

**PROJECT SYNOPSIS**  
**of**  
**Krypturg Web App**



**Submitted to :**

Mr. Anuj Kumar

**Submitted by :**

Rochak Sharma

Id : AF0350890

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# 1.INTRODUCTION

Krypturg, is a premier destination for electronic marketing and e-commerce excellence, specializing in computer and peripheral devices. In today's digital age, electronic commerce (e-commerce) has become synonymous with convenience, accessibility, and limitless opportunities. At Krypturg, we embrace this dynamic landscape, offering a seamless platform where customers can explore, discover, and purchase a wide array of products and services with ease.

E-commerce, commonly known as electronic marketing, encompasses companies and individuals engaging in the buying and selling of goods and services over the internet. This transformative model operates across various market segments, catering to diverse consumer needs and preferences. Whether you're searching for cutting-edge technology solutions or everyday essentials, e-commerce provides a convenient avenue to fulfill your requirements.

One of the remarkable aspects of e-commerce is its versatility. Transactions can be conducted over a multitude of devices, including computers, tablets, smartphones, and other smart devices. This flexibility ensures that customers can engage with e-commerce platforms anytime, anywhere, enhancing accessibility and empowering individuals to make informed purchasing decisions on their terms.

At Krypturg, we embrace the ethos of electronic marketing, offering a curated selection of computer and peripheral devices to meet the demands of modern consumers. From state-of-the-art laptops and desktops to innovative peripherals and accessories, our comprehensive catalog caters to tech enthusiasts, professionals, and casual users alike.

Our commitment to excellence extends beyond merely facilitating transactions; we strive to create an immersive and personalized shopping experience for our customers. Through intuitive interfaces, advanced search functionalities, and secure payment gateways, we aim to simplify the e-commerce journey and exceed customer expectations at every touchpoint.

As we navigate the ever-evolving landscape of electronic marketing, Krypturg remains dedicated to innovation, integrity, and customer satisfaction. Join us on this exciting journey as we redefine the boundaries of e-commerce, harnessing technology to inspire, empower, and transform the way we shop and engage online.

## Key features of Krypturg :

- **Virtual PC Configuration:** Visualize your dream PC setup in real-time with our Virtual PC Configuration tool. Customize your specifications and witness your ideal computer come to life before your eyes, ensuring that every component meets your requirements.
- **Integration with Tech Forums:** Connect with tech communities and tap into a wealth of knowledge and advice from fellow enthusiasts. Our integration with Tech Forums allows you to seek guidance, share insights, and stay updated on the latest trends and innovations in the tech world.
- **Exclusive Deals:** Unlock access to special discounts and exclusive deals on selected products, curated especially for our Krypturg community. Enjoy savings on premium hardware and peripherals, making your shopping experience even more rewarding.
- **Expert Consultation:** Schedule personalized sessions with our team of tech experts for tailored assistance and advice. Whether you're a novice or a seasoned pro, our experts are here to address your queries, provide recommendations, and help you make informed decisions.
- **DIY Assembly Guides:** Embark on your DIY PC assembly journey with confidence, thanks to our comprehensive step-by-step tutorials. From selecting components to building your rig, our assembly guides empower you to create the ultimate customized setup with ease.
- **Cross-Platform Sync:** Experience seamless browsing and purchasing across multiple devices with our Cross-Platform Sync feature. Your user accounts and shopping carts are synchronized in real-time, allowing you to pick up where you left off, whether you're on your computer, tablet, or smartphone.
- **Localized Payment Options:** Choose from a variety of payment methods tailored to your region, accommodating diverse customer preferences. Our localized payment options ensure a hassle-free checkout experience, allowing you to shop with confidence and convenience.
- **Real-Time Inventory Updates:** Stay informed about product availability with our Real-Time Inventory Updates. We automatically update stock levels to minimize the risk of out-of-stock items, ensuring that you can purchase your desired products without delay.

## 2. TECHNOLOGIES AND TOOLS

**1. HTML (HyperText Markup Language):** HTML forms the structure of the web pages in Krypturg, defining the layout and content of various elements such as headers, navigation menus, product listings, etc.

**2. CSS (Cascading Style Sheets):** CSS is used to style the HTML elements, controlling the visual presentation of the Krypturg website, including aspects such as colors, fonts, layout, and responsiveness.

