PRODUCT COMPARATOR SYSTEM

FULL STACK PROJECT REPORT FILE



Department of Computer Science & Application

Institute of Engineering & Technology

SUBMITTED TO:-

SUBMITTED BY:-

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(Technical Trainer)

DECLARATION

We hereby declare that the work which is being presented in the Bachelor of technology's project 'Product Comparator System', in partial fulfilment of the requirements for the award of the Bachelor of Technology in Computer Science and Engineering and submitted to the Department of Computer Engineering and Applications of GLA University, Mathura, is an authentic record of our own work carried under the Mentorship of Mr. Akash Kumar Choudhary, Technical Trainer, Dept. of CEA, GLA University.

The contents of this synopsis, in full or in parts, have not been submitted to any other Institute or University for the award of any degree.

Sign:	
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Name of candidate: Ayush Yadav

ACKNOWLEDGEMENT

It gives us a great sense of pleasure to present the project report of the B. Tech Fullstack Project undertaken during B. Tech III Year. This project is going to be an acknowledgment of the inspiration, drive, and technical assistance that will be contributed to it by many individuals. I owe a special debt of gratitude to Mr. Akash Kumar Choudhary, Technical Trainer, for providing us with an encouraging platform to develop this project, which thus helped me in shaping my abilities towards a constructive goal, and for his constant support and guidance to my work.

His sincerity, thoroughness, and perseverance have been a constant source of inspiration for me. I believe that he will shower me with all his extensively experienced ideas and insightful comments at different stages of the project & also will teach us about the latest industry-oriented technologies. We would like to acknowledge the contribution of all faculty members of the department for their kind guidance and cooperation.

Ayush Yadav (201500186)

CERTIFICATE

This is to certify that the project entitled 'Product Comparator System', carried out in Full Stack Project, is a bonafide work by Ayush Yadav and is to be submitted in partial fulfilment of the requirements for the award of the degree Bachelor of Technology (Computer Science & Engineering).

Mentor:-

Mr. Akash Kumar Choudhary

(Technical Trainer)

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INTRODUCTION

In the modern era of this busy working world, people feel exhausted after working whole day which makes them feel irritated sometimes they just need a small break from all this almost everyday either by spending time with family & friends via different ways or by entertainment, also now a days people is not having a lot of time so they prefer to shop online but sometimes they buy things on higher prices and after a certain period of time when they came back they found that the product that they buy few hours ago is present in the lesser cost as compare to the previous one. so we resolve this issue and we made a website called Product Comparator System.

A Product Comparator System is a tool or platform that allow consumers to compare and evaluate products based on various parameters such as price, brand and customer reviews. This system helps consumer make informed decision by providing them with a comprehensive overview of multiple products in the market, enable them to choose the best products on a cheaper prices that suits their needs.

Product Comparator System is used in various industries such as e-commerce, healthcare and finance. These systems enable customer to compare and evaluate Products from different vendors, thus promoting healthy competition and improving customer satisfaction.

Overall Product Comparator System plays an important role in helping consumers make informed decisions, while also promoting fair competition among vendors.

Title of the Project

Product Comparator System

Product Comparator System plays an important role in helping consumers to make informative decisions during shopping of any products. Consumers can compare the thing that they want to buy on a single platform by just in a single click and they find the difference in the prices ratings and many more.

Key Words: Advanced Web technology, AngularJS, NodeJs, Mongoose.

Objective of the project

The objective of a product comparator system is to provide consumers with a tool to compare different products in terms of features, prices, and other relevant information. The system allows users to input their preferences and requirements, and then generates a list of products that match those criteria.

The system typically includes a database of products with details such as brand, model, features, and pricing. The user can filter and sort the products based on their preferences and priorities, and then compare the selected products side-by-side to make an informed decision.

The main benefit of a product comparator system is that it helps consumers save time and effort in researching products, as well as providing a transparent and objective view of the available options. It can also help businesses by increasing their visibility and exposure to potential customers who are actively searching for similar products

Why This Project?

A product comparator system provides several benefits for Consumers.

For consumers, the system allows for efficient and effective product research, saving time, efforts and money. Instead of visiting multiple websites or stores to compare products, consumers can use the comparator system to quickly filter and sort products based on their preferences and priorities, and then compare the selected products side-by-side. This helps consumers make informed decisions about which products to purchase, based on objective and relevant information.

