;
   font-size: 55px;
   margin-bottom:0;
}

#showcase h2 {
   margin-top:0;
   font-size: 30px;
   margin-bottom: 10px;
}



#showcase p {
   font-size: 20px;
}

/* Boxes */
#boxes {
   margin-top: 20px;
   margin-bottom:5px;
```

```css
}

    #boxes .box {
       float: left;
       text-align: center;
       width: 30%;
       padding: 10px;
    }

       #boxes .box img {
          width: 90px;
       }

       #boxes .box:hover{
          border:2px solid #ff6a00;
       }


footer {
   padding: 20px;
   color: #ffffff;
   background-color: darkorange;
   text-align: center;
}

/* Media Queries */
@media(max-width: 768px) {
   header #branding,
   header nav,
   header nav li,
   footer,
   #boxes .box,
   article#main-col,
   aside#sidebar {
      float: none;
      text-align: center;
      width: 100%;
   }

   header {
      padding-bottom: 20px;
   }

   #showcase h1 {
      margin-top: 40px;
   }

   .sticky + #add_padd {
      padding-top: 149px;
   }
}
```

Profile.aspx.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.HtmlControls;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Configuration;
using System.IO;

namespace WebApplication1
{
    public partial class Profile : System.Web.UI.Page
    {
        static string cs = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;

        SqlConnection con = new SqlConnection(cs);

        protected void Page_Load(object sender, EventArgs e)
        {
            //Code for changing class of selected page to "current" (To change color of the current
page label in menu)
            HtmlGenericControl li = (HtmlGenericControl)this.Master.FindControl("profiles");
            li.Attributes.Add("class", "current");



            if (!IsPostBack)
            {
                if (Session["user"] != null)
                {
                    string p = Session["privilege"].ToString();
                    if (p == "admin")
                    {
                        blink_privilege.Visible = true;
                        show_privilege.Text = "!!Admin!!";
                        admin_content_div.Visible = true;
                    }
                    else
                    {
                        blink_privilege.Visible = false;
                        admin_content_div.Visible = false;
                    }
                    //query for displaying data
                    SqlCommand view_cmd = new SqlCommand("SELECT [user_name], [dob],
[roll_no], [First_name], [Last_name], [profile_pic] FROM [Users] WHERE ([user_name] =
@user_name)", con);
```

```csharp
            view_cmd.Parameters.AddWithValue("@user_name",
Session["user"].ToString());
            try
            {
                con.Open();
                SqlDataReader dr = view_cmd.ExecuteReader();
                if (dr.HasRows)
                {
                    while (dr.Read())
                    {
                        uname.Text = dr.GetString(0);
                        dob.Text =
DateTime.ParseExact(dr.GetDateTime(1).Date.ToShortDateString(), "dd-MM-yyyy",
null).ToString("yyyy-MM-dd");
                        roll_no.Text = dr.GetInt32(2).ToString();
                        fname.Text = dr.GetString(3);
                        lname.Text = dr.GetString(4);
                        String Label1 = "";
                        Label1 = dr.GetString(5);
                        if (Label1 == "nothing.jpg")
                        {
                            dp.Src = "/img/minion.jpg";
                        }
                        else
                        {
                            dp.Src = dr.GetString(5);
                        }
                    }

                }
            }
            catch (Exception ex)
            {
                ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Some
error occured while dispaying data. " + ex.ToString() + "');", true);
            }
            finally
            {
                con.Close();
            }
        }

        else
        {
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Please
Login first to access our complete site.');window.location ='Login.aspx';", true);
        }


    }
```

```csharp
            Session["name"] = fname.Text + " " + lname.Text;
            name_label.Text = "Welcome!!\n" + Session["name"];
        }

    protected void Edit_Click(object sender, EventArgs e)
    {
        if (uname.Text.Length > 0)
        {
            if (chng_button.Text == "Edit Profile")
            {
                dob.ReadOnly = false;
                roll_no.ReadOnly = false;
                fname.ReadOnly = false;
                lname.ReadOnly = false;
                upload_img.Visible = true;

                rfv1.Visible = true;
                rfv2.Visible = true;
                rfv3.Visible = true;
                rfv4.Visible = true;

                chng_button.Text = "Update";
            }
            else if (chng_button.Text == "Update")
            {
                //Code for updating data
                try
                {
                    con.Open();
                    SqlCommand cmd = new SqlCommand("UPDATE Users SET dob=@bday,
roll_no=@roll, First_name=@f_name, Last_name = @l_name where user_name =
@u_name", con);
                    cmd.Parameters.AddWithValue("@u_name", uname.Text);
                    cmd.Parameters.AddWithValue("@bday", dob.Text);
                    cmd.Parameters.AddWithValue("@roll", Convert.ToInt32(roll_no.Text));
                    cmd.Parameters.AddWithValue("@f_name", fname.Text);
                    cmd.Parameters.AddWithValue("@l_name", lname.Text);
                    if (cmd.ExecuteNonQuery() > 0)
                    {
                        ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Profile updated successfully.');window.location ='Profile.aspx';", true);
                    }
                }
                catch (SqlException ex_message)
                {
                    ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Error
updating data. (Something related to query) " + ex_message.Message + "');", true);
                }
                finally
                {
```

```
                con.Close();
            }

        }
        else
        {
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Sorry!\
nSomething went wrong!.');window.location ='Profile.aspx';", true);
        }
    }
    else
    {
        ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Please
Login first!.');", true);
    }
}

protected void upload_btn_Click(object sender, EventArgs e)
{
    string pp_name = "nothing";
    if (FileUpload1.HasFile)
    {
        try
        {
            con.Open();
            pp_name = "UserDetails/" + uname.Text + "/profile_pics/" +
FileUpload1.FileName;

            SqlCommand cmd = new SqlCommand("UPDATE Users SET profile_pic =
@path where user_name = @u_name", con);
            cmd.Parameters.AddWithValue("@path", pp_name);
            cmd.Parameters.AddWithValue("@u_name", uname.Text);

            if (cmd.ExecuteNonQuery() > 0)
            {
                //Emptying directory before updating new profile pic
                System.IO.DirectoryInfo di = new
DirectoryInfo(Server.MapPath("~/UserDetails/" + uname.Text + "/profile_pics"));
                foreach (FileInfo file in di.GetFiles())
                {
                    file.Delete();
                }
                dp.Src = "/img/minion.jpg";
                //Adding updated profile pic
                FileUpload1.SaveAs(Server.MapPath("~/UserDetails/" + uname.Text +
"/profile_pics/") + FileUpload1.FileName);
                ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Profile pic uploaded successfully. Click update button to view changes/updates
applied.');", true);
            }
```

```csharp
            }
            catch (SqlException ex_message)
            {
                ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Problem occured. (Something related to query) " + ex_message.Message + "');", true);
            }
            catch (Exception ex)
            {
                ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Problem occured. (Regarding Profile picture updation) " + ex.Message + "');", true);
            }
            finally
            {
                con.Close();
            }
        }
        else
        {
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('NO file
uploaded!.');", true);
        }
    }


    protected void Timer1_Tick1(object sender, EventArgs e)
    {
        Random rand = new Random();
        int one = rand.Next(0, 255);
        int two = rand.Next(0, 255);
        int three = rand.Next(0, 255);
        int four = rand.Next(0, 255);

        show_privilege.ForeColor = System.Drawing.Color.FromArgb(one, two, three, four);
    }

    protected void lo_account_Click1(object sender, EventArgs e)
    {
        Session.Clear();
        Session.Abandon();
        ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Thankyou
for viewing our site!!');window.location ='Login.aspx';", true);
    }

    protected void Confirm_Click(object sender, EventArgs e)
    {
        string cs = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;

        SqlConnection con = new SqlConnection(cs);
        try
        {
            con.Open();
```

```csharp
        SqlCommand cmd = new SqlCommand("SELECT passwords FROM Users
WHERE user_name = @username", con);
        cmd.Parameters.AddWithValue("@username", uname.Text);
        SqlDataReader dr = cmd.ExecuteReader();

        //Validating password for given username
        if (dr.HasRows)
        {
           String passwd = "";

           while (dr.Read())
           {
              passwd = dr.GetString(0);

           }

           if (Helper.VerifyHash(verify_pass.Text, "SHA512", passwd))
           {
              dr.Close();
              SqlCommand delcmd = new SqlCommand("DELETE FROM Users WHERE
user_name = @username", con);
              delcmd.Parameters.AddWithValue("@username", uname.Text);
              if (delcmd.ExecuteNonQuery() > 0)
              {
                 try
                 {
                    if (Directory.Exists(Server.MapPath("~/UserDetails/" + uname.Text)))
                    {
                       Directory.Delete(Server.MapPath("~/UserDetails/" + uname.Text),
true);
                    }
                 }
                 catch (IOException ex)
                 {
                    {
                       ScriptManager.RegisterClientScriptBlock(this, this.GetType(),
"alertMessage", "alert('" + ex.Message + "');", true);
                    }
                 }
                 Session.Clear();
                 Session.Abandon();
                 ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Your account has been deleted');window.location ='index.aspx';", true);
              }
           }
           else
           {
              error_label.Text = "Unable to delete your account. Please try again and make
sure to insert correct password.";
              error_label.Visible = true;
```

```csharp
                    verify_pass.Focus();
                }
            }
            error_label.Text = "Unable to recognize your account. Please try again!!";
            error_label.Visible = true;
            verify_pass.Focus();


        }
        catch (SqlException exc)
        {
            ScriptManager.RegisterClientScriptBlock(this, this.GetType(), "alertMessage",
"alert('" + exc.Message + "');", true);
        }
        finally
        {
            con.Close();
        }
    }

    protected void da_account_Click1(object sender, EventArgs e)
    {
        delete_div.Visible = true;
        verify_pass.Focus();
        rmv_account.Visible = false;
    }

    protected void Cancel_Click(object sender, EventArgs e)
    {
        ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Process
canceled!!.');window.location ='Profile.aspx';", true);
    }
  }
}
```

