LAKSHMI NARAIN COLLEGE OF TECHNOLOGY, BHOPAL

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

PROJECT TOPIC : STUDY AND MORE
YEAR : 2022-23
SEMESTER : 1st
BRANCH : IOT AND CYBER SECURITY

SUBMITTED BY:

ROLL NO. :	STUDENT NAME :
312	Mosin Matin Shaikh
275	Ayushi Chouhan
287	Karamjeet kapoor
278	Bhavya Shrivastava
309	Sahil Agrawal

SUBMITTED TO: Prof. JYOTI PASI

Session 2022-23

LAKSHMI NARAIN COLLEGE OF TECHNOLOGY, BHOPAL

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the work embodied in this Major Project Synopsis entitled **"Study And More"** has been satisfactorily completed by our group It is a bonafide piece of work, carried out under the guidance from **Department of Computer Science & Engineering**, **Lakshmi Narain College of Technology, Bhopal** for the partial fulfillment of the **Bachelor of Technology** duringthe academic year 2022-23.

Prof. JYOTI PASI

Approved By

Dr. Sadhana K. Mishra
Prof. & Head

Department of Computer Science & Engineering

LAKSHMI NARAIN COLLEGE OF TECHNOLOGY, BHOPAL

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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We would also thank our institution and all the faculty members without whom this project work would have been a distant reality.

CONTENTS

1. ABSTRACT

The project "STUDY AND MORE" develops an internet website for the students who enrolled in LNCT institute regarding their academic study materials according to their personal requirement. This website offers the study potentiality to the students as per their academic year and semester. Currently notes, syllabus and previous year question paper of 1st semester of computer science branch are live on the website. This forum has department category which enables the access of every student in future. It gives the precise knowledge about their course and will be continuously updated according to the then syllabus and curriculum of the exam. Students will find it easy and convenient to get access of all the exam material and RGPV notes at a one search.

2.INTRODUCTION

2.1 Introduction

The Project title as “STUDY AND MORE ” is a web based Application aimed for managing the study material i.e., Notes, Paste year Question & Syllabus

2.2 Project Overview

This project **“STUDY AND MORE”** targeted for LNCT group of collage is developed for the benefit of the Student for providing the relevant material like Notes, Paste year Question & Syllabus.

The project is divided into Three modules, they are:

*** Login Page**
*** Home Page**
*** Download PDF**

Login page :

This is used to login , For student after that student can get the study material and many more facility.

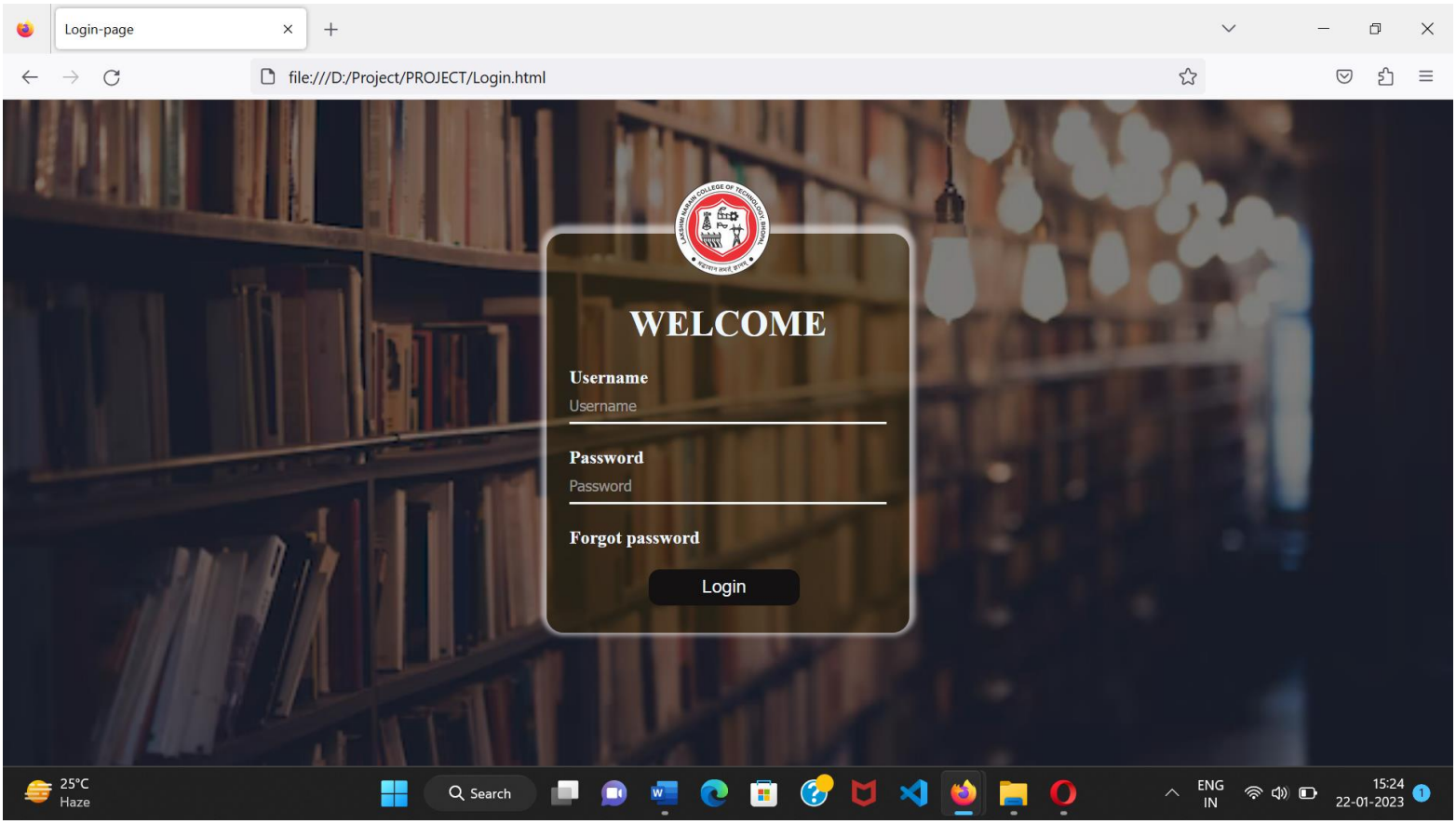
Home page :

In Home page You Find The Nevigation Bar From click And Selecting Proper Option You Will Get Your Material and other facility.

