

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“JnanaSangama”, Belgaum, Karnataka, India-590 014



## A Mini Project Report On

### “EDUCATION WEBSITE”

Submitted in the fulfillment of the requirements for Web laboratory with mini project for

**Bachelor of Engineering**

in

**Information Science & Engineering**

*Submitted by*

**Benaka H N**

**4MH17IS010**

**Manjushree M P**

**4MH17IS034**

**Under the Guidance**

Of

**Mr.Sharath H A**

Assistant Professor,

Dept. of IS & E,

MIT, Mysore.



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**DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING**

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**

**BELAVADI, S.R. PATNA TALUK, MANDYA DIST-571477.**

**DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING  
MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**

**MANDYA-571477**



**CERTIFICATE**

Certified that the project work entitled “**EDUCATION WEBSITE**” has been successfully carried out by **BENAKA H N [4MH17IS010]** , **MANJUSHREE M P [4MH17IS034]** student of **Maharaja Institute of Technology** in the fulfillment of the requirements of a mini project of **Web laboratory** in **Information Science and Engineering of Visvesvaraya Technological University, Belgaum** during the academic year of 2019-2020. It is certified that all corrections/suggestions indicated for the Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements with respect to the project work prescribed for File Structures laboratory.

---

Signature of the guide

**Prof. Sharath H A**  
Assistant Professor,  
Dept. of IS & E,  
MIT, Mysore

---

Signature of the HOD

**Dr. Sharath Kumar Y H**  
Professor & HOD Dept.  
of IS & E,  
MIT, Mysore.

**Name of the Examiners**

**External Viva**

**Signature with date**

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- 2.

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## **ABSTRACT**

Education Website is a web based application that gives users the opportunity to go online and learn different courses and take quiz on that course and even he can do exercise on that course. The Education Website , has a centralized database to keep record off all the users as well as subscribers. There is a module for user can sign-up. There is also admin module where the system admin view prospective user details. This web-based system will be cost-effective and it will help the user to higher up their IQ level.

This project is implemented using : MySql for its database and php , HTML , CSS for the frontend.

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## **CHAPTER 1**

# **INTRODUCTION**

### **1.1 OVERVIEW**

The main objective of the project on Education Website is to gain knowledge by taking courses, quiz and working on exercise. The project is built at administrative end, thus only the administrator is guaranteed the access. The purpose of the project is to improve skill in different fields.

### **1.2 SCOPE OF THE PROJECT**

- This website includes the IT fields.
- Secure administrative.
- Normal users are the participants.
- User have to register for the website.

### **1.3 PROBLEM STATEMENT**

In the present scenario students refer different websites to learn different skills and develop knowledge in the particular domain and get the certification on the particular course .

### **1.4 SOLUTION**

With respect to the particular problem that is to refer different websites we are implementing courses, quiz and exercise in one website, which will be user friendly to learn.

## CHAPTER 2

# REQUIREMENT ANALYSIS

### 2.1 Functional requirements

A functional requirement document defines the functionality of a system or one of its subsystems. It also depends upon the type of software, expected users and the type of system where the software is used. Functional user requirements may be high level statements of what the system should do but functional system requirements should also describe clearly about the system services in detail. There are five modules:

#### 1. Admin

- Authentication to be done while admin enter into the portal and website asks for the admin name and password for authentication purpose.
- Administrator is responsible for every information about Users.

#### 2. Users

- The users can be managed with the help of this module.
- Entry of the new users with their detail profile and contact information can be done through this module, and information will be stored in database for further use and avoid duplication.

#### 3. Admin sign-in

- The admin is provided a admin name and one time password and admin does not need registration.

#### 4. User sign-up

- The user when they first need to register with their basic credentials like their name, unique email id and password.

#### 5. User sign-in

- After having completed with the registration process the user whenever he wishes to add any information or edit any information will have to login using the same user Email-Id and password created.

## 2.2 Non-functional requirements

Non-functional requirements are constraints that must be adhered to during development. They limit what resources can be used and set bounds on aspects of the software's quality. One of the most important things about non-functional requirements is to make them verifiable. The verification is normally done by measuring various aspects of the system and seeing if the measurements confirm to the requirements.

Non-functional requirements are divided into several groups. The first group of categories reflects the five qualities attributes:

- **Usability:** The application which we are developing is going to be used by the customer or the stake holders. This is going to help them in predicting order of processing books.
- **Efficiency:** Our application takes less time to accomplish a particular task such as placing orders which also reduces time complexity. It reduces the complications when an information has several functionalities thus increases the efficiency.
- **Reliability:** The application that we are designing is designed to deliver set of services as expected by the users. The application provides many modules and each module is developed to satisfy the non-functional requirements by the customer.
- **Maintainability:** The application that we are developing is going to provide a high performance measures for example the data updates are done automatically without loss of data that already exists.

These requirements constrain the design to meet specified levels of quality. The second group of non-functional requirement categories constraints the environment and technology of the system.



## **CHAPTER 3**

# **SYSTEM REQUIREMENT SPECIFICATIONS**

### **3.1 System Requirements**

#### **3.1.1 Hardware Requirements:**

- PROCESSOR: Pentium 4 and higher (1.2GHZ and higher)
- RAM:4GB and higher
- HARD DISK: 20GB or higher.
- Monitor: 15”CRT or LCD monitor
- Keyboard: normal
- Mouse: compatible mouse

#### **3.1.2 Software Requirements:**

- Operating system: WindowsXP/7/8/10.
- Coding Language: HTML, CSS, JAVASCRIPT
- Database: XAAMI

#### **3.1.3 Software Interface:**

- Front End Client - The online interface is built using CSS, JAVASCRIPT and HTML.
- Back End – MySQL database(xampp)

### 3.2.1 Software description

**XAMPP** is a free and open source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, Maria DB database, and interpreters for scripts written in the PHP and Perl programming languages. XAMPP stands for Cross-Platform (X), Apache (A), Maria DB (M), PHP (P) and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes. Everything needed to set up a web server – server application (Apache), database (Maria DB), and scripting language (PHP) – is included in an extractable file.

