



**M.V.P SAMAJ'S**

**K.R.T ARTS, A.M.SCIENCE AND B.H.COMMERCE**

**COLLEGE, GANGAPUR ROAD**

**NASHIK.**

**E-commerce website**

**For PC parts**

**Developed by**

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**B.C.A. (Science)**

**(2023-2024)**

**Under the guidance of**

**Prof. S.P.Borse**

# SAVITRIBAI PHULE PUNE UNIVERSITY



**M.V.P SAMAJ'S**

**KRT Arts, BH Commerce and AM Science College, Nashik**

## **CERTIFICATE**

This is to certify that Mr. Amod.D.Pangarkar, (Seat No : \_\_\_\_\_ )  
of T.Y.B.C.A (Science) have / has successfully  
completed project titled E-commerce website For PC parts satisfactorily  
as partial fulfillment of curriculum for T.Y.B.C.A.(Science)  
Semester-VI during academic year 2023- 2024.

**Project Guide**

**Head,  
Dept. of Computer Science**

**Internal Examiner**

**External Examiner**

## ACKNOWLEDGE

We highly express our gratitude towards project guide Miss.S.P.Borse who has guided as well as helped from the apex of our project and whose comments have greatly helped us to make our project more approachable towards the user. We are highly obliged to our H.O.D. who passed our project at its initial stage of planning.

The collection of various ideas, and the progress of our project depends upon the intellect of all the staff members of the Information technology and Computer Science department.

We would like to take this opportunity to express our profound gratitude to all the people who have inspired and motivated us to take this project success.

Finally...Thanks to all those well-wishers and friends who helped us during the course of the project work and have been making it a great success.

Amod.D.Pangarkar

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## Introduction

- The need for high-performance computer solutions in the constantly changing world of technology has led to the emergence of a thriving and dynamic industry for PC parts. PC component e-commerce is the virtual hub where hobbyists, pros, and gamers come to investigate, choose, and purchase the components they need to realize their computing ambitions. This online store provides a wide range of choices, meeting a variety of demands and tastes, from robust CPUs and graphics cards to complex motherboards and memory modules.
- Building a custom PC is now more than simply a technical undertaking; it's a customized experience where customers look for the ideal ratio of efficiency, dependability, and creativity. An essential component of this process is the PC parts e-commerce platform, which offers a virtual showroom where customers may examine the newest developments, contrast features, and make well-informed selections catered to their particular computing needs
- Additionally, the PC components e-commerce industry is distinguished by its dedication to client pleasure. Considering the specialist nature of the items it sells, this platform places a high value on clear communication, technical help, and user support. When it comes to resolving compatibility issues, giving users access to real-time inventory changes, or providing knowledgeable guidance.

## PROBLEM DEFINITION

- **Product Knowledge Gap:** Customers often face challenges due to the technical nature of PC components. Bridging the knowledge gap is essential to help users make informed decisions. Implementing educational content, detailed product descriptions, and easy-to-understand specifications can enhance user understanding.
- **Compatibility Concerns:** PC parts need to be compatible with each other, and users may struggle to ensure that selected components work seamlessly together. Providing compatibility guides, system configurators, and expert assistance can alleviate this concern and boost customer confidence.
- **Complex Search Filters:** As users seek specific PC components based on technical specifications, the search and filter options need to be sophisticated and user-friendly. Improving search functionality and offering advanced filters for attributes like compatibility, performance, and brand can enhance the shopping experience.
- **Technical Support:** Given the technical nature of PC components, users may require assistance during the selection or installation process. Offering reliable technical support through various channels, including live chat or dedicated helplines, is crucial to address customer queries promptly.
- **Product Availability and Updates:** Frequent updates in PC hardware technology can lead to rapid changes in product availability. Ensuring real-time inventory updates, notifying customers of product restocks, and providing alternatives for out-of-stock items are crucial to managing customer expectations.
- **Shipping and Handling of Fragile Items:** PC parts, especially delicate components like CPUs and GPUs, require careful handling during shipping. Implementing robust packaging practices and collaborating with reliable shipping partners can minimize the risk of damage during transit.
- **Customer Reviews and Feedback:** Users heavily rely on reviews and feedback to make informed decisions about PC parts. Encouraging and displaying authentic customer reviews can build trust and assist potential buyers in making confident purchase decisions.