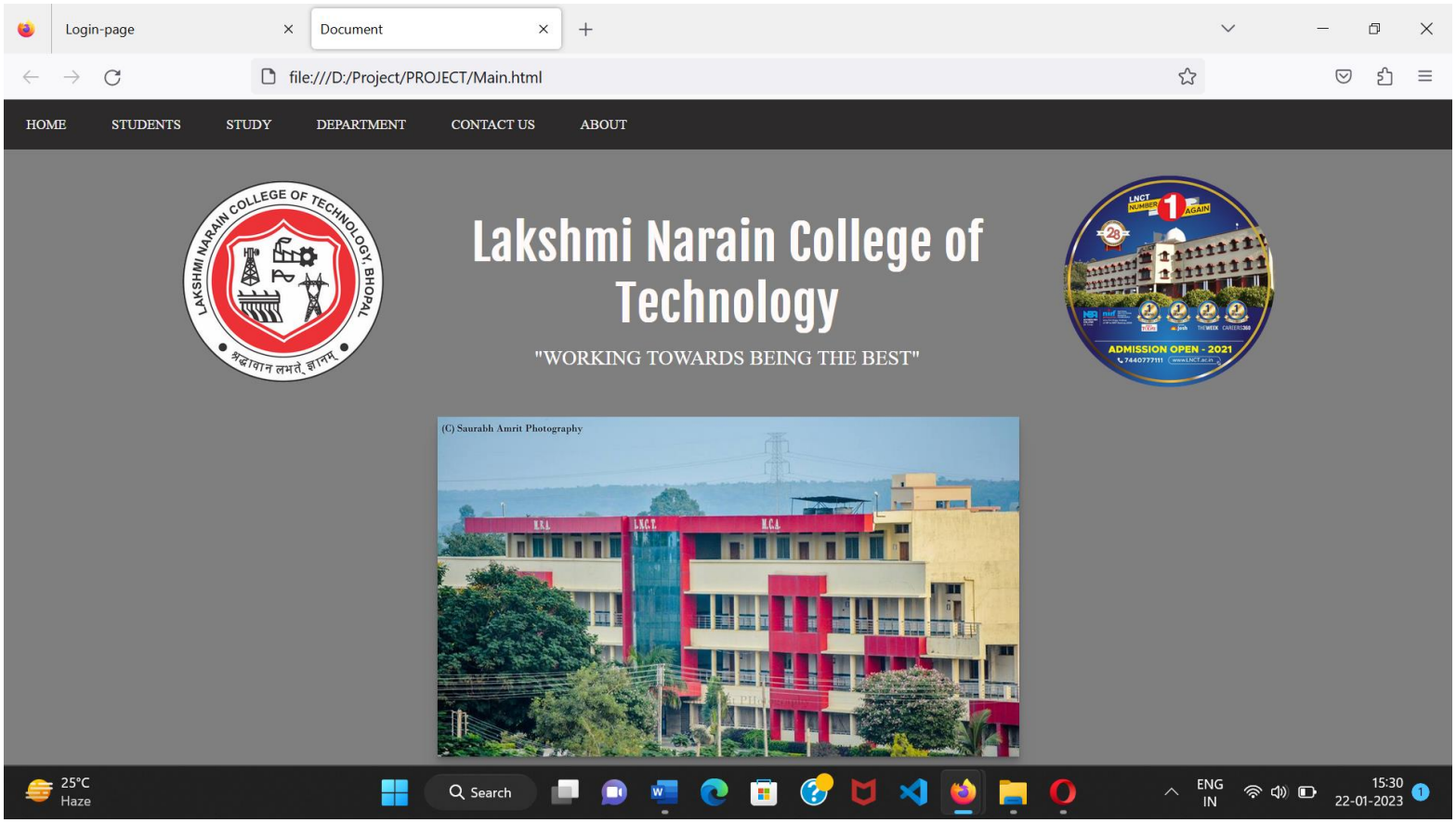
Download PDF:
From Here you can Download PDF for all things.

This is how the web page looks:

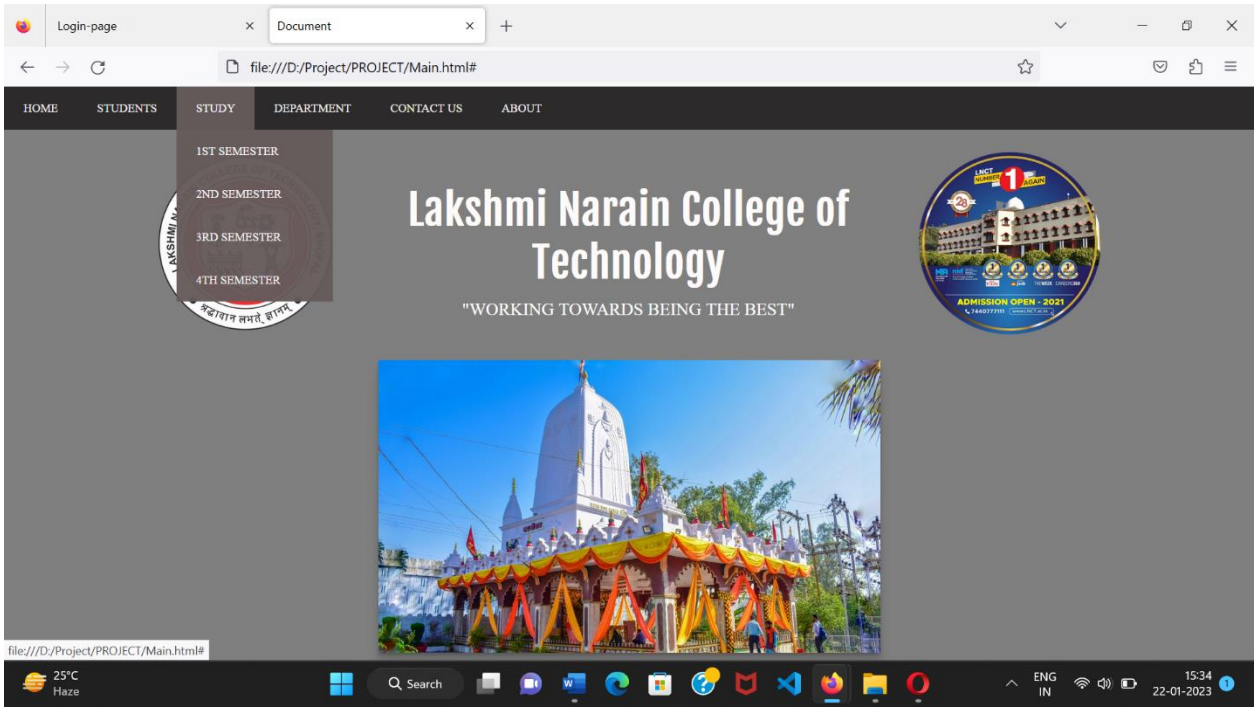
1)Login-page:

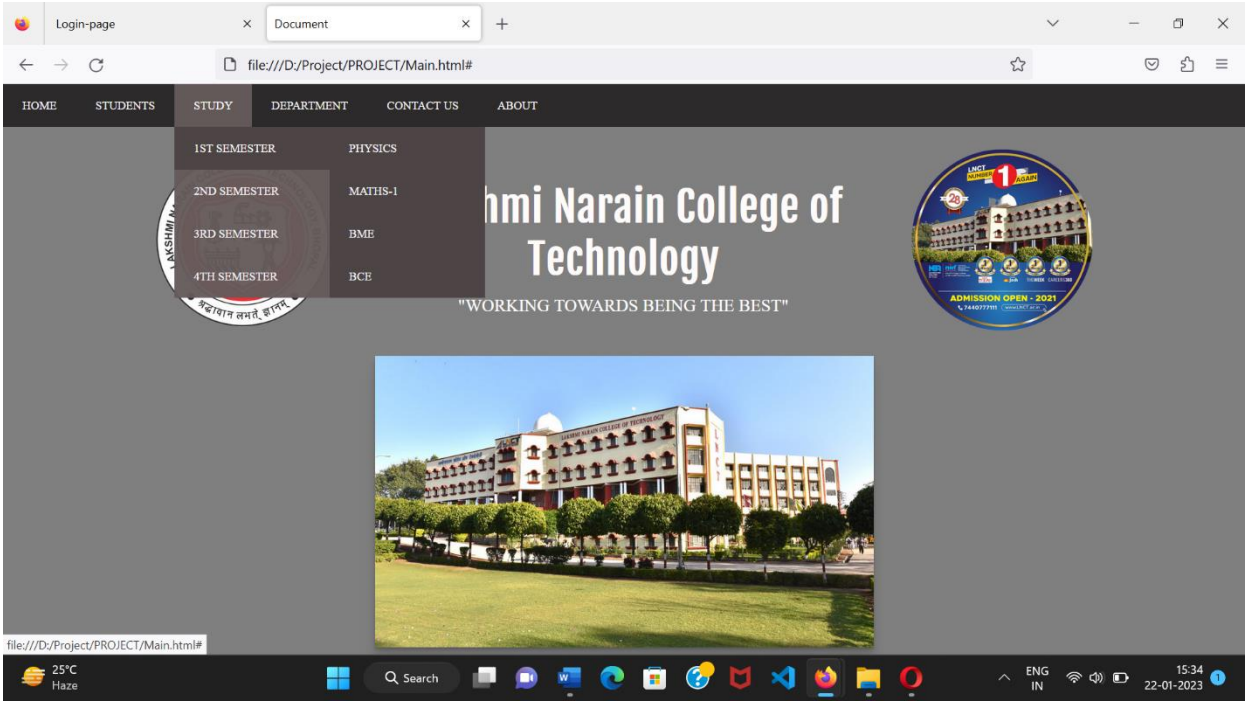


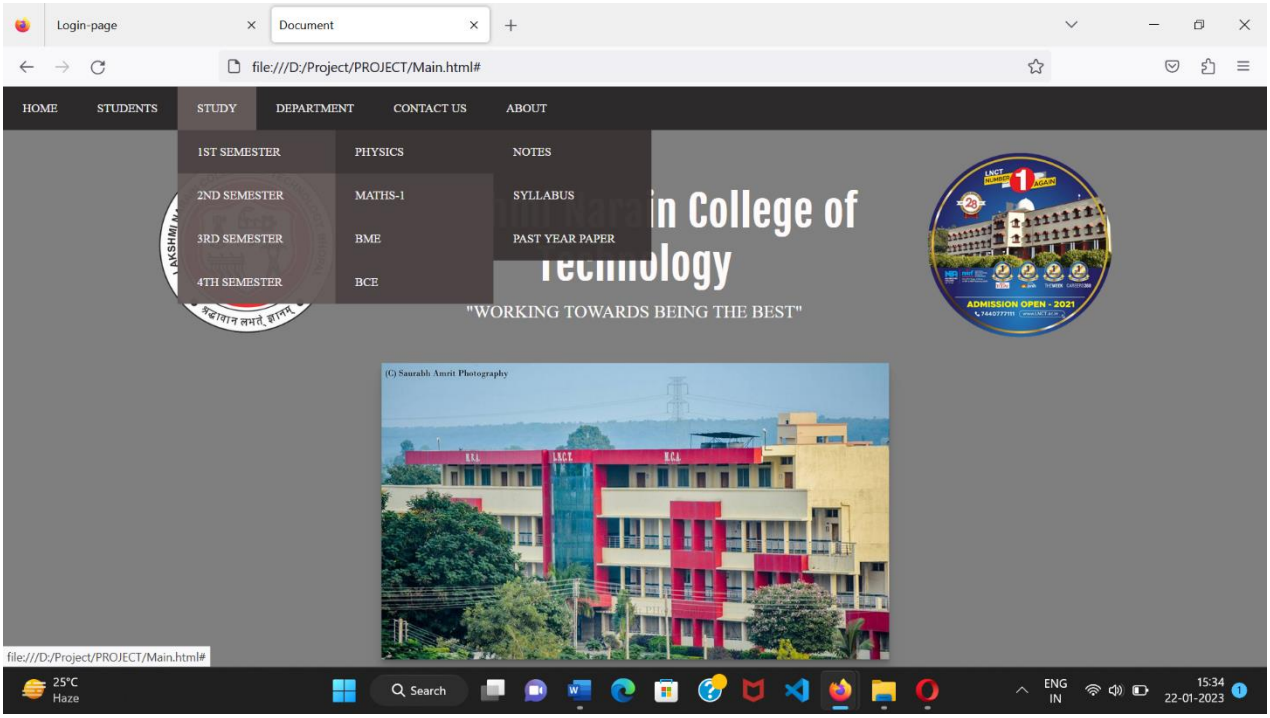
2.Home Page :

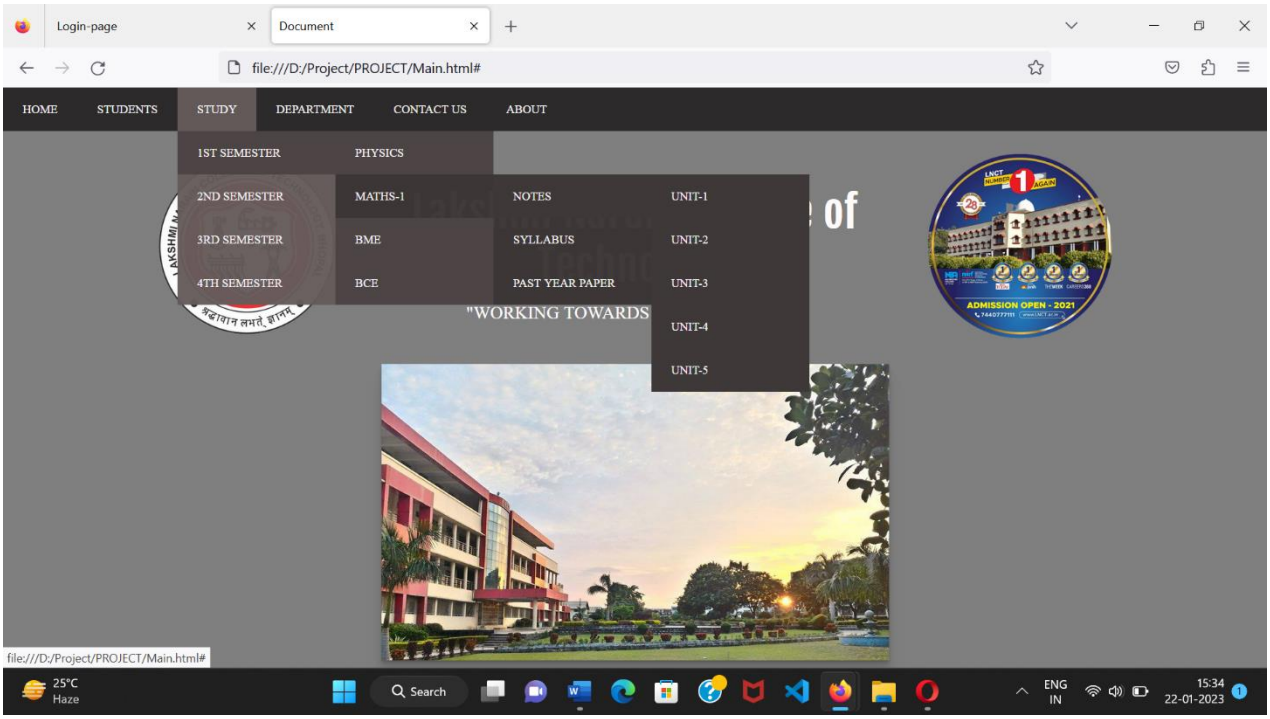

Login-page
Document
file:///D:/Project/PROJECT/Main.html
HOME
STUDENTS
STUDY
DEPARTMENT
CONTACT US
ABOUT
LAKSHMI NARAIN COLLEGE OF TECHNOLOGY, BHOPAL
श्रद्धावान लभते ज्ञानम्
Lakshmi Narain College of Technology
"WORKING TOWARDS BEING THE BEST"
LNCT NUMBER 1 AGAIN
ADMISSION OPEN - 2021
(C) Saurabh Amrit Photography
25°C
Haze
Search
ENG
IN
15:30
22-01-2023

