

*Lachoo Memorial College of Science & Technology*  
*(Autonomous), Jodhpur*



A System Design Project Report on

# Computer Store

Submitted in partial fulfillment of the degree of  
Bachelor of Computer Applications  
VI Semester

Submitted by

**Chetan Seervi (213501035)**

**Chouhan Zakee (213501039)**

**Deepika Meghwal (213501042)**

**Kuldeep Sharma (213501108)**

**Sunil Jangid (213501197)**

Under the Supervision of

**Dr. Deepak Mathur**

Faculty of Computer Science



**Faculty of Computer Science**

**Lachoo Memorial College of Science & Technology (Autonomous)**

**Jodhpur**

*2024*



**Faculty of Computer Science  
Lachoo Memorial College of Science & Technology  
(Autonomous)**

**CERTIFICATE**

This is to certify that the System Design Project entitled

**Computer Store**

has been designed and developed by

**Chetan Seervi (213501035)**

**Chouhan Zakee (213501039)**

**Deepika Meghwal (213501042)**

**Kuldeep Sharma (213501108)**

**Sunil Jangid (213501197)**

in partial fulfillment of the degree of BCA VI Semester Examination 2023, under our  
supervision and guidance.

**Prof. (Dr.) Priyadarshi Patni**  
Director  
Faculty of Computer Sc

**Dr. Deepak Mathur**  
Associate professor  
Faculty of Computer Sc

Date: 12/05/2024

## **Acknowledgement**

*The satisfaction and euphoria that accompany the successful completion of any task would incomplete without the mention of the people who made it possible, whose constant guidance and encouragement crowned our effort with success.*

*We express our sincere gratitude to our Principal Prof (Dr.) Rohit Jain for providing facilities.*

*We wish to place on record our grateful thanks to Prof. (Dr.) Priyadarshi Patni providing encouragement and guidance.*

*Also we thank the faculty members of the Computer Sc department whose suggestions enabled us to surpass many of the seemingly impossible hurdles.*

*We also thank our guides and lastly we thank everybody who has directly or indirectly helped us in the course of this project.*

**Chetan Seervi (213501035)**

**Chouhan Zakee (213501039)**

**Deepika Meghwal (213501042)**

**Kuldeep Sharma (213501108)**

**Sunil Jangid (213501197)**

## **Contents**

**1. Introduction**

**2. Recognition of Need**

**3. Existing System with Limitations**

**4. Proposed System with Advantages**

**5. Process/Working**

**6. Feasibility Study**

**7. Data Flow Diagrams**

**8. E R Diagram and Database Tables**

**9. Project Design (Screenshots)**

**10. Future Enhancement**

**11. Conclusion**

**12. References**

**13. Appendix**

## 1. Introduction

*Introducing Computer Store: Unleash Your Computing Potential.*

*Welcome to Computer Store, a cutting-edge platform designed to revolutionize how enthusiasts engage with computer components and build custom PCs. Crafted with ReactJS for an intuitive frontend experience and backed by MongoDB for seamless data management, our platform offers a comprehensive solution for purchasing computer parts and assembling personalized systems. With Clerk for authentication, we ensure robust security measures, allowing users to shop with confidence and peace of mind.*

*At Computer Store, we recognize the importance of providing enthusiasts with a dynamic space to explore, create, and connect. Our mission is to empower users to build their dream PCs while fostering a vibrant community where they can share expertise, discover new technologies, and inspire one another. Whether you're a seasoned builder or embarking on your first PC assembly journey, Computer Store is your ultimate destination for all things computing.*

### **Key Features:**

**1. Seamless Shopping Experience:** *We've designed an intuitive and user-friendly interface that caters to both novice and experienced computer enthusiasts. Navigating through our platform, you can effortlessly explore a vast array of computer components, compare specifications, and build your custom PC with ease.*

**2. Secure Authentication:** *Our platform integrates Clerk for robust authentication, ensuring that your personal information and transactions are safeguarded against unauthorized access. With Clerk, users can create accounts securely and manage their profiles with confidence.*

**3. Extensive Product Catalog:** *Explore our comprehensive product catalog featuring top-tier computer components from leading manufacturers. Whether you're searching for processors, graphics cards, motherboards, or peripherals, we've got you covered with detailed product information and reviews.*

**4. Custom PC Builder:** *Unleash your creativity with our custom PC builder tool. Tailor your system to your exact specifications by selecting compatible components and visualizing your build in real-time. With our intuitive interface, building your dream PC has never been more accessible.*

**5. Technical Support and Community Forums:** *Connect with a vibrant community of enthusiasts and experts through our integrated forums. Share your build experiences, seek advice on compatibility issues, and troubleshoot technical challenges with the support of fellow users and moderators.*

**6. Educational Resources:** *Access a wealth of educational resources to expand your knowledge and skills in PC building and hardware technology. From beginner's guides to advanced tutorials, our platform empowers users to learn and grow at their own pace.*

## 2. Recognition of Need

### **Purpose of the Platform:**

*The Computer Store platform is dedicated to revolutionizing the way enthusiasts engage with computer components and build custom PCs. Our goal is to provide a comprehensive solution for purchasing computer parts and assembling personalized systems, catering to users of all technical backgrounds.*

### **Importance of the Computer Store Platform:**

#### **1. Empowering Enthusiasts:**

*The Computer Store platform empowers users to explore, create, and connect within the vibrant world of computer building. Whether you're a seasoned builder or a novice enthusiast, our platform offers the tools and resources to unleash your creativity and build your dream PC.*

#### **2. Secure Transactions**

*With Clerk authentication, users can shop with confidence, knowing that their personal information and transactions are protected. Our platform prioritizes security and privacy, ensuring a safe and secure shopping environment for all users.*

#### **3. Community Engagement**

*Join a thriving community of enthusiasts and experts on the Computer Store platform. Connect with fellow builders, share experiences, and seek advice on your PC builds. Our integrated forums provide a space for meaningful discussions and collaborations within the computer building community.*



#### **4. Access to Resources**

*Explore a vast array of resources, tutorials, and guides to support your PC building journey. From beginner's guides to advanced tips and tricks, our platform equips users with the knowledge and skills needed to build and optimize their custom PCs.*

#### **5. Streamlined Shopping Experience**

*Navigate our user-friendly interface with ease, browsing through our extensive product catalog and custom PC builder tool. With real-time compatibility checks and detailed product information, building your dream PC has never been more accessible. Overview of the proposed alumni application:*

##### **Seamless Enthusiast Networking**

*The Computer Store platform facilitates networking among enthusiasts through features such as user profiles, forums, and messaging capabilities. Connect with fellow builders, share insights, and collaborate on projects within our vibrant community.*

##### **Event Management**

*Explore and participate in a variety of events tailored for computer enthusiasts, from product launches to community meetups. Stay informed about upcoming events and engage with like-minded individuals to expand your network and expertise.*

##### **Information Centralization**

*Access a centralized hub of information, including product updates, industry news, and expert insights. Stay up-to-date with the latest trends and developments in the world of computer components and custom PC building.*

## **Resource Sharing**

*Discover valuable resources, tutorials, and guides to enhance your PC building skills and knowledge. Share your expertise with others and contribute to the growth of our community through collaborative learning and support.*

## **Secure Authentication:**

*Our platform prioritizes security and privacy with Clerk authentication, ensuring that your personal information and transactions are protected. Shop with confidence and peace of mind, knowing that your data is secure.*

## **User-Friendly Interface:**

*Experience a seamless shopping experience with our intuitive and user-friendly interface. Navigate through our extensive product catalog, customize your PC builds, and complete transactions with ease. Whether you're a beginner or an experienced builder, our platform caters to users of all technical backgrounds.*

### **3. Existing System with Limitations**

#### **1. Scalability**

*While the current setup utilizing ReactJS, Tailwind CSS, Clerk, and MongoDB provides a solid foundation, scalability may become a concern as the user base and platform features expand. As the computer store platform gains popularity and experiences increased traffic, you may encounter performance issues or limitations in handling a growing number of concurrent users. Scaling the backend infrastructure, optimizing database queries, and implementing caching mechanisms may become necessary to sustain performance under higher loads.*

#### **2. Customization**

*Although ReactJS and Tailwind CSS offer extensive customization capabilities for frontend development, Clerk and MongoDB may have limitations in terms of backend customization to accommodate specific business requirements. If extensive customization is needed to tailor the platform to the unique needs of computer enthusiasts, such as specialized authentication workflows or complex data processing logic, you may need to explore alternative backend solutions or consider building custom functionalities on top of Clerk and MongoDB.*

#### **3. Offline Support**

*Providing robust offline support for browsing products, configuring custom PC builds, and completing transactions without an internet connection may pose challenges within the current technology stack. While ReactJS can support client-side caching and offline data storage through tools like service workers, integrating offline capabilities*

*seamlessly with MongoDB for data synchronization and Clerk for authentication may require additional development effort and architectural considerations.*

