A

Project Report

On

E-Library

Using Web Development

Submitted in partial fulfillment of the requirement for the IIIth semester

Bachelor of Technology (CSE)

By

Name of the Students'-

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Under the Guidance of (Class Coordinator)

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DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS
GRAPHIC ERA HILL UNIVERSITY, BHIMTAL CAMPUS
DISTRICT- NAINITAL-263132
2022 - 2023

STUDENT'S DECLARATION

Nitish Kumar Mandal, Mehul Basera, Yogesh Mishra here by declare the work, which is being presented in the project, entitled "**E-Library**" in partial fulfillment of the requirement for the award of the degree **B.Tech CSE** in the session **2022-2023**, is an authentic record of my own work carried out under the supervision of Graphic Era Hill University College .

The matter embodied in this project has not been submitted by me for the award of any other degree.

  Signature   Date: …………

Nitish Kumar Mandal …………………

Mehul Basera   ...……………….

Yogesh Mishra   ………………….

<u>CERTIFICATE</u>

The project report entitled "**E-Library**" being submitted by **Nitish Kumar Mandal** S/o **Mr. Sameer Kumar Mandal Enrollment no** PV-21610255 **Roll no** 2161255 to **Graphic Era Hill University Bhimtal Campus** for the award of bonafide work carried out by him. He has worked under my guidance and supervision and fulfilled the requirement for the submission of report.

(Mr Shobhit Kumar)   **(Dr Ankur Singh Bisht)**

Class Coordinator   **(HOD, CSE Dept.)**

<u>CERTIFICATE</u>

The project report entitled "**E-Library**" being submitted by **Mehul Basera** S/o **Mr. Dharmendra Singh no** PV-21610231 **Roll no** 2161231 to **Graphic Era Hill University Bhimtal Campus** for the award of bonafide work carried out by him. He has worked under my guidance and supervision and fulfilled the requirement for the submission of report.

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(Dr Ankur Singh Bisht)   **(Dr Ankur Singh Bisht)**

Project Guide   **(HOD, CSE Dept.)**

CONTENTS

<u>ACKNOWLEDGEMENT</u>

<u>Abstract</u>

E-learning is a method of obtaining knowledge through digital or, web-enabled gadgets like computers, laptops, tablets, or smartphones. The technique of online learning or e-learning enables remote access to systematic learning or any desired course through a digital device aided by stable internet connectivity. With e-learning, a learner can digitally access learnings or insights of any chosen subject from anywhere across the world. **E-learning** or **online learning** extensively varies from traditional learning methods as the latter mandates physical presence for both teachers and learners.

With the rise of the coronavirus pandemic, the system of education underwent a radical change. The criterion of social distancing and worldwide lockdown forced the educational institutions to shut down for an indefinite span which then resulted in the advent of e-learning. With the availability of modern technology and innovation, this revolutionary transition in the field of learning became easy and possible even amidst the crisis.

Despite the tremendous acknowledgement and significance of e-learning, it comes with some unavoidable advantages and disadvantages.

Introduction

E-learning is widely used technology these days and the actual concept of E-learning is given in this section. E-learning can be defined as the way of learning different aspects and activities using the computers and the corresponding network connecting these computers. As per the opinion of one of the researcher, e-learning can be defined as the process of gaining the knowledge and delivering the knowledge through online methodologies and also sharing the knowledge to a remote person through online.

E-learning can be considered as the self collaborated way of learning and has tight collaboration with the teacher and the student and they can interact with each other through websites and the typical chatting functionality.

There are much technical advancement towards E-learning and has taken many forms and there are different service providers towards offering the highly integrated e-learning environment and the key among them is Moodle.

Moodle can be considered as the best e-learning environment where it offers many templates and tools to customize the e-learning environment and makes the end users comfortable in creating and implementing the e-learning system.

PROBLEM DEFINITION

Notes and Assignment circulation is each semester work for any individual faculty/teacher & for a student it is difficult task to arrange them, to prepare for mid/end semester examination. So to tackle this problem we have made the E-Library which covers information regarding Syllabus, Notes ,Assignments etc. and this website have customized interface according to your Semester/Year and Degree.

Objective

- To make to task easier for students to get the syllabus related informations.
- Main implication of website is to motivate and help students to ace in Exams.
- Probably, useful to access course related E-Books in urgent requirement.

