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Synopsis

On

**E-commerce Website**

Submitted in partial fulfillment for the degree of

of

**INTEGRATED BCA-MCA**

**BATCH-2018/ BCA BATCH 2020**

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**SUBMITTED TO SUBMITTED BY**

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**CHITKARA UNIVERSITY, HIMACHAL PRADESH**

**Title: - E-commerce Website**

**Program Name: Int. BCA-MCA-2018/BCA-2020 Date of Submission: 01 -06-2023**

* **Organization’s Information: IT Company**
* **Name of the Organization: Blue Monkfish**
* **Complete Address: E-203, Phase 8b Mohali, Industry Area**
* **Department Allotted: Development**
* **Training Head: Twinkle Mittal**
* **Training Timings: 10:00AM – 07:00PM**
* **Major Functions of the Organization: Website Development, Website Designing, Digital Marketing**
* **Major Functions of the Dept. Allocated: Development**
* **Responsibilities during Training: Develop Websites**

# Technology Platform: CI

**Project Description**

1. **Introduction**:

The project aims to develop an e-commerce website that offers a variety of products to customers, providing a user-friendly interface and easy navigation. The website will enable customers to browse and purchase products online with ease, and the website will also provide essential backend functionalities such as managing the product catalog, customer orders, and payment processing. The website will be developed using modern technologies and frameworks to ensure efficient and fast performance.

1. **Objectives:**

The primary objective of this project is to create a user-friendly and intuitive e-commerce website that provides a seamless shopping experience to customers. The project will also focus on the following objectives:

* To provide a comprehensive product catalog with a range of products in different categories, including Technology, Mobile and Laptop
* To create an easy-to-use shopping cart that allows customers to add products, view their cart, and proceed to checkout.
* To develop a secure payment gateway that ensures secure payment processing for customers.
* To develop a backend system that enables the administrator to manage the product catalog, customer orders, and payment processing efficiently.

1. **Modules:**

In this website I have two modules

1. User Module
2. Admin Module

**User Module**

* **Introduction**:

The user module is an essential component of any e-commerce website, as it is responsible for managing user accounts, personal information, and orders. This project aims to develop a user module for an e-commerce website that provides a seamless user experience and enables users to manage their accounts and orders with ease. The user module will include essential functionalities such as registration, login, password recovery, account management, and order history.

* **Objectives:**

The primary objective of this project is to develop a user module that provides a user-friendly and intuitive experience to users. The project will also focus on the following objectives:

* To provide a seamless registration process that enables users to create an account with minimal effort.
* To create an easy-to-use login process that allows users to access their accounts quickly.
* To develop a password recovery system that enables users to recover their passwords efficiently.
* To provide a comprehensive account management system that allows users to manage their personal information, shipping addresses, and payment methods.
* To develop an order history system that enables users to track their orders and view their order history.
* **Scope:**

The User module is designed for the customers who visit the e-commerce website to browse products, place orders, and manage their accounts. This module includes the following features:

* **Product browsing:** Users can browse the products by category, brand, or price range. They can also search for specific products using the search bar.
* **Product details:** Users can view detailed product descriptions, images, and reviews before making a purchase.
* **Cart management:** Users can add products to their cart and review their cart before checkout.
* **Checkout:** Users can place orders by providing their shipping and billing information and selecting a payment method.
* **Order tracking:** Users can track the status of their orders and view their order history.
* **Account management:** Users can create and manage their accounts, including updating their profile information, viewing their order history, and managing their payment methods.
* **Workflow:**

The User module workflow using the MERN Stack is as follows:

* 1. User visits the e-commerce website and browses the products, which are stored in a MongoDB database.
  2. The user interface is built using React, which displays the products and enables users to interact with the website.
  3. User adds products to their cart, which is managed by the Node.js backend using Express.js APIs to interact with the MongoDB database.
  4. User proceeds to checkout, where they provide shipping and billing information and select a payment method.
  5. Payment processing is handled by a third-party payment gateway, such as Stripe or PayPal.
  6. Once the payment is processed, the Node.js backend updates the order status in the MongoDB database.
  7. User receives an order confirmation email and can track the order status in their account, which is managed by the Node.js backend.
* **Results:**

The project aims to deliver a user module that provides an intuitive user experience and efficient performance. The user module will be tested extensively to ensure that it meets project requirements and functions seamlessly. Once launched, the user module will be monitored to track its performance, user engagement, and customer satisfaction.