#### **4. Pricing and Cost**

*Unlike Firebase, which offers a free tier with scalable pricing plans, the cost structure for using ReactJS, Tailwind CSS, Clerk, and MongoDB may vary based on factors such as hosting expenses, third-party service subscriptions, and development resources. Monitoring and managing costs effectively, especially as the platform grows in terms of users and features, will be essential to ensure economic sustainability and align expenditures with revenue streams.*

#### **5. Limited Querying and Data Modeling**

*MongoDB, as a document-oriented database, may present challenges in handling complex data relationships and advanced querying requirements compared to traditional SQL databases. While MongoDB's flexible schema can accommodate diverse data structures, designing efficient data models and optimizing queries to meet the performance demands of a computer store platform may require careful consideration and potentially denormalization of data for improved query performance*

## **4. Proposed System With Advantages**

### **1. User Authentication and Security**

*Clerk authentication, integrated into our system, provides robust and secure user authentication, ensuring that only authorized users can access the Computer Store platform. This protects users' personal information and enhances overall security.*

### **2. Real-time Data Syncing**

*MongoDB's real-time capabilities enable instant updates across devices, ensuring that users have access to the latest product information, prices, and availability without the need for manual refreshes. This real-time syncing enhances user experience and engagement.*

### **3. Cloud-based Database**

*MongoDB Atlas, our cloud-based database solution, eliminates the need for managing server infrastructure. It offers scalability and automatic scaling capabilities, ensuring optimal performance even as the user base and data volume grow. This saves time and resources on server management.*

### **4. Seamless Frontend Development**

*ReactJS, combined with Tailwind CSS for styling, provides a seamless frontend development experience. React's component-based architecture and virtual DOM enable efficient development and maintenance of the frontend, resulting in dynamic and responsive user interfaces.*

## **5. Easy Integration with MongoDB Services**

*MongoDB offers a comprehensive suite of services beyond database, such as Realm for mobile development and Stitch for serverless functions. These services can be seamlessly integrated into the Computer Store platform, enriching its functionality and enhancing performance.*

## **6. Mobile App Development**

*MongoDB Realm provides tools and libraries for mobile app development on iOS and Android platforms. Leveraging MongoDB's mobile development capabilities, the Computer Store platform can extend its reach to mobile devices, reaching a broader audience and enabling effective communication with users.*

## **7. Rapid Prototyping and Iteration**

*The combination of ReactJS and MongoDB enables rapid prototyping and iterative development. React's component reusability and MongoDB's flexible schema allow for quick testing of new features or UI changes. This agile development process promotes faster iterations and continuous improvement based on user feedback.*

## **8. Cost-Effective Solution**

*MongoDB offers a flexible pricing model, allowing the Computer Store platform to start development with minimal upfront cost using MongoDB Atlas' free tier. As the platform grows, MongoDB's pricing plans scale with usage, ensuring cost-effectiveness and scalability.*

## **9. Strong Community and Resources**

*ReactJS and MongoDB both have vibrant communities with extensive documentation, tutorials, and support forums. This provides access to resources and assistance when encountering challenges during development, facilitating learning, troubleshooting, and continuous improvement of the Computer Store platform.*

## 5. Process / Working

### User Registration and Authentication

*When users access the Computer Store platform, they encounter the registration/login screen powered by Clerk authentication. New users can register by providing necessary details like name, email, and password. Clerk handles user creation and authentication, ensuring secure access to the platform. Returning users can log in using their registered credentials, validated through Clerk authentication.*

### User Profile Management

*Upon authentication, users can manage their profiles, updating details such as contact information, preferences, and profile picture. MongoDB stores user profile data associated with unique identifiers, ensuring personalized experiences for each user.*

### Product Exploration and Customization

*Users can explore a wide range of computer components and build custom PCs using the intuitive interface powered by ReactJS. They can customize their PC builds by selecting compatible components and visualizing configurations in real-time.*

### Seamless Shopping Experience

*The Computer Store platform facilitates a seamless shopping experience, allowing users to add products to their carts, review their selections, and proceed to checkout. MongoDB manages product catalogs and transaction data, ensuring smooth transactions and order processing.*



### **Order Management and Tracking**

*Once orders are placed, users can track their order status and view order history through their profiles. MongoDB stores order details and status updates, providing users with real-time visibility into their purchases.*

### **Secure Data Storage and Synchronization**

*All user data, including profiles, orders, and interactions, is securely stored in MongoDB. MongoDB's cloud-based database ensures scalable and reliable data storage, while real-time synchronization ensures consistent information across all instances of the Computer Store platform.*

### **Community Engagement and Support**

*Users can engage with the Computer Store community through forums, discussions, and support channels. MongoDB facilitates community interactions and resource sharing, fostering a collaborative environment for computer enthusiasts and builders.*

### **Continuous Improvement and Iterative Development**

*The Computer Store platform adopts an agile development approach, allowing for rapid prototyping and iterative improvements. ReactJS enables efficient frontend development, while MongoDB supports flexible data modeling and schema evolution, facilitating continuous enhancement of the platform based on user feedback and market trends. Overall, the process/working of the Computer Store platform involves user registration/authentication, profile management, product exploration and customization, seamless shopping experience, order management and tracking, secure data storage and synchronization, community engagement and support, and continuous improvement through iterative development.*

*The platform, powered by ReactJS and MongoDB, provides a user-friendly interface for computer enthusiasts to explore, build, and engage within the vibrant community of custom PC builders.*

## 6. Feasibility Study

### 1. Technical Feasibility

#### Frontend Feasibility

- **ReactJS:** *ReactJS is ideal for building dynamic user interfaces, offering a component-based architecture for code reusability and efficient development.*

- **UI/UX Design:** *Tailwind CSS provides a flexible and customizable design system, ensuring a user-friendly experience through responsive and accessible designs.*

#### Backend Feasibility

- **Clerk Authentication:** *Clerk provides secure authentication methods, ensuring user data protection and access control.*

- **MongoDB Database:** *MongoDB offers scalability and real-time data synchronization, suitable for managing product catalogs and user profiles efficiently.*

#### Integration Feasibility

- **ReactJS and MongoDB:** *Integration between ReactJS and MongoDB is feasible, leveraging MongoDB Atlas for cloud-based database management.*

#### Performance

- **ReactJS Optimization:** *ReactJS optimizations enhance frontend performance, while MongoDB Atlas ensures scalable backend operations and efficient data handling.*

## Security

- **Clerk Security Rules:** *Clerk offers fine-grained access control, while MongoDB Atlas provides encryption and user authentication mechanisms to ensure data privacy and protection.*

## 2. Behavioural Feasibility

### User Adoption

- **Feasibility:** *The Computer Store platform can attract users by offering a seamless shopping experience, extensive product catalogs, and user-friendly interfaces.*

- **Limitation:** *Adoption may be influenced by factors such as user engagement levels, competition, and user preferences for alternative platforms.*

### User Engagement

- **Feasibility:** *Engagement can be enhanced through features like community forums, product reviews, and personalized recommendations.*

- **Limitation:** *Sustaining user engagement may require continuous content updates, promotional activities, and customer support efforts.*

### Data Accuracy and Updates

- **Feasibility:** *The platform can facilitate user data updates through profile management features, notifications, and data validation checks.*

- **Limitation:** *Ensuring data accuracy relies on user participation and willingness to update information regularly.*

### **Privacy and Data Protection**

- **Feasibility:** *Clear privacy policies, secure authentication methods, and transparent data handling practices can address user concerns regarding data privacy and security.*
- **Limitation:** *Some users may still have reservations about sharing personal information, requiring ongoing communication and reassurance regarding data protection measures.*

### **Customer Relationship Management**

- **Feasibility:** *The platform can foster relationships through personalized recommendations, loyalty programs, and responsive customer support.*
- **Limitation:** *Building and maintaining relationships may require consistent communication, feedback mechanisms, and customer relationship management strategies.*

## **3. Economic Feasibility**

### **Development Costs**

- **Feasibility:** *Leveraging open-source technologies like ReactJS and Clerk, along with MongoDB Atlas' free tier, reduces initial development costs.*
- **Limitation:** *Development costs may increase as the platform scales, requiring additional resources for feature enhancements and infrastructure upgrades.*

### **Infrastructure Costs**

- **Feasibility:** *Firebase's cloud-based infrastructure eliminates the need for server management, offering scalability and cost-effective pricing plans.*
- **Limitation:** *Infrastructure costs may vary based on usage and storage requirements, necessitating monitoring and optimization to control expenses.*

### **Maintenance and Support Costs**

- **Feasibility:** *Access to extensive documentation, community forums, and support channels reduces maintenance and support costs associated with ReactJS and MongoDB.*

- **Limitation:** *Ongoing maintenance and support efforts may increase as the platform evolves, requiring resource allocation for bug fixes, updates, and compatibility testing.*

### **Integration Costs**

- **Feasibility:** *Seamless integration between ReactJS, Tailwind CSS, Clerk, and MongoDB minimizes integration costs, streamlining development efforts.*

- **Limitation:** *Additional costs may arise for integrating third-party services or APIs beyond the capabilities of the core technologies, necessitating budget allocation and resource planning.*