SCOPE OF THE PROJECT

It is difficult to arrange all the course related materials in one place to improve the performance and deliver a quality education to students. Because scrolling down to get the study materials in Officials Class groups is tedious. So to have a platform where you can get all study related materials according to your course and branch in just one place can make life stress-free

LITERATURE SURVEY

TECHNOLOGY

This section explains how the website will be developed and how it will be used in the project's future development. In this part, we will be using the website from the Kaggle and then further used for building the models. In this, HTML, CSS & JAVASCRIPT are combined to structure the website.

A. HTML (HYPER TEXT MARKUP LANGUAGE)

HTML stands for Hypertext Markup Language. It is used to design web pages using a markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between web pages. A markup language is used to define the text document within the tag which defines the structure of web pages. This language is used to annotate (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most markup languages (e.g. HTML) are human-readable. The language uses tags to define what manipulation has to be done on the text.

B. CSS (CASCADE STYLE SHEETS)

Cascading **S**tyle **S**heets, fondly referred to as **CSS**, is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page. It describes how a webpage should look: it prescribes colours, fonts, spacing, and much more. In short, you can

make your website look however you want. CSS lets developers and designers define how it behaves, including how elements are positioned in the browser.

While html uses tags, css uses rulesets. CSS is easy to learn and understand, but it provides powerful control over the presentation of an HTML document.

C. JAVASCRIPT

JavaScript is a lightweight, cross-platform, and interpreted compiled programming language which is also known as the scripting language for webpages. It is well-known for the development of web pages, many non-browser environments also use it. JavaScript can be used for Client-side developments as well as Server-side developments. JavaScript is both imperative and declarative type of language. JavaScript contains a standard library of objects, like Array, Date, and Math, and a core set of language elements like operators, control structures, and statements.

REQUIREMENT

FUNCTIONAL REQUIREMENTS

A functional requirement is a term used in software engineering to describe the function of a software system or one of its components. A function is made up of three parts: inputs, behavior, and outputs. Calculations, technical details, data manipulation and processing, and other specific functionality that define what a system is expected to perform are examples of functional requirements. Use cases contain behavioral requirements that describe all of the scenarios in which the system applies the functional requirements. Here, the system has to perform the following tasks: ¬ It does support browser. The website is accessed by web browser.

The system must perform the following tasks:
- It does support web browser (Google Chrome, Edge Browser etc.)
- It does access to download the data from internet.
- It does have the stable internet connection.

NON-FUNCTIONAL REQUIREMENTS

- **Performance**

  To ensure that our website deliver a good performance, we must take care of certain requirements like a stable internet connections.

- **Scalability**
-
  For our system to be scalable we must work on improving the best available computing power so as to train the model faster and replace it with automatic controlling as much as possible.

- **Reliability**

  To make our system reliable we must use best quality dataset. The dataset should be updated as per the performance and then the model will be able to generate the best caption for the given image.

HARDWARE AND SOFTWARE REQUIREMENTS

HARDWARE REQUIREMENTS

- Processor : Any Processor above 500 MHz
- RAM : 512Mb
- Hard Disk : 10 GB
- Input device : Standard Keyboard and Mouse
- Output device : VGA and High-resolution Monitor

SOFTWARE REQUIREMENTS

- Visual Studio Code
- Git Hub, Web Browser
- Windows 10 or any other Operating System

PROJECT SCOPE

- ## OBJECTIVES

  • **Consistent & quality content**

  • **Service quality standards and maintenance (be able to support what works and what doesn't)**

  • **Reduce dependency on staff, connect people with next step or each other**

  • **Capture member information for better care**

  • **Provide more self-serve features**

  • **Capture metrics**

- ## GUIDING PRINCIPLES

  • **Easy navigation**

  • **Clearly identified options**

Implementation

✠ Set theory (1)

Set → A Set is Well-defined Collection of distinct objects.

ex (i) Rivers in India
(ii) Students who speak either Hindi or English
(iii) the vowels in English alphabet.
(iv) Countries in the world.

Elements of a Set → the Objects in a set are called its elements or members

* Generally Capital letters A, B, C, – – etc. are used to denote sets and its elements by lower case letters a, b, c, – – etc.