**3. JavaScript:** JavaScript enhances the interactivity and functionality of Krypturg's web pages. It may be used for tasks such as form validation, dynamic content loading, interactive elements (e.g., sliders, carousels), and handling user events.

**4. Bootstrap:** Bootstrap is a front-end framework that provides pre-designed components and styles for building responsive and visually appealing web interfaces. Krypturg can utilize Bootstrap for faster development and consistent design across different devices.

**5. Servlet and JSP (Java Server Pages):** Servlets and JSPs are Java technologies used for server-side programming in web applications. In Krypturg, servlets can handle requests from clients (e.g., retrieving product information, processing user inputs), while JSPs generate dynamic HTML content to be sent back to the client.

**6. JPA (Java Persistence API) and Hibernate :** JPA is a Java standard for object-relational mapping (ORM), while Hibernate is a popular ORM framework that implements JPA specifications. Krypturg can utilize JPA with Hibernate to interact with the database, perform CRUD (Create, Read, Update, Delete) operations on entities (e.g., products, user profiles), and manage transactions.

**7. MySQL :** MySQL is a relational database management system (RDBMS) that can be used as the backend database for Krypturg. It stores data related to products, user accounts, orders, and other aspects of the e-commerce platform. SQL queries and statements are used to interact with the MySQL database, facilitated by JPA and Hibernate.

## **Server used :**

- **Apache Tomcat v9 :** It serves as the web server and servlet container for Krypturg. It hosts the website, handles HTTP requests, executes Java servlets and JSPs, and supports Java EE technologies. Tomcat allows for deployment of WAR files, offers configuration and management tools, ensures scalability and performance, and includes security features for protecting sensitive data. Overall, Tomcat forms the backbone of Krypturg's web infrastructure, providing a reliable platform for delivering a seamless e-commerce experience.

## **IDE used:**

- **Eclipsed IDE :** Eclipse IDE is the primary development environment for Krypturg. It facilitates coding, debugging, testing, and project management. Eclipse seamlessly integrates with version control systems like Git and supports build automation for deployment. Its extensive plugin ecosystem enhances productivity and customization for the development team. In summary, Eclipse IDE serves as a comprehensive toolset for efficient and streamlined development of the Krypturg e-commerce platform.

### 3. SYSTEM REQUIREMENTS SPECIFICATIONS

➤ **Hardware and Software Requirement :**

For a minimal setup to host the Krypturg e-commerce platform:

**Hardware :**

**1.Server:**

- ❖ **CPU:** Dual-core processor
- ❖ **RAM:** 8GB DDR4
- ❖ **Storage:** 250GB HDD or SSD
- ❖ **Network:** Ethernet connectivity

**2.Database Server:**

- ❖ **CPU:** Dual-core processor
- ❖ **RAM:** 8GB DDR4
- ❖ **Storage:** 250GB HDD or SSD

**3.Networking Equipment:**

- ❖ Basic router
- ❖ Ethernet switch

**Software:**

**1.Operating System:**

- ❖ Windows/MAC

**2.Web Server and Servlet Container:**

- ❖ Apache Tomcat v9 for hosting the e-commerce website and executing Java servlets.

**3.Database Management System:**

- ❖ MySQL as the relational database management system (RDBMS) for storing product information, user data, and transaction records.

**4.Integrated Development Environment (IDE):**

- ❖ Eclipse IDE for Java EE development, including coding servlets, JSPs, and managing the project.

This combined hardware and software configuration forms the basic infrastructure required to deploy and operate the Krypturg e-commerce platform. Additional resources and optimizations may be necessary based on the scale and requirements of the project.