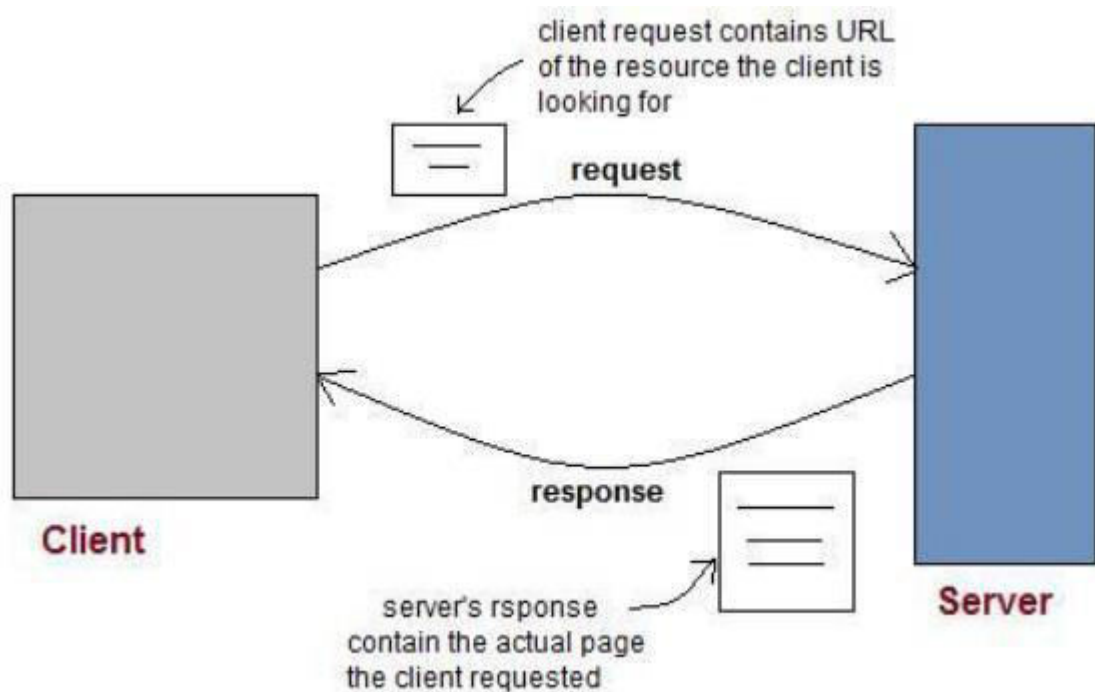
Developers	Apache Friends
Repository	<a href="http://www.apachefriends.org">www.apachefriends.org</a>
Written in	Various languages
Operating System	Cross-platform; Linux; Windows; Solaris; macOS

#### MySQL (XAMPP):

Is an open source relational database management system (RDBMS) which is integrated in the Xampp webserver. SQL (Structured Query Language) is a standardized programming language used for managing relational databases and performing various operations on the data in them. Initially created in the 1970s, SQL is regularly used by database administrators, as well as by developers writing data integration scripts and data analysts looking to set up and run analytical queries.

## Introduction to web

Web consists of billions of clients and server connected through wires and wireless networks. The web clients make requests to web server. The web server receives the request, finds the resources and returns the response to the client. When a server answers a request, it usually sends some type of content to the client. The client uses web browser to send request to the server. The server often sends response to the browser with a set of instructions written in Hypertext Markup Language (HTML). All browsers know how to display HTML page to the client.



**Figure 1.1** HTML—Client-Server communication

## HTML

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. HTML describes the structure of Web pages using markup. HTML elements are the building blocks of HTML pages. HTML elements are represented by tags. HTML tags label pieces of content such as "heading", "paragraph", "table", and so on. Browsers do not display the HTML tags, but use them to render the content of the page.

## JavaScript

**JavaScript** (sometimes abbreviated **JS**) is a prototype-based scripting language that is dynamic, weakly typed, general purpose programming language and has first-class functions. It is a multi-paradigm language, supporting object-oriented, imperative, and functional programming styles.

JavaScript was formalized in the ECMA Script language standard and is primarily used in the form of client-side JavaScript, implemented as part of a Web browser in order to provide enhanced user interfaces and dynamic websites. This enables programmatic access to computational objects within a host environment. JavaScript's use in applications outside Web pages for example in PDF documents, site-specific browsers, and desktop widgets is also significant.

In this application, JavaScript is used for validation purpose like text box validation, email validation, phone number validation. JavaScript is the good tool for validating the web-applications.

### Server Side JavaScript

Meanwhile, Netscape also introduced the language for server-side scripting in Netscape Enterprise Server, first released in December, 1994.

## XML

**Extensible Markup Language (XML)** is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. It is defined in the XML 1.0 Specification produced by the W3C, and several other related specifications, all gratis open standards.

The design goals of XML emphasize simplicity, generality, and usability over the Internet. It is a textual data format with strong support via Unicode for the languages of the world. Although the design of XML focuses on documents, it is widely used for the representation of arbitrary data structures, for example in web services.

Many application programming interfaces (APIs) have been developed for software developers to use to process XML data, and several schema systems exist to aid in the definition of XML-based languages. As of 2009, hundreds of XML-based languages have been developed, including RSS, Atom, SOAP, and XHTML.

XML-based formats have become the default for many office-productivity tools, including Microsoft Office (Open Office) OpenOffice.org and Libre Office (Open Document), and Apple's iWork. XML has also been employed as the base language for communication protocols, such as XMPP.

## **MySQL**

**MySQL** ("My S-Q-L", officially "My Sequel") is the world's most used relational database management system (RDBMS) that runs as a server providing multi-user access to a number of databases. It is named after developer Michael Widenius daughter, my. The SQL phrase stands for Structured Query Language.

The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation. Free-software-open source projects that require a full featured database management system often use MySQL. For commercial use, several paid editions are available, and offer additional functionality. Applications which use MySQL databases include: TYPO3, Joomla, Word Press, phpBB, Drupal and other software built on the LAMP software stack.

MySQL is also used in many high-profile, large-scale World Wide Web products, including Wikipedia, Google (though not for searches), Facebook, and Twitter.

### **Uses of MySQL**

MySQL is a popular choice of database for use in web applications, and is a central component of the widely used LAMP open source web application software stack— LAMP is an acronym for "Linux, Apache, MySQL, Perl/PHP/Python".

## CHAPTER 4

# SYSTEM ANALYSIS AND DESIGN

### 4.1 System analysis

System analysis is a detailed study of the various operations performed by a system and their relationships within and outside the system. It is a systematic technique that defines goals and objectives. The goal of system development is to deliver the system in line with the user's requirement, and analysis of the system plays an important role. One of the main aspects of analysis is defining the boundaries of the system. System study has been conducted with the following objectives:

- Identify user's need.
- Evaluate the system concept for feasibility.
- Perform economical and technical analysis.
- Allocate functions to hardware, software, people, database, etc.

The various tools of structured analysis are:

- Entity-Relationship Diagram
- Data Flow Diagram
- Sequence Diagram
- Use-case Diagram

### 4.2 High Level Design

#### 4.2.1 System Architecture

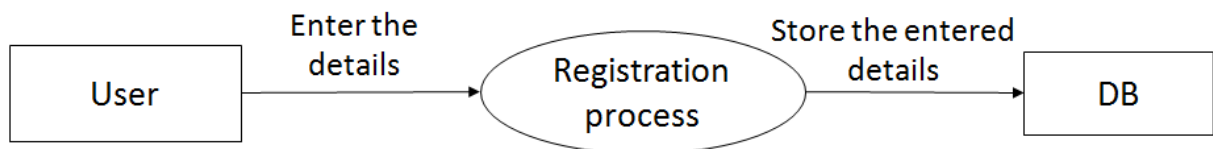
System architecture is the conceptual model that defines the structure, behavior, and views of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and behaviors of the system. System architecture can comprise system components, the externally visible properties of those components, the relationship (e.g. the behavior) between them. It can provide a plan from which products can be procured, and systems developed, that will work to get implement the overall system.