* the Symbol ∈ (epsilon) is used to indicate, belongs to

* the Symbol ∉ (epsilon not) is used to indicate, not belongs to

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>

MATHS

OOPS

DATA STRUCTURES

LOGIC DESIGN

CYBER SECURITY

CAREER SKILLS

Name of Department:- Computer Science and Engineering

1. Subject Code: TMA 316   Course Title: Discrete Structures and Combinatorics
2. Contact Hours: L: 3   T: 1   P: 0
3. Semester: III
4. Pre-requisite: TMA 101, TMA 201
5. Course Outcomes: After completion of the course students will be able to

1. Specify and manipulate basic mathematical objects such as sets, functions, and relations. Demonstrate partial order relations and Lattices.
2. Apply the discrete probability and number theory to solve the engineering problems.
3. Produce convincing arguments, conceive and/or analyze basic mathematical proofs and discriminate between valid and unreliable arguments.
4. Discriminate, identify and prove the properties of groups and subgroups
5. Apply the basic counting techniques to solve combinatorial problems
6. Demonstrate different traversal methods for trees and graphs. Model problems in Computer Science using graphs and trees.

6. Detailed Syllabus

UNIT	CONTENTS	Contact Hrs
Unit – I	**Relations and Functions:** Review of Sets, Relations - properties, equivalence relation, matrix and Graph representation, Closure operations Functions, Types of functions, Invertibility, Composition of functions and Inverse functions. Partially ordered Sets and Lattices. Lattice Properties, Lattices as Boolean Algebra	11
Unit – II	**Probability Theory** Basics of Probability, Conditional Probability, Random Variables, probability mass and density function, commutative distribution function, expected values, mean, variance and standard deviation, Distributions: Binomial, Poisson, normal, uniform., exponential.	9
Unit – III	**Fundamentals of Logic:** Basic Connectives and Truth Tables, Logical Equivalence – The Laws of Logic, Logical Implication – Rules of Inference. The Use of Quantifiers. **Methods of Proof:** Different methods of proof – Direct Proof, Indirect Proof, Counter examples, Principle of Induction.	9
Unit – IV	**Groups:** Definitions, Examples, and Elementary Properties. Homomorphism, Isomorphism, permutation groups and cyclic Groups, subgroups, cosets, and Lagrange's Theorem **Counting:** Set cardinality and counting, Sum and Product Rules, Inclusion Exclusion Principles, Pigeonhole principle, permutations and combinations, Basics of recurrence relations and, generating Functions	10
Unit – V	**Graphs and Trees** Fundamentals of Graphs Graph types – undirected, directed, weighted; Representing graphs and graph isomorphism -connectivity-Euler and Hamilton paths, Isomorphism Tree properties, traversal techniques;	9
	Total	48

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File Edit Selection View Go Run Terminal Help