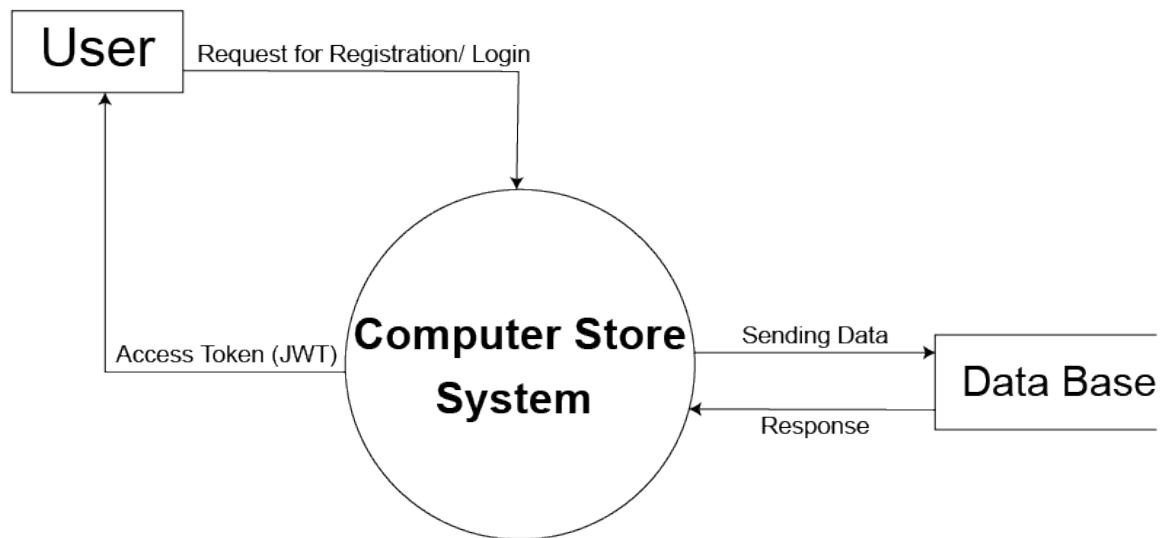
### **Cost-Benefit Analysis**

*Conducting a cost-benefit analysis will help evaluate the financial viability of the Computer Store platform, considering development costs, infrastructure expenses, potential revenue streams, and user value propositions. Regular monitoring and optimization will ensure economic feasibility and long-term sustainability.*

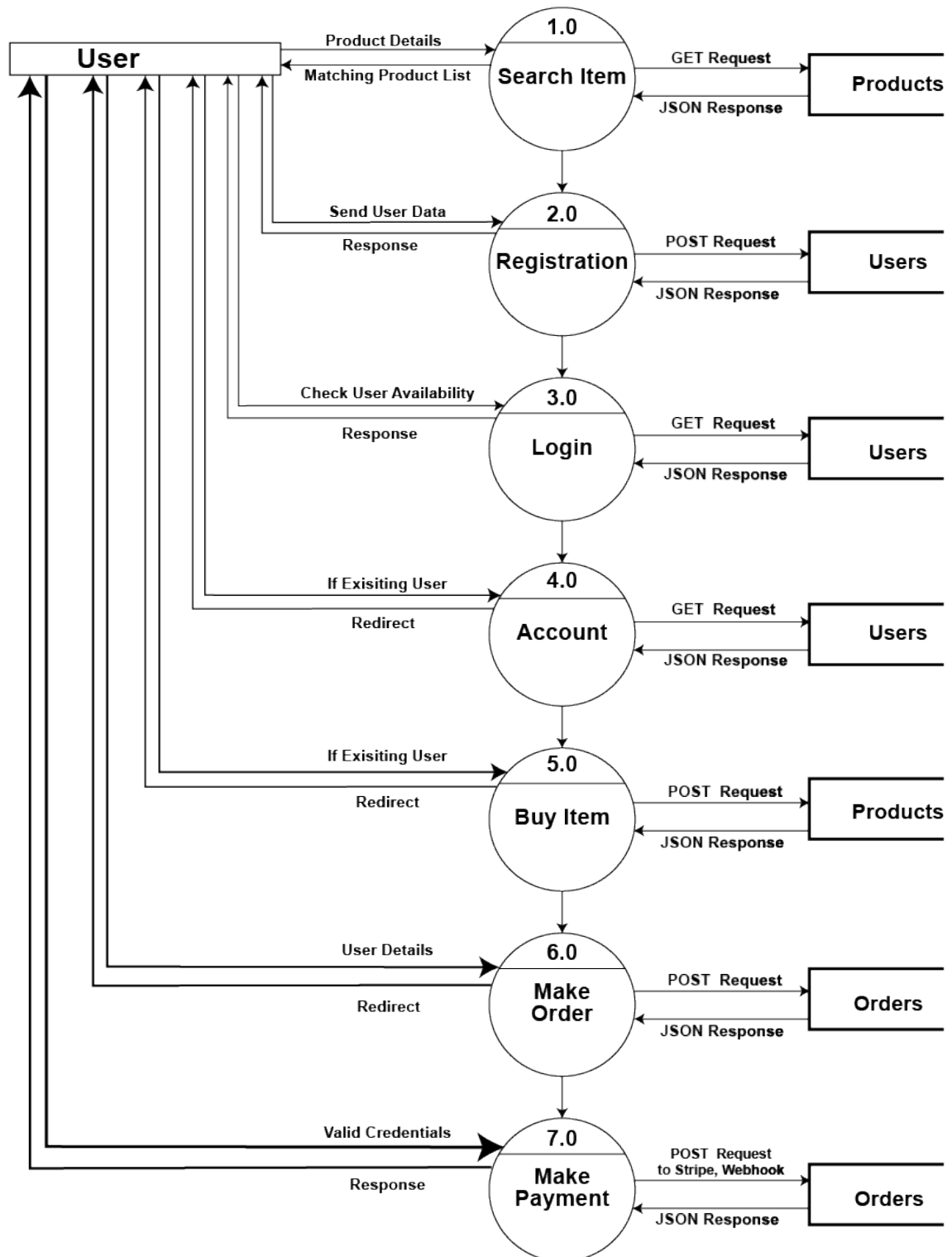
*By addressing these feasibility aspects, the Computer Store platform can be effectively planned, developed, and maintained to meet user needs and business objectives within the constraints of available resources and technological capabilities.*

