IMPLEMENTATION OF CHATBOT USING NLP

A Project Report

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by

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ABSTRACT

Implementation of chat bot using NLP that enable students to study by themselves without a teacher have widely deployed in universities, high schools and companies. Such an Implementation of chat bot using NLP is usually implemented as a client-server model. The client-server model, however, has problems with fault tolerance and concentration of system resources such as computation.

These problems can be solved by the installation of high-performance servers. Since our proposed system uses these idle resources. Our Implementation of chat bot using NLP enables us to realize high fault tolerance and a load balancing function and useful to organizations.

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CHAPTER 1

INTRODUCTION

A Implementation of chat bot using NLP is a software package that enables enterprises to deliver learning content and resources to their employees or students. A Implementation of chat bot using NLP is often web-based to facilitate 24/7 access to Implementation of chat bot and relevant education. Moreover, an learning management system is also called "Course management system", "Pedagogical platform" Or "Implementation of chat bot ". A learning management system is considered to be the missing bridge between current education improvements and effective uses of technology. Typically, Implementation of chat bot encourage instructors to guide and manage employee achievement more effectively by contextualizing the learning experience itself in a consistent and creative way.

OVERVIEW

Implementation of chat bot is among the most important explosion propelled by the internet transformation. It has the inability to handle all functions of the institution such as some courses that require practical skills and supervision but it also increases the interaction among students which in turn will lead to achieve the learning goal as students are able to access any where and anytime.

After a deep research I found that, there is a lot of information concerning the topic of developing a course repository, but the major problem with the information is that there is a contradiction as to whether the system itself brings in a lot of benefit to an organization.Our project provides benefit of learning from distance due to the pandemic situation. The staffs were able to upload the subject notes inside the portal this action is better than manual writing or oral reading as it saves time and energy of both the staffs and student. Then staffs can set some assignments and time limit to submit those works in the system and staffs can monitor every individuals equally. The Students can download the notes of a particular notes and they can also upload their assignment works in the system for the verification.

1.1 GENERAL

The "Implementation of chat bot using NLP"has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner. The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. E- Learning management system, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of student, assignment, quiz, class, and question. Every e-learning management system has different assignment needs, therefore we design exclusive employee management systems that are adapted to managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times.These systems will ultimately allow to better manage resources.

1.2 EXISTING SYSTEM

In the existing system, the exams and classes are done manually, so that it requires more man power .It does not have a recorded online classes videos in the learning management system. It only provides the online course and information regarding the courses.

1.2.1 Literature survey

Almaiah MA, Al-Khasawneh A, Althunibat A.[1]explores the critical challenges and factors influencing the Implementation of chat bot usage during the COVID-19 pandemic 2020. The COVID-19 pandemic forced most universities and colleges everywhere in the globe to prohibit the physical presence classes to stop the spread of the pandemic. The corona virus COVID-19 made big changes in all sectors including the education sector has not been immune. The e-learning systems became a demand based on the logic of the exception that extraordinary times call for extraordinary measures—one common trend in education systemsaround the world has been to respond to the pandemic with "emergency e learning"

protocols,marking the rapid transition of face-to-face classes to online learning systems.

Walabe E.describes about E-Learning Delivery in Saudi Arabian Universities, 2020. Service-Oriented Architecture (SOA) provides great solutions for E-Learning, where each service has a particular task to do. The web service contains an interface which is responsible for the functionality or the service provided by the provider. It contains a contract as well where the service user can find out how to interact with the service.The interface defines how a service provider will perform requests from a service consumer, the contract defines how the service provider and the service consumer should interact, and the implementation is the actual service code itself. The proposed system is an intelligent learning system based on IoT and cloud computing to provide a solution for organizations with an interactive solution that allows students to communicate with the course tutor with the other course attendees.

Frazer C, Sullivan DH, Weather spoon D, Hussey L are the authors and describes about Faculty Perceptions of Online Teaching Effectiveness and Indicators of Quality. Nursing Research and Practice. 2017; 2017:1–6. Online teaching or mobile-based (M- learning) have some basic methods. It should authenticate the learner by using a login form by checking the user login data, if the user is the admin, they can add the course content and activities for learners. These systems provide a straightforward solution for managing and controlling classrooms with some other features regarding usermanagement to allow the admins toadd and remove learners or give them assignments if it is needed.

Chatziralli I tells about Transforming ophthalmic education into virtual learning during COVID-19 pandemic.A global perspective. 2020. Another category is the faculties' perception of E-learning course delivery. Accordingly, many faculties used shared video/notes at the time of the lecture, some before the lecture, and few more performed spots lectures. They further mentioned sharing video/notes at the time of the lecture is more effective, than in other ways. It showed further evidence that most of them recorded the lecture and upload it before the online class. Also, many of them were comfortable in recording the lecture. Though there are some difficulties in recording lectures including disconnection issues, disturbance in-network, lack of voice clarity, and problems in uploading.The student's response was found less in the online class rather than in classroom teaching. many of them noted that the discipline is less towards online class rather than classroom teaching. The quality of teaching and learning is not improved in Online teaching. The faculties stated the reason as there was a lack of classroom culture, difficulties in grading & maintaining attendance.

The online assessment methods adopted by the faculties include Quiz, assignment, discussion, oral examination, Homework, and presentation. It was further evident that online teaching was suitable for Theory-based courses and then for numerically based courses whereas, for practical classes, it is a bit more complex and not that effects such as for clinical and laboratory-based classes.

Cheung CMK, Chiu PY, Lee MKO explores about Online social networks. The Amazon web services (AWS) is used to scale the need for streaming resource on demand . The proposed system provides a solution based on VR to make the

interactivity between the participants as high as the real classroom. IoT has become one of the daily life basics to run the need of many stems. The main idea of the IoT paradigm is to reduce the existing gap between the digital and physical worlds. The IoT extends the actual form of the Internet to a network of connected people and objects (things). Within the IoT, objects obtain intelligent behavior as they can collect, exchange data, and make decisions. The data gathering and exchange are guaranteed thanks to microcontrollers, sensors, and software embedded in objects.

1.2.2 Disadvantages of existing system

The following are the disadvantages of the existing system

☐ It requires more man power

☐ Time consuming

☐ Even though it provides online courses, but it does not provides the

online class recorded videos.

☐ In this pandemic situation, most of the students are learning through

the online platform (i.e., digital).

☐ Many people are struggling to participate in online classes because of

insufficient resource problem. So there are many chances to miss the

online classes.

1.3 PROPOSED SYSTEM

In E-learning management system, it provides the course content of their particular semester and information regarding the courses through the website. Students needs to register with the email id and their information and then they can access the content in the website.

1.3.1 Advantages

The following are the advantages of proposed system

☐ User can access the content at any time.

☐ Students who are facing the issues to attend the online classes for

those can have an access to the online classes in this website.

☐ So missed out people can learn the course at any time later with the

help of an internet.

☐ It is user friendly to use this website.

CHAPTER 2

PROBLEM DEFINITION AND METHODOLOGY

The existing system and the proposed system of the project are discussed in the previous chapter. This chapter explains about the problem definition and the methodology of the project. The problem definition discusses about the objective of the project and the methodology used to develop the project.

2.1 PROBLEM DEFINITION

With the advent in technology and with the perpetual increase in the strength of the students and the number of departments in the educational institutions, it is laborious to exchange the study materials between the students and the faculties.

The main objective of the Implementation is to help the students get over the traditional methods of learning and make them accustomed to the internet where the notes for their respective subjects are easily available. It provides an automation procedure of studying the notes online. The implementation of this project helps both the students and the teachers. The teachers can upload their notes on to the website by using their unique ID and the students can gain access to these notes by searching for the name of the file under their respective department.

This project not only helps to facilitate easier access to notes for the students but also helps cutting down on expenditure for the universities as well. Students and Universities alike spend a considerable amount of money on printing costs which can be prevented.This project is implemented on asp.net id to facilitate easier access on a popular medium. The project uses C# to write scripts which provide the website its functionality.

2.2 METHODOLOGY

At present, supporting E-learning with interactive virtual campuses is a future goal in education. Because of pandemic is occur. So Models that measure the levels of acceptance, performance, and academic efficiency have been recently developed.

2.2.1 DESIGN METHODOLOGY

In light of the above, we carried out a study to evaluate a model for which architecture design, configuration, metadata, and statistical coefficients were obtained using four Learning Management Systems (LMST).

He tracking feature of most LMS systems is worthwhile in itself. Individuals, their managers, and organizational management can track who has completed what courses for advancement, certifications, compliance, and even human resources concerns. Plus, the record, if backed up properly, will always exist.

The architecture design involves several modules like staff modules, student modules, registration page and login page.

The design methodology also involves tracking of the assignment status with regarding to the registration. It involves mail delivery system which sends mail to the user who are registered when staff assign an assignment in the website. Learning Management System were designed to identify training and learning gaps.

CHAPTER 3

DEVELOPMENT PROCESS

Development process and documentation are one of the activities in the software development life cycle. Development process includes requirement analysis, design, testing and implementation.