EXPLORER

∨ ELIBRARY

pages > syllabus > syllabusviewer > view.html > html > head

```html
        <link rel="stylesheet" href="/pages/syllabus/syllabusviewer/view.css">
        <title>Notes</title>
    </head>
    <body>

        <header id="navbar">
            <img class="logo" src="/images/logo.png" alt="LOGO">

            <nav>
                <ul class="nav_links" id="nav">
                    <li><a href="/pages/homepage/home.html">Home</a></li>
                    <li><a href="/pages/syllabus/syllabusviewer/view.html">Syllabus</a></li>
                    <li><a href="/pages/Notes/notessubjects/subjects.html">Notes</a></li>
                    <li><a href="/pages/Assignments/assignmentsubjects/subjects.html">Assignments</a></li>
                    <li><a href="#">Ebooks</a></li>
                    <li><a href="#">About</a></li>

                </ul>

            </nav>
            <a class="ct" href="#"><button>Contact</button></a>

        </header>
        <button class="dropdown" onclick="dropdown()">^</button>


    <div class="maincontainer">

        <div id="menubar" class="menubar">
            <div class="hamburger">
                <button id="hm" onclick="btne()">></button>
            </div>

        <ul class="menuitems" id="menu">
            <li onclick="mathsyllabus()"><a href="#">MATHS</a></li>
            <li onclick="oopsyllabus()"><a href="#">OOPS</a></li>
            <li onclick="Dtatastructures()"><a href="">DATA STRUCTURES</a></li>