AdminView.aspx
```
<%@ Page Title="Admin View" MaintainScrollPositionOnPostback="true" Language="C#"
MasterPageFile="~/Site1.Master" AutoEventWireup="true"
CodeBehind="AdminView.aspx.cs" Inherits="WebApplication1.AdminView" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
   <script type="text/javascript">
      function Confirm() {
         var confirm_value = document.createElement("INPUT");
         confirm_value.type = "hidden";
         confirm_value.name = "confirm_value";
         if (confirm("Do you want to save data?")) {
            confirm_value.value = "Yes";
         } else {
            confirm_value.value = "No";
```

```
        }
        document.forms[0].appendChild(confirm_value);
    }
</script>

<style type="text/css">
    .mydatagrid {
        width: 80%;
        border: solid 2px black;
        min-width: 80%;
        margin-left: auto;
        margin-right: auto;
    }

    .header {
        background-color: #000;
        font-family: Arial;
        color: White;
        height: 25px;
        text-align: center;
        font-size: 16px;
    }

    .rows {
        background-color: #fff;
        font-family: Arial;
        font-size: 14px;
        color: #000;
        min-height: 25px;
        text-align: center;
    }

        .rows:hover {
            background-color: #ff4f53;
            color: #fff;
        }

    .mydatagrid a /** FOR THE PAGING ICONS  **/ {
        background-color: Transparent;
        padding: 5px 5px 5px 5px;
        text-decoration: none;
        font-weight: bold;
    }

        .mydatagrid a:hover /** FOR THE PAGING ICONS  HOVER STYLES**/ {
            color: #000;
        }
    /*
    .mydatagrid span /** FOR THE PAGING ICONS CURRENT PAGE INDICATOR **/
    /*{
        padding: 5px 5px 5px 5px;
```

```
            background-color: #000;
            color: #fff;
        }
*/
        .pager {
            background-color: #ff4f53;
            font-family: Arial;
            color: White;
            height: 30px;
            text-align: left;
        }

        .mydatagrid td {
            padding: 5px;
        }

        .mydatagrid th {
            padding: 5px;
        }

        .tables_div div {
            margin-left: auto;
            margin-right: auto;
            text-align: center;
            margin: 10px;
        }

        .s_sub {
            color: #fff;
            font-size: 18px;
            padding: 5px 10px;
            border-radius: 5px 12px;
            background-color: #ff4f53;
            font-weight: bold;
        }
    </style>
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">
    <div id="tables_div" class="tables_div">
        <div id="select_table_div">
            <asp:Label ID="Label6" runat="server" Text="Select Table:" Font-Bold="True"
Font-Size="Larger"></asp:Label>
            <br />
            <asp:DropDownList ID="select_table" runat="server" CssClass="s_sub"
AutoPostBack="True" OnSelectedIndexChanged="select_table_SelectedIndexChanged">
            </asp:DropDownList>

            <br />

            <br />
```

```
<asp:Label ID="Label7" runat="server" Text="!Keep Caution while editing or
deleting!*Deleting data is irreversible process* " Font-Size="Larger" ForeColor="Red"
BorderColor="Black" BorderStyle="Dashed"></asp:Label>

      </div>


      <div id="Users" runat="server" class="table" visible="False">
        <asp:GridView ID="users_table" runat="server" CssClass="mydatagrid" PagerStyle-
CssClass="pager" HeaderStyle-CssClass="header" RowStyle-CssClass="rows"
AllowPaging="True" AutoGenerateColumns="False" DataKeyNames="user_name"
DataSourceID="get_users" PageSize="15">
          <Columns>
            <asp:TemplateField ShowHeader="False">
              <ItemTemplate>
                <asp:LinkButton ID="LinkButton1" CommandName="Delete"
runat="server" CausesValidation="False" Text="Delete"></asp:LinkButton>
              </ItemTemplate>
            </asp:TemplateField>
            <asp:BoundField DataField="user_name" HeaderText="username"
ReadOnly="True" SortExpression="user_name" />
            <asp:BoundField DataField="First_name" HeaderText="First Name"
SortExpression="First_name" />
            <asp:BoundField DataField="Last_name" HeaderText="Last Name"
SortExpression="Last_name" />
            <asp:BoundField DataField="roll_no" HeaderText="Roll No."
SortExpression="roll_no" />
            <asp:TemplateField HeaderText="Date Of Birth" SortExpression="dob">
              <ItemTemplate>
                <asp:Label ID="Label1" runat="server" Text='<%# Eval("dob", "{0:dd,
MMM yyyy}") %>'></asp:Label>
              </ItemTemplate>
            </asp:TemplateField>
            <asp:TemplateField HeaderText="Profile Pic" SortExpression="profile_pic">
              <EditItemTemplate>
                <asp:Image ID="Image1" runat="server" AlternateText='<%#
Eval("First_name")%>' Height="58px" ImageUrl='<%# Eval("profile_pic") %>'
Width="106px" />
              </EditItemTemplate>
              <ItemTemplate>
                <asp:Image ID="Image1" runat="server" AlternateText='<%#
Eval("First_name")%>' ImageUrl='<%# Eval("profile_pic") %>' Height="58px"
Width="106px" />
              </ItemTemplate>
            </asp:TemplateField>