## 4.BENEFITS AND LIMITATIONS :

### Benefits of Krypturg Web APP :

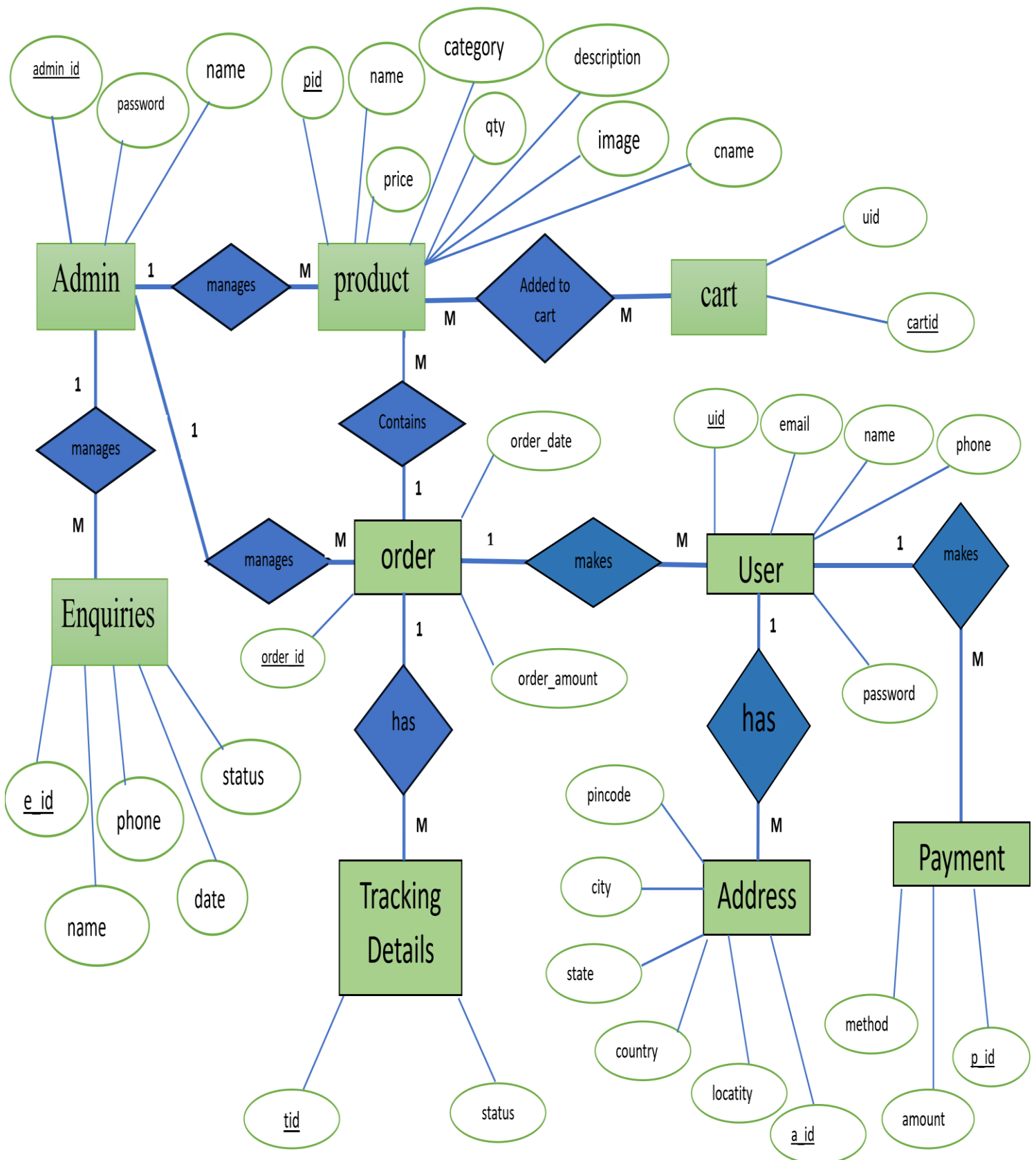
- **Speed and Convenience:** Faster buying/selling process, easy product discovery.
- **24/7 Availability:** Allows transactions at any time, providing round-the-clock service to customers.
- **Global Market Reach:** Overcomes geographic limitations, expanding customer base globally.
- **Cost Efficiency:** Lower operational costs compared to physical stores, leading to better profit margins.
- **Quality of Service:** Enhanced customer service through features like live chat support and personalized recommendations.
- **Flexibility and Ease of Management:** Easy to start and manage a business with minimal capital investment and greater flexibility in operations.