Features of The Project

- User-friendly interface: Product Comparator System will offer a user-friendly interface that enables seamless navigation and content discovery.
- Product Database: The system includes a database of products with details such as brand, model, features, and pricing
- Side-by-side comparison: The system should allow users to compare selected products side-by-side, displaying features, pricing, and other relevant information in a clear and easy-to-read format.
- Ratings and reviews: The system should allow users to rate and review products, providing valuable feedback to other users.
- User accounts: The system should allow users to create accounts, save their preferences and search history, and receive personalized recommendations and alerts.

Module In The Project

The modules involved in this project are:-

- Admin
- User

Admin:

- Can maintain whole site.
- Can maintain all record of users.
- Can make changes to data.

User:

- Click on products of their choice.
- Compare Products.
- Find best products.
- Shop on the related website

SYSTEM REQUIREMENTS

Hardware Requirements:-

The Website will smoothly run or operate on any system with –

- Processors above or equal to Intel core i3.
- Any system with Ram (4GB or higher).
- System with any operating system.
- A web browser is needed.
- Active Internet Connection (at leas120kbps)

Software Requirements: -

Front End:-

HTML - HTML stands for Hyper Text terminology HTML is that the standard terminology for creating sites HTML describes the structure of an internet page HTML consists of a series of elements HTML elements tell the browser the way to display the content.

CSS - CSS stands for Cascading Style Sheets CSS describes how HTML elements are to be displayed on screen, paper, or in other media CSS saves tons of labor. It can control the layout of multiple sites all directly External stylesheets are stored in CSS files.

Angular JS - AngularJS is a JavaScript-based open-source front-end web application framework that was developed by Google. It was first released in 2010 and has since become one of the most popular frameworks for building dynamic and interactive web applications. AngularJS uses a declarative approach to building web applications, where developers define the behavior of their application through HTML markup and JavaScript code. The framework provides a number of powerful features, such as two-way data binding, dependency injection, and directives, that make it easier for developers to build complex and scalable web applications.

Back End:-

Node.JS - Node.js is a popular open-source, cross-platform, back-end JavaScript runtime environment. It is built on the Chrome V8 JavaScript engine and enables developers to create highly scalable and fast network applications. Node.js uses an event-driven, non-blocking I/O model that makes it ideal for building real-time applications, such as chat applications and online games. Node.js offers a vast library of pre-built modules, making it easier for developers to add functionality to their applications. Node.js is also highly flexible, as it can run on a variety of platforms, including Linux, macOS, and Windows.

Mongoose - Mongoose is an Object Data Modelling (ODM) library for MongoDB and Node.js and it manages relationships between data, provides schema validation, and is employed to translate between objects in code and therefore the representation of these objects in MongoDB.

Database:-

MongoDB - MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with discretionary schemas. MongoDB is originally developed by MongoDB Inc. and licensed under the Server Side Public License.

Theoretical Aspects of Web Development Project

Web development refers to building website and deploying on the web. Web development requires use of scripting languages both at the server end as well as at client end.

Before developing a web site once should keep several aspects in mind like:

- What to put on the web site?
- Who will host it?
- How to make it interactive?
- How to code it?
- How to create search engine friendly web site?

Web Development Process

Web development process includes all the steps that are good to take to build an attractive, effective and responsive website.

Web development tools

Web development tools helps the developer to test and debug the web sites. Now a days the web development tool come with the web browsers as add-ons. All web browsers have built in tools for this purpose.

These tools allow the web developer to use HTML, CSS and JavaScript etc. These are accessed by hovering over an item on a web page and selecting the "Inspect Element" from the context menu.

Scope of the Project

A Product Comparator System has a wide scope and can be used in various industries and sectors, including e-commerce, retail, finance, and more. The primary purpose of such a system is to help customers compare different products based on their features, prices, and other specifications.

In the e-commerce industry, a product comparator system can help customers find the best deals on products across different online marketplaces. Customers can compare prices, features, and customer reviews of different products and make an informed purchase decision.

Overall, a product comparator system can help customers make more informed purchase decisions and save time and money by finding the best deals on products across different industries and sectors

Implementation

Implementation is the stage in the project where the theoretical design is turned into the working system and is giving confidence to the new system for the users that is will work efficiently and effectively. It involves careful planning, investigation of the current system and its constraints on implementation, design of method to achieve the changeover, an evaluation, of change over methods. A part from planning major task of preparing the implementation is education of users. The more complex system is implemented, the more involved will be the system analysis and design effort required just for implementation. An implementation coordinating committee based on policies of individual organization has been appointed. The implementation process begins with preparing a plan for the implementation for the system. According to this plan, the activities are to be carried out, discussions may regarding the equipment has to be acquired to implement the new system Implementation is the final and important phase. The most critical stage is in achieving a successful new system and in giving the users confidence that the new system will work and be effective. The system can be implemented only after thorough testing is done and if it found to working according to the specification. This method also offers the greatest security since the old system can take over if the errors are found or inability to handle certain types of transaction while using the new system.