## 7. Data Flow Diagrams

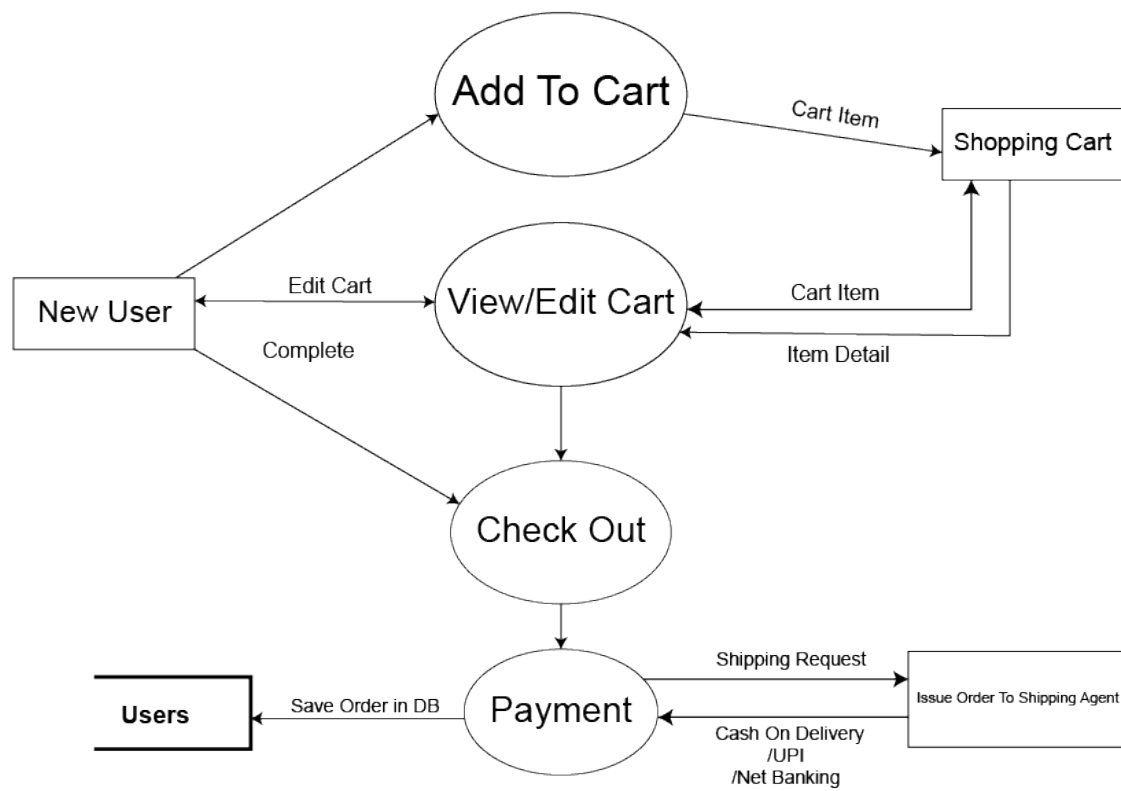
### Context Level Diagram



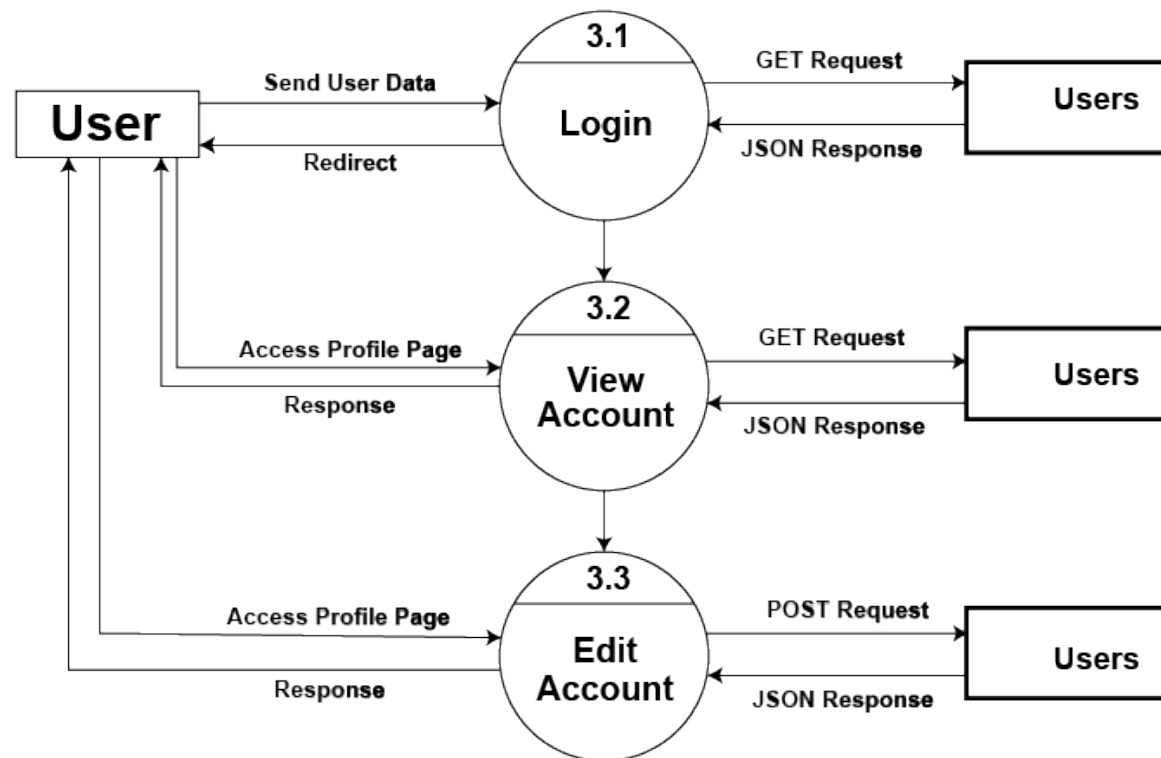
## Level 1 Diagram



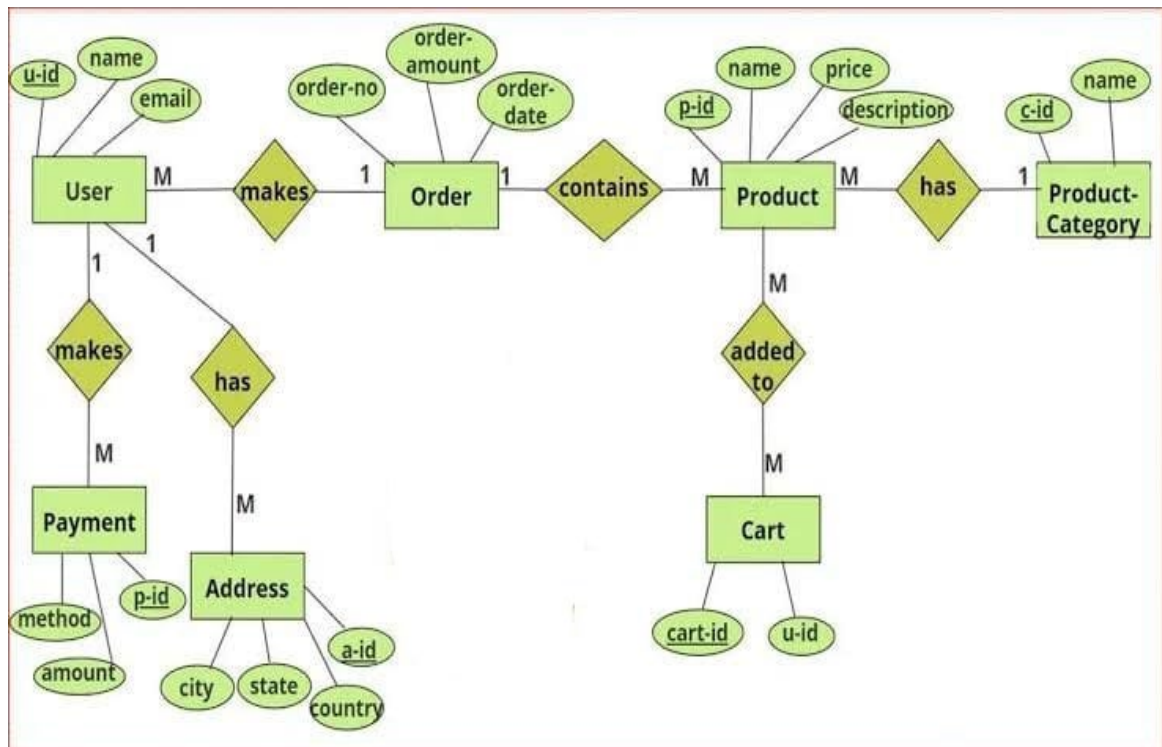


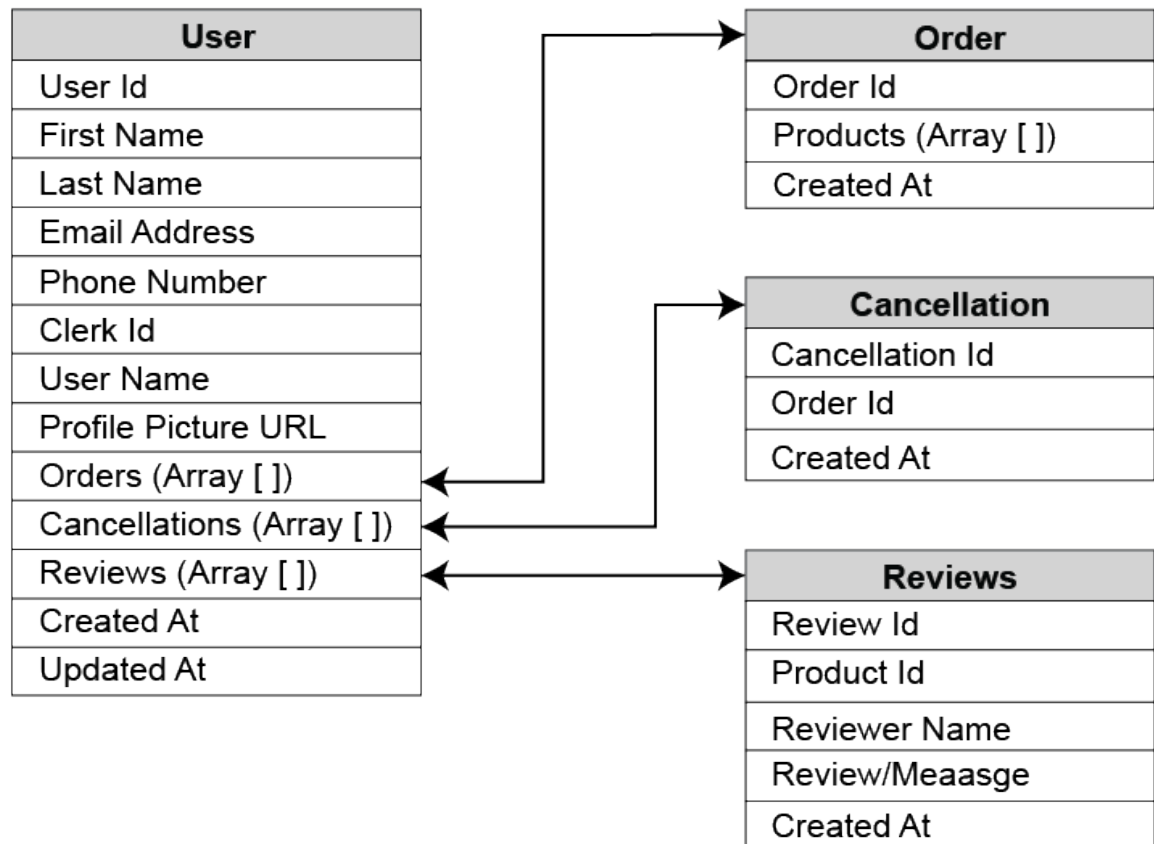


## Level 2 Diagram



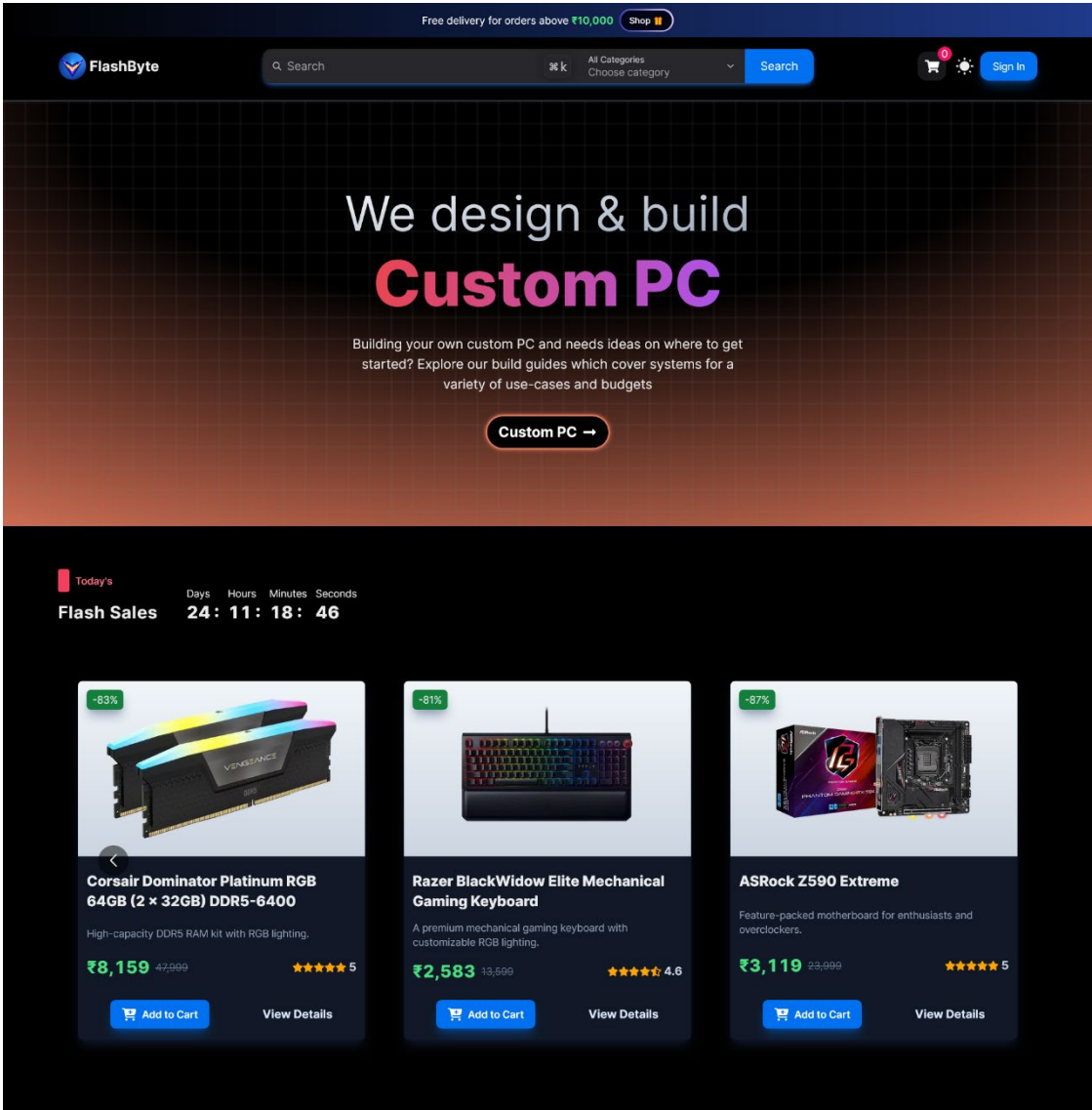
## 8. E R Diagram and Database Tables



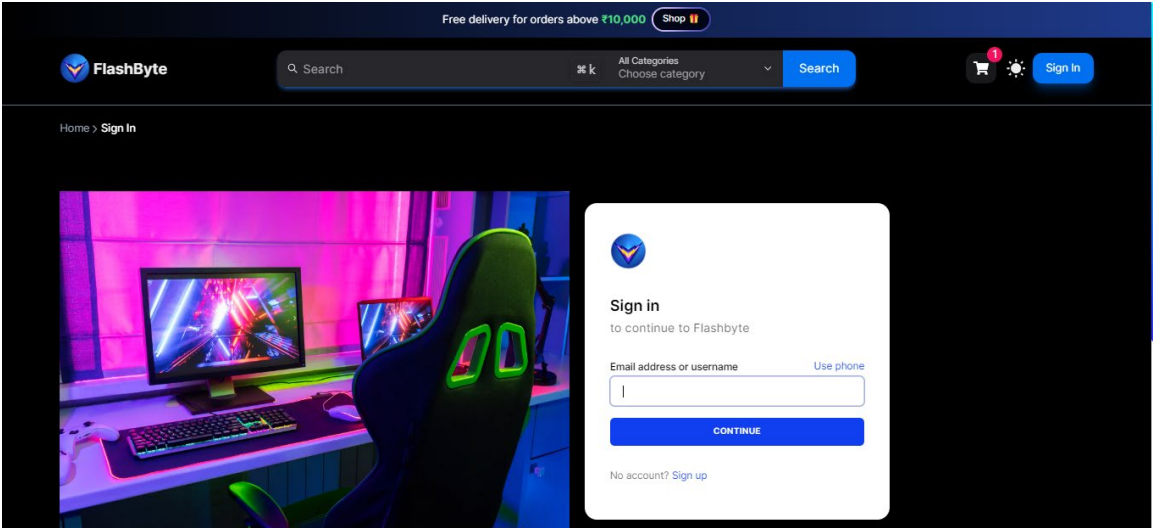


9. Project Design (Screenshots)

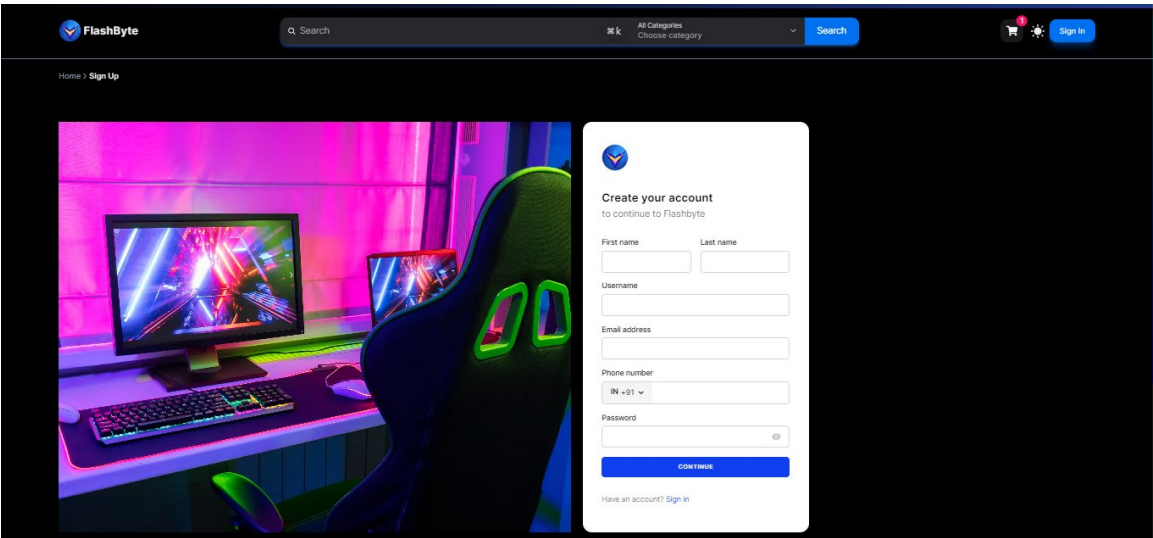
Home Page



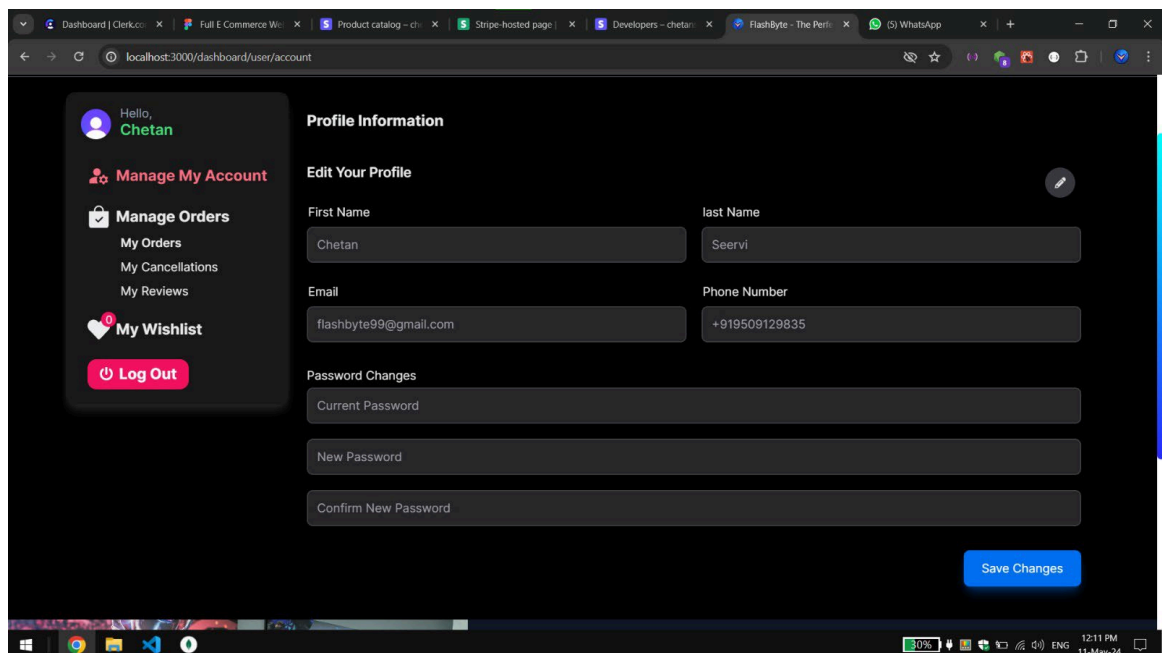
Login Page



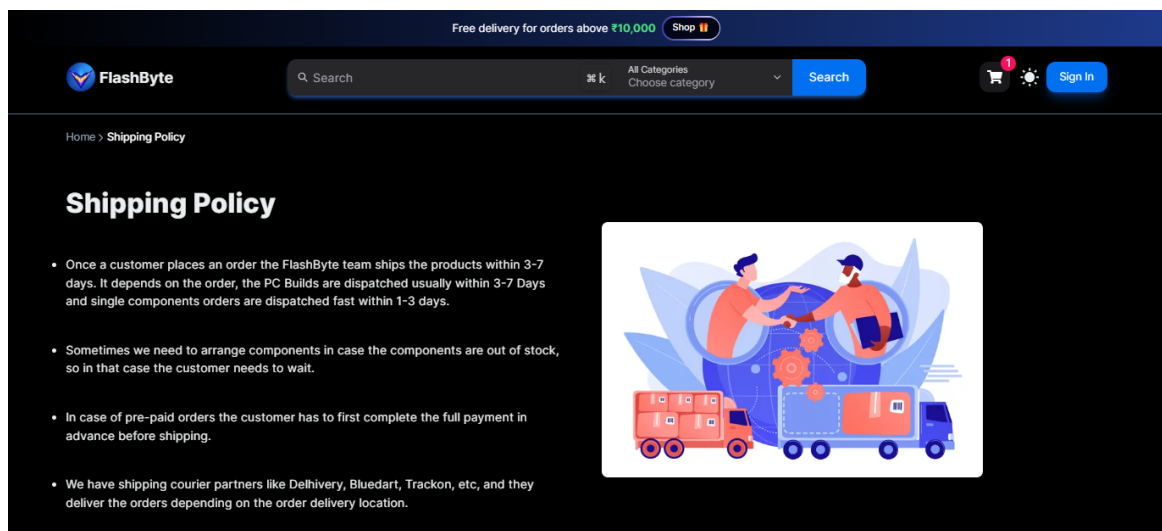
SignUp Page



### Profile Page



### Shipping Policy Page



Custom PC Builder Page

FlashByte

Search


All Categories  
Choose category

Search

0

Sign In

Home > Custom PC



### Build Your Dream PC 🤖

Our Latest PC Builds & Happy Customers!

★ **100% Genuine Products Guaranteed**

FlashByte is known for their best in class service and 100% genuine products with full authenticity.

👉 **Cash on Delivery Available**


Order this product on Cash on Delivery. For more details kindly check details on the checkout page.

**₹80,000**

Get Rs 500/- instant cashback. Follow these 4 steps to claim-

1. Purchase a Custom PC from FlashByte.
2. Make a 5-10 min review video (You can show unboxing or do a review of your PC).