SOME NEVIGATION BAR CLICK :-

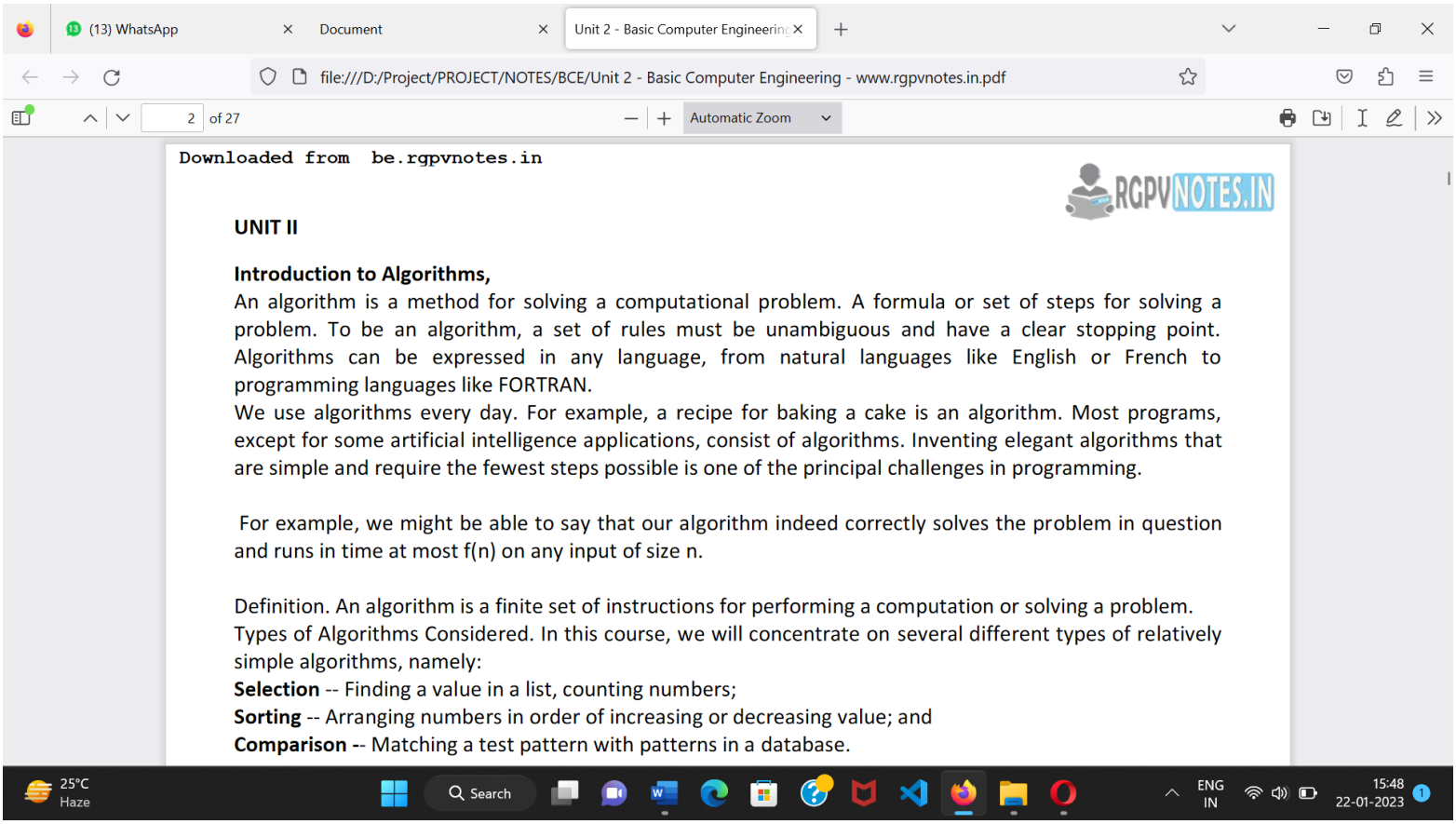





Login-page
Document
file:///D:/Project/PROJECT/Main.html#
HOME
STUDENTS
STUDY
DEPARTMENT
CONTACT US
ABOUT
1ST SEMESTER
2ND SEMESTER
3RD SEMESTER
4TH SEMESTER
PHYSICS
MATHS-1
BME
BCE
NOTES
SYLLABUS
PAST YEAR PAPER
in College of
Technology
"WORKING TOWARDS BEING THE BEST"
ADMISSION OPEN - 2021
(C) Saurabh Amrit Photography
file:///D:/Project/PROJECT/Main.html#
25°C
Haze
Search
ENG
IN
15:34
22-01-2023


Login-page
Document
file:///D:/Project/PROJECT/Main.html#
HOME
STUDENTS
STUDY
DEPARTMENT
CONTACT US
ABOUT
1ST SEMESTER
2ND SEMESTER
3RD SEMESTER
4TH SEMESTER
PHYSICS
MATHS-1
BME
BCE
NOTES
SYLLABUS
PAST YEAR PAPER
UNIT-1
UNIT-2
UNIT-3
UNIT-4
UNIT-5
of
"WORKING TOWARDS
ADMISSION OPEN - 2021
file:///D:/Project/PROJECT/Main.html#
25°C
Haze
Search
ENG
IN
15:34
22-01-2023

3.Download PDF:-



3. Literature Survey/ Related Concepts and Principles

1.1 About HTML

1.1.1 Overview

The **HyperText Markup Language** or **HTML** is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes, and other items. HTML elements are delineated by *tags*, written using angle brackets. Tags such as <**img** /> and <**input** /> directly introduce content into the page. Other tags such as <**p**> surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behaviour and content of web pages. The inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.A form of HTML, known as HTML5, is used to display video and audio, primarily using the <**canvas**> element, in collaboration with javascript.