The figure depicts the system architecture of our project. The farmer requests for the service from the server through the android phone. The admin at the server end receives the request. The request is stored in the database .the processed request sent to farmer's phone in the form of text. Notifications are also sent via mail. After the completion of harvesting of crops farmer uploads the picture of the product which can be viewed by the client. Client if satisfied with the product and its price, he can go the purchase of the stock.

#### 4.2.2 Data flow diagram(DFD)

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. Often they are a preliminary step used to create an overview of the system which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).

It is common practice to draw the context-level data flow diagram first, which shows the interaction between the system and external agents which act as data sources and data sinks. On the context diagram the system's interactions with the outside world are modeled purely in terms of data flows across the system boundary.



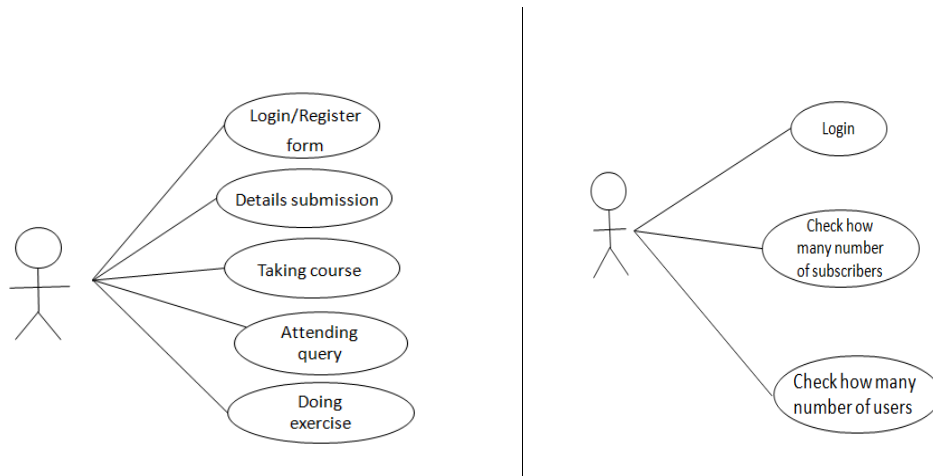
**Figure 4.2.1(a): Level1DFD**

## 4.3 Low Level Design

### 4.3.1 Use case Diagram

Use-case diagram is a coherent piece of functionality that a system can provide by interacting with actors. In our system, all the modules are going to interact with one or the other actors (different actors could be, registered users, new users, database admin). The use case technique is used to capture a system behavioral by dealing scenario drives threads through the functional requirements. The components in a use case diagram include:

- **Use cases:** A use case describes a sequence of actions that provides something of measurable value to an actor and is drawn as a horizontal ellipse.
- **Actors:** An actor is a person, organization, or an external system that plays a role in one or more interactions with the system.
- **Associations:** Associations are shown between actors and use cases by drawing a solid line between them.



**Figure 4.3.1(a):** Use case diagram of Admin Module and User Module



### 4.3.2 Database Table Structure

Diagram illustrating the structure of the **education\_subscribe** table. The table has one column: **email** (varchar(50)).

education_subscribe
email : varchar(50)

Diagram illustrating the structure of the **education\_logreg** table. The table has three columns: **email** (varchar(50)), **psw** (varchar(260)), and **name** (varchar(100)).

education_logreg
email : varchar(50)
psw : varchar(260)
name : varchar(100)

Diagram illustrating the structure of the **education\_adminlog** table. The table has two columns: **email** (varchar(50)) and **psw** (varchar(50)).

education_adminlog
email : varchar(50)
psw : varchar(50)

## CHAPTER 5

# IMPLEMENTATION

### 5.1 HTML code for Admin login

```
<!DOCTYPE html>
<html>
<head>
<title>Admin Login</title>
<link rel = "icon" href = "images/e.jpg" type = "image/x-icon">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.min.css">
<style type="text/css">
    body{
        background-image: url("images/pic3.jpg");
        background-repeat:no-repeat;
        background-size:100%;

    }
    .loginbox{
        width: 250px;
        height:300px;
        background: black;
        color: #fff;
        top: 60%;
        left: 55%;
        position: absolute;
        transform: translate(-50%,-50%);
        box-sizing: border-box;
        padding: 70px 30px;
    }
    .avatar{
        width: 100px;
        height: 100px;
        border-radius: 50%;
        position: absolute;
        top: -50px;
        left: calc(50% - 50px);
    }
    .loginbox label{
        margin: 0;
        padding: 0;
```

```
        font-weight: bold;
    }
    .loginbox input[type="email"], input[type="password"]{
        width: 100%;
    margin-bottom: 10px;
        border: none;
        border-bottom: 1px solid black;
        background: transparent;
        outline: none;
        height: 40px;
        color: #fff;
    }
    .loginbox input[type="submit"]{
        border: none;
        outline: none;
        height: 20px;
        background: #03b6fc;
        border-radius: 20px;
        font-size: 18px;
        padding: 0;
        width: 75px;
        height: 25px;
        color: white;
        margin-left: 50px;
    }

    .loginbox input[type="submit"]:hover{
        cursor: pointer;
        background: #ddd;
        color: black;
    }

    footer{
    }
    footer a:visited{
        color : red;
    }
    footer a:hover{
        color: yellow;
    }
    footer a{
        text-decoration: none;
    }

    } @media only screen and (max-width: 320px){
    body{
        background-size: auto;
    }
}
```

```
}

</style>
</head>
<body><div>
    <footer>
<a href="index.php" style="padding: 10px; font-size: 50px;">Back</a>
</footer></div>
    <div class="loginbox">
        
<form action="" method="post">
    <label>Email</label><br>
    <input type="email" name="email" placeholder="Enter Mail Address" required><br><br>
    <label>Password</label><br>
    <input type="Password" name="psw" placeholder="Enter Password" required=""><br><br>

    <input type="submit" name="submit" value="Sign in">
<?php
$conn = mysqli_connect("localhost","root","");
$db = mysqli_select_db($conn,'education');
if (isset($_POST['submit'])){

    $email = $_POST['email'];
    $psw = $_POST['psw'];

    $sql = "SELECT * FROM adminlog WHERE email = '$email' AND psw ='$psw'";

    $result = mysqli_query($conn,$sql);
    $row = mysqli_fetch_array($result)
    if($row['email'] == $email and $row['psw'] == $psw){
        echo "Login successfull";
        header("Location:adminpanel.php");
    } else {
        echo "<script>alert('Admin Failed to LOGIN!!!')</script>";
    }
    mysqli_close($conn);
}
?>
</form>
</div>
</body>
</html>
```

## CHAPTER 6

# TESTING

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components, sub-assemblies and/or a finished product. It is the process of exercising software with the intent of ensuring that a software system meets its requirements and user expectation does not fail in an unacceptable manner. There are various types of test. Each test type addresses a specific testing requirement.