3.1 REQUIREMENT ANALYSIS

The requirement analysis includes input requirements, output requirements and resource requirements that are given as follows

3.1.1 Input requirements

The user needs to register with username, password, contact, email and department. After registration the user can login with registered username and password.

3.1.2 Output requirements
The output requirements of this project is assignment details, user details manage, after user report a complaint the admin respond to it and give a solution.

3.1.3 Resource requirements

The hardware and software requirements for this system were analyzed and the required configuration is as given below. The following are the software requirements for the project.

Hardware requirements:

- RAM: 1GB RAM

- Memory: 500 GB

- Operating system: Windows 7, Windows 10[17]

Software requirements:

- Programming Language: Asp.Net

- Tools: Visual Studio 2013

- Database: SQL

- Browser: Any of browser, opera or chrome

3.2 SYSTEM DESIGN

The design explains the overall architecture of the project, workflow of the project, data flow of the project and also the various modules of the project.

3.2.1 Architectural design

The architectural design explains overall concept of the entire project. The structure of the developed system, the different modules and their externally visible properties and the relationship among them are defined in this.
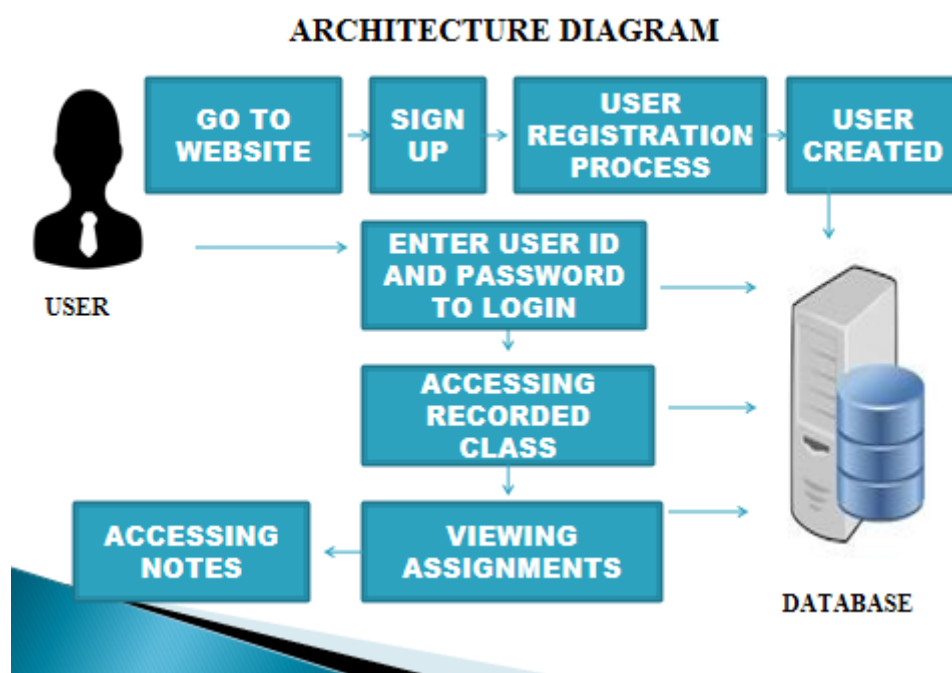
Figure 3.1 Overall Architecture diagram

The architecture diagram shown in figure 3.1 explains that the student can login to the application and view/download the notes & videos and assignment. Staff can upload notes & videos and assignment and view the assignment all are stored in database.

3.2.2 Detailed Design

The detailed design explains various modules and the work flow and the data flow of the project. The detailed design will explain the software competence in detail and it will help in the implementation of the system.The diagram will describes each steps in various design methodology.

3.2.2.1 Data Flow Diagram

The diagram shown in the figure 3.2 is the level 0 data flow diagram. The student/staff first register like id, name, number, email, username and password.
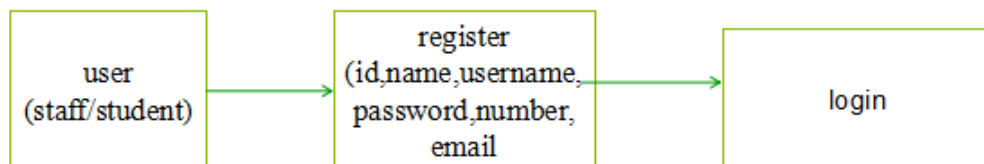
Figure 3.2 Level 0 Data Flow Diagram

The above figure 3.2 explains user need to register using id, name, password, number and email. Then they can able to access their account by logging into the account by giving their credentials. This diagram explains the things staff can able to do in this application. The staff first register by providing the details like name, email, contact after successfully registered they can able to login to the application like username & password.upload videos, notes & assignment and view &check assignment details.
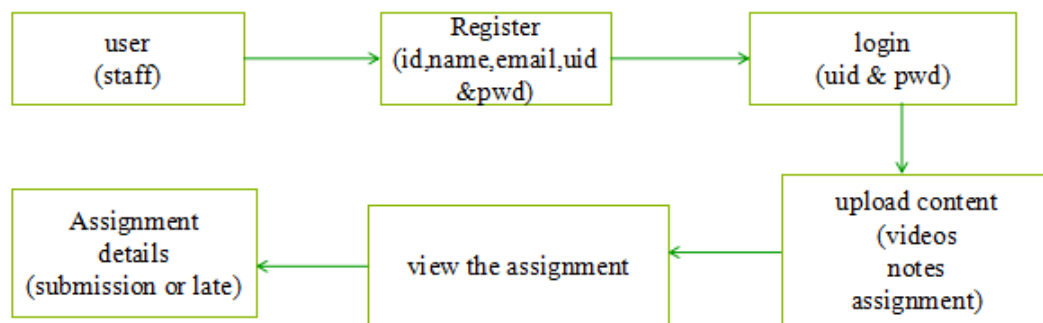
Figure 3.3 Level 1 Data Flow Diagram

The above figure 3.3 explains user can upload the content (notes, videos, assignment) and view the assignment status.
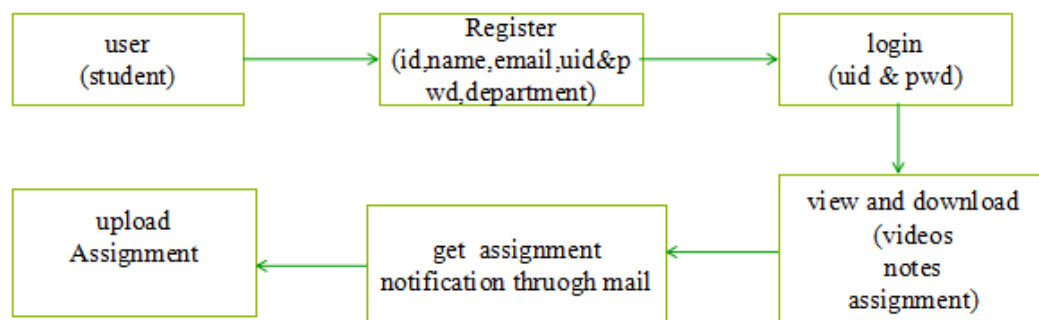

Figure 3.4 Level 2 Data Flow Diagram

The above figure 3.4 explains student can login into their account and they can submit assignment and view the videos and notes.This diagram explains the things students can able to do in this application. The students first register by providing the details like name, email, username and password after successfully registered they can able to login to the application like username & password.view and download videos, notes & assignment and get notification upload assignment notes.

3.2.3 UML Diagram

3.2.3.1 Class Diagram
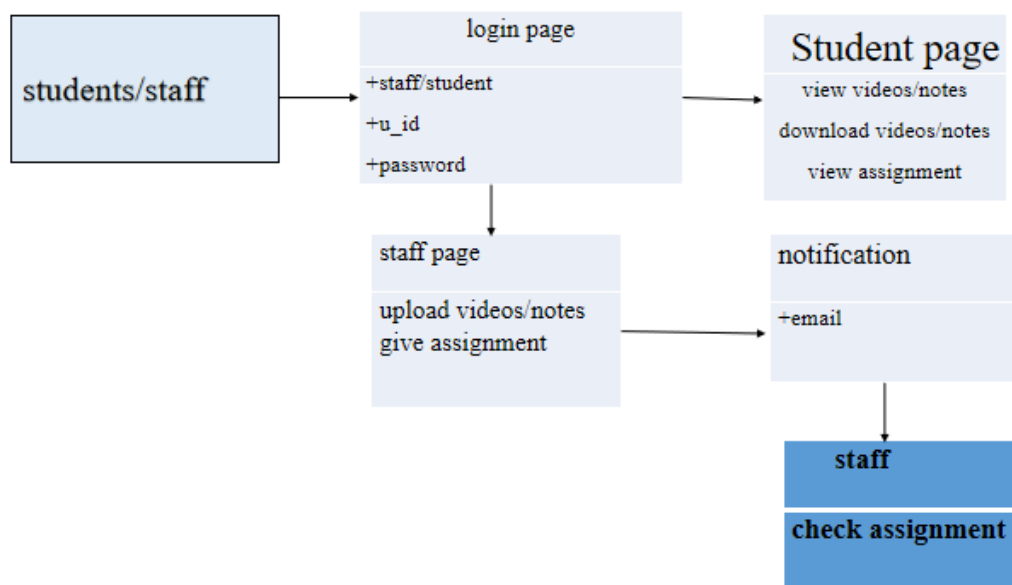
Figure 3.5 Class Diagram

Class diagram in the unified modeling language describes the relationship among the objects. In this application there are two main modules that are student module and staff module. The class diagram shown in the figure 3.5 explains the role of staff and the user in this application.