CODE

FrontPage:

```
<!DOCTYPE html>
<html lang="en" ng-app="myModFront">
<head>
    <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <script src="angular.js"></script>
    <script src="moduleFrontPage.js"></script>
    <link rel="stylesheet" href="frontPage.css">
    <title>Document</title>
</head>
<body ng-controller="myControllerFront">
    <div class="container">
        <h1>Product Comparator System</h1>
    <marquee behavior="Sliding" direction="left" >Find the best match for your needs with
ease!!</marquee>
    <div class="main">
        <div class="div1">
          <h1>Current User</h1>
          <button ng-click="Login()">Sign in</button>
        </div>
        <div class="div2">
         <span>Find the best product for your needs <br>
         with our product comparator system</span>
          <br>
          <br>
          <br>
         <span>Compare products side-by-side and make an informed decision</span>
         <br>
         <br>
         <br>
        <span>Save time and money by using our product comparator system to find the best
deals</span>
         <br>
         <br>
         <br>
         <span>Get unbiased product recommendations based on your preferences and
requirements</span>
         <br>
         <br>
         <br>
         <br>
         <span > Easily compare features, prices, and reviews <br>
         to find the perfect product for you</span>
```

```
</div>
     <div class="div4">
          <h1>New User</h1>
          <button ng-click="Register()">Sign Up</button>
          </div>
          </div>
</body>
</html>
```

Login:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="loginStyle.css">
    <link href="https://cdn.jsdelivr.net/npm/remixicon@2.5.0/fonts/remixicon.css"</pre>
rel="stylesheet">
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/ionicons/2.0.1/css/ionicons.min.css">
    <title>Document</title>
<body>
    <h1 style="text-align: center;">LOGIN</h1>
    <div class="container " id="discount">
    <form action="/login" method="post" class="register-form" id="register-form">
      <input type="email" name="email" id="email" required placeholder="Your Email"/>
      <input type="password" name="password" id="pass" required placeholder="Password"/>
      <button id="btn" value="Register/" type="submit">SEND</button>
      <a href="RegisterPage.html" class="link">I am new member</a>
    </form>
  </div>
</div>
</div>
</body>
</html>
```

SignUp:

```
<!DOCTYPE html>
<html lang="en">
<head>

<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
< rel="stylesheet" href="RegisterPage.css">
```