            <asp:BoundField DataField="privilege" HeaderText="Privilege" />
          </Columns>
        </asp:GridView>

        <asp:SqlDataSource ID="get_users" runat="server"
```

```
ConflictDetection="CompareAllValues" ConnectionString="<%$ ConnectionStrings:DBCS
%>" DeleteCommand="DELETE FROM [Users] WHERE [user_name] =
@original_user_name" InsertCommand="INSERT INTO [Users] ([user_name], [dob],
[roll_no], [Last_name], [First_name], [profile_pic]) VALUES (@user_name, @dob,
@roll_no, @Last_name, @First_name, @profile_pic)"
OldValuesParameterFormatString="original_{0}" SelectCommand="SELECT [user_name],
[dob], [roll_no], [Last_name], [First_name], [profile_pic], [privilege] FROM [Users]"
UpdateCommand="UPDATE [Users] SET [dob] = @dob, [roll_no] = @roll_no, [Last_name]
= @Last_name, [First_name] = @First_name, [profile_pic] = @profile_pic WHERE
[user_name] = @original_user_name">
            <DeleteParameters>
               <asp:Parameter Name="original_user_name" Type="String" />
               <asp:Parameter DbType="Date" Name="original_dob" />
               <asp:Parameter Name="original_roll_no" Type="Int32" />
               <asp:Parameter Name="original_Last_name" Type="String" />
               <asp:Parameter Name="original_First_name" Type="String" />
               <asp:Parameter Name="original_profile_pic" Type="String" />
            </DeleteParameters>
         </asp:SqlDataSource>
      </div>
      <div runat="server" id="Content" class="table" visible="false">
         <asp:GridView ID="GridView1" runat="server" CssClass="mydatagrid" PagerStyle-
CssClass="pager" HeaderStyle-CssClass="header" RowStyle-CssClass="rows"
AutoGenerateColumns="False" DataKeyNames="Id" DataSourceID="get_content">
            <Columns>
               <asp:CommandField ShowDeleteButton="True" ShowEditButton="True" />
               <asp:BoundField DataField="Id" HeaderText="Id" InsertVisible="False"
ReadOnly="True" SortExpression="Id" />
               <asp:TemplateField HeaderText="Name" SortExpression="Name">
                 <EditItemTemplate>
                    <asp:TextBox ID="TextBox1" runat="server" Text='<%# Bind("Name")
%>'></asp:TextBox>
                 </EditItemTemplate>
                 <ItemTemplate>
                    <asp:Label ID="Label1" runat="server" Text='<%# Bind("Name")
%>'></asp:Label>
                 </ItemTemplate>
               </asp:TemplateField>
               <asp:BoundField DataField="Subject" HeaderText="Subject"
SortExpression="Subject" />
               <asp:BoundField DataField="Type" HeaderText="Type" />
               <asp:TemplateField HeaderText="Location" SortExpression="Location">
                 <EditItemTemplate>
                    <asp:TextBox ID="TextBox5" runat="server" Text='<%# Bind("Location")
%>'></asp:TextBox>
                 </EditItemTemplate>
                 <ItemTemplate>
                    <asp:HyperLink ID="HyperLink1" runat="server" NavigateUrl='<%#
Eval("Location") %>' Target="_blank" Text='<%# Eval("Location") %>'></asp:HyperLink>
                 </ItemTemplate>
```

```
        </asp:TemplateField>
        <asp:BoundField DataField="Sem" HeaderText="Sem" SortExpression="Sem" /
>
        <asp:BoundField DataField="Year" HeaderText="Year" SortExpression="Year"
/>
      </Columns>
    </asp:GridView>
    <asp:SqlDataSource ID="get_content" runat="server"
ConflictDetection="CompareAllValues" ConnectionString="<%$ ConnectionStrings:DBCS
%>" DeleteCommand="DELETE FROM [Content] WHERE [Id] = @original_Id"
InsertCommand="INSERT INTO [Content] ([Name], [Type], [Sem], [Year], [Location],
[Subject]) VALUES (@Name, @Type, @Sem, @Year, @Location, @Subject)"
OldValuesParameterFormatString="original_{0}" SelectCommand="SELECT * FROM
[Content]" UpdateCommand="UPDATE [Content] SET [Name] = @Name, [Type] =
@Type, [Sem] = @Sem, [Year] = @Year, [Location] = @Location, [Subject] = @Subject
WHERE [Id] = @original_Id">
        <DeleteParameters>
          <asp:Parameter Name="original_Id" Type="Int32" />
          <asp:Parameter Name="original_Name" Type="String" />
          <asp:Parameter Name="original_Type" Type="String" />
          <asp:Parameter Name="original_Sem" Type="String" />
          <asp:Parameter Name="original_Year" Type="String" />
          <asp:Parameter Name="original_Location" Type="String" />
          <asp:Parameter Name="original_Subject" Type="String" />
        </DeleteParameters>
        <InsertParameters>
          <asp:Parameter Name="Name" Type="String" />
          <asp:Parameter Name="Type" Type="String" />
          <asp:Parameter Name="Sem" Type="String" />
          <asp:Parameter Name="Year" Type="String" />
          <asp:Parameter Name="Location" Type="String" />
          <asp:Parameter Name="Subject" Type="String" />
        </InsertParameters>
        <UpdateParameters>
          <asp:Parameter Name="Name" Type="String" />
          <asp:Parameter Name="Type" Type="String" />
          <asp:Parameter Name="Sem" Type="String" />
          <asp:Parameter Name="Year" Type="String" />
          <asp:Parameter Name="Location" Type="String" />
          <asp:Parameter Name="Subject" Type="String" />
          <asp:Parameter Name="original_Id" Type="Int32" />
          <asp:Parameter Name="original_Name" Type="String" />