3.2.3.2 Use Case Diagram

The important role of the use Case diagram in the unified modelling language is to gather system requirements and actors. The staff and the students are the two actors in this application and the use case diagram shown in the figure 3.6 explains the different types of roles and how they interact with the System.
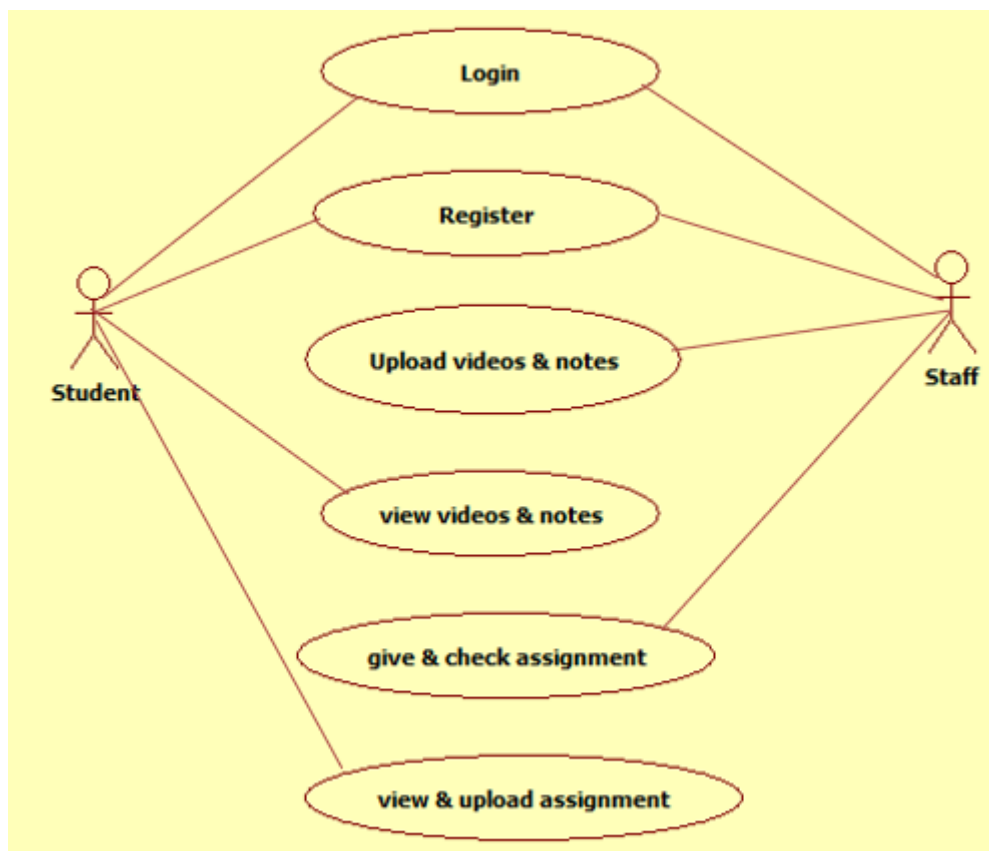
Figure 3.6 Use Case Diagram

The above figure 3.6 explains the interaction between the student and staff. Both have to register by giving their credentials and they access the website.

3.2.3.3 Sequence Diagram

A sequence diagram simply depicts interaction between objects in a sequential order. The sequence diagrams are commonly used by the developers. The Sequence diagram in the figure 3.7 describes an interaction by focusing on the sequence of messages that are exchanged. The most commonly used interaction diagrams are these sequence diagram. The sequence diagram is a standard way to visualize the design of a system. To understand the requirements for existing system and the proposed system and also for the document purpose developers used this sequence diagram.
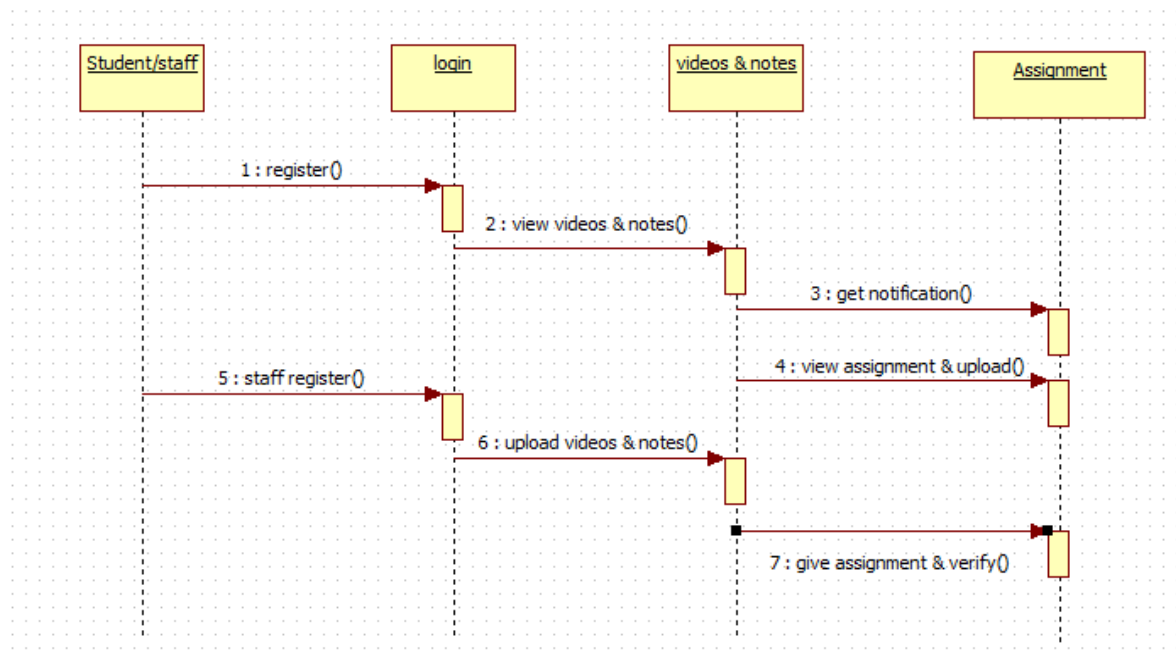
Figure 3.7 Sequence Diagram

The above figure 3.7 describes the interaction by focusing on the messages that are exchanged between them.

3.2.3.4 Activity Diagram

The activity diagram is a type of flow chart to describe the flow from one activity to another activity. Action, decision node, control flows, start node and end node are the basic components of the activity diagram. Activity diagram describes the steps performed in the unified modeling language use case diagram. The activity diagram shown in the figure 3.8 clarifies complicated use case diagram. The activity diagram is one of the important diagram in the unified modeling language. The workflow between user and the system are illustrated in this activity diagram.
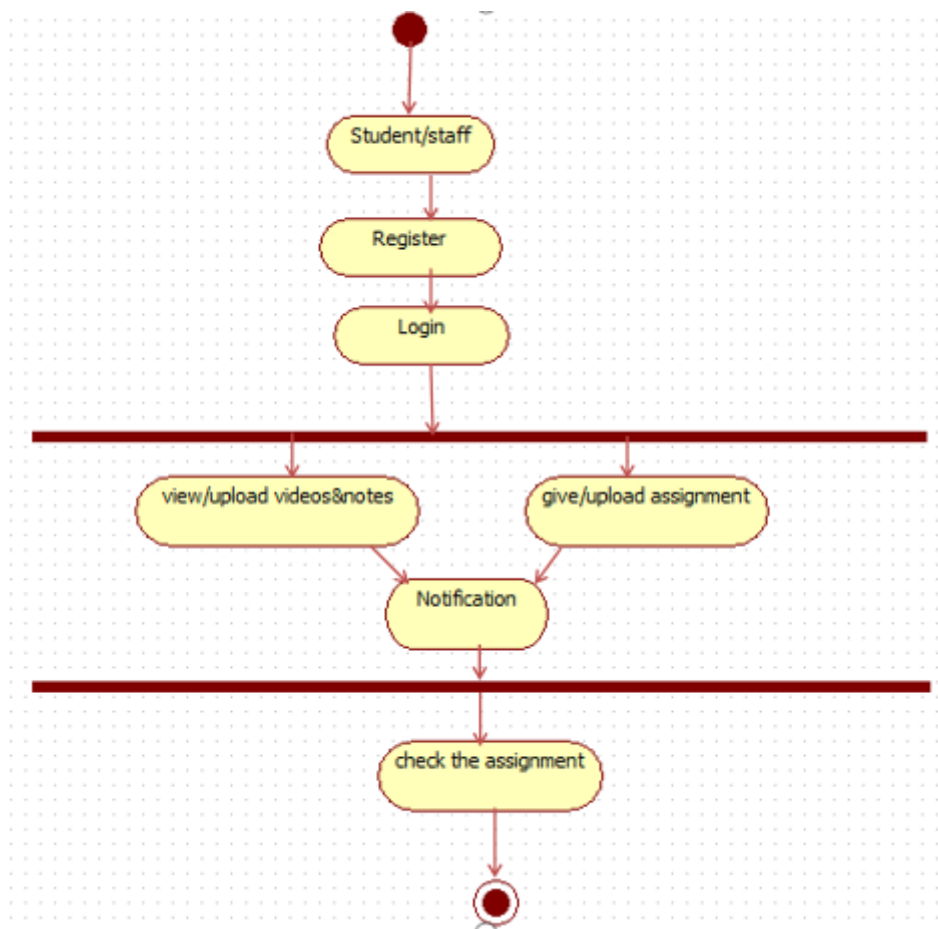
Figure 3.8 Activity Diagram