## NEED OF SYSTEM

- **Technical Complexity:** PC components, such as processors, graphics cards, and motherboards, come with intricate technical specifications. A specialized e-commerce system is required to handle the complexity of these specifications, providing users with accurate and detailed information to make informed purchasing decisions.
- **Compatibility Considerations:** Unlike generic e-commerce platforms, those tailored for PC parts must address compatibility concerns. A sophisticated system should offer tools such as configurators, compatibility guides, and interactive interfaces that assist users in ensuring that selected components work seamlessly together in their builds.
- **Dynamic Inventory Management:** The fast-paced evolution of PC hardware introduces new components and renders existing ones obsolete. A robust e-commerce system should integrate real-time inventory management, ensuring that product availability is accurately reflected, and customers are promptly informed of restocks or alternatives.
- **Educational Content Delivery:** Given the technical nature of PC parts, there is a need for the e-commerce system to deliver educational content. This includes detailed product descriptions, specifications, and tutorials, empowering users with the knowledge required to make well-informed decisions about their purchases.
- **Secure Transactions:** PC components often involve substantial financial transactions. A secure e-commerce system is essential to protect sensitive customer information, ensuring secure payment gateways, data encryption, and other measures to build trust and confidence in the online purchasing process.

## **PROPOSED SYSTEM**

The proposed e-commerce system for PC parts aims to provide a user-friendly platform that addresses the technical complexity of components, ensures compatibility through configurators and guides, offers real-time inventory management, delivers comprehensive educational content, prioritizes secure transactions, implements advanced search and filtering options, provides responsive customer support for technical queries, utilizes personalized recommendations, streamlines the checkout process for efficiency, and remains adaptable to evolving market trends. This system is designed to enhance the overall shopping experience, facilitating informed decision-making for users navigating the intricacies of PC components.



# **Feasibility Study**

## **Economic Feasibility**

- **Cost-Benefit Analysis:** Assess the costs associated with platform development, maintenance, and marketing against the expected revenue and market share.
- **Market Potential:** Evaluate the demand for PC parts and growth potential in the target market.

## **Technical Feasibility**

- **Infrastructure:** Examine the technical requirements for hosting, database management, and system integration.
- **Development Resources:** Ensure the availability of skilled developers and technology resources for platform development and maintenance.

## **Operational Feasibility**

- **User Training:** Evaluate the ease of use for both customers and administrators.
- **Operational Efficiency:** Assess the platform's ability to handle order processing, inventory management, and customer support efficiently.

# Hardware Software Requirements

## Hardware Requirements:

- i3 Processor
- 8 GB RAM
- 500 GB HARDDISK
  
- Server: Processor: Multi-core processor (e.g., Intel Xeon or AMD Ryzen), RAM: 4GB or higher, Storage: SSD for faster data retrieval.
  
- Database Server: Database Management System (DBMS): MySQL, PostgreSQL, or MongoDB, Storage: SSD for database storage, RAM: 16GB or higher.