3. Upload it on YouTube and also tag FlashByte Channel in title.
4. Share the video link to us on whatsapp [+91 9509129835](https://wa.me/919509129835)

Processor




Intel Pentium Gold G6400

₹4,988

▼

Motherboard




Gigabyte B460M DS3H

₹6,479

▼

RAM




Kingston HyperX Fury RGB 16GB (2 x 8GB) DDR4-3200

₹8,639

▼

Qty: - 1 +

Mouse



RAPOO M100 Silent Multi-Mode Wireless Mouse

₹1,439

▼

Headset

Choose a component

▼

Qty: - 1 +

Cabinet

Choose a component

▼

Monitor

Choose a component

▼

Keyboard

Choose a component

▼

Qty: - 1 +

Storage

Choose a component

▼

Qty: - 1 +

Case Fan

Choose a component

▼

Qty: - 1 +

Total Price : **₹80,000**

🛒

Share: [f](#) [p](#) [x](#) [wa](#)

Qty: - 1 +

Add to Cart

Buy Now



Product List View

Free delivery for orders above ₹10,000

Shop

Search

Wk All categories Choose category

Search


1

Sign In

Home > Motherboard

Motherboard Page

-82%



ASRock Z590 Extreme

Feature-packed motherboard for enthusiasts and overclockers.

₹4,319

₹12,500


★★★★☆ 3

(1 customer reviews)

Add to Cart

View Details

-10%



MSI MAG B550 Tomahawk

Mid-range motherboard with solid performance and build quality.

₹12,959

₹14,399


★★★★☆ 4

(1 customer reviews)

Add to Cart

View Details

-10%



Gigabyte B560M DS3H