The above figure 3.8 explains the workflow of the user who are using the website by registering an account and that can be saved in the database.

3.2.4 Database Design

Database design is the process of producing a detailed data model of a database. Sql database is used for storing data. The following tables are used in the project. The following Table 3.1 describes the student registration table and it contains the fields like name, password, email, contact, and the department.

Fields	Datatype	Relationships
Student_id	Varchar (10)	Primary Key
Name	Varchar (50)	Not Null
DOB	Varchar (50)	Not Null
e-Mail	Varchar (20)	Not Null
Department	Varchar (20)	Not Null
Mobile Number	int	Not Null
Password	Varchar (20)	Not Null

Table 3.1 Student Registration table.

The following Table 3.2 describes the staff registration module of the system i.e., Staff registration table and it contains the fields like name, password, email, contact, and the department.

Fields	Datatype	Relationships
Staff_id	Varchar (10)	Primary Key
Name	Varchar (50)	Not Null
Designation	Varchar (50)	Not Null
e-Mail	Varchar (20)	Not Null
Mobile Number	int	Not Null
Password	Varchar (20)	Not Null

Table 3.2 Staff Registration table

3.3 IMPLEMENTATION

Implementation is the stage in which theoretical design is turned out into a working system. This project is implemented using Asp.Net and Sql for database and visual studio is an IDE used in it. In this project admin module and login module are two main modules. This application consists of the following modules

 Student Module

 Staff Module

 Login

- Upload/download videos

- Upload/download notes

- Upload/download Assignment26

- View assignment

- Assignment status(submit/late submit)

Home Page

The home page in this application is visible for everyone. The apartment facilities are mentioned in this home page and in this homepage two login modules are available that are student module and staff module.

3.3.1 Staff Module

The staff module in this application can first register their details like name, email, contact details, ID and password then only the user can login to the application.

3.3.2 Student Module

The staff module in this application can first register their details like name, email, contact details, ID, department and password then only the user can login to the application.

3.3.3 Login Module

The Login module in this application can select the user type, username and password then only the user can login to the application.

3.3.4 Video Upload / Download Module

The video upload/download module in this application can staff upload the videos like code, subject name, video name and date. Student can view the video and download the videos.

Staff upload the videos like subject wise

- Big data

- Internet of Things

- Python

- Mobile Security

3.3.5 Notes upload/download Module

The Notes upload/download module in this application can staff upload the notes like code, subject name, pdf and date. Student can view the notes and download the notes.Staff can upload the Notes like subject wise

- Big data

- Internet of Things

- Python

- Mobile Security

3.3.6 Assignment upload/download Module

The Assignment upload/download module in this application can staff upload the Assignment like code, Subject name, Topic and date. Student can view the Assignment and download the Assignment.

Staff can upload the Assignment like subject wise

- Big data

- Internet of Things

- Python

- Mobile Security

3.3.7 View Assignment status Module

The View Assignment status module in this application can staff view the Assignment like code, subject name, Topic and date. Student can upload the Assignment and Staff can check the Assignment status that are submitted by the students in the website.

Staff can view Assignment status like subject wise

- Big data

- Internet of Things

- Python

- Mobile Security

3.4 TESTING

Testing is usually performed to improve quality, for verification and validation, for reliability estimation. Testing is a process of executing a program with the intent of finding an error. The objective of software testing is to uncover errors. Software testing, depending on the testing method employed, can be implemented at any time in the development process, however most of the effort is employed after the requirements have been defined and coding process has been completed.

3.4.1 Unit Testing

It is also known as component testing. It is the first and the most basic level of Software Testing, in which a single unit (i.e. a smallest testable part of a software) is examined in isolation from the remaining source code. Unit Testing is done to verify whether a unit is functioning properly. In other words, it checks the smallest units of code and proves that the particular unit can work perfectly in isolation. However, one needs to make sure that when these units are combined, they work in a cohesive manner. This directs us to other levels of software testing.

3.4.2 Integration Testing

After Unit Testing, software components are clubbed together in large aggregates and tested, to verify the proper functioning, performance and reliability between units, and expose any defect in the interface. This process is known as Integration Testing. It can be performed in two ways-Incremental Testing: testing in the traditional and structured way, this classic approach follows a hierarchical path. It can further be divided into two days: Top-Down Testing: in this approach, top level integrated units are tested first, followed by step by step examination of lower level modules. Bottom-Up Testing: contrary to the top-down approach, this method facilitates testing at the lower level first, and then taking it up the hierarchy. It is generally practiced where bottom-up development process is followed.

3.4.3 System Testing

It is also known as end to end testing. After identifying functional bugs at the Unit and Integration testing level. System Testing is done to scrutinize the entire software system. The objective of this test is to verify the nonfunctional part of the software like speed, security, reliability and accuracy. Evaluation of external interfaces like applications, hardware devices, etc. is also done at this time. System Testing is also done to ensure that the software meets the customer's functional and business requirements.

3.5 TEST CASE

Test case acts as the starting point for the test execution. Test case is a document which consists of test data, preconditions, post conditions , and expected result. Test case is used for the tester to determines that the software satisfies all the requirements and functions properly. Test case improve the quality of the software. Functionality test cases, User Interface test cases, Performance test cases, Integration test cases, usability test cases are some of the types of the test cases.

3.6 ANALYSIS

LMS are focused on online learning delivery but support a range of uses,acting as a platform for online content,including courses both asynchronous and synchronous based.An LMS may offer classroom management for instructor-led training or a flipped classroom,used in higher education.

3.6.1 TRACKING ANALYSIS

The LMS tracking can also assist in measurement of training effectiveness by managing evaluations, course completions, and course attendance. This is a tremendous benefit that renders manual tracking obsolete. The LMS content delivery system can deliver training to diverse populations in any Inter- or Intranet accessible location and can even serve as a knowledge repository for policies, procedures, and quick reference guides, keeping track of their career path and showing them what courses they need to complete in order to move to the next career level.The use of modern inform communication technology as a means of training pupils and students has become a popular trend. For this purpose, a special type of web-based content management systems, called Learning Management Systems (LMS), has been used. Due to their wide implemented, lots of LMS have been developed in recent years. All those platforms often provide similar features and users can hardly choose the most appropriate for them. There is a variety of methodologies for the quality evaluations of e-learning in the scientific literature.

CHAPTER 4

RESULT

The concept of e-learning is defined in many different ways fundamentally because the actors that use it are very diverse, each with its idiosyncrasy and scope of application. From the perspective of its conception and development as a training tool, e-learning systems have a pedagogical and technological duality. Pedagogical in that these systems should not be mere containers of digital information, but should be transmitted according to pedagogically defined models and patterns to face the challenges of these new contexts. Technological in that the entire teaching-learning process is based on software applications, mainly developed in web environments. From the perspective of its use, one could distinguish the vision that its final users have, that regardless of their maturity and training, they will see the learning system as a source of services to achieve their educational commitment.

• The e-learning system works, which makes it capable of being instantly updated, stored, retrieved, distributed and allows to share instruction or information.

• It is delivered to the end user through the use of computers using standard Internet technology.

• It focuses on the broader vision of learning that goes beyond traditional training paradigms.

Our system works efficiently and the students and the staffs can share their knowledge without any problem of concerns.

CHAPTER 5

CONCLUSION AND ENHANCEMENT

5.1 CONCLUSION

E-Learning Management system and the advantages of having it on web based is due to population growth and metropolitan migration the existing system techniques need to be replaced by modern computerized applications. The proposed project proposes the web based online system which is time saving for the staff, student and association. As of now the system is more secure as it is developed on Asp.Net platform. This web based can further be implemented as a mobile app which can be accessed by the apartment residents.