          <asp:Parameter Name="original_Type" Type="String" />
          <asp:Parameter Name="original_Sem" Type="String" />
          <asp:Parameter Name="original_Year" Type="String" />
          <asp:Parameter Name="original_Location" Type="String" />
          <asp:Parameter Name="original_Subject" Type="String" />
        </UpdateParameters>
      </asp:SqlDataSource>
    </div>
```

```
        <div id="Subjects" runat="server" class="table" visible="false">

        <asp:GridView ID="GridView2" runat="server" CssClass="mydatagrid" PagerStyle-
CssClass="pager" HeaderStyle-CssClass="header" RowStyle-CssClass="rows"
AutoGenerateColumns="False" DataKeyNames="Sem" DataSourceID="get_subjects">
            <Columns>
                <asp:CommandField ShowEditButton="True" />
                <asp:BoundField DataField="Sem" HeaderText="Sem" ReadOnly="True"
SortExpression="Sem" />
                <asp:TemplateField HeaderText="Sub1" SortExpression="Sub1">
                  <EditItemTemplate>
                    <asp:TextBox ID="TextBox1" runat="server" Text='<%# Bind("Sub1")
%>'></asp:TextBox>
                  </EditItemTemplate>
                  <ItemTemplate>
                    <asp:Label ID="Label1" runat="server" Text='<%# Bind("Sub1")
%>'></asp:Label>
                  </ItemTemplate>
                </asp:TemplateField>
                <asp:TemplateField HeaderText="Sub2" SortExpression="Sub2">
                  <EditItemTemplate>
                    <asp:TextBox ID="TextBox3" runat="server" Text='<%# Bind("Sub2")
%>'></asp:TextBox>
                  </EditItemTemplate>
                  <ItemTemplate>
                    <asp:Label ID="Label3" runat="server" Text='<%# Bind("Sub2")
%>'></asp:Label>
                  </ItemTemplate>
                </asp:TemplateField>
                <asp:TemplateField HeaderText="Sub3" SortExpression="Sub3">
                  <EditItemTemplate>
                    <asp:TextBox ID="TextBox2" runat="server" Text='<%# Bind("Sub3")
%>'></asp:TextBox>
                  </EditItemTemplate>
                  <ItemTemplate>
                    <asp:Label ID="Label2" runat="server" Text='<%# Bind("Sub3")
%>'></asp:Label>
                  </ItemTemplate>
                </asp:TemplateField>
                <asp:TemplateField HeaderText="Sub4" SortExpression="Sub4">
                  <EditItemTemplate>
                    <asp:TextBox ID="TextBox4" runat="server" Text='<%# Bind("Sub4")
%>'></asp:TextBox>
                  </EditItemTemplate>
                  <ItemTemplate>
                    <asp:Label ID="Label4" runat="server" Text='<%# Bind("Sub4")
%>'></asp:Label>
                  </ItemTemplate>
                </asp:TemplateField>
                <asp:TemplateField HeaderText="Sub5" SortExpression="Sub5">
```

```
            <EditItemTemplate>
                <asp:TextBox ID="TextBox5" runat="server" Text='<%# Bind("Sub5")
%>'></asp:TextBox>
            </EditItemTemplate>
            <ItemTemplate>
                <asp:Label ID="Label5" runat="server" Text='<%# Bind("Sub5")
%>'></asp:Label>
            </ItemTemplate>
        </asp:TemplateField>
    </Columns>
</asp:GridView>

<asp:SqlDataSource ID="get_subjects" runat="server"
ConflictDetection="CompareAllValues" ConnectionString="<%$ ConnectionStrings:DBCS
%>" DeleteCommand="DELETE FROM [Subjects] WHERE [Sem] = @original_Sem"
InsertCommand="INSERT INTO [Subjects] ([Sem], [Sub1], [Sub2], [Sub3], [Sub4], [Sub5])
VALUES (@Sem, @Sub1, @Sub2, @Sub3, @Sub4, @Sub5)"
OldValuesParameterFormatString="original_{0}" SelectCommand="SELECT * FROM
[Subjects]" UpdateCommand="UPDATE [Subjects] SET [Sub1] = @Sub1, [Sub2] = @Sub2,
[Sub3] = @Sub3, [Sub4] = @Sub4, [Sub5] = @Sub5 WHERE [Sem] = @original_Sem">
    <DeleteParameters>
        <asp:Parameter Name="original_Sem" Type="String" />
        <asp:Parameter Name="original_Sub1" Type="String" />
        <asp:Parameter Name="original_Sub2" Type="String" />
        <asp:Parameter Name="original_Sub3" Type="String" />
        <asp:Parameter Name="original_Sub4" Type="String" />
        <asp:Parameter Name="original_Sub5" Type="String" />
    </DeleteParameters>
    <InsertParameters>
        <asp:Parameter Name="Sem" Type="String" />
        <asp:Parameter Name="Sub1" Type="String" />
        <asp:Parameter Name="Sub2" Type="String" />
        <asp:Parameter Name="Sub3" Type="String" />
        <asp:Parameter Name="Sub4" Type="String" />
        <asp:Parameter Name="Sub5" Type="String" />
    </InsertParameters>
    <UpdateParameters>
        <asp:Parameter Name="Sub1" Type="String" />
        <asp:Parameter Name="Sub2" Type="String" />
        <asp:Parameter Name="Sub3" Type="String" />
        <asp:Parameter Name="Sub4" Type="String" />
        <asp:Parameter Name="Sub5" Type="String" />
        <asp:Parameter Name="original_Sem" Type="String" />
        <asp:Parameter Name="original_Sub1" Type="String" />
        <asp:Parameter Name="original_Sub2" Type="String" />
        <asp:Parameter Name="original_Sub3" Type="String" />
        <asp:Parameter Name="original_Sub4" Type="String" />
        <asp:Parameter Name="original_Sub5" Type="String" />
    </UpdateParameters>
</asp:SqlDataSource>
```

```
        </div>
        <br />


    </div>
</asp:Content>
```