Affordable micro ATX motherboard with modern features.

₹6,479

₹7,127


★★★★☆ 4

(1 customer reviews)

Add to Cart

View Details

-10%



ASUS TUF Gaming B450-PLUS II

Reliable gaming motherboard with durable components.

₹9,359

₹10,399

★★★★★ 5

(1 customer reviews)

Add to Cart

View Details

Product Grid View

Free delivery for orders above ₹10,000

Shop

Search

₹ k All Categories Choose category

Search


1

Sign In

Home > Motherboard

Motherboard Page

-82%



ASRock Z590 Extreme

Feature-packed motherboard for enthusiasts and overclockers.

₹4,319


23,999

★★★★☆ 3

Add to Cart

View Details

-10%



MSI MAG B550 Tomahawk

Mid-range motherboard with solid performance and build quality.

₹12,959


14,399

★★★★☆ 4

Add to Cart

View Details

-10%



Gigabyte B560M DS3H

Affordable micro ATX motherboard with modern features.

₹4,170


4,630

★★★★☆ 4

Add to Cart

View Details

-10%



ASUS TUF Gaming B450-PLUS II

Reliable gaming motherboard with durable components.

₹9,359


10,399

★★★★★ 5

Add to Cart

View Details

-19%



Gigabyte Z490 Gaming X

Gaming-oriented motherboard with RGB lighting and advanced features.

₹12,959


16,000

★★★★☆ 4

Add to Cart

View Details

-10%



MSI B450 TOMAHAWK MAX

Popular motherboard with excellent compatibility and performance.