5.2 FUTURE ENHANCEMENT

The future enhancement of this E-learning is here to stay. As computer ownership grows across the globe e-learning becomes increasingly viable and accessible. Internet connection speeds are increasing, and with that,opportunities for more multimedia training methods arise.Online learning are on the rise. A recent poll found that 46% of recent graduates took an online credit as part of their degree, while more people than ever are turning to hybrid courses that combine distance learning with traditional classroom methods.

APPENDIX

A. SOURCE CODE

Assignment.apsx :

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data;

using System.Data.SqlClient;

using System.Net;

using System.Net.Mail;

namespace elearning

{

public partial class assignment : System.Web.UI.Page

{

SqlConnection con = new SqlConnection(@"Data Source=DESKTOP-

5NFRV7R\SQLEXPRESS;Initial Catalog=elearning;Integrated

Security=True");

protected void Page_Load(object sender, EventArgs e)

{

}

protected void b2_Click(object sender, EventArgs e)
```

```
{

Response.Redirect("teacher.aspx");

}

protected void b1_Click(object sender, EventArgs e)

{

con.Open();

SqlCommand cmd = con.CreateCommand();

cmd.CommandType = CommandType.Text;

cmd.CommandText = "insert into assignment values('" + t1.Text + "','"

+ TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox3.Text + "')";

cmd.ExecuteNonQuery();

con.Close();

Response.Write("<script>alert('Submitted')</script>");

try

{

MailMessage msg = new MailMessage();

msg.From = new MailAddress("sampleinfosys@gmail.com");

msg.To.Add("shahana.retech@gmail.com,dotnet.retech@gmail.com");

msg.Subject = "Assignment Submission";

msg.Body =

"Subject Code-

"+""+t1.Text+"Assignment-

"+""+TextBox2.Text+" Last Date and Time"+""+TextBox3.Text;

msg.IsBodyHtml = true;

SmtpClient smtp = new SmtpClient();

smtp.Host = "smtp.gmail.com";
```

```
System.Net.NetworkCredential networkcred = new

System.Net.NetworkCredential();

networkcred.UserName = "sampleinfosys@gmail.com";

networkcred.Password = "Samplesys";

smtp.UseDefaultCredentials = true;

smtp.Credentials = networkcred;

smtp.Port = 587;

smtp.EnableSsl = true;

smtp.Send(msg);

}

catch (Exception ex)

{

Response.Write("Exception in sendEmail:" + ex.Message);

}

}

}

}
```

Bigdata.aspx

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data;

using System.Data.SqlClient;
```

```csharp
namespace elearning

{

public partial class bigdata : System.Web.UI.Page

{

protected void Page_Load(object sender, EventArgs e)

{

}

protected void Button6_Click(object sender, EventArgs e)

{

Response.Redirect("student.aspx");

}

protected void Button1_Click(object sender, EventArgs e)

{

Response.Redirect("videobigdata.aspx");

}

protected void Button2_Click(object sender, EventArgs e)

{

Response.Redirect("viewbdassignment.aspx");

}

protected void Button3_Click(object sender, EventArgs e)

{

Response.Redirect("downloadbd.aspx");

}

protected void Button4_Click(object sender, EventArgs e)

{

Response.Redirect("uploadass.aspx");
```

```
}

protected void Button5_Click(object sender, EventArgs e)

{

Response.Redirect("upassignment.aspx");

}

}

}
```

Index.aspx

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace elearning

{

public partial class index : System.Web.UI.Page

{

protected void Page_Load(object sender, EventArgs e)38

{

}

protected void Button2_Click(object sender, EventArgs e)

{

Response.Redirect("tregister.aspx");

}

protected void Button4_Click(object sender, EventArgs e)
```

```
{

Response.Redirect("register.aspx");

}

protected void Button1_Click(object sender, EventArgs e)

{

Response.Redirect("Login.aspx");

}

}

}
```

Iot.aspx

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace elearning

{

public partial class iot : System.Web.UI.Page

{

protected void Page_Load(object sender, EventArgs e)39

{

}

protected void Button6_Click(object sender, EventArgs e)

{

Response.Redirect("student.aspx");
```

```
}

protected void Button1_Click(object sender, EventArgs e)

{

Response.Redirect("iotvideo.aspx");

}

protected void Button2_Click(object sender, EventArgs e)

{

Response.Redirect("iotassignment.aspx");

}

protected void Button3_Click(object sender, EventArgs e)

{

Response.Redirect("iotnotes.aspx");

}

protected void Button4_Click(object sender, EventArgs e)

{

Response.Redirect("uploadiot.aspx");

}

}

}
```

Iotassignment.aspx

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;
```

```csharp
using System.Data;

using System.Data.SqlClient;

namespace elearning

{

public partial class iotassignment : System.Web.UI.Page

{

SqlConnection con = new SqlConnection(@"Data Source=DESKTOP-

5NFRV7R\SQLEXPRESS;Initial Catalog=elearning;Integrated

Security=True");

protected void Page_Load(object sender, EventArgs e)

{

SqlDataAdapter SQLAdapter = new SqlDataAdapter("Select * from

assignment where Code='MSIoT02'", con);

DataTable DT = new DataTable();

SQLAdapter.Fill(DT);

GridView1.DataSource = DT;

GridView1.DataBind();

}

protected void GridView1_SelectedIndexChanged(object sender,

EventArgs e)

{

}

}

}
```

Login.aspx

```csharp
using System;
```

```csharp
using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data;

using System.Data.SqlClient;

namespace elearning

{

public partial class Login : System.Web.UI.Page

{

SqlConnection con = new SqlConnection(@"Data Source=DESKTOP-

5NFRV7R\SQLEXPRESS;Initial Catalog=elearning;Integrated

Security=True");

protected void Page_Load(object sender, EventArgs e)

{

}

protected void Button1_Click(object sender, EventArgs e)

{

SqlDataAdapter sda = new SqlDataAdapter("select ID,Password from

stureg1 where ID ='" + TextBox1.Text + "' and Password = '" + TextBox2.Text

+ "'", con);

DataTable dt = new DataTable();

sda.Fill(dt);

SqlDataAdapter sda1 = new SqlDataAdapter("select ID,Password

from teachreg where ID ='" + TextBox1.Text + "' and Password = '" +
```

```
TextBox2.Text + "'", con);

DataTable dt1 = new DataTable();

sda1.Fill(dt1);

if (dt.Rows.Count > 0)42

{

if (DropDownList1.SelectedIndex == 3)

{

Response.Redirect("student.aspx");

}

}

else if (dt1.Rows.Count > 0)

{

if (DropDownList1.SelectedIndex == 2)

{

Response.Redirect("teacher.aspx");

}

}

else if ((DropDownList1.SelectedIndex == 1) && (TextBox1.Text ==

"1234567890") && (TextBox2.Text == "admin1234"))

{

Response.Redirect("admin.aspx");

}

else

{

Response.Write("<script>alert('Invalid Username or

Password')</script>");
```

```
}

}

protected void Button2_Click(object sender, EventArgs e)

{

Response.Redirect("index.aspx");

}

}

}
```

Mobile.aspx

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace elearning

{

public partial class mobile : System.Web.UI.Page

{

protected void Page_Load(object sender, EventArgs e)

{

}

protected void Button6_Click(object sender, EventArgs e)

{

Response.Redirect("student.aspx");

}
```

```csharp
protected void Button1_Click(object sender, EventArgs e)

{

Response.Redirect("msvideo.aspx");

}

protected void Button2_Click(object sender, EventArgs e)

{

Response.Redirect("msassignment.aspx");

}

protected void Button3_Click(object sender, EventArgs e)

{

Response.Redirect("msnotes.aspx");

}

protected void Button4_Click(object sender, EventArgs e)

{

Response.Redirect("uploadms.aspx");

}

}

}
```

Msassignment.aspx

```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;
```

```csharp
using System.Data.SqlClient;

namespace elearning

{

public partial class msassignment : System.Web.UI.Page

{

SqlConnection con = new SqlConnection(@"Data Source=DESKTOP-

5NFRV7R\SQLEXPRESS;Initial Catalog=elearning;Integrated

Security=True");

protected void Page_Load(object sender, EventArgs e)

{

SqlDataAdapter SQLAdapter = new SqlDataAdapter("Select * from

assignment where Code='MSMS03'", con);

DataTable DT = new DataTable();

SQLAdapter.Fill(DT);

GridView1.DataSource = DT;45

GridView1.DataBind();

}

protected void GridView1_SelectedIndexChanged1(object sender,

EventArgs e)

{

}

}

}
```