### 6.1 Types of Testing

#### 6.1.1 Unit Testing

Unit testing is a software testing method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use.

The primary goal of unit testing is to take the smallest piece of testable software in the application, isolate it from the remainder of the code, and determine whether it behaves exactly as you expect. Each unit is tested separately before integrating them into modules to test the interfaces between modules. Unit testing has proven its value in that a large percentage of defects are identified during its use.

#### 6.1.2 Integrated Testing

Integration testing is a logical extension of unit testing. In its simplest form, two units that have already been tested are combined into a component and the interface between them is tested. A component, in this sense, refers to an integrated aggregate of more than one unit. In a realistic scenario, many units are combined into components, which are in turn aggregated into even larger parts of the program. The idea is to test combinations of pieces and eventually expand the process to test your modules with those of other groups. Eventually all the modules making up a process are tested together. Beyond that, if the program is composed of more than

one process, they should be tested in pairs rather than all at once.

### **6.1.3 System Testing**

The process of performing a variety of tests on a system to explore functionality or to identify problems is called System Testing. System testing is usually required before and after a system is put in place. A series of systematic procedures are referred to while testing is being performed. These procedures tell the tester how the system should perform and where common mistakes may be found. Testers usually try to "break the system" by entering data that may cause the system to malfunction or return incorrect information. For example, a tester may put in a city in a search engine designed to only accept states, to see how the system respond to the incorrect inputs.

## **6.2 Test Case**

Test case is a set of test inputs, executions and expected results developed for a particular objective.

An excellent test case satisfies the following criteria:

- Reasonable probability of catching errors
- Does interesting things
- Doesn't do unnecessary things
- Neither too simple nor too complex
- Allows isolation and identification of errors

### 6.3 Unit Testing

TEST CASE ID	TEST CASE NAME	TEST CASE DESCRIPTION	INPUT	EXPECTED RESULT	ACTUAL RESULT	RESULT
TC 01	Admin login	Validate Admin name and Password	Enter valid Admin name and Password	Admin login should be successful	Admin login successful	PASS
TC 02	Admin login	Validate Admin name and Password	Enter Invalid Admin name and Password	“Invalid username/password” Error message should be display	“Invalid username/password” Error message is displayed	PASS
TC 03	Admin login	Validate Admin name and Password	If any fields are left blank	“Fields are Empty” Error message should be display	“Fields are empty” Error message is display	PASS
TC 04	User login	Validate username and Password	Enter valid user name and Password	User login should be successful	User login successful	PASS
TC 05	User login	Validate username and Password	Enter Invalid username and Password	“Invalid username /password” Error message should be display	“Invalid user name/password” Error message is displayed	PASS
TC 06	User login	Validate user name and Password	If any fields are left blank	“Fields are empty” Error message should be display	“Fields are empty” Error message is display	PASS
TC 07	Subscribes	Valid Email	Enter Valid Email-Id	New user subscribe	New user subscribe	PASS
TC 08	Subscribes	Invalid	Enter invalid Email-ID	Enter Valid Email-Id	Enter Valid Email-Id	PASS