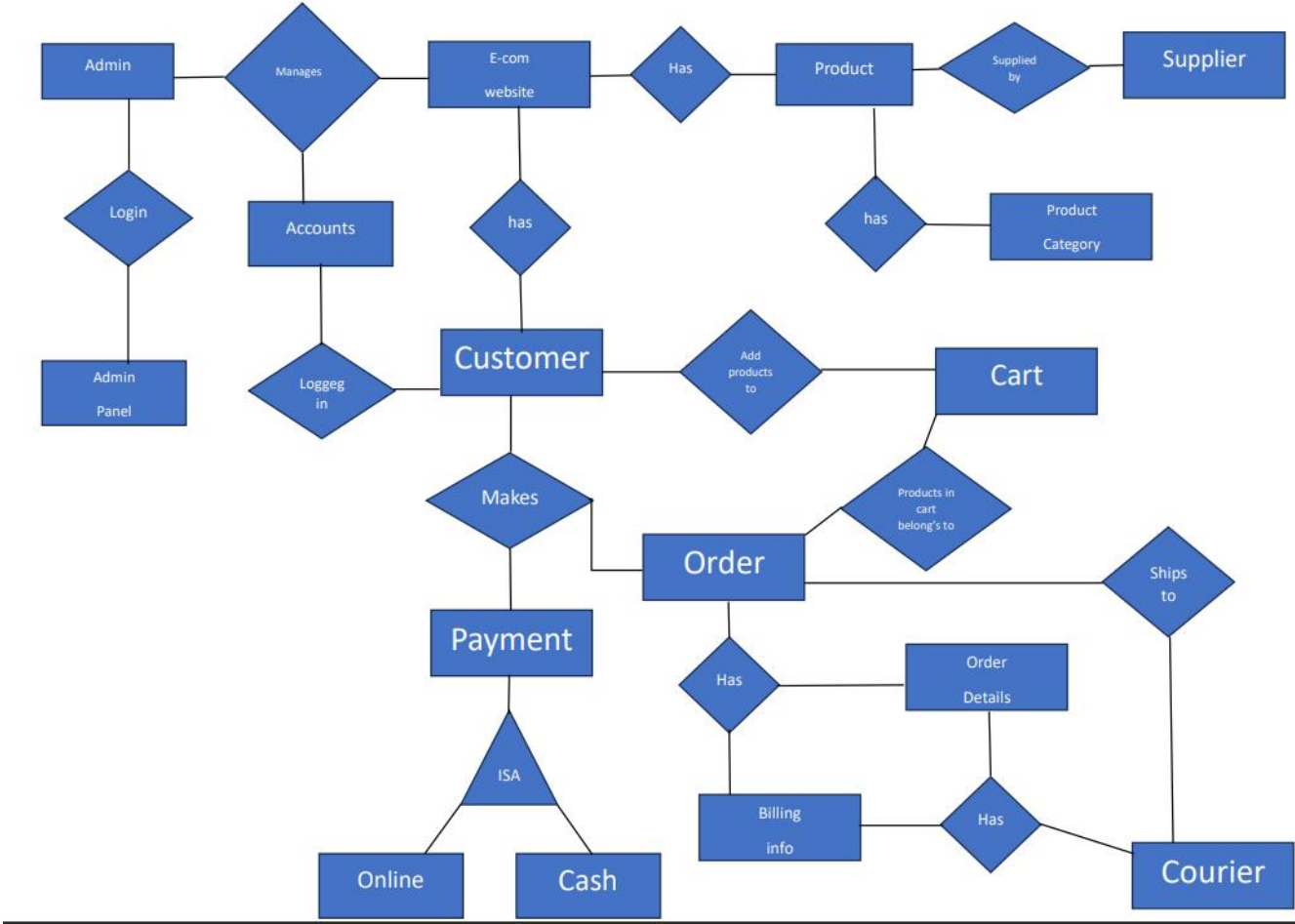
## Software Requirements:

- Frontend: PHP, HTML, CSS, JavaScript.
  
- Backend: MySQL and Apache server.
  
- Operating System: Server: Linux (e.g., Ubuntu Server, CentOS) or Windows Server.
  
- Client Machines: Windows, macOS, or Linux.

## FACT FINDING TECHNIQUES

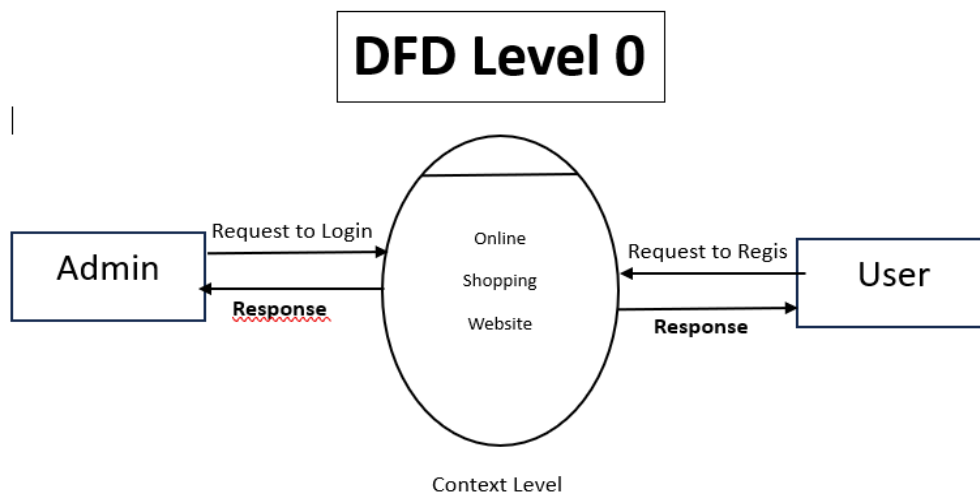
- **Interviews:** Conduct interviews with key stakeholders, including business owners, developers, marketing teams, and potential users.
- Gather insights into business goals, user expectations, and specific requirements for the e-commerce platform.
- **Surveys and Questionnaires:** Distribute surveys to potential users, asking about their preferences, expectations, and pain points in the current e-commerce experience.
- Use questionnaires to collect quantitative data on features, user interface preferences, and desired functionalities.
- **Observation:** Observe the current e-commerce practices in the PC parts market, both online and offline. Identify common challenges faced by users and opportunities for improvement.
- **Document Analysis:** Review existing documentation, such as business plans, market research reports, and technical specifications.
- Analyze any current systems or platforms in use to understand strengths and weaknesses.
- **Analysis of Competitors:** Analyze the PC parts e-commerce sites of rivals.