Python.aspx

```csharp
using System;

using System.Collections.Generic;
```

```csharp
using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace elearning

{

public partial class python : System.Web.UI.Page

{

protected void Page_Load(object sender, EventArgs e)

{

}

protected void Button1_Click(object sender, EventArgs e)

{

Response.Redirect("pythonvideo.aspx");

}

protected void Button2_Click(object sender, EventArgs e)46

{

Response.Redirect("pythonassignment.aspx");

}

protected void Button3_Click(object sender, EventArgs e)

{

Response.Redirect("pythonnotes.aspx");

}

protected void Button6_Click(object sender, EventArgs e)

{

Response.Redirect("student.aspx");
```
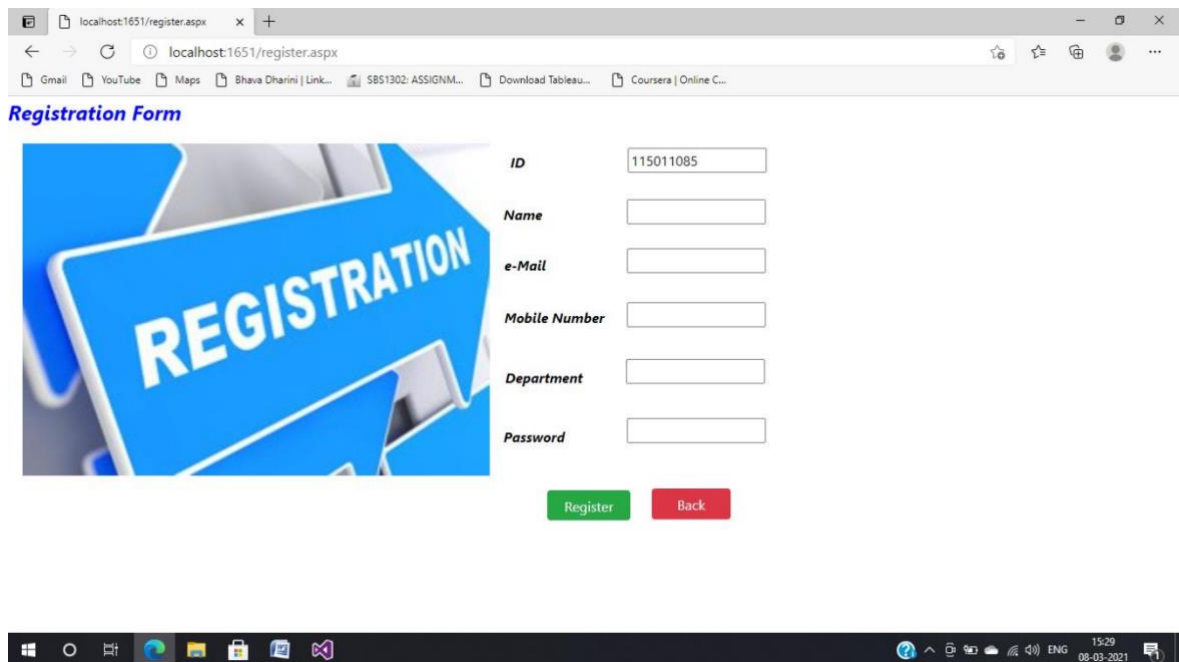
```
}

protected void Button4_Click(object sender, EventArgs e)

{

Response.Redirect("uploadpython.aspx");

}

}

}
```

Pythonassignment.aspx

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data;

using System.Data.SqlClient;

namespace elearning

{

public partial class pythonassignment : System.Web.UI.Page47

{

SqlConnection con = new SqlConnection(@"Data Source=DESKTOP-

5NFRV7R\SQLEXPRESS;Initial Catalog=elearning;Integrated

Security=True");

protected void Page_Load(object sender, EventArgs e)

{

SqlDataAdapter SQLAdapter = new SqlDataAdapter("Select * from
```

```
assignment where Code='MSPP04'", con);

DataTable DT = new DataTable();

SQLAdapter.Fill(DT);

GridView1.DataSource = DT;

GridView1.DataBind();

}

protected void GridView1_SelectedIndexChanged(object sender,

EventArgs e)

{

}

}

}
```

Register.aspx

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

using System.Data;

using System.Data.SqlClient;

namespace elearning

{

public partial class register : System.Web.UI.Page48

{

SqlConnection con = new SqlConnection(@"Data Source=DESKTOP-
```

```
5NFRV7R\SQLEXPRESS;Initial Catalog=elearning;Integrated

Security=True");

protected void Page_Load(object sender, EventArgs e)

{

GetID();

}

public void GetID()

{

string docid;

string query = "select ID from stureg1 order by ID Desc";

con.Open();

SqlCommand cmd = new SqlCommand(query, con);

SqlDataReader dr = cmd.ExecuteReader();

if (dr.Read())

{

int id = int.Parse(dr[0].ToString()) + 1;

docid = id.ToString("000000000");

}

else if (Convert.IsDBNull(dr))

{

docid = ("115011081");

}

else

{

docid = ("115011081");

}
```

```
con.Close();

t1.Text = docid.ToString();

}

protected void b1_Click(object sender, EventArgs e)

{

con.Open();

SqlCommand cmd = con.CreateCommand();

cmd.CommandType = CommandType.Text;

cmd.CommandText = "insert into stureg1 values('" + t1.Text + "','" +

TextBox1.Text + "','" + TextBox2.Text + "','" + TextBox3.Text + "','" +

TextBox4.Text + "','" + TextBox5.Text + "')";

cmd.ExecuteNonQuery();

con.Close();

Response.Write("<script>alert('Registered Successfully')</script>");

t1.Text = "";

TextBox1.Text = "";

TextBox2.Text = "";

TextBox3.Text = "";

TextBox4.Text = "";

TextBox5.Text = "";

}

protected void t1_TextChanged(object sender, EventArgs e)

{

}

protected void Button1_Click(object sender, EventArgs e)

{
```

Response.Redirect("index.aspx");