**Table 6.3.1:** whole module Test cases (Unit Testing)

# SNAPSHOTS



FIG1

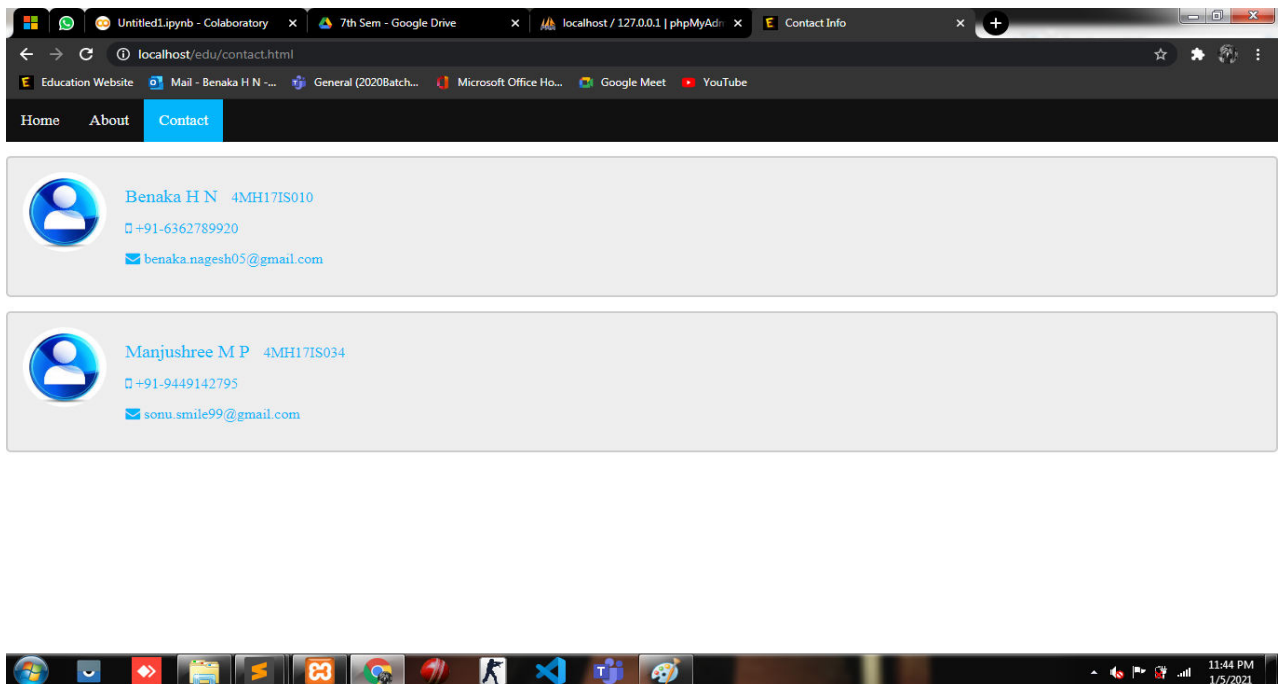


FIG2



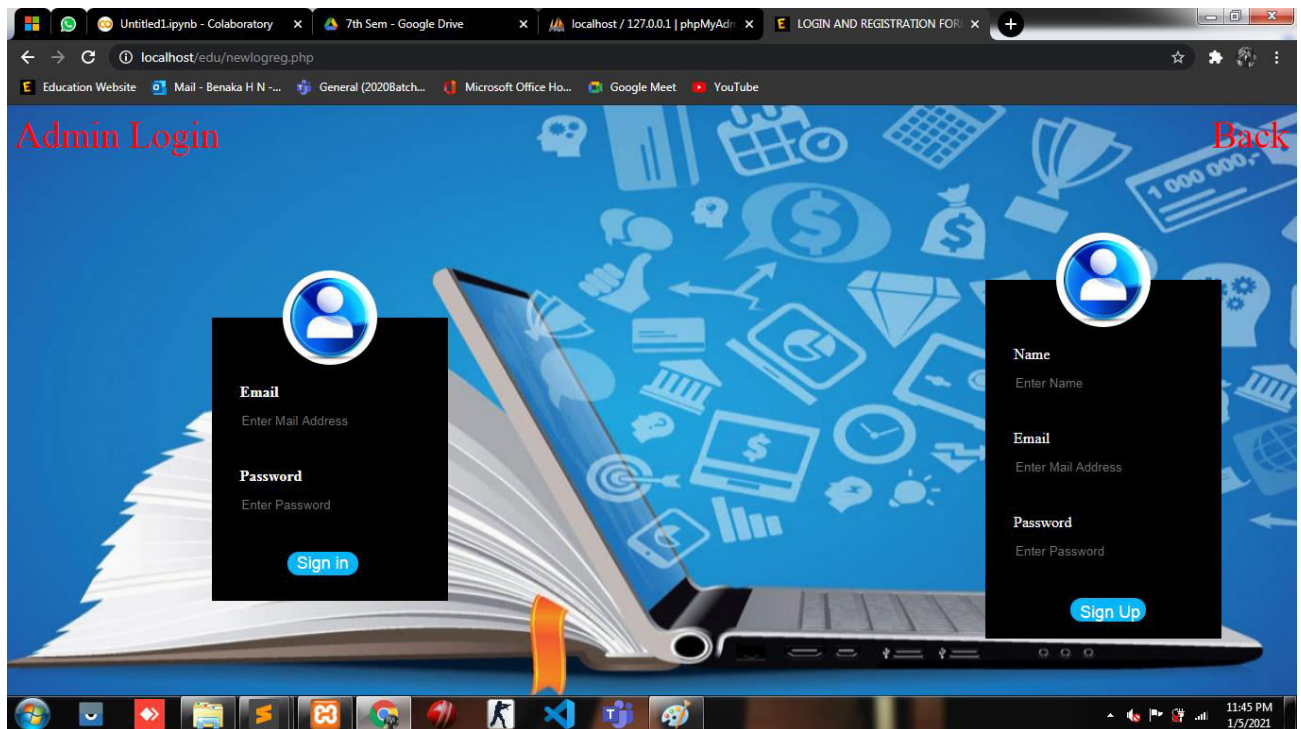


FIG3



FIG4

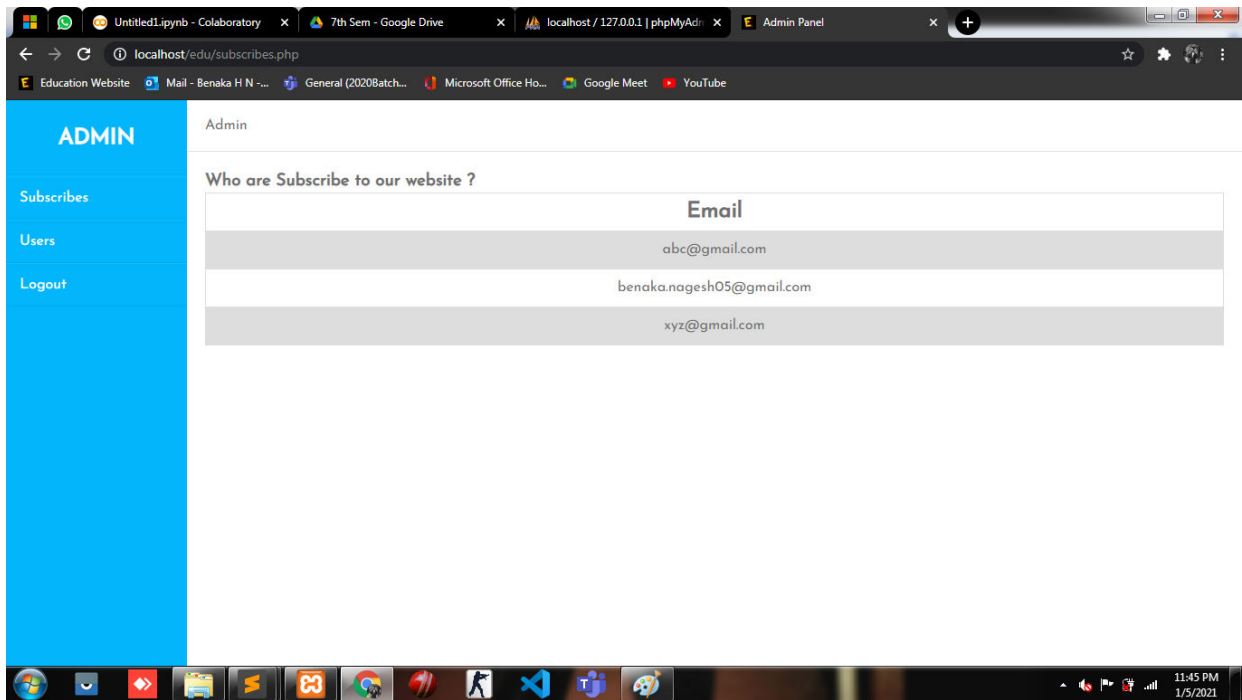


FIG5

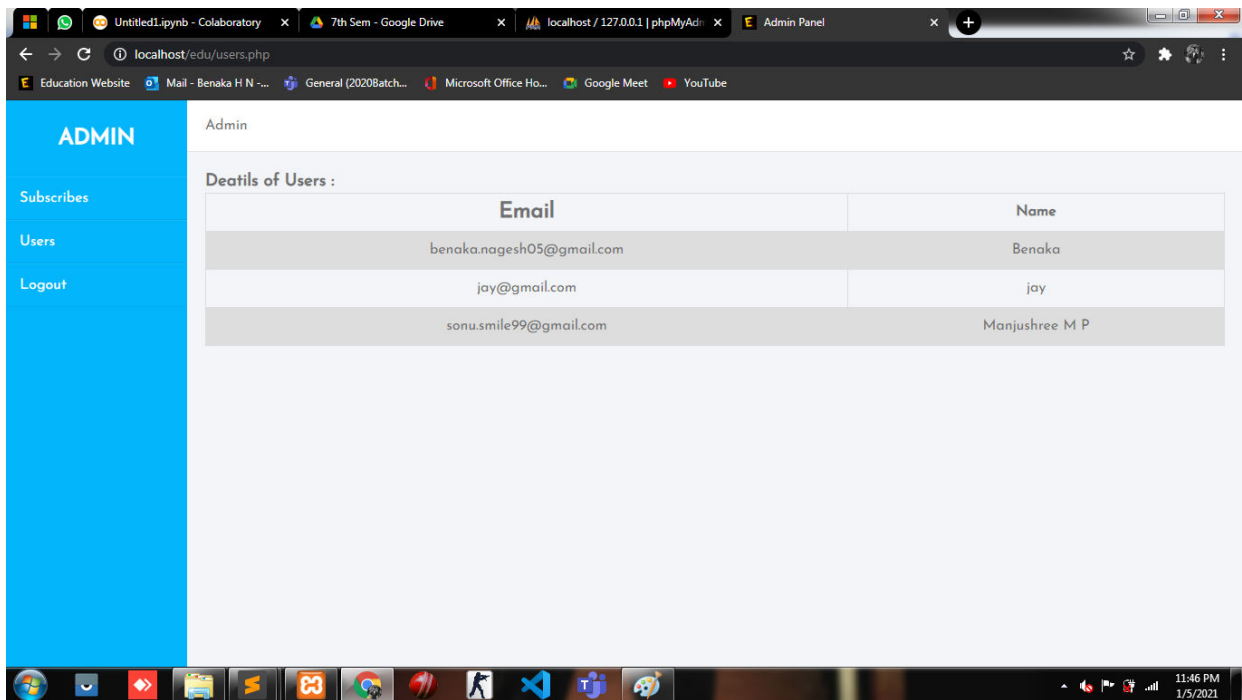