* **Conclusion:**

The development of a user module requires careful planning and execution. The success of the project will depend on creating a user-friendly experience and ensuring efficient performance. The User module is designed for customers to browse and purchase products, manage their account information and view order history. It is built using the MERN stack, with React handling the user interface, Node.js and Express.js APIs handling the backend and MongoDB storing the data.

**Admin Module**

* **Introduction**:

The admin module is an essential component of any e-commerce website, as it is responsible for managing the website's backend operations. This project aims to develop an admin module for an e-commerce website that provides a comprehensive set of tools and functionalities for managing products, orders, customers, and other critical aspects of the website's operations. The admin module will include essential functionalities such as product management, order management, customer management, inventory management, and reporting.

* **Objectives:**

The primary objective of this project is to develop an admin module that provides a user-friendly and intuitive experience to website administrators. The project will also focus on the following objectives:

* To provide a comprehensive product management system that allows administrators to manage the website's product catalog with ease.
* To develop an order management system that enables administrators to manage orders efficiently and track their status.
* To provide a customer management system that allows administrators to manage customer accounts, orders, and other critical information.
* To develop an inventory management system that enables administrators to manage stock levels, monitor sales trends, and forecast demand.
* To provide a reporting system that enables administrators to generate reports on sales, inventory, and other critical metrics.
* **Scope:**

The Admin module is designed for the website administrators who manage the website's backend operations, including product management, order management, customer management, and inventory management. This module includes the following features:

* **Product management:** Admins can add, edit, and delete products, manage product categories, and monitor inventory levels.
* **Order management:** Admins can manage orders, track their status, and process refunds or returns.
* **Customer management:** Admins can manage customer accounts, view order history, and respond to customer inquiries.
* **User management:** Admins can view and manage user accounts, including adding, editing, and deleting accounts, resetting passwords, and viewing order history.
* **Workflow:**

The Admin module workflow using the MERN Stack is as follows:

1. Admin logs in to the e-commerce website using a secure login form.
2. The admin interface is built using React, which displays the website's dashboard and enables admins to interact with the website.
3. Admin can add, edit, or delete products on the website, which are managed by the Node.js backend using Express.js APIs to interact with the MongoDB database.
4. Admin can view and manage all orders placed by users, including updating order status and tracking information, which is managed by the Node.js backend using Express.js APIs to interact with the MongoDB database.
5. Admin can view and manage user accounts, including adding, editing, and deleting accounts, resetting passwords, and viewing order history, which is managed by the Node.js backend using Express.js APIs to interact with the MongoDB database.
6. Admin can view website analytics, including sales reports, user demographics, and website traffic, which is generated by the Node.js backend using Express.js APIs to interact with the MongoDB database and display the analytics using a charting library such as D3.js.

* **Results:**

The project aims to deliver an admin module that provides an intuitive user experience and efficient performance. The admin module will be tested extensively to ensure that it meets project requirements and functions seamlessly. Once launched, the admin module will be monitored to track its performance, user engagement, and customer satisfaction.

* **Conclusion:**

The development of an Admin module requires careful planning and execution. The success of the project will depend on creating a user-friendly experience and ensuring efficient performance. The Admin module is designed for website administrators to manage the e-commerce website, including product management, order management, user management, and analytics. It is built using the MERN stack, with React handling the user interface, Node.js and Express.js APIs handling the backend and MongoDB storing the data.

* **Technology Used:**

In this project, I use the MERN (MongoDB, Express, React, Node) stack.

* **References:**

Online and YouTube.