}

}

}

B. SCREENSHOTS
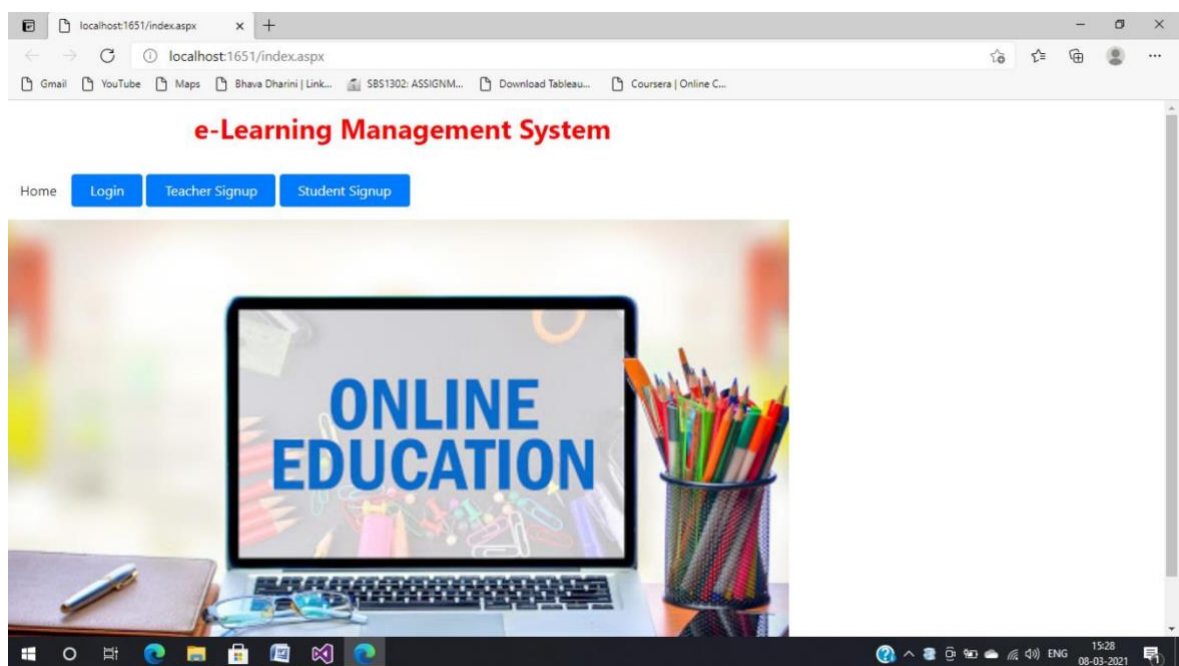
Figure B.1 Index Page

Figure B.2 Registration Form Page

Figure B.3 Register Page
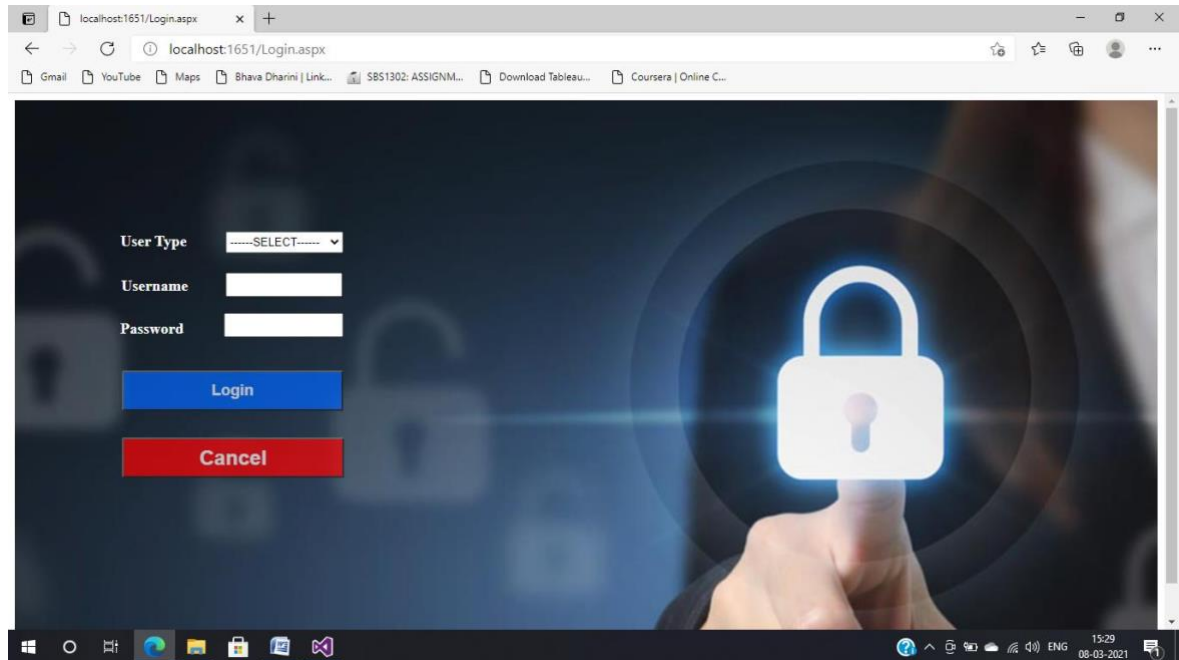
Figure B.4 Login Page