AdminView.aspx.cs

```csharp
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Configuration;
using System.Data;
using System.Web.UI.HtmlControls;

namespace WebApplication1
{
    public partial class AdminView : System.Web.UI.Page
    {
        static string cs = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;
        SqlConnection con = new SqlConnection(cs);

        protected void Load_DropDownList()
        {
            SqlCommand cmd = new SqlCommand("SELECT table_name FROM
information_schema.tables WHERE table_type = 'base table'", con);
            try
            {
                con.Open();
                SqlDataReader dr = cmd.ExecuteReader();
                if (dr.HasRows)
                {
                    select_table.Items.Clear();
                    select_table.Items.Insert(0, new ListItem("-- Select any Table --", "0"));
                    while (dr.HasRows)
                    {
                        while (dr.Read())
                        {
                            select_table.Items.Add(new ListItem(dr.GetString(0), dr.GetString(0)));
                        }
                        dr.NextResult();
                    }


                }
            }
```

```
        catch (Exception ex)
        {
            Response.Write("<script>alert('Some error occured while dispaying the content.
Error Message: " + ex.Message + "')</script >");
        }
        finally
        {
            con.Close();
        }
    }
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            if (Session["user"] != null && Session["privilege"].ToString() == "admin")
            {
                //everyting works fine
                Load_DropDownList();
            }

            else
            {
                ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Please
Login as an Admin to access this page.');window.location ='Login.aspx';", true);
            }

        }
    }


    protected void select_table_SelectedIndexChanged(object sender, EventArgs e)
    {
        if (select_table.SelectedValue == "0")
        {
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Please
select any table from the given options!');", true);

        }
        else
        {
            string table_name = select_table.SelectedValue;
            if (table_name == "Users")
            {
                Content.Visible = false;
                Subjects.Visible = false;
                Users.Visible = true;
            }
            else if (table_name == "Content")
            {
                Subjects.Visible = false;
```

```
            Users.Visible = false;
            Content.Visible = true;
          }
          else if (table_name == "Subjects")
          {
            Users.Visible = false;
            Content.Visible = false;
            Subjects.Visible = true;
          }

        }
      }
    }
}
```