FIG6

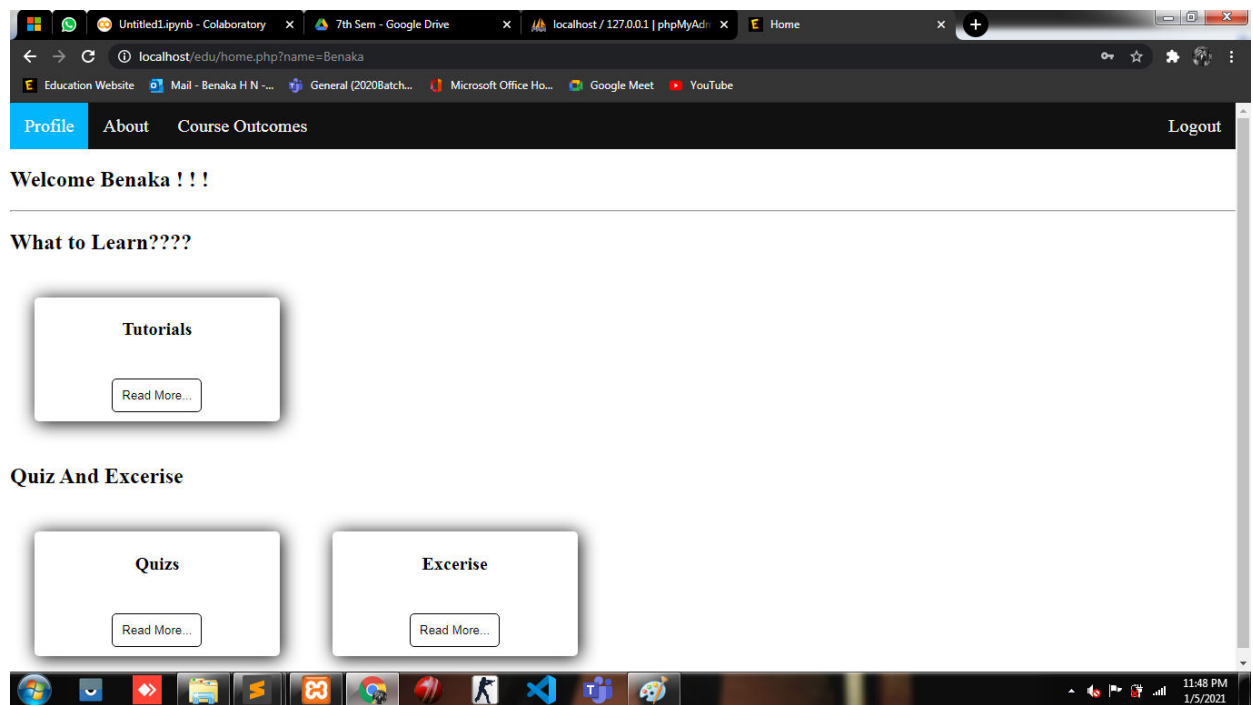


FIG7

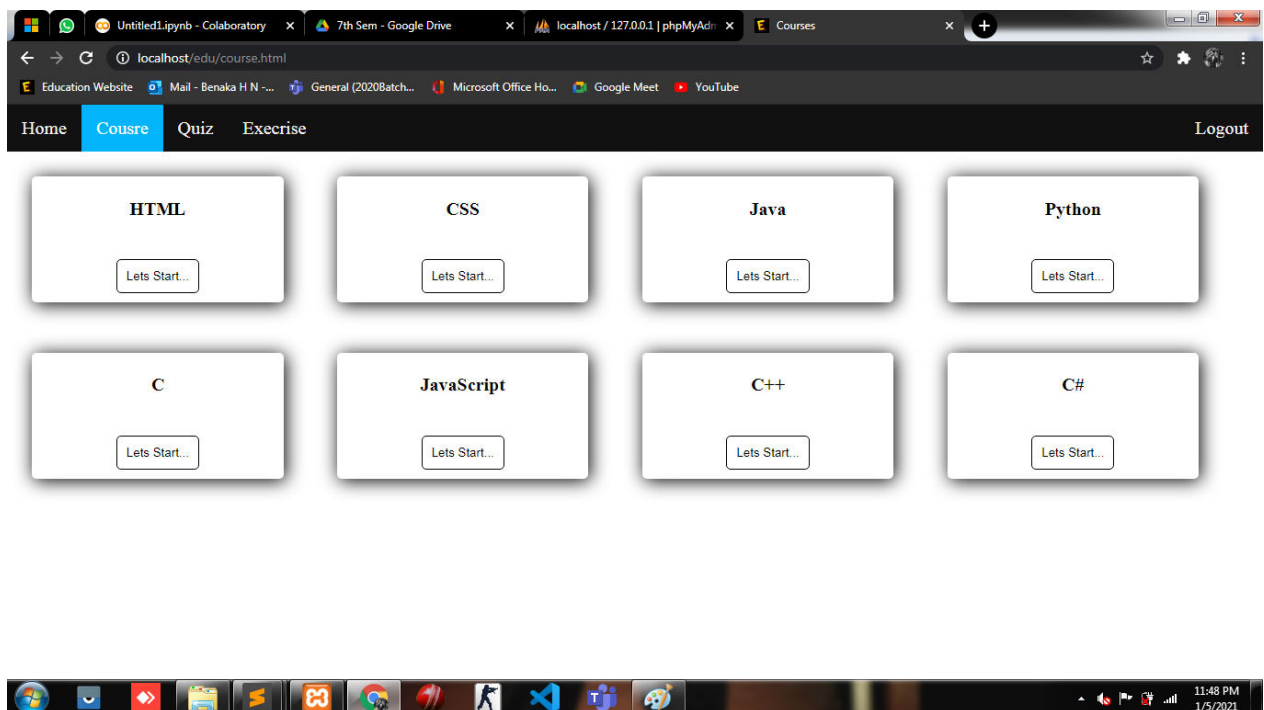


FIG8

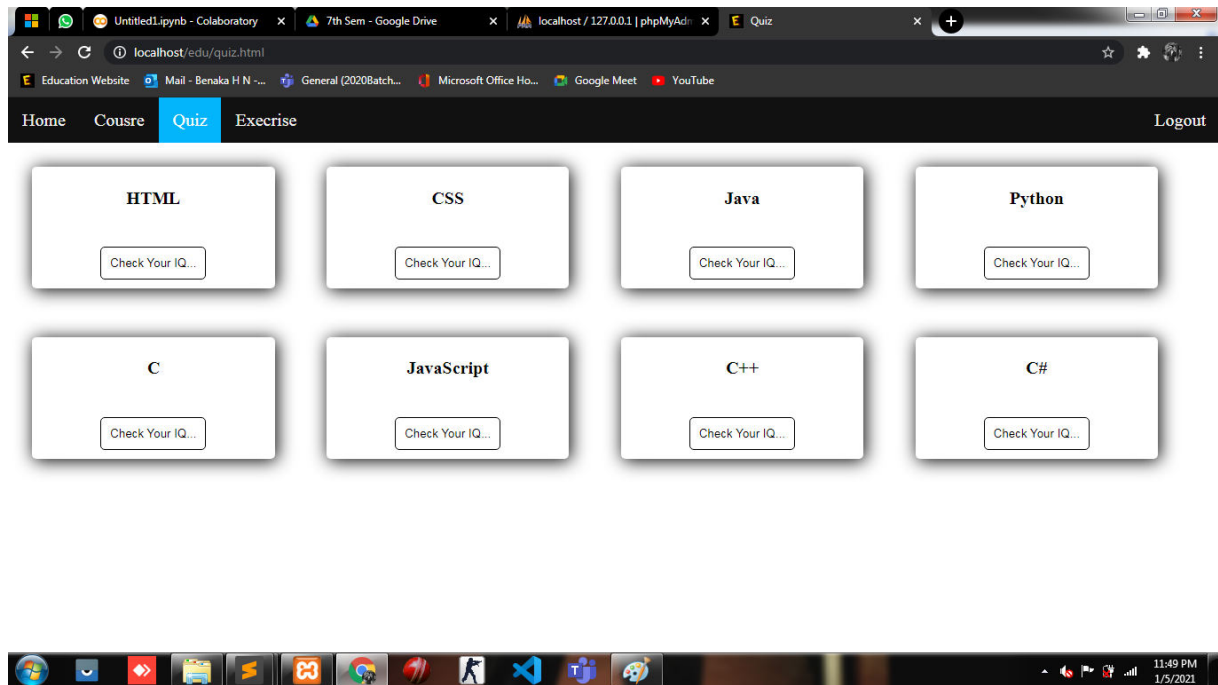


FIG9

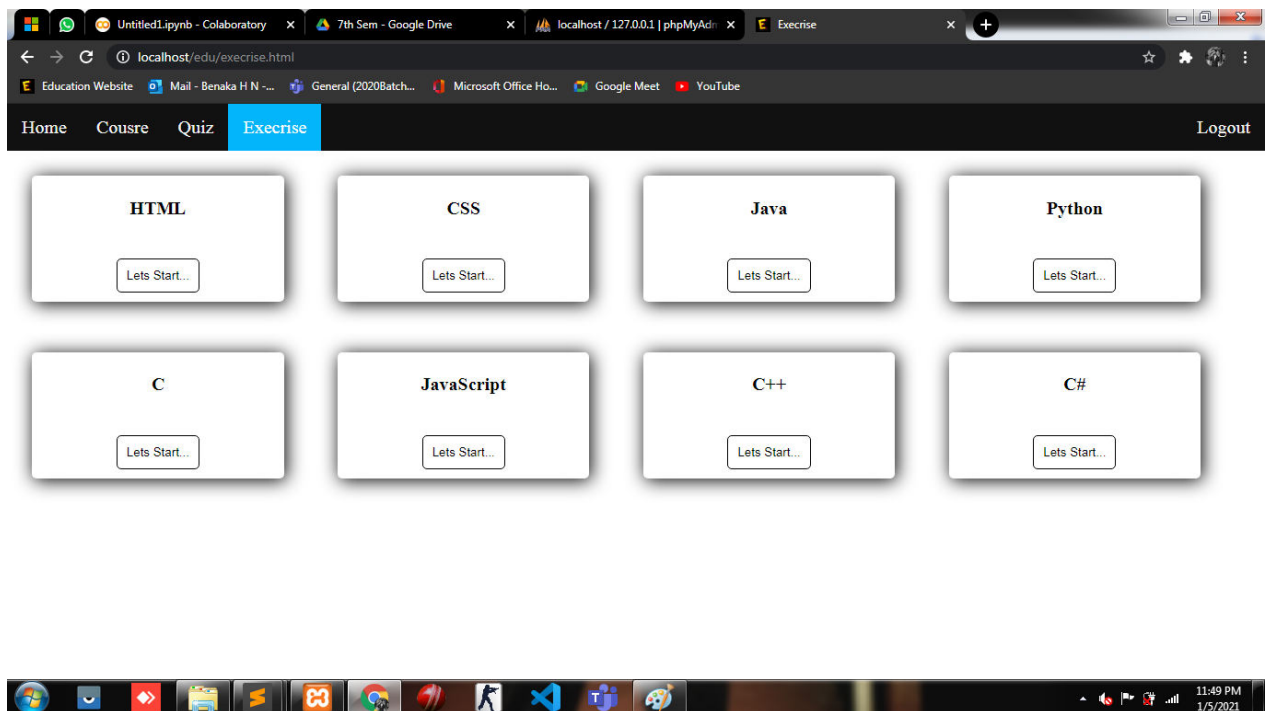


FIG10

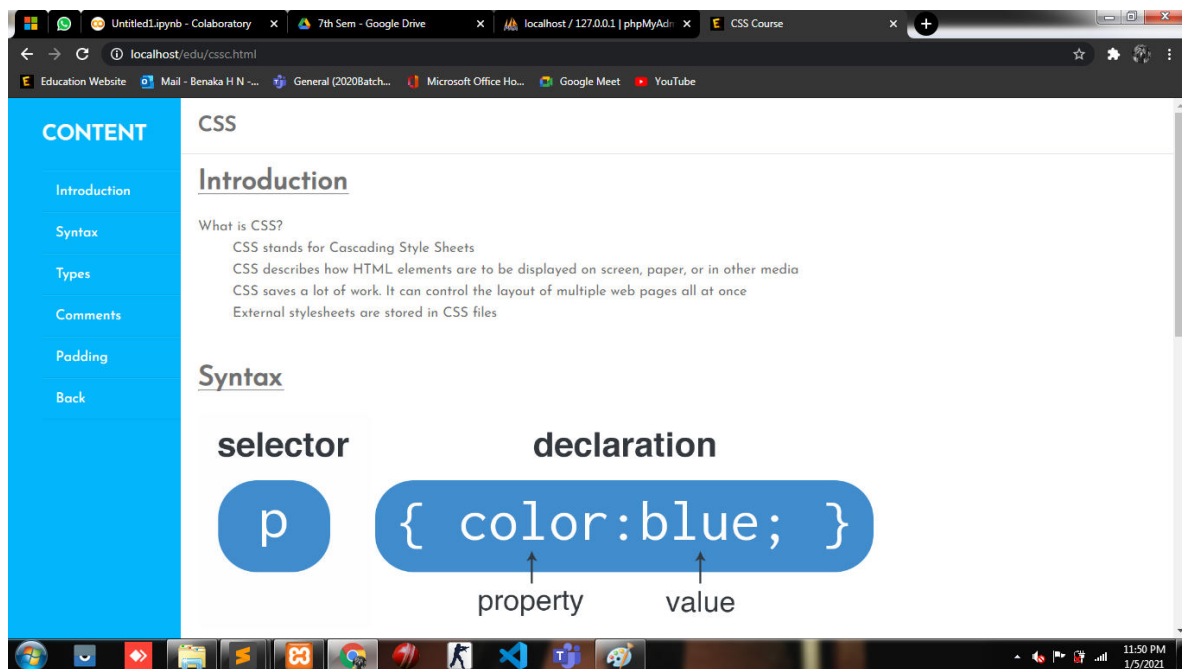