            <li onclick="logicsyllabus()"><a href="#">LOGIC DESIGN</a></li>
            <li onclick="cybersyllabus()"><a href="#">CYBER SECURITY</a></li>
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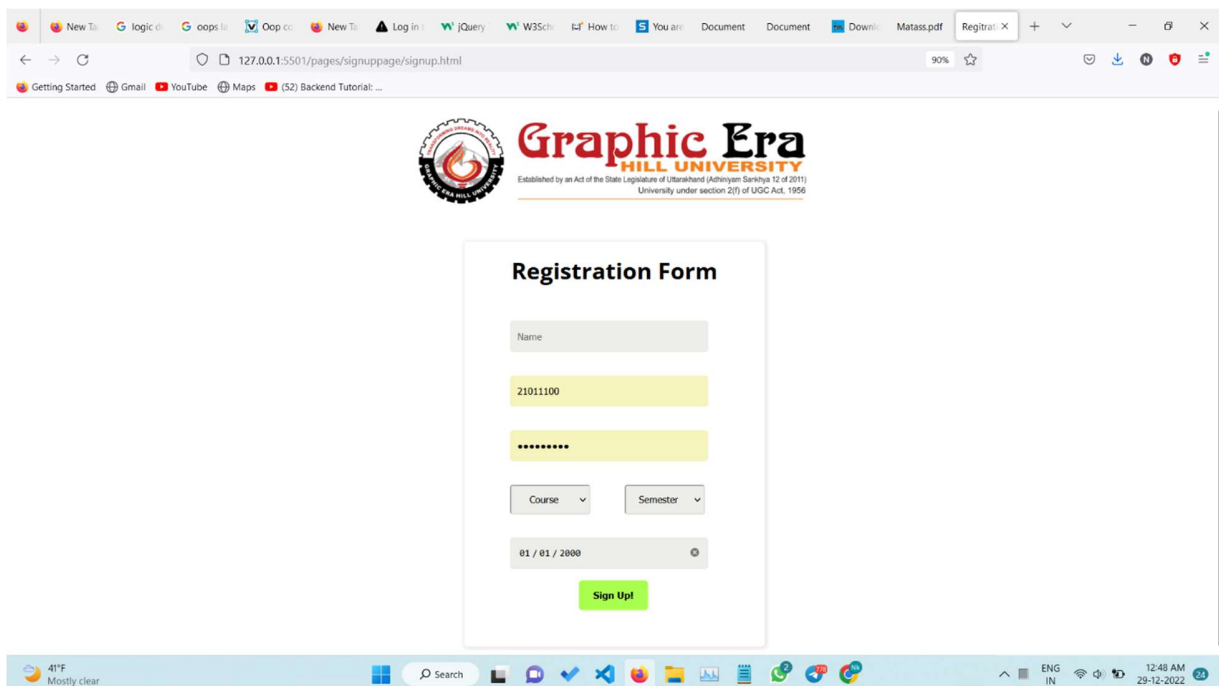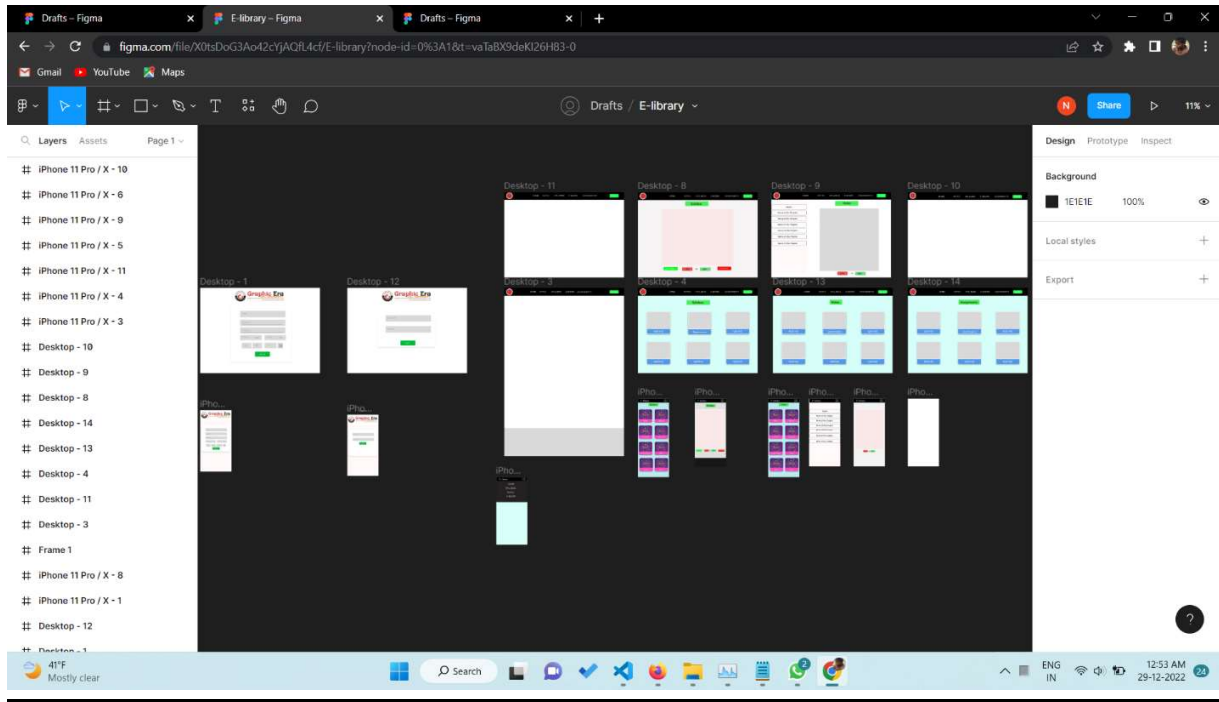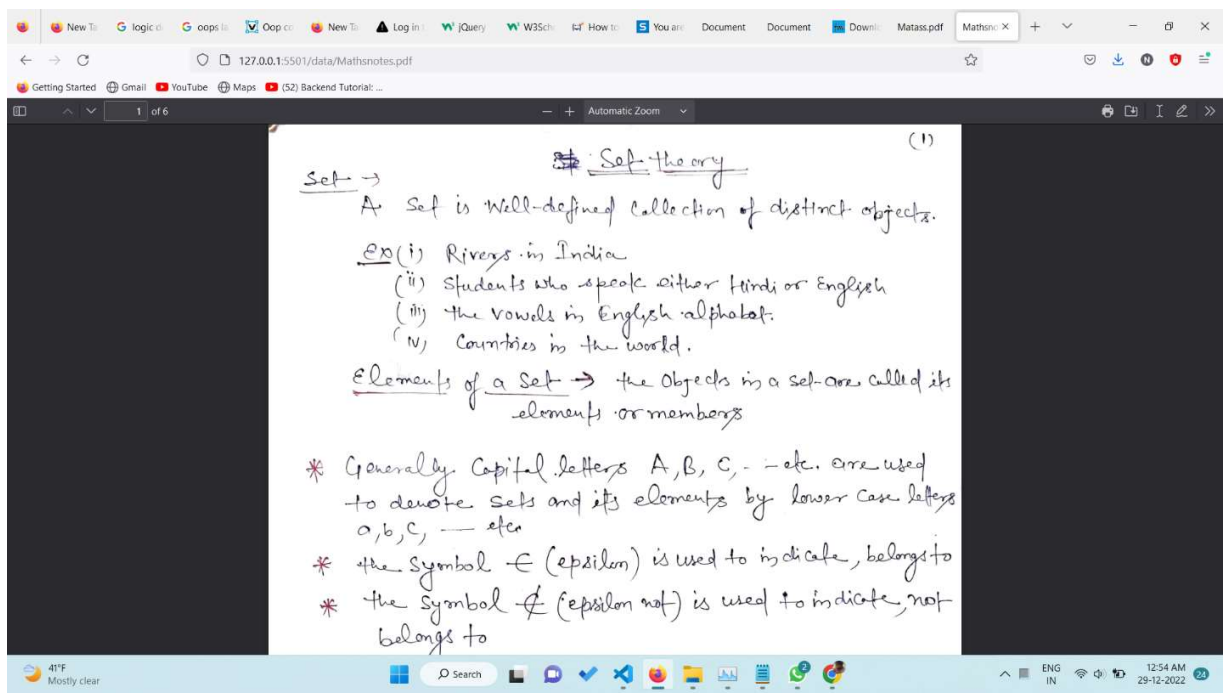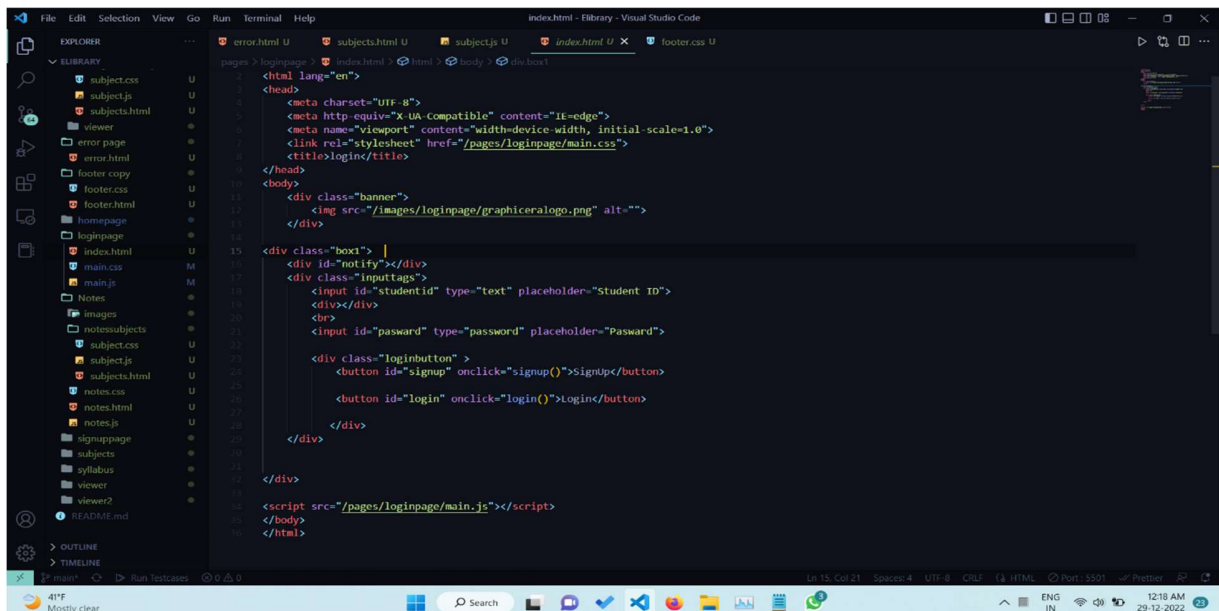
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- error page
  - error.html U
- footer copy
  - footer.css U
  - footer.html U
- homepage
- loginpage
- Notes
  - images
  - notessubjects
    - subject.css U
    - subject.js U
    - subjects.html U
  - notes.css U
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  - notes.js U