# E-R Diagram

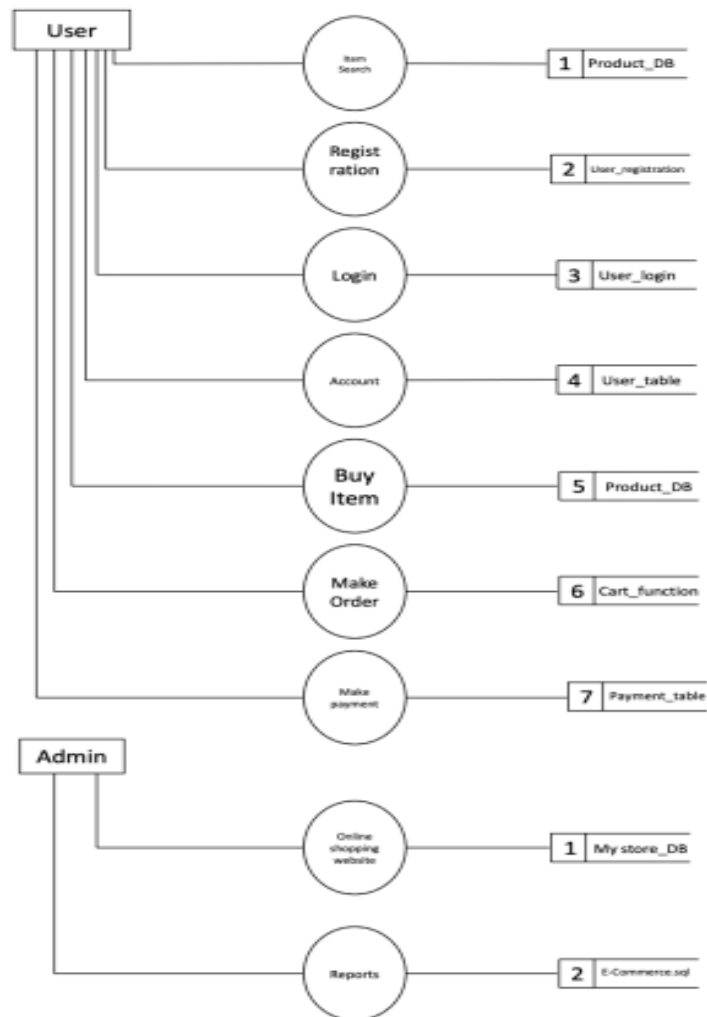


E-R Diagram

# DFD

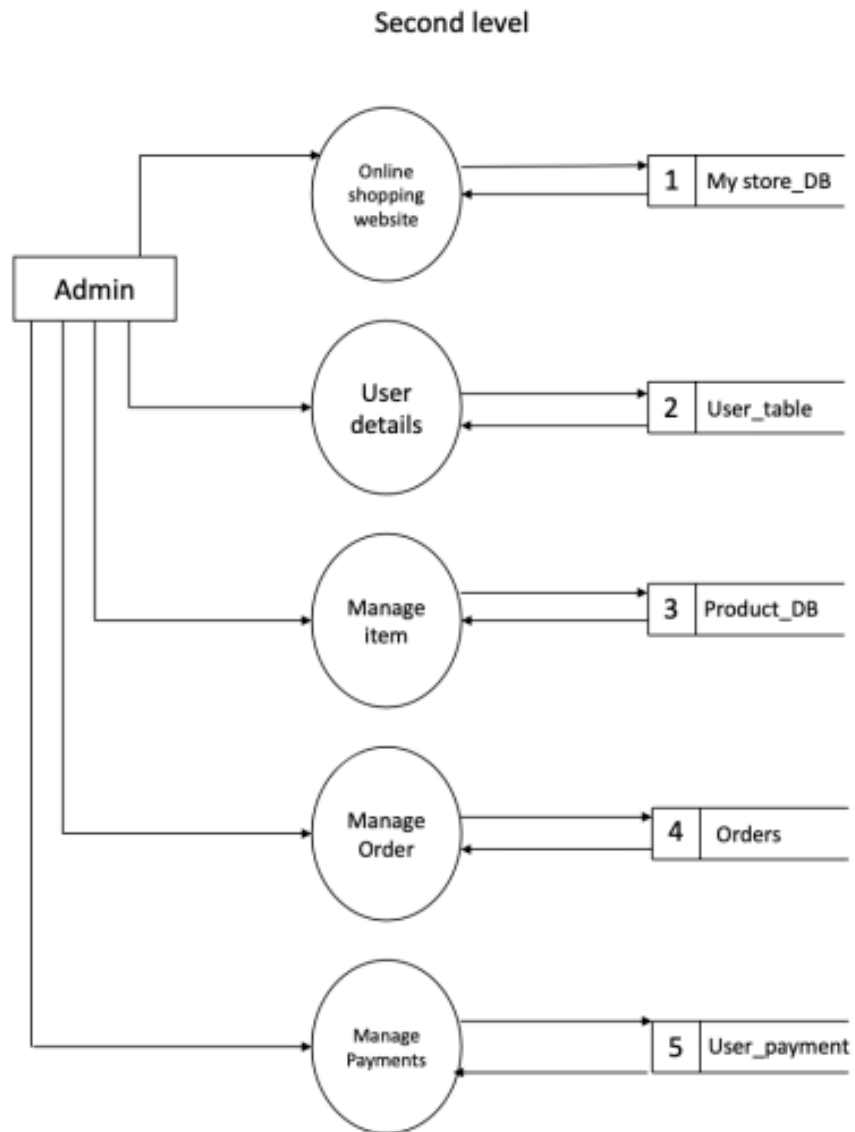


# DFD Level 1



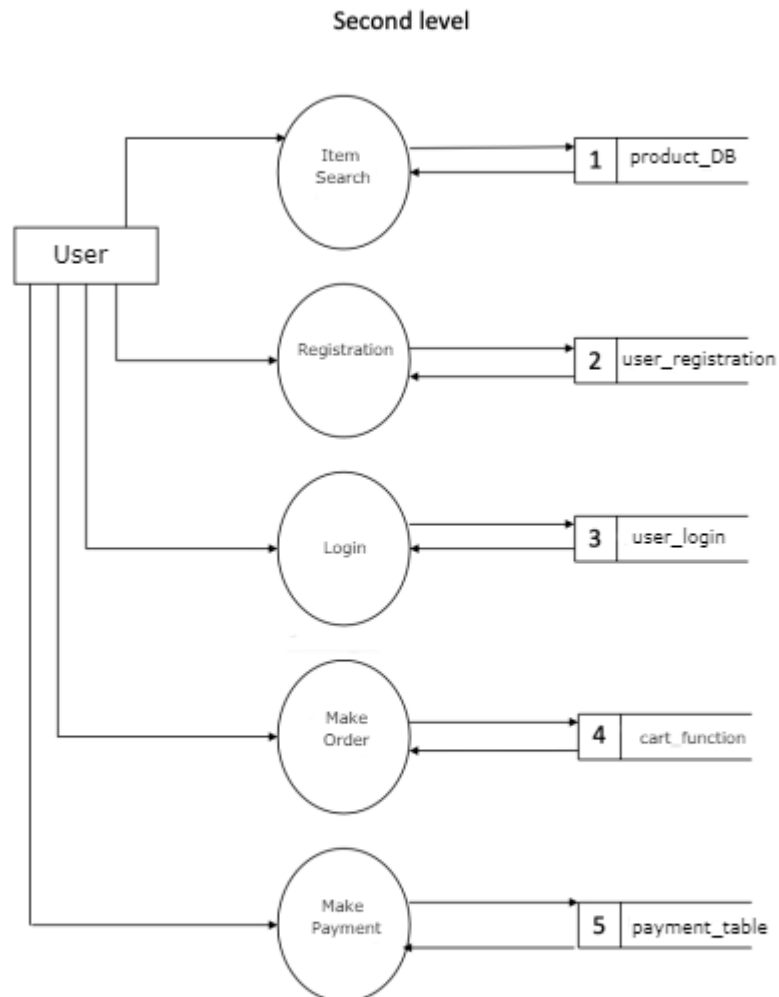
**DFD Level 1**

## DFD Level 2(Admin Side)



### DFD LEVEL2

## DFD Level 2(User Side)






### DFD LEVEL2



## Input Output Screens:


## Home Page:

 Home All Departments  0

Search 

Welcome, test [logout](#)

### FEATURED & RECOMMENDED




[AMD Ryzen 9 7950X3D Processor](#)

★★★★☆

₹55000/-  
~~₹97,000/-~~

[Add to cart](#) [view more](#)




[G.Skill Trident Z Neo 32GB](#)

★★★★☆

₹8900/-  
~~₹12,999/-~~

[Add to cart](#) [view more](#)




[Geforce RTX 3050](#)

★★★★☆

₹35000/-  
~~₹50,000/-~~

[Add to cart](#) [view more](#)





[Asus Dual RTX 3060 OC Edition](#)


★★★★☆

₹25000/-  
~~₹52,000/-~~


[Add to cart](#) [view more](#)

## Product Page:

 Home  0

Search 

Welcome, test [logout](#)



**Geforce RTX 3050**

test

**ABOUT PRODUCT**

Graphics Coprocessor NVIDIA GeForce RTX 3060  
Brand GIGABYTE Graphics RAM Size 12 GB GPU  
Clock Speed 1837 MHz Video Output Interface  