```
<link href="https://cdn.jsdelivr.net/npm/remixicon@2.5.0/fonts/remixicon.css"</pre>
rel="stylesheet">
    <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/ionicons/2.0.1/css/ionicons.min.css">
    <title>Document</title>
</head>
<body>
    <h1 class="heading">Sign up</h1>
   <div class="container flex" id="discount">
                 <form action="/sign_up" method="POST" class="register-form" id="register-</pre>
form">
                   <input type="text" name="name" id="name" required placeholder="Your</pre>
Name"/>
                     <input type="email" name="email" id="email" required placeholder="Your</pre>
Email"/>
                     <input type="password" name="pass" id="pass" required</pre>
placeholder="Password"/>
                       <input type="text" name="phone" id="phone" required</pre>
placeholder="Your Phone"/>
                         <span><input type="checkbox" id="vehicle1"><label style="color:</pre>
black;"> I Agree to <span><a href="#" class="terms">Terms and
Conditions</a></span></label><br>></span>
                         <button id="btn" value="Register/">SEND</button>
                         <a href="login.html" class="link">I am already member</a>
                 </form>
            </div>
  </body>
</html>
```

HomePage:

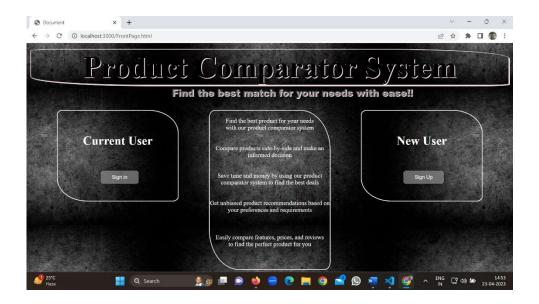
```
<u1>
            <a href="#ContentBox">Home</a>
            <a href="#About">About Us</a>
            <a href="#Mobile">Product Categories</a>
            <a href="#footer">Services</a>
            <a href="#footer">Contact Us</a>
    </nav>
    <!-- <div id="loginSignUp" >
        <button>Sign Up</button>
    </div> -->
</div>
<div id="ContentBox">
    <h1>Welcome to Product Comparator System</h1>
    <h4>Find the best match for your needs with ease </h4>
    <h5>Make informed decisions effortlessly </h5>
</div>
 <div id="Mobile">
    <h1>Mobile Phones</h1>
    <h3>Compare Mobiles On Single Click</h3><br><br><br></ri>
    <button ng-click="Mobile()">Mobiles</button>
</div>
<div id="Laptop">
    <h1>Laptops</h1>
    <button ng-click="Laptop()" >Laptops</button>
</div>
<div id="Watches" >
    <h1>Watches</h1>
    <h3>Compare Watches On Single Click</h3><br><br>
    <button ng-click="Watches()">Watches</button>
</div>
<div id="Novels" >
    <h1>Novels</h1>
    <h3>Compare Novels On Single Click</h3><br><br><br></ri>
   <button ng-click="Books()">Novels
</div>
<div id="footer">
    <div id="Products">
        <h2>Product Categories</h2><br>
        <div>Laptops</div>
        <div>Mobile Phones</div>
        <div>Novels</div>
        <div>Watches</div>
     </div>
     <div id="FollowUshandle">
        <h2>FOLLOW US</h2><br><br>>
        <img src="fb-removebg-preview.png" width="40px"alt="facebook">
        <img src="git-removebg-preview.png" width="40px" alt="Github">
        <img src="insta-removebg-preview.png"width="40px" alt="Insta">
        <img src="link-removebg-preview.png" width="40px" alt="Linked in">
```

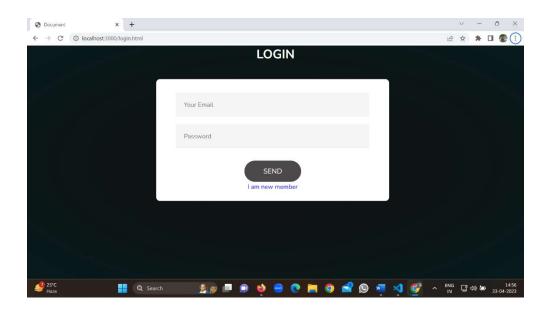
Categories:

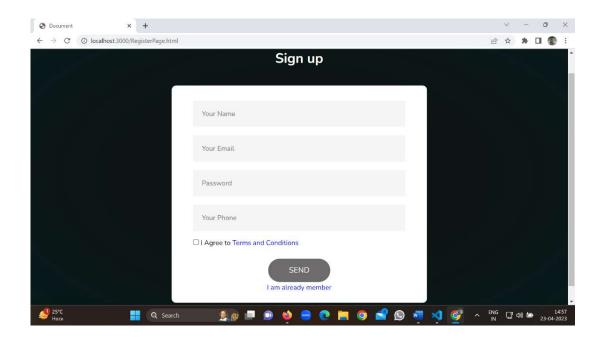
```
<!DOCTYPE html>
<html lang="en" ng-app="myMod3">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <link rel="stylesheet" href="PagesStyle.css">
   <script src="angular.js" type="text/javascript"></script>
   <script src="moduleMobile.js"></script>
   <title>Mobiles</title>
</head>
<body >
   <h2 class="h1 display"><span>Mobiles</span></h2>
   <div class="container">
       <div class="Colmns1" ng-controller="myMobile1Controller">
          Select Product 
                      <h3 >Amazon</h3>
                      <select class="formCntrl" id="select1" ng-change="item1()" ng-</pre>
options="mobile.id as mobile.title for mobile in Mobiles1" ng-model="selectedOption1" >
                         <option value="">---Select Anyone---</option>
                         <!-- <div ><option
value={{watch.id}}>{{watch.title}}</option></div> -->
                     </select>
                  Product Image
                      <img src={{imageAddress}} id="img1" alt="">
                  Product Price
                  {{price}}
```