AddContent.aspx
```
<%@ Page Title="Add Contents" Language="C#" MasterPageFile="~/Site1.Master"
MaintainScrollPositionOnPostback="true" AutoEventWireup="true"
CodeBehind="AddContent.aspx.cs" Inherits="WebApplication1.AddContent" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
    <style type="text/css">
        .page {
            background-color: rgba(0,0,0,0.8);
            width: 100%;
        }

        .main_container {
            margin-left: auto;
            margin-right: auto;
            width: 50%;
            min-width: 400px;
            padding: 10px;
            color: skyblue;
            font-size: large;
            padding-top:70px;
        }

        .title_lbl {
            font-weight: bold;
            font-size: larger;
            color: chartreuse;
        }

        .dd {
            color: #fff;
            padding: 5px 10px;
            border-radius: 5px;
            background-color: green;
            font-weight: bold;
```

```
        }

      .main_container .space {
         padding: 5px;
         border: 2px dashed skyblue;
         border-radius: 5px;
      }

      ul {
         list-style-position: inside;
      }
   </style>
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
runat="server">
   <div id="page" class="page">
      <div class="main_container" runat="server">
         <div id="note_div" class="space">
            <asp:Label ID="note_title" runat="server" CssClass="title_lbl"
Text="Note:"></asp:Label><br />
            <ul>
               <li>If type of content is syllabus then please select only year.</li>
               <li>Else if type of content is curriculum then sem must be selected.</li>
               <li>Otherwise you may or may not select the sem and year as per content being
uploaded.</li>
               <li>Please follow (numbered) sequence</li>
            </ul>
         </div>
         <br />
         <br />
         <div id="adding_content_div" class="space">
            <asp:Label ID="content_dropdown_title" CssClass="title_lbl" runat="server"
Text="1) Content to be Added:"></asp:Label>
            <br />
            <asp:DropDownList ID="add_content" runat="server" CssClass="dd"
AutoPostBack="True"
OnSelectedIndexChanged="DropDownList2_SelectedIndexChanged">
               <asp:ListItem>Select content to be added</asp:ListItem>
               <asp:ListItem>Add File</asp:ListItem>
               <asp:ListItem Value="Add Link">Add Link</asp:ListItem>
            </asp:DropDownList>
            <asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"
ControlToValidate="add_content"
ErrorMessage="Required"></asp:RequiredFieldValidator>

            <div runat="server" id="adding_title_div" visible="False">
            <br />
            <asp:Label ID="adding_title" CssClass="title_lbl" runat="server" Text="Add
here:"></asp:Label>
            </div>
```

```
            <asp:FileUpload ID="upload_file" class="file_up" runat="server" Visible="False" /
>

            <asp:TextBox ID="content_name" class="link_up" runat="server"
Visible="False"></asp:TextBox>
        </div>
        <br />
        <br />
        <div id="deciding_location_div" class="space">
            <asp:ScriptManager ID="ScriptManager1" runat="server"></asp:ScriptManager>
            <asp:UpdatePanel ID="UpdatePanel2" runat="server"
UpdateMode="Conditional">
                <ContentTemplate>
                    <asp:Label ID="select_location_title" CssClass="title_lbl" runat="server"
Text="2) Select content location:"></asp:Label><br />
                    <asp:DropDownList class="s_location" ID="select_location" CssClass="dd"
runat="server" DataValueField="Curriculum(Local)" AutoPostBack="True"
OnSelectedIndexChanged="select_location_SelectedIndexChanged" ToolTip="Please select
appropriate option as per content being uploaded.">
                        <asp:ListItem>Curriculum(Local)</asp:ListItem>
                        <asp:ListItem>Curriculum(Link)</asp:ListItem>
                        <asp:ListItem>Others</asp:ListItem>
                        <asp:ListItem>Others(Link)</asp:ListItem>
                        <asp:ListItem>Syllabus</asp:ListItem>
                    </asp:DropDownList>
                    <br />

                    <div id="options_for_curriculum_upload" runat="server">
                    <br />
                    <asp:Label ID="select_year_title" CssClass="title_lbl" runat="server"
Text="2.1) Select Year (Please select year if content being added is syllabus):"></asp:Label>
                        <br />
                        <asp:RadioButtonList ID="select_year" class="s_year" runat="server">
                          <asp:ListItem>I</asp:ListItem>
                          <asp:ListItem>II</asp:ListItem>
                          <asp:ListItem>III</asp:ListItem>
                        </asp:RadioButtonList>

                        <br />
                        <asp:Label ID="select_sem_title" CssClass="title_lbl" runat="server"
Text="2.2) Select Sem:"></asp:Label><br />
                        <asp:RadioButtonList ID="select_sem" class="s_sem" runat="server"
CellPadding="1" CellSpacing="1" Height="73px" Width="86px" AutoPostBack="True"
OnSelectedIndexChanged="select_sem_SelectedIndexChanged">
                            <asp:ListItem>Sem1</asp:ListItem>
                            <asp:ListItem>Sem2</asp:ListItem>
                            <asp:ListItem>Sem3</asp:ListItem>
                            <asp:ListItem>Sem4</asp:ListItem>
                            <asp:ListItem>Sem5</asp:ListItem>
                            <asp:ListItem>Sem6</asp:ListItem>
```

```
                  </asp:RadioButtonList>

              </div>
              <br />
              <asp:Label ID="select_sub_title" CssClass="title_lbl" runat="server"
Text="3) Select subject:"></asp:Label><br />
                  <asp:DropDownList ID="select_sub" CssClass="dd"
runat="server"></asp:DropDownList>

          </ContentTemplate>
          <Triggers>
              <asp:AsyncPostBackTrigger ControlID="select_sem"
EventName="SelectedIndexChanged" />
          </Triggers>
        </asp:UpdatePanel>
      </div>
      <br />
      <br />
      <div id="select_type_div" class="space">
          <asp:Label ID="select_type_title" runat="server" CssClass="title_lbl" Text="4)
Select content type:"></asp:Label><br />
        <asp:RadioButtonList ID="select_content_type" class="s_ctype" runat="server">
          <asp:ListItem>Course</asp:ListItem>
          <asp:ListItem>Question_Paper</asp:ListItem>
          <asp:ListItem>Book</asp:ListItem>
          <asp:ListItem>Notes</asp:ListItem>
          <asp:ListItem>Syllabus</asp:ListItem>
          <asp:ListItem>Others</asp:ListItem>
        </asp:RadioButtonList>
      </div>
      <br />
      <div style="text-align: center">
        <asp:Button ID="Button1" CssClass="dd" BorderStyle="Double" runat="server"
Height="44px" Text="Save data" Width="310px" OnClick="Button1_Click" />
      </div>
    </div>
  </div>
</asp:Content>
```