₹7,919

8,799

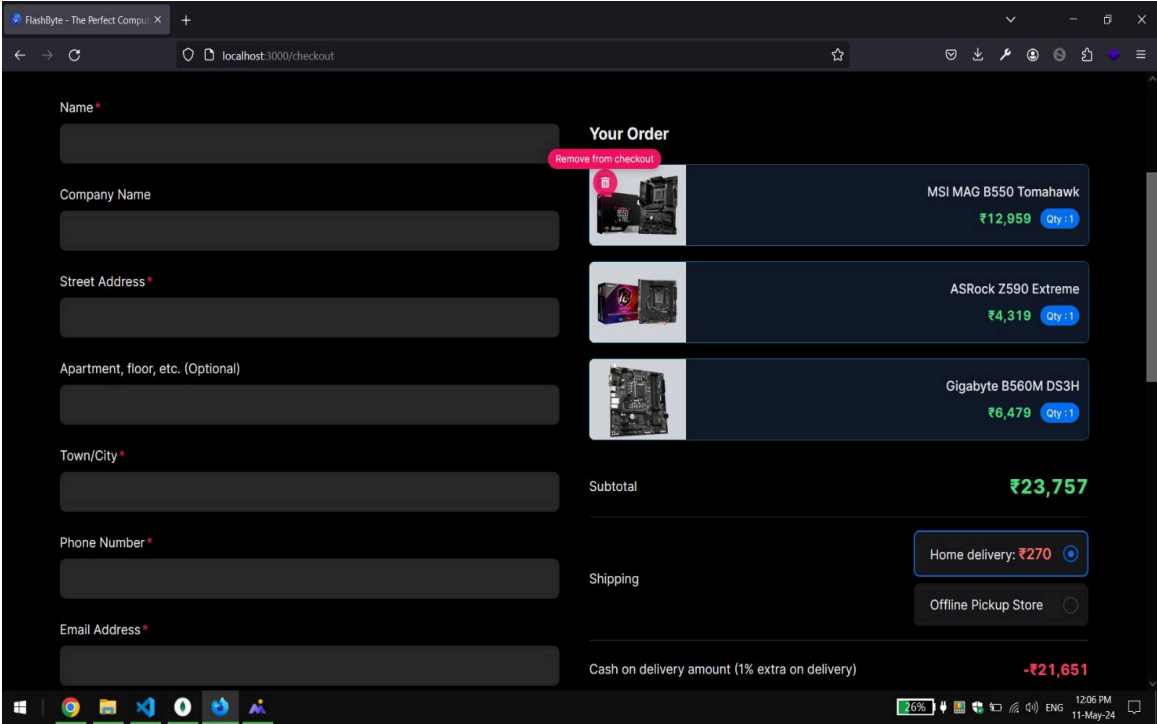
★★★★★ 5

Add to Cart

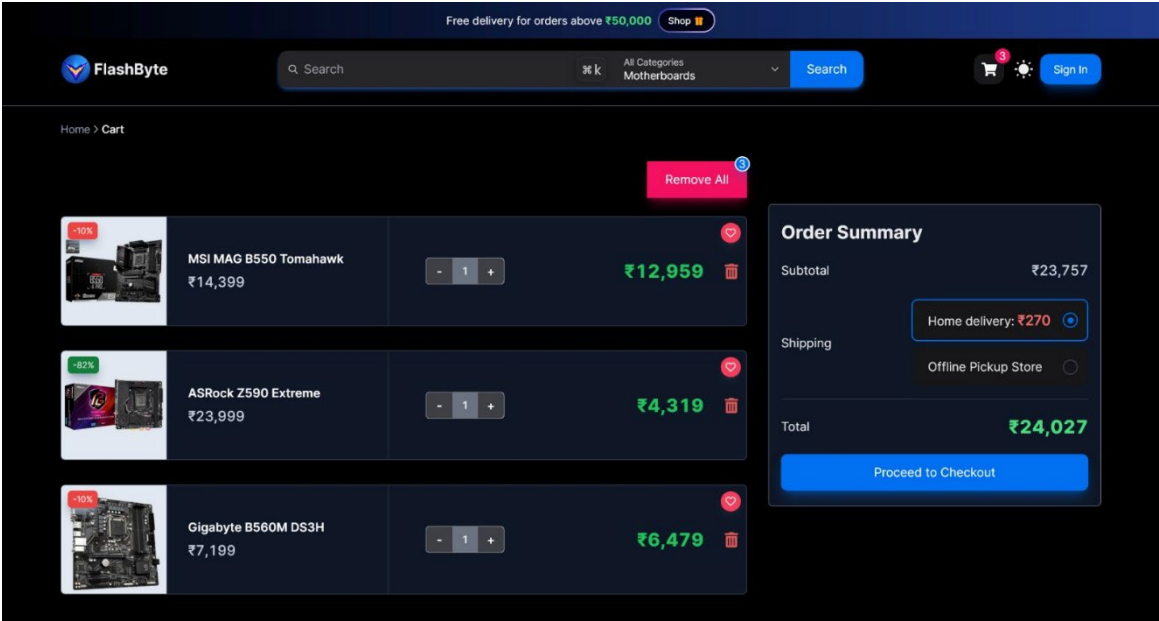
View Details

BCA 2024

CheckOut Page




Shopping Cart Page



About Us Page

Free delivery for orders above ₹10,000


Shop




₹ k

All Categories  
Choose category

Search

1



Sign In

Home > About Us

Our History

Power Up Your Play

We're more than just an online store; we're PC enthusiasts passionate about building the perfect setup for every gamer and creator.

We believe your PC should be an extension of yourself. It's not just about the latest graphics card or the trendiest case (although, we have those too!). That's why we offer a wide range of top-tier peripherals and the tools to build a PC that's as unique as you are.

Fast forward to today, and we've grown from a spark of an idea into a thriving community of builders. We've helped over 20,000 satisfied customers craft their dream PCs, with a 100% client satisfaction rating.

6


Years Experience


20K

Happy Customers

100%

Client Satisfaction





Our Vision

Building Beyond the Box

We're here to revolutionize the way you experience PC ownership. Forget cookie-cutter builds: We envision a future where:

- Every PC is a masterpiece
- Building becomes effortless
- The community thrives
- The cutting edge is accessible

We empower you to craft a PC that reflects your unique style and unleashes your full potential.


Our user-friendly platform and expert support team guide you through every step, from picking parts to hitting the power button.

We foster a vibrant space for builders to connect, share ideas, and celebrate each other's epic creations.


We source the finest peripherals so you can build a future-proof powerhouse.

Join us, and let's build the future of PC creation, together!


Meet Our Team Members




Tony Stark  
Founder



Steve Rogers  
Team Leader



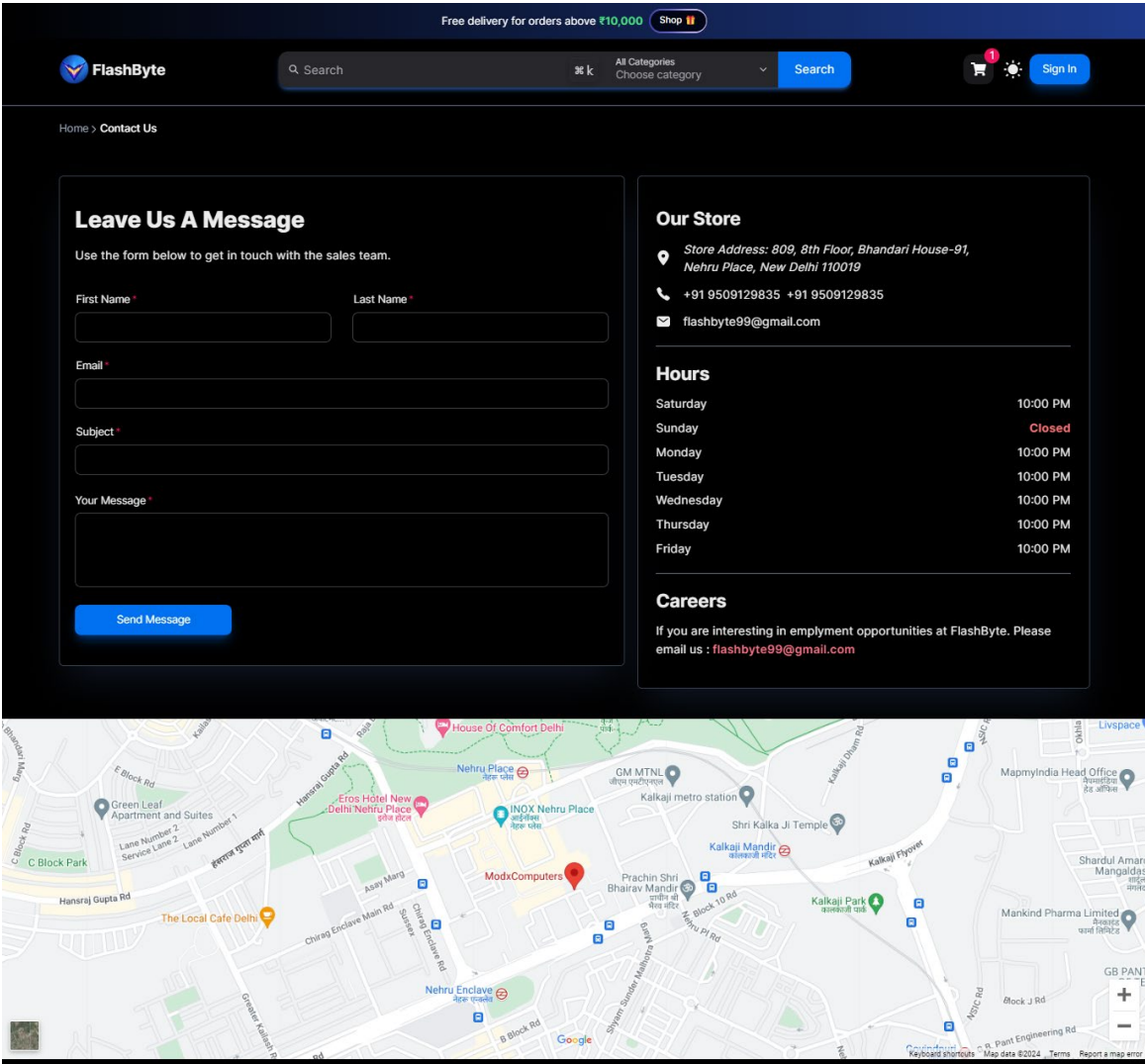
Chris Hemsworth  
Senior Officer



Tom Holland  
Marketing Officer

BCA 2024

Contact Us Page





Refund Policy Page

Free delivery for orders above ₹10,000

Shop

FlashByte

Search

₹ k

All Categories  
Choose category

Search

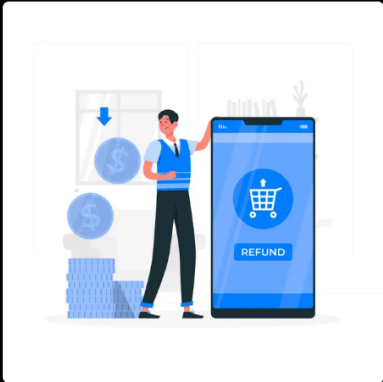
1

Sign In

Home > Refund Policy

### Refund, Return & Cancellation Policy


- If the customer requests to cancel the order before we have started to process the order (Usually within 24 Hours) then 10% of total order amount will be charged as cancellation charges and rest will be refunded.
- If the customer requests to cancel the order after we have started processing the order (Usually after 24 Hours) then 25% of total amount will be charged as cancellation charges and rest will be refunded.
- If your product has been dispatched or delivered then the customer cannot cancel the order or return the product and refund is not possible in this case.