```
Product Brand
             {{brand}}
            Product Rating
             {{rating}}
             </div>
<div class="Colmns2" ng-controller="myMobiles2Controller">
        Select Product 
                  <h3>Flipkart</h3>
                  <select class="formCntrl" id="select2" ng-change="item2()" ng-</pre>
options="mobile.id as mobile.title for mobile in Mobiles2" ng-model="selectedOption2" >
                     <option value="">---Select Anyone---</option>
                  </select>
                Product Image
                <img src={{imageAddress}} id="img2" alt="">
             Product Price
             {{price}}
          Product Brand
             {{brand}}
          Product Rating
             {{rating}}
          </div>
</div>
</body>
```

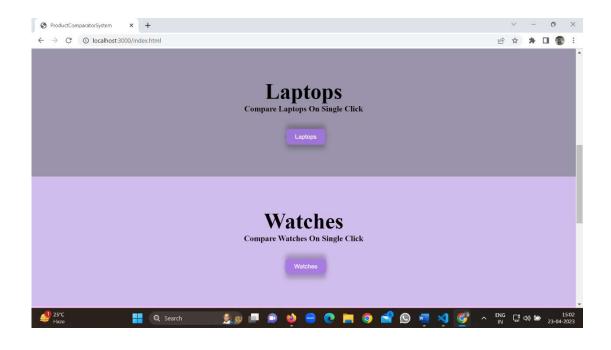
SNAPSHOTS

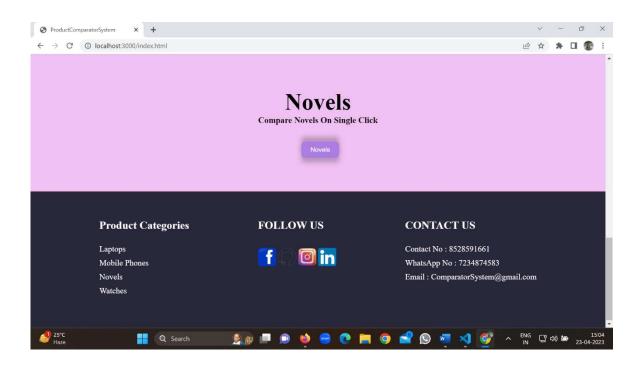


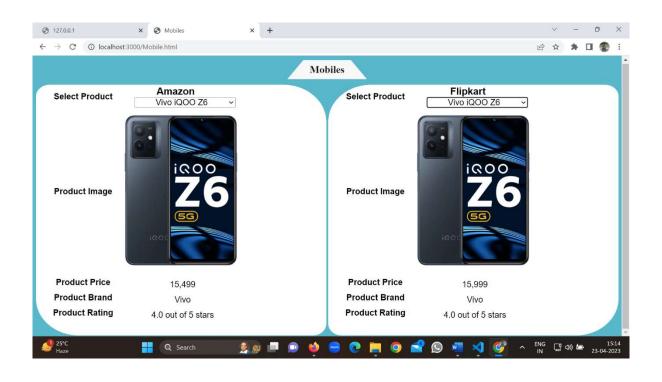


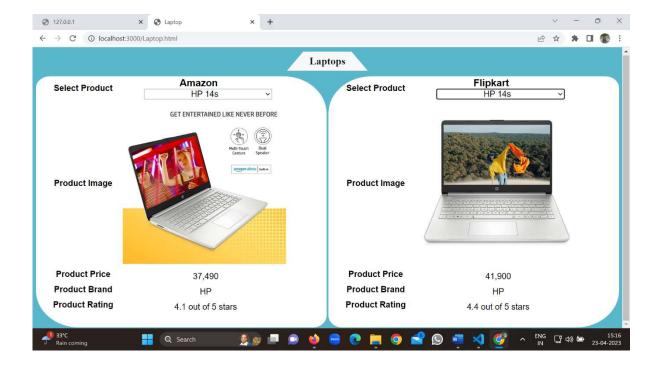












Conclusion

A product comparator system is a useful tool for consumers to compare different products based on their features, specifications, prices, and other factors. It can help them make informed purchasing decisions and save time and money. The system works by collecting data from various sources, such as product websites, customer reviews, and expert reviews, and analyzing it to provide a comprehensive comparison of the products. The system can also use machine learning algorithms to personalize the recommendations based on the user's preferences and past behavior. Overall, a well-designed product comparator system can provide a valuable service to consumers and help businesses to differentiate their products from competitors. However, it's important to ensure the system is transparent, reliable, and unbiased in its recommendations, and that the user's data privacy is protected.

To ensure the accuracy and reliability of the information provided by a product comparator system, it's important to use high-quality data sources and to regularly update the system with the latest product information. It's also important to clearly disclose any affiliations or financial arrangements with product manufacturers to maintain transparency and credibility with users. Overall, a product comparator system can be a valuable resource for consumers looking to make informed purchasing decisions, and can help businesses to stand out in a crowded marketplace. By ensuring the system is transparent, reliable, and user-friendly, businesses can build trust with consumers and improve their overall customer experience.