### Limitations :

- **Limited Product Inspection:** Customers can't physically examine products, potentially leading to dissatisfaction upon delivery.
- **Digital Accessibility Divide:** Not everyone has internet access, reducing the potential customer base.
- **Security Risks:** Concerns about credit card theft and cybercrimes may undermine trust in online transactions.
- **Technical Vulnerabilities:** Mechanical failures or technical issues can disrupt operations, leading to lost sales and reputational damage



## 5.DATABASE DESIGN



### Admin Table :-

```
mysql> desc admin;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| admin_id   | varchar(20)   | NO   | PRI | NULL    |       |
| password   | varchar(20)   | NO   |     | NULL    |       |
| name       | varchar(45)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

### Enquiries Table :-

```
mysql> desc enquiry;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| e_id       | int           | NO   | PRI | NULL    |       |
| name       | varchar(45)   | NO   |     | NULL    |       |
| phone      | varchar(45)   | NO   |     | NULL    |       |
| date       | date          | NO   |     | NULL    |       |
| status     | varchar(45)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

### Order Table:-

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| order_id   | varchar(45)   | NO   | PRI | NULL    |       |
| order_date | date          | NO   |     | NULL    |       |
| order_amount | int           | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> █
```

### User Table:-

```
mysql> desc user;
```

Field	Type	Null	Key	Default	Extra
uid	varchar(45)	NO	PRI	NULL	
email	varchar(100)	NO	UNI	NULL	
name	varchar(45)	NO		NULL	
phone	varchar(10)	NO		NULL	
password	varchar(45)	NO		NULL	

5 rows in set (0.00 sec)

### Product Table:-

```
mysql> DESC product;
```

Field	Type	Null	Key	Default	Extra
pid	varchar(45)	NO	PRI	NULL	
name	varchar(45)	NO		NULL	
price	int	NO		NULL	
cname	varchar(45)	NO		NULL	
image	longblob	NO		NULL	
description	varchar(100)	NO		NULL	
qty	int	NO		NULL	
category	varchar(45)	NO		NULL	

8 rows in set (0.01 sec)

### Address Table:-

```
mysql> DESC address;
```

Field	Type	Null	Key	Default	Extra
a_id	varchar(45)	NO	PRI	NULL	
locality	varchar(45)	NO		NULL	
country	varchar(45)	NO		NULL	
state	varchar(45)	NO		NULL	
city	varchar(45)	NO		NULL	
pincode	int	NO		NULL	

6 rows in set (0.00 sec)

### Payment Table:-

```
mysql> DESC payment;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| pid   | varchar(45)   | NO   | PRI | NULL    |       |
| amount | int           | NO   |     | NULL    |       |
| method | varchar(45)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```

### Cart Table:-

```
mysql> DESC cart;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| cartid | varchar(45)   | NO   | PRI | NULL    |       |
| uid    | varchar(45)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

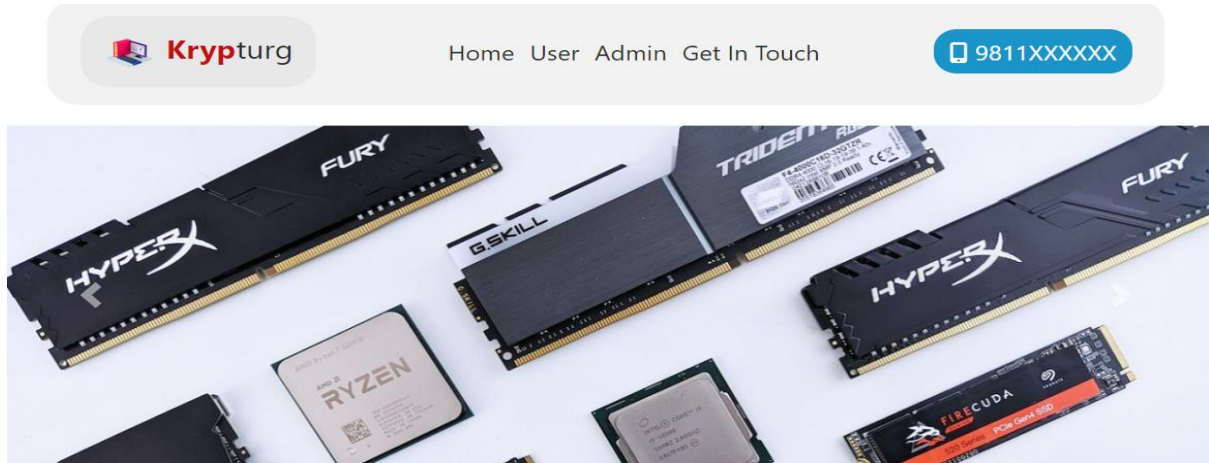
### Tracking Details Table:-