1.1.2 History

In 1980, physicist Tim Berners-Lee, a contractor at CERN, proposed and prototyped ENQUIRE, a system for CERN researchers to use and share documents. In 1989, Berners-Lee wrote a memo proposing an Internet-based hypertext system.Berners-Lee specified HTML and wrote the browser and server software in late 1990. That year, Berners-Lee and CERN data systems engineer Robert Cailliau collaborated on a joint request for funding, but the project was not formally adopted by CERN. In his personal notes from 1990 he listed "some of the many areas in which hypertext is used" and put an encyclopedia first.

The first publicly available description of HTML was a document called "HTML Tags", first mentioned on the Internet by Tim Berners-Lee in late 1991. It describes 18 elements comprising the ini-

tial, relatively simple design of HTML. Except for the hyperlink tag, these were strongly influenced by SGMLguid, an in-house Standard Generalized Markup Language (SGML)-based documentation format at CERN. Eleven of these elements still exist in HTML 4.

HTML is a markup language that web browsers use to interpret and compose text, images, and other material into visual or audible web pages. Default characteristics for every item of HTML markup are defined in the browser, and these characteristics can be altered or enhanced by the web page designer's additional use of CSS. Many of the text elements are found in the 1988 ISO technical report TR 9537 *Techniques for using SGML*, which in turn covers the features of early text formatting languages such as that used by the RUNOFF command developed in the early 1960s for the CTSS (Compatible Time-Sharing System) operating system: these formatting commands were derived from the commands used by typesetters to manually format documents. However, the SGML concept of generalized markup is based on elements (nested annotated ranges with attributes) rather than merely print effects, with also the separation of structure and markup; HTML has been progressively moved in this direction with CSS.

Berners-Lee considered HTML to be an application of SGML. It was formally defined as such by the Internet Engineering Task Force (IETF) with the mid-1993 publication of the first proposal for an HTML specification, the "Hypertext Markup Language (HTML)" Internet Draft by Berners-Lee and Dan Connolly, which included an SGML Document type definition to define the grammar. The draft expired after six months, but was notable for its acknowledgment of the NCSA Mosaic browser's custom tag for embedding in-line images, reflecting the IETF's philosophy of basing standards on successful prototypes. Similarly, Dave Raggett's competing Internet-Draft, "HTML+ (Hypertext Markup Format)", from late 1993, suggested standardizing already-implemented features like tables and fill-out forms.

After the HTML and HTML+ drafts expired in early 1994, the IETF created an HTML Working Group, which in 1995 completed "HTML 2.0", the first HTML specification intended to be treated as a standard against which future implementations should be based.

Further development under the auspices of the IETF was stalled by competing interests. Since 1996, the HTML specifications have been maintained, with input from commercial software vendors, by the World Wide Web Consortium (W3C). However, in 2000, HTML also became an international standard (ISO/IEC 15445:2000). HTML 4.01 was published in late 1999, with further errata published through 2001. In 2004, development began on HTML5 in the Web Hypertext Application Technology Working Group (WHATWG), which became a joint deliverable with the W3C in 2008, and was completed and standardized on 28 October 2014.

1.1.3 Structure of HTML Document

An HTML Document is mainly divided into two parts:

- **HEAD**: This contains the information about the HTML document. For Example, the Title of the page, version of HTML, Meta Data, etc.
- **BODY**: This contains everything you want to display on the Web Page.

```
<!DOCTYPE html>
<html>

<head>
    <title>Page Title</title>
</head>

<body>
    <h2>Heading Content</h2>
    <p>Paragraph Content</p>
</body>

</html>
```

HTML Document Structure

1.1.4 Advantage of HTML

1. HTML is Easy to Learn and Use:-

HTML is very easy to learn and understand. HTML is the first and foremost language that the person will go through for the one who is learning web development. It has simple tags, and there is no hectic of case sensitivity in HTML. It simply has some tags that serve a specific purpose, and that's it. One can easily understand other's code and can make changes in it if required as there is not a lot more to understand in it. Moreover, it does not throw any error or create any problem like other programming languages if the developer forgets to close the tags or make some mistakes in code.

2. HTML is Free

One of the biggest advantages of HTML is that it is free of cost, and there is no need to purchase specific software. One should not have to deal with different plugins required to work on any software as HTML does not require any plugins. So it is very cost-effective from a per business perspective as there is no cost of purchasing the license if the whole website is developed in HTML language.

3. HTML is supported by all Browsers

HTML supports almost all browsers around the globe. So there is no need to worry about the website written in HTML for the browser support as the website would easily show up in all the browsers if the program keeps in mind to optimize the website for the different browsers. HTML provides an easy way to optimize the website in HTML according to browsers to the web developers.

4. HTML is the Most Friendly Search Engine

HTML is one of the most friendly search engines in comparison to all the programming languages available in the market (Search Engine friendly means delivering users quality websites with relevant information when searched for a particular one). It is quite easier to create SEO compliant websites using HTML than other programming languages. HTML websites are easier to read and accessed by web crawlers and hence reduces parsing time and the page load time of the website hence improving its performance.

Lets us move to the next Advantages of HTML.

5. HTML is Simple to Edit

HTML is very easy to edit as there is no need to have a special interface or platform to edit it. It is written in simple Notepad and hence can be simply edited in any text editor like Notepad, Notepad++, etc.