AddContent.aspx.cs
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Configuration;
using System.Data;
```

```csharp
namespace WebApplication1
{
    public partial class AddContent : System.Web.UI.Page
    {
        static string cs = ConfigurationManager.ConnectionStrings["DBCS"].ConnectionString;
        SqlConnection con = new SqlConnection(cs);
        protected void Page_Load(object sender, EventArgs e)
        {
            if (!IsPostBack)
            {
                if (Session["user"] != null && Session["privilege"].ToString() == "admin")
                {
                    //nothing here
                    //everyting works fine
                }

                else
                {
                    ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('Please
Login as an Admin to access this page.');window.location ='Login.aspx';", true);
                }
            }
        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            string file_name = "";
            string location = "";
            string type = "";
            string subject = "";
            string sem = "No_Sem";
            string year = "";

            try
            {
                //Assigning values if corresponding control has values

                if (select_sem.SelectedValue != "")
                {
                    sem = select_sem.SelectedValue;
                }

                type = select_content_type.SelectedValue;

                if (select_year.SelectedValue != "")
                {
                    year = select_year.SelectedValue;
                }
                if (select_sub.SelectedValue.Length > 0)
                {
                    subject = select_sub.SelectedValue;
```

```
            }
        if (upload_file.HasFile | content_name.Text != "")
        {
            if (upload_file.HasFile)
            {
                file_name = upload_file.FileName;


                if (select_location.SelectedValue == "Others")
                {
                    location = "Contents/Others/" + file_name;
                }

                else if (select_location.SelectedValue == "Curriculum(Local)")
                {

                    location = "Contents/Curriculum/" + sem + "/Local_Files/" + file_name;
                }

                else if (select_location.SelectedValue == "Syllabus")
                {
                    location = "Contents/Curriculum/Syllabus/" + year + "/" + file_name;
                }

                else if (select_location.SelectedValue == "Curriculum(Link)")
                {
                    location = "Curriculum(Link)";
                }
            }
            else if (content_name.Text != "")
            {
                file_name = content_name.Text;

                    location = file_name;

            }

            //Adding data into table and uploading file to application if provided
            try
            {
                con.Open();
                SqlCommand cmd = new SqlCommand("insert into Content values
(@filename,@filetype,@sem,@year,@locate,@sub)", con);
                cmd.Parameters.AddWithValue("@filename", file_name);
                cmd.Parameters.AddWithValue("@filetype", type);
                cmd.Parameters.AddWithValue("@sem", sem);
                cmd.Parameters.AddWithValue("@year", year);
                cmd.Parameters.AddWithValue("@locate", location);
                cmd.Parameters.AddWithValue("@sub", subject);
```

```
if (cmd.ExecuteNonQuery() > 0)
{
    if (upload_file.Visible == true && upload_file.HasFile)
    {
        location = select_location.SelectedValue;
        if (location == "Others")
        {
            upload_file.SaveAs(Server.MapPath("~/Contents/Others/") +
file_name);
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Content uploaded successfully.');window.location ='AddContent.aspx';", true);
        }

        else if (location == "Curriculum(Local)")
        {

            upload_file.SaveAs(Server.MapPath("~/Contents/Curriculum/" + sem
+ "/Local_Files/") + file_name);
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Content uploaded successfully.');window.location ='AddContent.aspx';", true);
        }

        else if (location == "Syllabus")
        {

upload_file.SaveAs(Server.MapPath("~/Contents/Curriculum/Syllabus/" + year + "/") +
file_name);
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Content uploaded successfully.');window.location ='AddContent.aspx';", true);
        }
    }
    else
    {
        ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Saved content is an external link. If not, then please check the
database.');window.location ='AddContent.aspx';", true);
    }

}

}
catch (SqlException ex_message)
{
    ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Problem occured. (SqlException) " + ex_message.Message + "');", true);
}
catch (Exception ex_message)
{
    ScriptManager.RegisterStartupScript(this, this.GetType(), "alert",
"alert('Problem occured. (Something related to uploading) " + ex_message.Message + "');",
true);
```

```csharp
            }
            finally
            {
                con.Close();
            }
        }
        else
        {
            ScriptManager.RegisterStartupScript(this, this.GetType(), "alert", "alert('NO
content saved!.');window.location ='AddContent.aspx';", true);
        }
    }
    catch (Exception msg)
    {
        Response.Write("<script>alert('An Exception Occured. Error Message: " +
msg.Message + "')</script >");
    }
}

protected void DropDownList2_SelectedIndexChanged(object sender, EventArgs e)
{
    try
    {
        if (add_content.SelectedValue == "Add File")
        {
            content_name.Visible = false;
            upload_file.Visible = true;
            adding_title_div.Visible = true;
        }
        else if (add_content.SelectedValue == "Add Link")
        {
            upload_file.Visible = false;
            content_name.Visible = true;
            adding_title_div.Visible = true;
        }
        else
        {
            content_name.Visible = false;
            upload_file.Visible = false;
            adding_title_div.Visible = false;
        }
    }
    catch (Exception ex)
    {
        Response.Write("<script>alert('An Exception Occured. Error Message: " +
ex.Message + "')</script >");
    }
}