DisplayPort, HDMI

★★★★☆

₹35000/-  
~~₹50,000/-~~

[Add to cart](#)

# User Profile Panel:

Home

All Departments

0

Search

Search

Welcome, Guest

login

Profile Panel

Pending order

Edit Account

My Orders

Delete Account

Manage Details

All my order

SL no	Amount Due	Total Products	Invoice number	Date	Complete/INcomplete	Status
1	1190850	2	1311432026	2024-03-05 09:09:05	Complete	Paid
1	86	2	1484788820	2024-03-05 09:09:12	Complete	Paid
1	30	1	1521834860	2024-03-05 09:13:21	Complete	Paid
1	1190272	2	1886376887	2024-03-05 10:22:15	Complete	Paid
1	133	3	960606999	2024-03-05 14:54:16	Complete	Paid
1	8777	2	172419494	2024-03-05 16:36:33	Complete	Paid
1	16	1	2068043723	2024-03-05 16:42:11	Complete	Paid
1	35000	1	174374650	2024-03-06 12:19:13	Complete	Paid
1	500000	1	190654555	2024-03-06 12:31:05	Complete	Paid
1	0	0	230793495	2024-03-06 12:32:47	Complete	Paid
1	10000000	1	975354970	2024-03-06 16:13:24	Complete	Paid

# Billing Page:

Checkout

Billing Info

Name

Amod Pangarkar

Email Address

test@gmail.com

Phone

8989898989

Address

D-502, Rizvi Nagar, Junction of Milan Subway & SV Road, Santa Cruz (W), Mumbai, Maharashtra 400054, India

Continue Shopping

Procced

Home


About Us

Contact Us

Admin



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## Cart Page:



Home  2

Search

Welcome, test [logout](#)

Product Title	Product Image	Quantity	Total price	Remove	Opreation
G.Skill Trident Z Neo 32GB		<input type="text"/>	8909/-	<input type="checkbox"/>	<input type="button" value="update_cart"/> <input type="button" value="Remove"/>
AMD Ryzen Threadripper Pro 5955WX		<input type="text"/>	101092/-	<input type="checkbox"/>	<input type="button" value="update_cart"/> <input type="button" value="Remove"/>

subtotal: **110001/-**

[Home](#) [About Us](#) [Contact Us](#) [Admin](#)

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## Admin Panel:
















Welcome back, Admin

Admin Panel

[Insert Products](#)  
[View Products](#)  
[Insert Categories](#)  
[View Categories](#)  
[Insert Brand](#)  
[View Brand](#)  
[All Orders](#)  
[All Payment](#)  
[List User](#)  
[Go Back to HomePage](#)