### Refund Policy

- For refund you can [contact us](#).
- The refund process can take upto 7 days.

Footer



CALL US  
**+91 9509129835**

Monday to Friday: 10am - 5pm  
Weekend: 10am - 3pm

Shop Categories

Custom PC

All Products

Sign In

Sign Up

Information

About Us

Contact Us

Shipping Policy

Refund & Cancellation Policy

Terms & Conditions

Privacy Policy

© 2024, FlashByte. All rights reserved.

## 10. Future Enhancements

*To further enhance and expand the capabilities of your system, here are some future enhancements you can consider:*

### 1. Mobile Application Development

*Consider developing a dedicated mobile application for iOS and Android platforms to offer a seamless shopping experience on mobile devices. Limitation: Mobile app development demands extra resources, including expertise in mobile development frameworks like React Native, and potential co*

*sts for app store deployment and maintenance.*

### 2. Integration with Additional Authentication Providers

*Expand authentication options by integrating with more third-party providers such as Google, Facebook, or Amazon. This enables users to log in using their existing accounts, enhancing convenience. Limitation: Availability of third-party authentication providers may vary, and integration requires additional development effort and maintenance.*

### 3. Custom PC Builder Feature

*Implement a feature where users can customize their PCs by selecting individual components such as CPU, GPU, RAM, storage, etc. This empowers users to build PCs tailored to their preferences and needs. Limitation: Developing a custom PC builder introduces complexities in inventory management and compatibility checks between components.*



#### **4. PC Component Marketplace**

*Create a marketplace where users can buy, sell, or exchange PC components within the community. This fosters business opportunities and strengthens the network. Limitation: Implementing a marketplace entails managing transactions, user reviews, and ensuring trust and security within the platform.*

#### **5. Technical Support Forum**

*Introduce a forum where users can seek technical assistance, share tips, and troubleshoot PC-related issues. This enhances user engagement and provides valuable support resources. Limitation: Moderating the forum and ensuring the accuracy of technical advice may require dedicated resources.*

#### **6. Enhanced Product Recommendations**

*Enhance the recommendation engine to suggest compatible PC components based on users' browsing history, purchase behavior, and system requirements. This improves the shopping experience and encourages upsells. Limitation: Implementing advanced recommendation algorithms requires expertise in machine learning and data analysis.*

#### **7. Real-time Inventory Management**

*Implement real-time inventory tracking to ensure accurate stock availability information for each PC component. This prevents overselling and enhances user trust. Limitation: Integrating real-time inventory management requires robust backend infrastructure and synchronization mechanisms.*

## **8. User Reviews and Ratings**

*Allow users to leave reviews and ratings for PC components they've purchased, helping others make informed decisions. This fosters transparency and trust within the community. Limitation: Managing user-generated content requires moderation to prevent spam and ensure authenticity.*

## **9. PC Component Bundles**

*Offer pre-configured PC component bundles optimized for specific use cases such as gaming, content creation, or productivity. This simplifies the shopping process for users with specific needs. Limitation: Creating and maintaining bundled offerings requires careful selection of components and pricing strategies.*

## **10. Social Media Integration**

*Integrate social sharing features to allow users to showcase their custom PC builds or favorite components on social media platforms. This expands brand visibility and encourages user-generated content. Limitation: Compliance with social media platform policies and user permissions is necessary, along with considerations for data privacy and security.*

## 11. Conclusion

*In conclusion, the development of our ecommerce web application for PC components, built on Next.js and React for the frontend, and MongoDB for database management, marks a significant milestone in providing a robust platform for tech enthusiasts and PC builders alike. The application offers a comprehensive solution for purchasing individual PC components or customizing entire systems, catering to the diverse needs of our users.*

*By leveraging Next.js and React, the frontend delivers a sleek and intuitive interface, ensuring a seamless browsing and shopping experience for our customers. Tailwind CSS enables efficient styling and customization, enhancing the visual appeal and usability of the application.*

*The integration of MongoDB for database management ensures reliable data storage and retrieval, supporting inventory management, order processing, and user account management. Clerk authentication provides a secure and hassle-free login experience, safeguarding user data and transactions.*

*Our ecommerce web app serves multiple purposes, facilitating not only the purchase of PC components but also fostering community engagement and knowledge sharing within the PC building community. Users can explore a wide range of products, receive personalized recommendations, and benefit from user reviews and ratings to make informed purchasing decisions.*

*Moreover, the application enables users to create custom PC builds tailored to their preferences and requirements, empowering them to unleash their creativity and build high-performance systems optimized for their specific needs.*

*In addition to facilitating transactions, our ecommerce platform aims to cultivate a vibrant community of PC enthusiasts, offering forums for technical support, sharing user-generated content, and hosting events and competitions. This collaborative environment fosters learning, innovation, and camaraderie among our users, contributing to the growth and evolution of the PC building community.*

*In summary, the development of our ecommerce web application represents a significant achievement in leveraging technology to revolutionize the PC component purchasing experience. With its user-centric design, robust functionality, and vibrant community features, our platform is poised to become a cornerstone of the PC building community, empowering users to explore, create, and connect in the ever-evolving world of technology.*

## 12. References

<https://stackoverflow.com/>

<https://github.com/>

<https://www.figma.com/fr/>

<https://www.google.com/>

<https://www.youtube.com/>

<https://www.geeksforgeeks.org>

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

## 13. Appendix

### Technology Stack:

#### 1. Frontend: React.js

- *React.js is a JavaScript library for building user interfaces. It enables the creation of interactive and dynamic UI components for our ecommerce web app.*

#### 2. Backend: MongoDB, Clerk (Authentication)

- *MongoDB: MongoDB is a NoSQL database that stores our product data, user profiles, order details, and other relevant information. It offers flexibility and scalability, making it suitable for managing large volumes of data.*
- *Clerk (Authentication): Clerk provides authentication services for our application, handling user registration, login, and authentication processes securely.*

### Features of the Ecommerce Web App:

#### 1. User Registration and Authentication:

- *Users can register for an account and authenticate securely using Clerk's authentication services.*

#### 2. Product Browsing and Filtering:

- *The app allows users to browse through a wide range of PC components and filter products based on various criteria such as price, brand, and specifications.*

#### 3. Shopping Cart Management:

- *Users can add products to their shopping cart, view cart contents, and manage items before proceeding to checkout.*

#### **4. Order Processing and Checkout:**

*- The app supports order processing, enabling users to complete purchases securely through an intuitive checkout process.*

#### **5. Custom PC Builder:**

*- Users have the option to customize their PC builds by selecting individual components such as CPU, GPU, RAM, storage, etc.*

#### **6. PC Component Marketplace:**

*- The marketplace feature allows users to buy, sell, or exchange PC components within the community.*

#### **7. Real-time Inventory Management:**

*- Inventory levels are updated in real-time to ensure accurate stock availability information for each PC component.*

#### **8. User Reviews and Ratings:**

*- Users can leave reviews and ratings for PC components they've purchased, helping others make informed decisions.*

#### **9. Social Media Integration:**

*- Users can share their favourite PC builds or components directly to their social media networks.*

#### **Services Used:**

##### **1. Clerk:**

- *Clerk's authentication services handle user registration, login, and authentication securely, ensuring data privacy and security.*

## **2. MongoDB:**

- *MongoDB stores and retrieves product data, user information, order details, and other relevant data, providing flexibility and scalability for managing our application's data.*

## **User Interface:**

- *- The user interface is developed using React.js components, ensuring a seamless and intuitive shopping experience.*
- *- Tailwind CSS is utilized for styling, providing a responsive and visually appealing design.*

## **Data Flow:**

- *- User interactions and requests are routed from the frontend components to the backend API, which processes and manages the requests.*
- *- Product data, user profiles, order information, and other pertinent data are stored and fetched from the MongoDB database.*
- *- Real-time data synchronization guarantees consistency and accuracy across the application.*

## **Security Measures:**

- *- User authentication and access control are enforced using Clerk Authentication to safeguard access to the application and protect user data.*
- *- Clerk security measures are configured to regulate access to specific data and functionalities, ensuring data privacy and security.*

*This detailed appendix section provides a comprehensive overview of the technologies, features, and services utilized in your ecommerce web app for PC components.*



# Thank You