protected void select_sem_SelectedIndexChanged(object sender, EventArgs e)
```

```
{
    select_sub.Items.Clear();
    string sem = select_sem.SelectedValue;
    SqlCommand cmd = new SqlCommand("SELECT[Sub1], [Sub2], [Sub4], [Sub3],
[Sub5] FROM [Subjects] WHERE([Sem] = @Sem)", con);
    cmd.Parameters.AddWithValue("@Sem", sem);
    try
    {
        con.Open();
        SqlDataReader dr = cmd.ExecuteReader();
        if (dr.HasRows)
        {
            select_sub.Items.Clear();
            while (dr.Read())
            {
                select_sub.Items.Insert(0, new ListItem("-- Select any Subject --", "0"));
                select_sub.Items.Add(new ListItem(dr.GetString(0), dr.GetString(0)));
                select_sub.Items.Add(new ListItem(dr.GetString(1), dr.GetString(1)));
                select_sub.Items.Add(new ListItem(dr.GetString(2), dr.GetString(2)));
                select_sub.Items.Add(new ListItem(dr.GetString(3), dr.GetString(3)));
                select_sub.Items.Add(new ListItem(dr.GetString(4), dr.GetString(4)));
            }
        }
    }
    catch (Exception ex)
    {
        Response.Write("<script>alert('Some error occured while dispaying the content.
Error Message: " + ex.Message + "')</script >");
    }
    finally
    {
        con.Close();
    }
}

protected void select_location_SelectedIndexChanged(object sender, EventArgs e)
{
    if (select_location.SelectedValue == "Others" | select_location.SelectedValue ==
"Others(Link)")
    {
        //this is not working when dropdown is inside update panel:| Please seek help
        options_for_curriculum_upload.Visible = false;

        //query for retirval of subjects in the select_sub dropdown list which dosen't belong
to curriculum and sem
        SqlCommand cmd = new SqlCommand("SELECT[Sub1], [Sub2], [Sub4], [Sub3],
[Sub5] FROM [Subjects] WHERE([Sem] = @Sem)", con);
        cmd.Parameters.AddWithValue("@Sem", "No_Sem");
        try
        {
```

```
            con.Open();
            SqlDataReader dr = cmd.ExecuteReader();
            if (dr.HasRows)
            {
               select_sub.Items.Clear();
               while (dr.Read())
               {
                  select_sub.Items.Insert(0, new ListItem("-- Select any Subject --", "0"));
                  select_sub.Items.Add(new ListItem(dr.GetString(0), dr.GetString(0)));
                  select_sub.Items.Add(new ListItem(dr.GetString(1), dr.GetString(1)));
                  select_sub.Items.Add(new ListItem(dr.GetString(2), dr.GetString(2)));
                  select_sub.Items.Add(new ListItem(dr.GetString(3), dr.GetString(3)));
                  select_sub.Items.Add(new ListItem(dr.GetString(4), dr.GetString(4)));
               }
            }
         }
         catch (Exception ex)
         {
            Response.Write("<script>alert('Some error occured while dispaying the content.
Error Message: " + ex.Message + "')</script >");
         }
         finally
         {
            con.Close();
         }
      }
      else
      {
         options_for_curriculum_upload.Visible = true;
      }
   }
  }
}
```

Chapter 6

TEST RESULTS AND DISCUSSIONS

6.1 Test Results

Email_id	Result	Examples
Character	Not accepted	abcmail.com
Without domain name	Not accepted	xyzgmail@z
Fields with 2 @	Not accepted	m@nogmai@l
Correct email_id	Accepted	email@gmail.com

Test id	Test Cases	Test Data	Actual	Expected	Status
	Login				
1	Open Login page Enter username Enter Password Click login	user 123	Open Or Invalid username and password page	Open Or Invalid username and password page	Pass
	Registration				
1	Enter registration details Click submit	Valid details	User registered	User registered	

2	Enter registration details Click submit	Invalid details	User registered	Try again	Fail
3	User Login Enter Username Enter Password Click Login	XYZ XYZ@1	Open Home Page Or Invalid username & password	Open Home Page Or Invalid username & password page	Pass Fail
	All Pages except Home(index) page				
1	User signed in or not	Signed out	Please login first	Please login first	Pass
	Admin Control page				
1	User signed-in and has privilege as "admin"	Signed-in and privilege as user	Please login as admin to access page	Please login as admin to access page	Pass

DOB	**Result**	**Examples**
Date ahead of today's date	Not accepted (People born in future are not allowed)	23-02-2019
Date. 124 years earlier than today's date	Not accepted (Too old)	1-1-1857
Date less than 12 years old	Not accepted (User less than 12 years old are not allowed)	21-2-2019
Date between 124 years and 12 years early.	Accepted	1-1-1999

Chapter 7

Conclusion

7.1 Conclusion and Future Scopes

Conclusion

E-learning is not just a change of technology. It is part of a redefinition of how we as a species transmit knowledge, skills, and values to younger generations of workers and students. Users will have access to multiple knowledge modules. Some will be Web pages with simple text and graphics. Others may include multimedia simulations. In many fields, e-learning has become the default way to conduct training or to provide education. There are four secrets of e-learning. The first secret is to teach what learners need to learn in the way they most naturally learn. The second secret is to define clear learning objectives. The third secret builds on the first two. It is to focus on the right objectives. The final secret is in the power of testing e-Learning.

Future Scope:

There is always a room for improvements in any software package, however good and efficient it may be done. but the most important thing should be flexible to accept further modification.
There are lots of scope to improve the performance of the eLearning System in the area of:
- UI
- Database performance
- query processing time, etc.

7.2 Limitation of the System

No self-discipline.

No face-to-face interaction.

System doesn't keep user's track for future help.

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