```
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| tid   | varchar(45)   | NO   | PRI | NULL    |       |
| status | varchar(45)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```



## 6.SCREENSHOTS :

Home Page



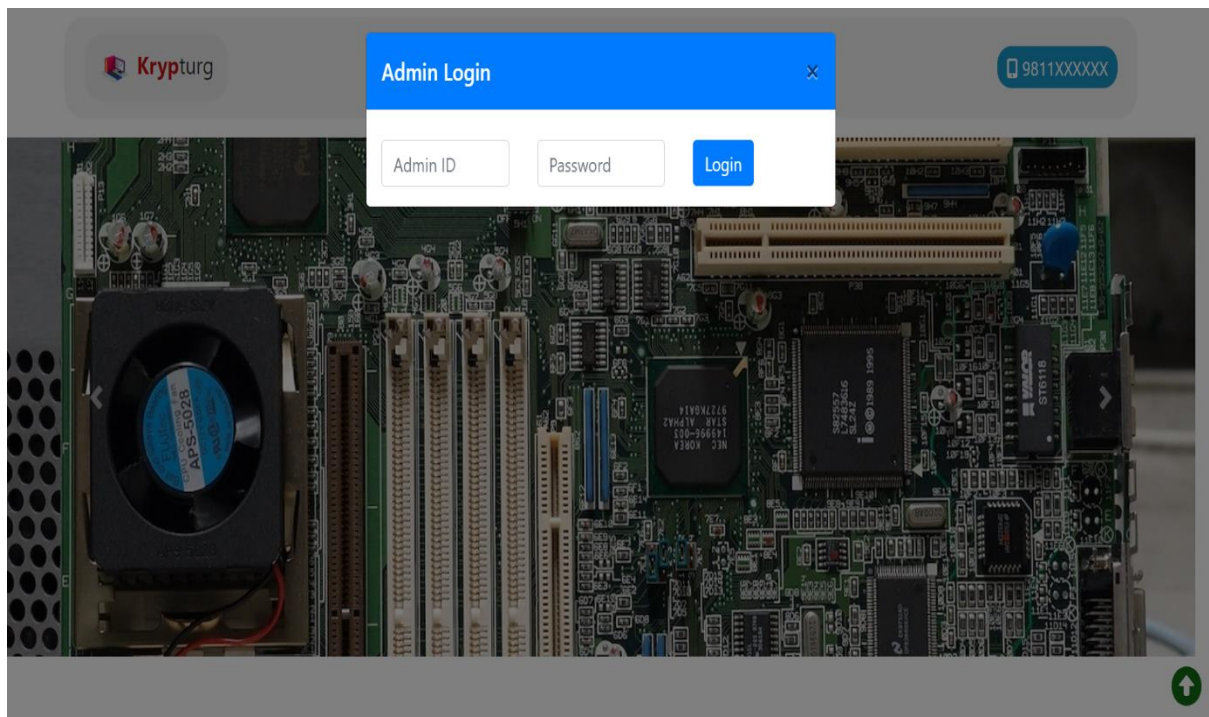
Lorem ipsum dolor sit amet.



Lorem ipsum dolor sit amet.