Manage Details

All Products

Product ID	Product Title	Product Image	Product price	Total Sold	Status	Edit	Delete
1	Geforce RTX 3050		35000/-	3	true		
2	Asus Dual RTX 3060 OC Edition		25000/-	1	true		
3	Adata XPG Spectrix D60G 16GB		4819/-	0	true		
4	G.Skill Trident Z Neo 32GB		8909/-	2	true		
5	AMD Ryzen 9 7950X3D		55000/-	1	true		

## Login Page:

### User Login

Username

Password

Dont have an account? [Register](#)

## Registration Page:

### New user Registrtaion

Username

E-mail

Password

Confirm Password

Address

Contact

Already have an account? [Login](#)

## DATA DICTIONARY

### “Admin\_table”

Sr.no	Name	Type	Key
1	admin_id	int(11)	Primary
2	admin_name	varchar(100)	
3	admin_email	varchar(200)	
4	admin_password	varchar(255)	

### “Brands”

Sr.no	Name	Type	Key
1	brand_id	int(11)	Primary
2	brand_title	varchar(100)	

### “cart\_details”

Sr.no	Name	Type	Key
1	product_id	int(11)	Primary
2	ip_address	varchar(255)	
3	quantity	int(100)	

### “categories”

Sr.no	Name	Type	Key
1	category_id	int(11)	Primary
2	category_title	varchar(100)	

### “orders\_pending”

Sr.no	Name	Type	Key
1	order_id	int(11)	Primary
2	user_id	int(11)	
3	invoice_number	int(255)	
4	product_id	int(11)	
5	quantity	int(255)	
6	order_status	varchar(255)	

### “products”

Sr.no	Name	Type	Key
1	product_id	int(100)	Primary
2	product_title	varchar(255)	
3	product_description	varchar(250)	
4	product_keywords	varchar(255)	
5	category_id	int(11)	
6	brand_id	int(11)	
7	product_image1	varchar(255)	
8	product_price	int(100)	
9	product_discount	varchar(100)	
10	date	timestamp	
11	status	varchar(100)	

### “user\_orders”

Sr.no	Name	Type	Key
1	order_id	int(11)	Primary
2	user_id	int(11)	
3	amount_due	int(255)	
4	invoice_number	int(255)	
5	total_products	int(255)	
6	order_date	timestamp	
7	order_status	varchar(255)	

“user\_payment”

Sr.no	Name	Type	Key
1	payments_id	int(11)	
2	order_id	int(11)	
3	invoice_number	int(11)	
4	amount	int(11)	
5	payment_mode	varchar(255)	
6	date	timestamp	

“user\_table”

Sr.no	Name	Type	Key
1	user_id	int(100)	
2	username	varchar(255)	
3	user_email	varchar(255)	
4	user_password	varchar(255)	
5	user_ip	varchar(255)	
6	user_address	varchar(255)	
7	user_mobile	varchar(255)	

## **CONCLUSION:**

In conclusion, the proposed e-commerce platform for PC parts is poised to address the unique challenges of the niche market. Through thorough research, it promises a user-friendly interface, robust technical infrastructure, and personalized features. With a focus on compatibility, educational content, and real-time inventory management, the platform is positioned to provide a seamless and enriching experience for PC enthusiasts. By aligning with market trends and user expectations, this platform aims to become a leading destination for those navigating the intricate world of PC components, offering a secure and dynamic space for tech enthusiasts and professionals alike.

Thank you for joining us on this journey!.



## **ADVANTAGES:**

- **Wide Product Selection:** The platform offers an extensive range of PC parts, providing users with diverse options to cater to their specific needs and preferences.
- **Technical Education:** The inclusion of detailed product descriptions, compatibility guides, and educational content enhances users' technical knowledge, aiding them in making informed purchasing decisions.
- **Real-time Inventory Management:** Dynamic inventory updates ensure accurate product availability information, reducing instances of out-of-stock items and improving customer satisfaction.
- **Secure Transactions:** Robust security measures, including SSL certificates and secure payment gateways, instill confidence in users regarding the safety of their personal and financial information.
- **Efficient Search and Filtering:** Advanced search functionalities and filters simplify the process of finding specific components, streamlining the user experience and saving time.

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