6. HTML can Integrate Easily with Other Languages

HTML can be easily integrated with multiple languages and does not create any issues in it. For example, in Javascript, Php, node.js, CSS and many more, we write the code of these languages between the HTML, and it mixes with them very easily.

7. HTML is Lightweight

HTML is lightweight language. It has a high signal to noise ratio as compared to other forms of communication. It is also faster to download HTML code, which means it is highly compressive also.

8. HTML is Basic of all Programming Languages

For the programmer to be either a frontend or backend developer, one must have knowledge of HTML as it is the basic language and all the other languages integrate with it while coding like JavaScript, JSP, Php, etc. Similarly, XML syntax is just like HTML and XML, which is used these

days widely for data storage. If one has good knowledge of HTML, it is easy working with XML too for him.

Lets us move to the next Advantages of HTML.

9. Display Changes Instantly

One of the biggest advantages of HTML is that one can see the changes instantly just by saving it and reload the previous HTML page. Unlike other programming languages, there is no need to run the whole code and finding out where the error is. For example, if you have made the word italic, it will show up instantly on the page once saved and reload.

10. HTML is User-Friendly

HTML is a user-friendly programming language. One does not need to have any prior knowledge of any language. Understanding simple English is sufficient to work with it.

HTML is used in frontend development for over so many years before we have no other languages available in the market for web development. Although HTML provides all the tags to the user to add everything in the webpage like a table, images, hyperlink, etc. there were some drawbacks which were covered in the latest version of HTML, i.e. HTML5, which allows the user to insert a graphic, multimedia, semantic elements to develop powerful websites and improving UX consistently.

1.2About CSS

1.1.2Overview

Cascading Style Sheets (**CSS**) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML (including XML dialects such as SVG, MathML or XHTML). CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of content and presentation, including layout, colors, and fonts. This separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, which reduces complexity and repetition in the

structural content; and enable the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

The name *cascading* comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.

The CSS specifications are maintained by the World Wide Web Consortium (W3C). Internet media type (MIME type) text/css is registered for use with CSS by RFC 2318 (March 1998). The W3C operates a free CSS validation service for CSS documents.

1.1.1 Application of CSS

As mentioned before, CSS is one of the most widely used style language over the web. I'm going to list few of them here:

- **CSS saves time** - You can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.
- **Pages load faster** - If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. Soless code means faster download times.
- **Easy maintenance** - To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.
- **Superior styles to HTML** - CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
- **Multiple Device Compatibility** - Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.
- **Global web standards** - Now HTML attributes are being deprecated and it is being recommended to use CSS. So its a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

1.1.2 Advantage of CSS

There are a number of advantages of CSS, including:

1) Faster Page Speed

More code means slower page speed. And CSS enables you to use less code. CSS allows you to use one CSS rule and apply it to all occurrences of a certain tag within an HTML document.

2) Better User Experience

CSS not only makes web pages easy on the eye, it also allows for user-friendly formatting. When buttons and text are in logical places and well organized, user experience improves.

3) Quicker Development Time

With CSS, you can apply specific formatting rules and styles to multiple pages with one string of code. One cascading style sheet can be replicated across several website pages. If, for instance, you have product pages that should all have the same formatting, look, and feel, writing CSS rules for one page will suffice for all pages of that same type.

4) Easy Formatting Changes

If you need to change the format of a specific set of pages, it's easy to do so with CSS. There's no need to fix every individual page. Just edit the corresponding CSS stylesheet and you'll see changes applied to all the pages that are using that style sheet.

5) Compatibility Across Devices

Responsive web design matters. In today's day and age, web pages must be fully visible and easily navigable on all devices. Whether mobile or tablet, desktop, or even smart TV, CSS combines with HTML to make responsive design possible.

4. Problem Analysis and Requirement Specification

The project "STUDY AND MORE" develops an internet website for the students who enrolled in LNCT institute regarding their academic study materials according to their personal requirement. This website offers the study potentiality to the students as per their academic year and semester. Currently notes, syllabus and previous year question paper of 1st semester of computer science branch are live on the website. This forum has department category which enables the access of every student in future. It gives the precise knowledge about their course and will be continuously updated according to the then syllabus and curriculum of the exam. Students will find it easy and convenient to get access of all the exam material and RGPV notes at a one search.

4.1 Existing System

The existing system of the study and more is prepared in the MS-Word Application software. The Format of RGPV website is difficult to understand so to Reduce This Problems we develops this website .
The different processes involved are:

* Login First
* Then Finding The Material
* Select appropriate one and click
* Then Download

4.2 Drawbacks of the existing system

The existing system has lot of problems such as

*Difficult To Understand
* Time Taking

4.3 Proposed System

The proposed system tries to solve the problems mentioned above. The main objective of the proposed system is to provide information instantly as and when it is required. The main objective is to make the Study And MORE details more efficient. This system should maintain different Material , files and Question Paper formats, so that the data can be retrieved easily and in an efficient manner. The system is very interactive.It is student friendly.

4.4 Advantages of proposed system:

1. To Save Time
2. The proposed system update of collage etc.
3. Relevant material easily.

4.5 Limitations of the proposed system

1. The main drawback of the proposed system is that, it is not provided with any help menus.

2. The proposed system does not provide the reports.

4.6 Software Requirement Specifications

Software Requirements:

* Operating System. : Windows/Mac
* Coding : VS code

5. OBJECTIVE & SCOPE

5.1 Objective

It is an application that simplifies the task of finding material . The system is flexiable to be used and reduces the need of thinking.