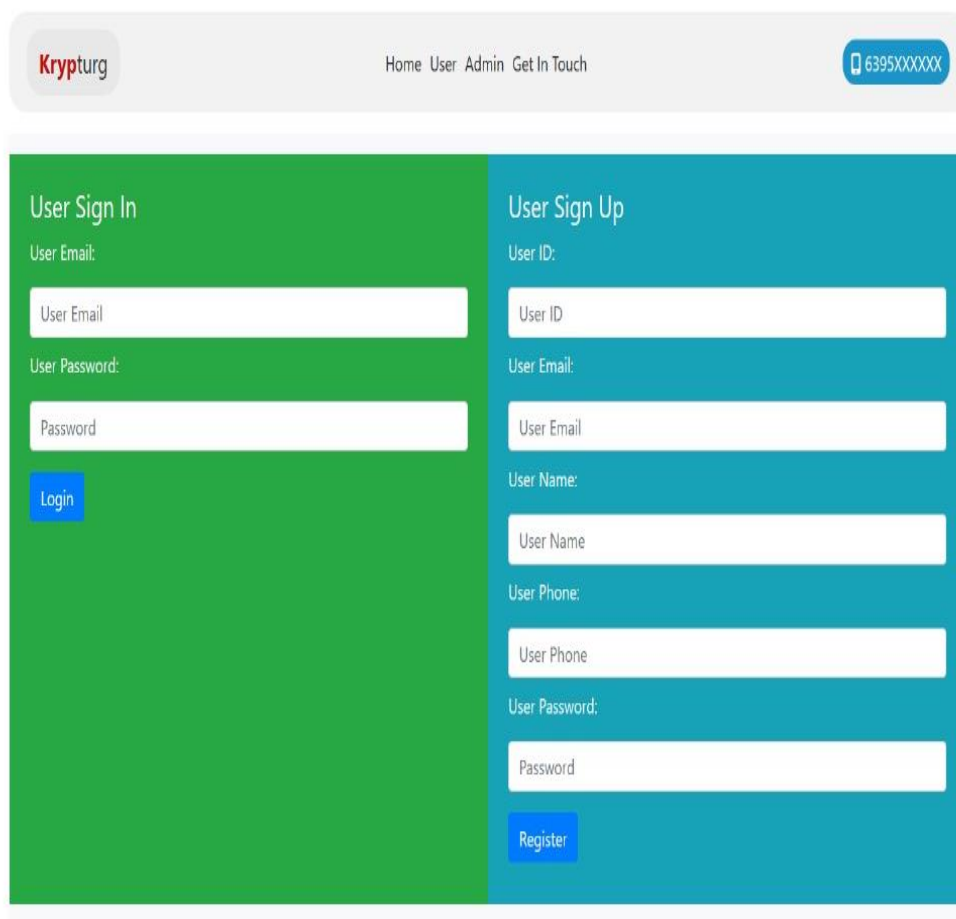


## Admin Login Page



The Admin Login page features a background image of a computer motherboard. At the top left is the 'Krypturg' logo. At the top right is a phone icon with the number '9811XXXXXX'. A blue 'Admin Login' modal box is centered on the screen, containing two input fields labeled 'Admin ID' and 'Password', and a blue 'Login' button. A green upward arrow icon is located in the bottom right corner.

## User Login & Registration Page



The User Login & Registration page has a light gray header with the 'Krypturg' logo on the left, navigation links 'Home User Admin Get In Touch' in the center, and a phone icon with '6395XXXXXX' on the right. The main content area is split into two columns: a green 'User Sign In' column and a blue 'User Sign Up' column. The 'User Sign In' column includes fields for 'User Email' and 'User Password', and a blue 'Login' button. The 'User Sign Up' column includes fields for 'User ID', 'User Email', 'User Name', 'User Phone', and 'User Password', and a blue 'Register' button. A green upward arrow icon is in the bottom right corner.

User Page

Krypturg

Home Order Build My PC

Welcome: Shami Cart [+2] Logout

Search Product

mouse

Search

All products

Name: Price: Company Name: Category: Info:

Add To Cart

Krypturg

Get In Touch

9811XXXXXX

Your Name

Your Phone

Submit

HYPERX

FURY

G.SKILL

RYZEN

FIRECUDA

Build My PC Page

Build My PC

Select Mother Board:

Select Processor:

Select RAM:

Select Hard Disk:

Select keyboard:

Select Mouse:

Select Webcam:





## **7.CONCLUSION**

In conclusion, Krypturg-Web-App serves as a robust e-commerce platform specializing in computer products and peripherals. With its innovative features such as the "Build My PC" customization option and diligent user monitoring by the admin, the platform aims to provide a seamless and secure online shopping experience. While the primary goal is to drive online sales and revenue generation for the company, Krypturg-Web-App exemplifies the transformative potential of e-commerce in catering to diverse consumer needs in the digital age.

## References

- 1.Flanagan, D. (2011). JavaScript: The Definitive Guide. O'Reilly Media.This comprehensive guide provides in-depth coverage of JavaScript, essential for understanding client-side scripting in web development.
- 2.W3C. (2022). HTML Living Standard.The official documentation from the World Wide Web Consortium (W3C) provides the latest specifications for HTML, serving as a reference for building the structure of web pages.
- 3.Meyer, E., & McFarland, D. (2018). CSS: The Definitive Guide. O'Reilly Media. A comprehensive resource for understanding Cascading Style Sheets (CSS) and creating visually appealing and responsive web designs.