Figure B.5 Staff Home Page

Figure B.6 Video Upload Page

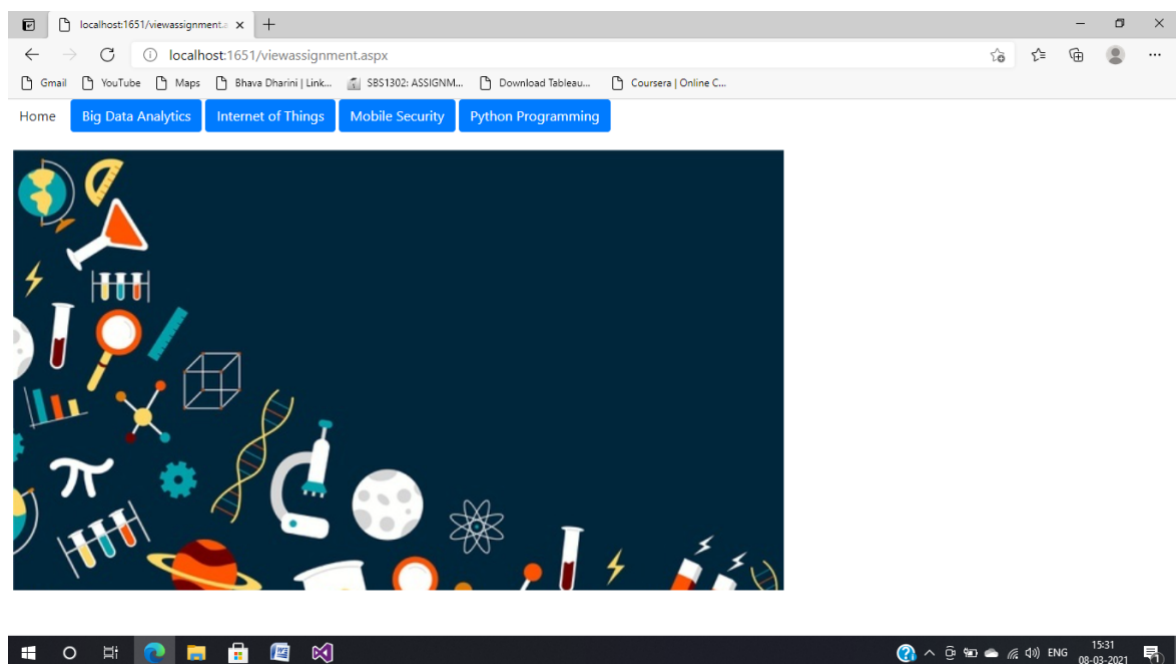Figure B.7 Assignment Upload Page

Figure B.8 Notes Upload Page
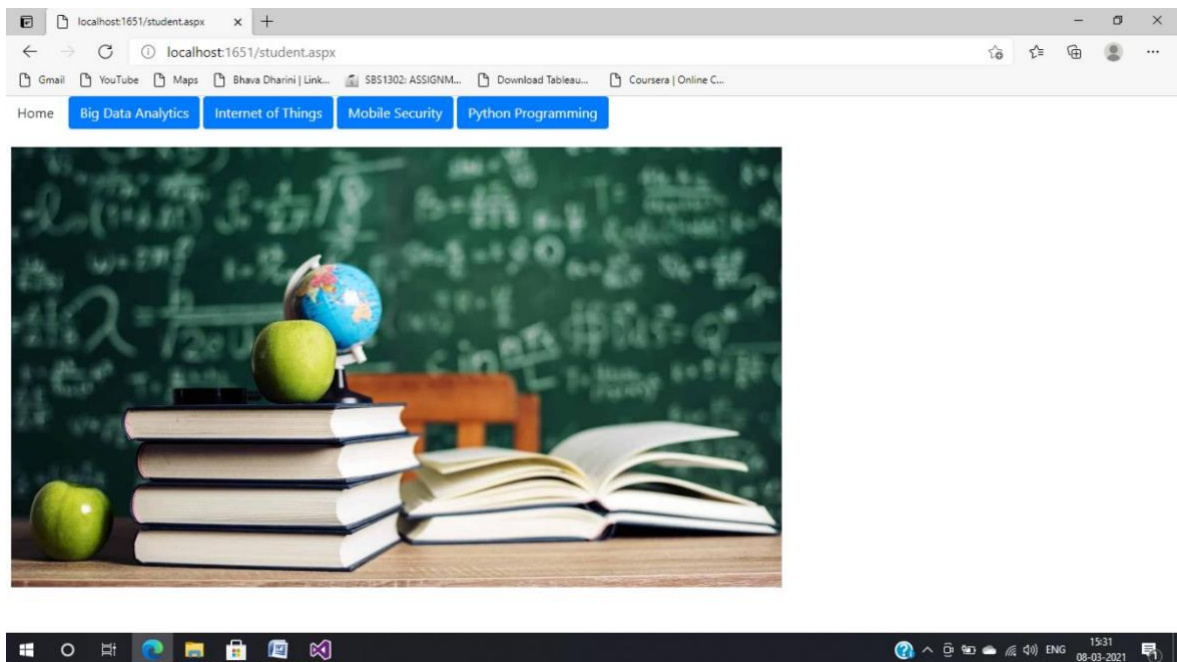

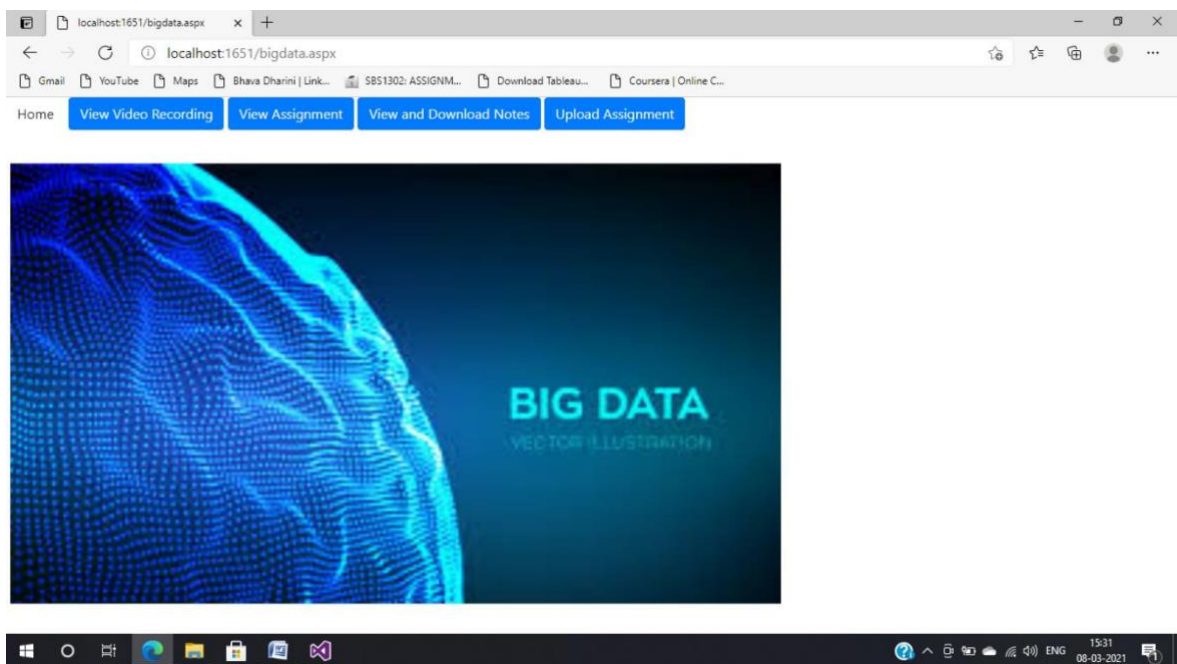Figure B.9 Assignment View Page
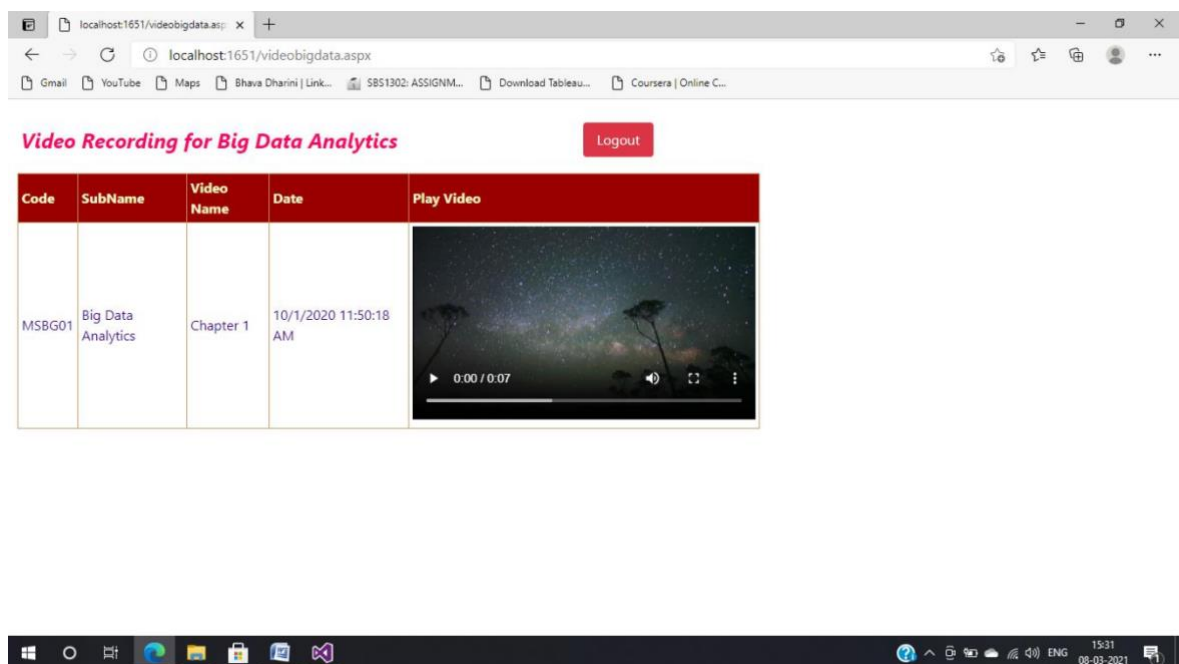
Figure B.10 Student Home Page

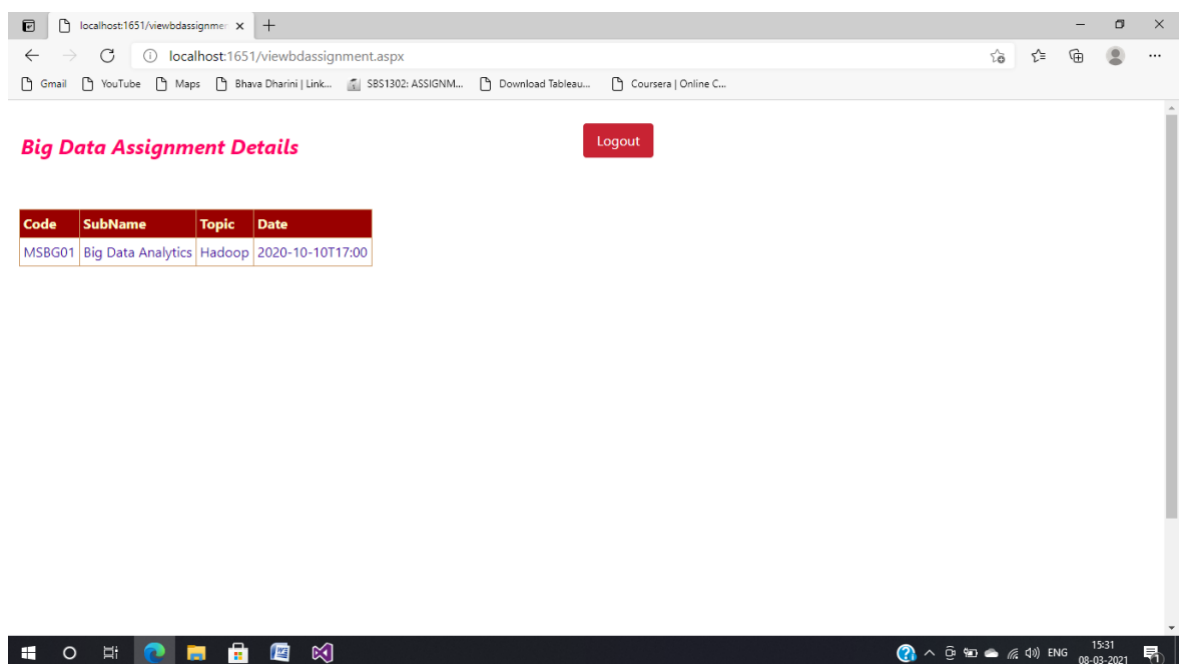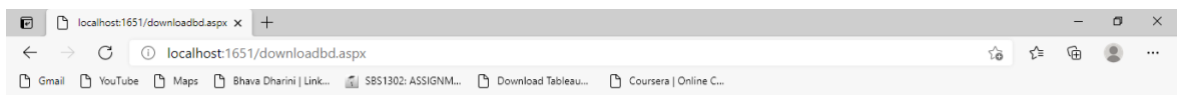Figure B.11 Big Data Page

Figure B.12 Video Of Big Data Page

Figure B.13 Assignment Details Of Big Data Page

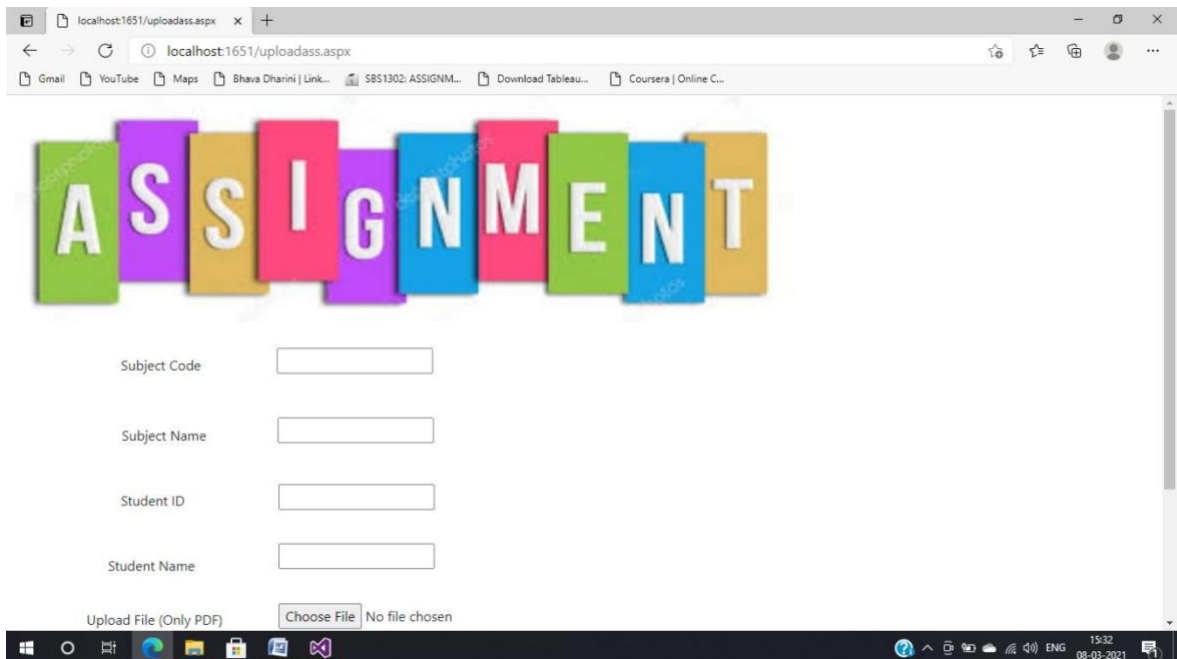Figure B.14 Notes Of Big Data Page

Figure B.15 Assignment Upload Page

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