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- subjects
- syllabus
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  - syllabusviewer
    - lodingsyllabus.js U
    - view.css U
    - view.html U
    - view.js U
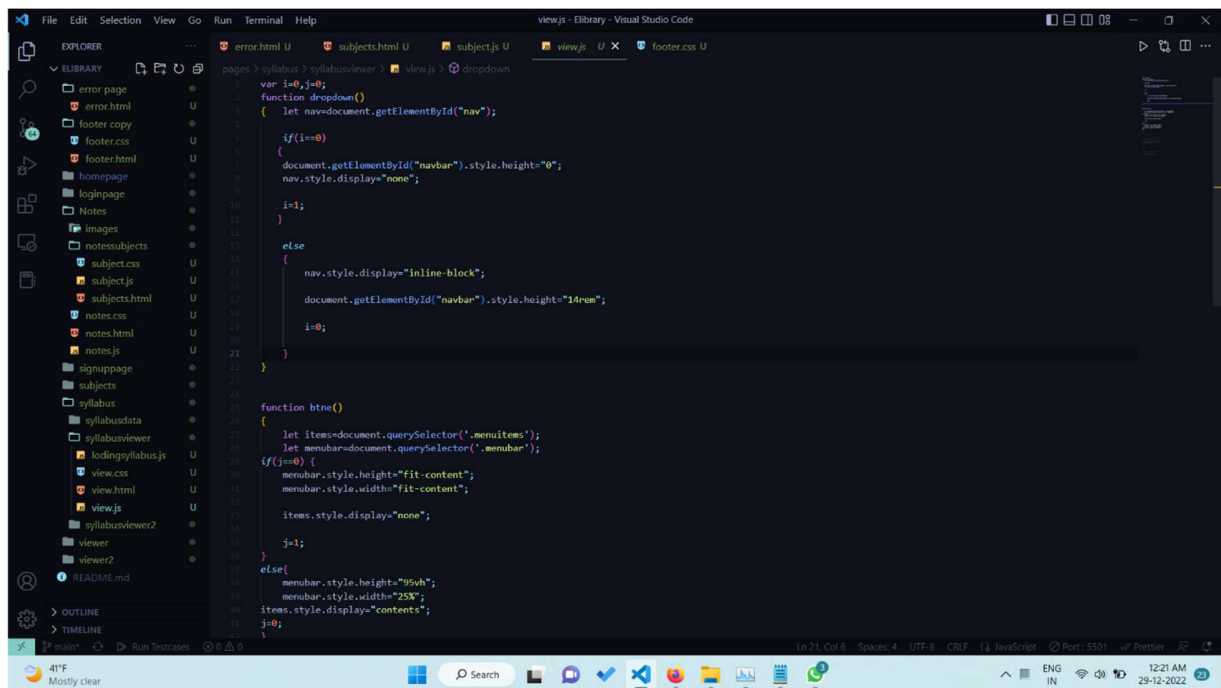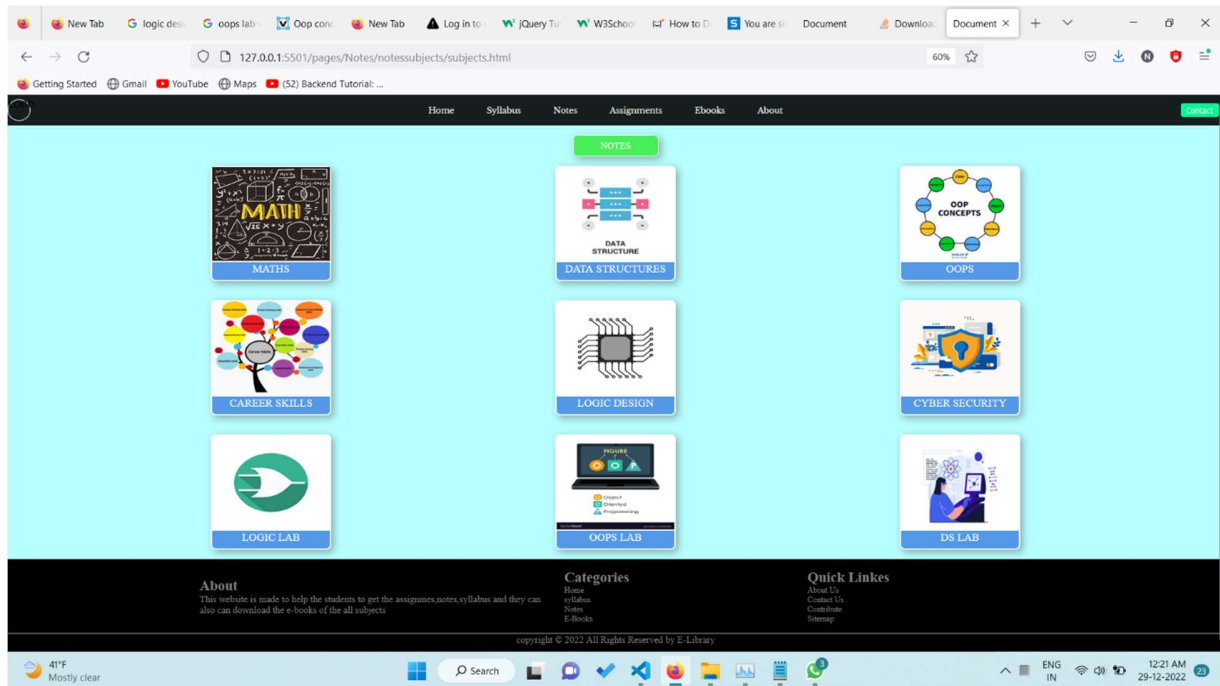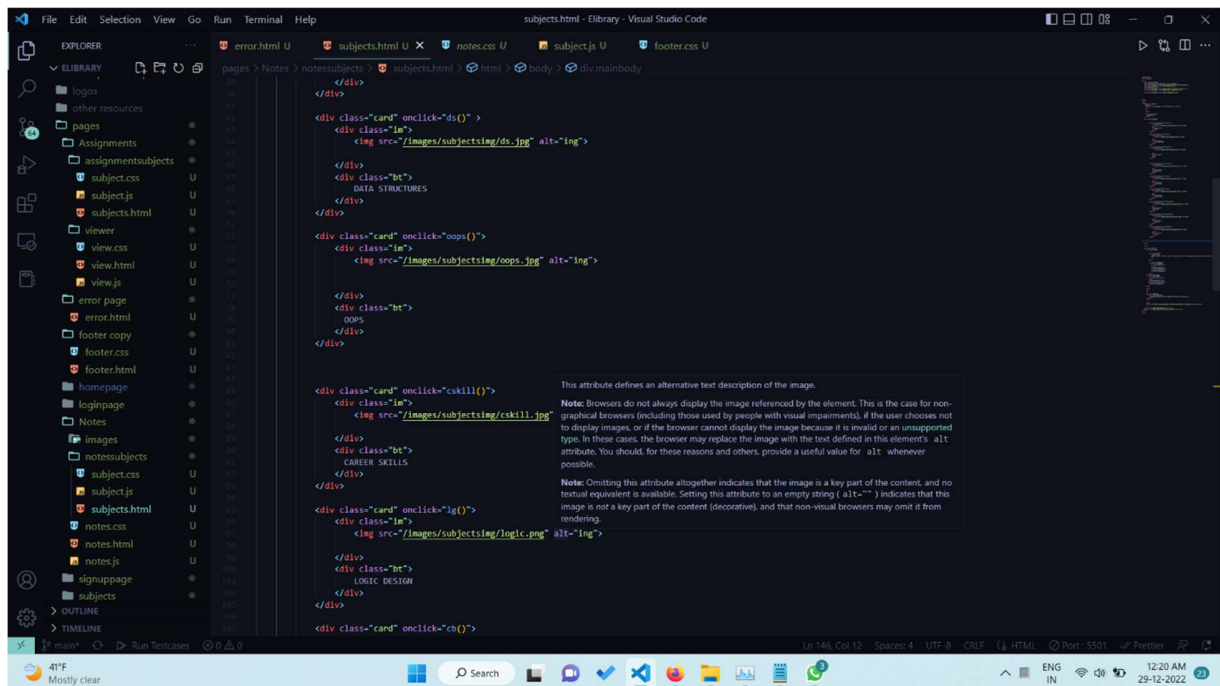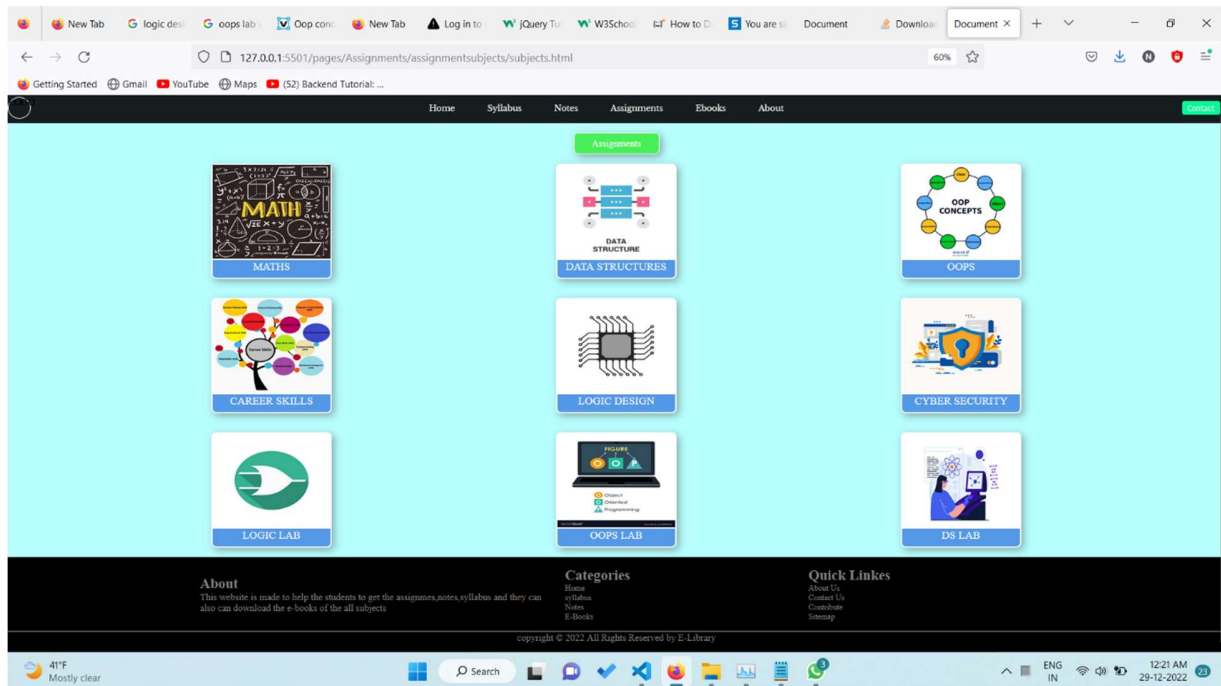 - syllabusviewer2
- viewer
- viewer2
- README.md

> OUTLINE
> TIMELINE

CONCLUSION

Our website is capable of providing the study material to the respective student according to their course and semester. A heavy HTML,CSS and JAVASCRIPT is used in making the project. This publication summarized the handful usage of students in getting the course related record in one place.

Good Web design is not limited to the six key principles discussed here. Aspects such as accessibility, readability and usability play a part too.

This is the reason why Web design is so difficult. Getting our feet wet in design is easy, especially today, with so many content management system, blogging tools and themes readily available. But truly mastering all of the facets of web design takes time and let's be honest, talent. Having the ability to craft pretty designs is just one facet, but an important one.

<u>References</u>

[1] MDN Web Docs - https://developer.mozilla.org

[2] https://stackoverflow.com

[3] https://www.w3schools.com

[4] The Web Developer Bootcamp 2022 | Udemy