FIG11

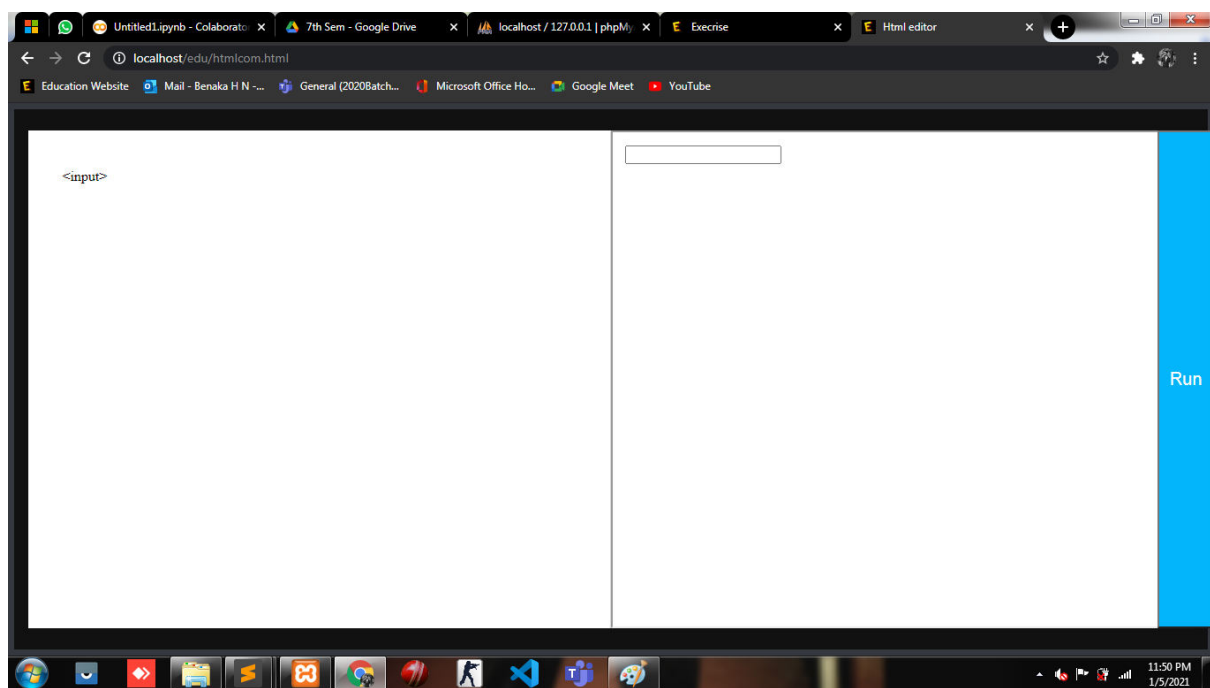


FIG12

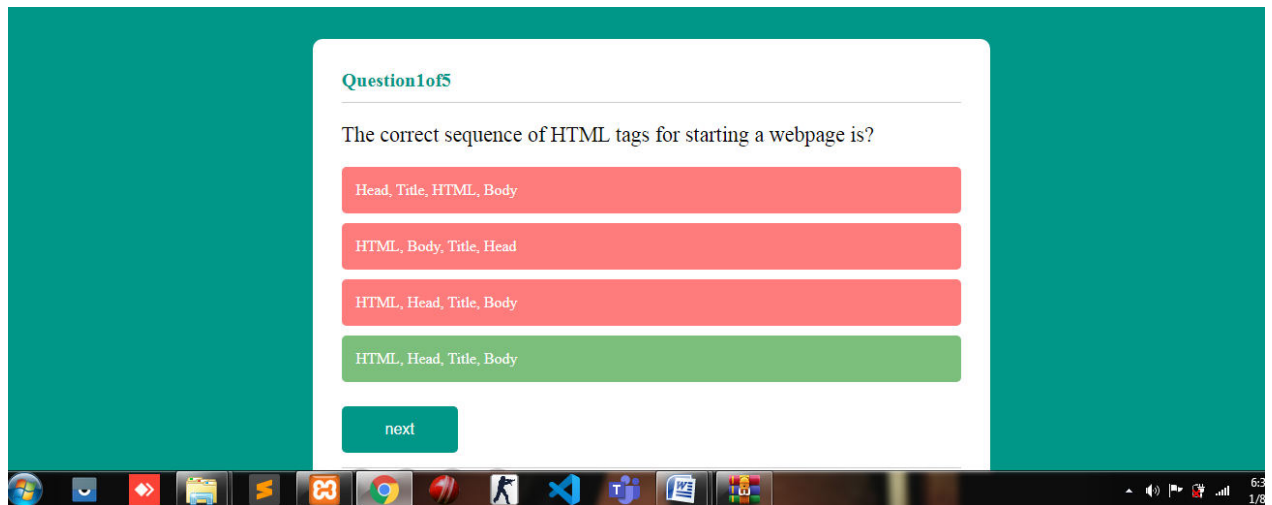


FIG11

## CONCLUSION

Our Project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove how to gain knowledge in different course.

Our system primarily focus on building an efficient and user friendly communication system for the website.

## REFERENCES

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- <https://www.w3schools.com/bootstrap/>
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