The system is developed to provide an easy access of Material . Indi-viduals just have to Login

After opening that simple In navigation bar you find all the options just click on then according to need.

The objectives of the project are given below:

- Easy to use.
- Simple To understand.
- Proper Material.
-

5.2 Scope

We can make this website public also for whole university . We can do more improvement in this further we make this website specially for student and then we can add attendance and all section in this . We can add all those think in this which are beneficial for student for university student.

5.3 Advantage

- Time saving
- Reduces tedious work in thinking.
- Provides quick access of PDF's and its free.

6. SYSTEM DESIGN

6.1 Introduction

Design is the first step in the development phase for any engineering product (or) system. It may be defined as " the process of applying various techniques and principles for the purpose of defining a device, a process, or a system insufficient detail to permit its physical realization".

Software design is an iterative process through which requirements are translated into a 'Blue print' for constructing the software. The design is represented at a high level of abstraction, a level that can be directly translated to specific data, functional and behavioural requirements.

Preliminary design is concerned with the transformation of requirements into a data and software architecture. Detail design focuses on refinements to the architectural representation. That leads to detailed Data structure and algorithmic representation for software.

In the design step, the element of the analysis model gets converted into a data design, and architectural design, an interface design and a procedural design.

The data design transforms the information domain model created during analysis into the data structures that will be required to implement software.

The architectural design defines the relationship among major structural elements of the program.

The interface design describes how the software communicates within itself, to systems that interoperate with it, and with humans who use it. An interface implies a flow of information (e.g., data and /pr control). Therefore, the data and control flow diagrams provide the information required for interface design.

6.2 Design Process

Design process is in between the analysis and implementation process. The following design diagrams (data flow diagrams and E-R diagrams) make it easy to understand and implement.

The design process of software system has two levels.

1. Systems Design or Top Level Design.

2. 2. Detailed Design or Logical Design.

System Design or Top Level Design:

In the system design the focus is on deciding which modules are needed for the system, the specifi-cation of these modules and how these modules should be interconnected.

Detailed Design or Logical Design:

In detailed design the interconnection of the modules or how the specifications of the modules canbe satisfied is decided . Some properties for a software system design are

- Completeness.
- Consistency.
- Trace ability.
- Simplicity/understandability.
- Verifiability.

6.3 Design principles

6.3.1 Basic design principles that enable the software engineer to navigate the design process are.

6.3.1.1 The design should exhibit uniformity and integrity.
6.3.1.2 The design should be structured to accommodate changes.
6.3.1.3 The design is not coding. The coding is not a design.
6.3.1.4 The design should be assessed for the quality, as it is being Create, not after the fact.
6.3.1.5 The design should be reviewed to minimize the conceptual errors.
6.3.1.6 The design process should not suffer from “Tunnel vision”.
6.3.1.7 The design should be traceable to the analysis model.
6.3.1.8 The design should not reinvent the wheel.

6.4 Database Design

The goal of Database Design is to generate a set of relation schemes that allow us to store informa-tion without unnecessary redundancy and allows us to retrieve information easily. We can achieve optimization, ease of use in maintenance by designing the database using relational model betweenor among the tables.

- To reduce the number of errors
- To reduce the time as compared to the present system.
- To arrive at loss-less join.
- To reduce redundancy.

6.5 Normalization

Normalization of relation schema is done to eliminate insertion and deletion anomalies that exist indatabase.

Normalization is a step-by–step reversible process of converting given collection of relations tosome more desirable form in which the relations have a progressively simpler and more regular structure. No information is lost in normalization process.

The objectives of Normalization are :-

* To make it feasible to represent any relation in the database.

* To obtain powerful retrieval algorithms based on a simpler collection of relational operations thatcould otherwise be necessary.

* To free relations form undesirable insertions, update and deletion Dependencies.

* To make the collection of relations neutral to query Statistics where these statistics are liable tochanges as time goes by.

A relation R is said to be in 1NF if all underlying domains contain atomic values only.

A relation R is said to be in 2NF if and only if it is in 1NF and every non-key attribute is non- tran- sitively dependent on the primary key. A relationship is said to be in 3NF if and only if it does not feature any non-trivial functional dependencies between non-prime attributes. A non-prime attributeis one that does not belong to any candidate key.

All the database tables like Login, order _Entry etc., used in the project have atomic values. For Example the Login table consists of Uname and pwd attributes and all the attributes are atomic val-ues.
In the above table all the fields contain atomic values as no field has more than one value. So form the example it is clear that all underlying domains contain atomic values. So the first normal form issatisfie.

7. HARDWARE & SOFTWARE REQUIREMENT

7.1 Hardware Requirement

CPU : Pentium 4, 1.7 GHz

RAM : 512 MBHARD DISK : 80GB

7.2 Software Requirement

Operating Environment : Mac OS /

Windows 10 & 11Browser : Google

Code : VS Code

8.PROPOSED ALGORITHM

I have made this project using:

A}HTML

B}CSS

C} JavaScript

8.1 HTML

HTML tutorial provides basic and advanced concepts of HTML. Our HTML tutorial is developed for beginners and professionals. In our tutorial, every topic is given step-by-step so that you can learn it in a very easy way. If you are new in learning HTML, then you can learn HTML from basicto a professional level and after learning HTML with CSS and JavaScript you will be able to createyour own interactive and dynamic website.

8.2 CSS

CSS provides basic and advanced concepts of CSS technology. Our CSS tutorial is developed forbeginners and professionals. The major points of CSS are given below:

- CSS stands for Cascading Style Sheet.
- CSS is used to design HTML tags.
- CSS is a widely used language on the web.
- HTML, CSS and JavaScript are used for web designing. It helps the web designers to applystyle on HTML ta