

A
Project Report On
Medkit

**Submitted in the Partial fulfillment of the requirement for
awarding the degree of Bachelor of Science in Information
Technology (B. Sc.IT) SEM 4, Year 2024-25**

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This is to certify that the Project work was satisfactorily carried out and hence submitted this report is the Bonafide work of Mr. Harshit B. Rank Student of Bachelor of Science in Information Technology Sem 4 in the Laboratory of Noble University, Junagadh during the academic year 2024-25.

Internal Guide

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Preface

This report contains all the outputs of a project undertaken to develop a working model of **Medkit (Online Medical Store)** and to study the existing working system. As part of this study, we analyzed the requirements of the working model and tried to improve it using the technological functionality that the current computer science provides.

This volume contains the documentation summary of the working system, the background study and analysis, the technical requirements and the working specification of the developed system.

We recommend the user to take the advantage of the study presented here and implement the system with their required improvisation. We hope this study will reduce the burden of the reanalysis of the development phase.

Acknowledgment

“It is not possible to prepare a project report without the assistance & encouragement of other people. This one is certainly no exception.”

On the very outset of this report, we would like to extend our sincere & heartfelt obligation towards all the personages who have helped us in this endeavor. Without their active guidance, help, cooperation & encouragement, we would not have made headway in the project. We are ineffably indebted to our **Dean, Mr. Paresh Vora Sir** for his conscientious guidance and encouragement to accomplish this assignment.

We are extremely thankful and pay our gratitude to our project guide Asst.Prof. **Khushbu Sama her** valuable guidance and support on completion of this project in its presently.

We extend our gratitude to Faculty of Computer Application, Noble University, Junagadh for giving us this opportunity.

Thanking You

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INDEX

Sr. No.	Title		Page No.
1	University Certificate		
2	Preface		
3	Acknowledgement		
4	Index		
5	Project Profile		01-03
	1.1	Definition	02
	1.2	Scope	03
	1.3	Objective	06
6	Student Profile		10
	Student Name, Enrolment No, Department		10
7	System Analysis and Specification		11-19
	2.1	Existing System	11
	2.2	Limitations of Existing System	12
	2.3	Feasibility Study	14
	2.4	Need of New System	16
	2.5	Front End	19
8	System Requirement Specification		20-23
	3.1	Proposed System and Advantages	20
	3.2	Development Strategy Model	23
9	System Design		24-29
	4.1	Data Flow Diagram	24
	4.2	Class Diagram	26
	4.3	Use Case Diagram	27
	4.4	Sequence Diagram	28
	4.5	Activity Diagram	29
10	Screen Design		30-47
	5.1	Sign up & login Page	30
	5.2	Home Page	33
	5.3	Products Page	35

	5.4	Categories Page	38
	5.5	About Us Page	40
	5.6	Contact Page	42
	5.7	Rate Page	44
	5.8	Footer Section	46
11	Coding (Few Code Snippets)		48-50
12	Testing (Manual, Test Cases and Test Data)		51-55
	7.1	Manual Testing	51
	7.2	Test Cases	54
13	Enhancements		56-67
	8.1	Advantages of Your Project	56
	8.2	Limitation of Your Project	59
	8.3	Future Scope	63
14	References		68

INTRODUCT

Project Profile

Project on: - Medkit (Online Medical Store)

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Sem –Year: - BSc.IT Sem 4th 2024-2025.

Guidance By: - Mrs. Khushbu Sama.

Technology: - HTML, CSS, JavaScript.

Platform: - Windows

Submitted To: - Noble University.

A PROJECT REPORT ON: MEDKIT

1.1 Introduction:

Medkit is a comprehensive online medical store designed to revolutionize the way people access healthcare products and medicines. In today's fast-paced world, convenience, accessibility, and reliability are crucial for healthcare services. Medkit addresses these needs by providing a user-friendly digital platform where customers can browse, compare, and purchase a wide range of healthcare products from the comfort of their homes.

The platform offers an extensive selection of products, including personal care items, protein supplements, nutrition products, ayurvedic remedies, medical devices, home care and hygiene products, and more. Each product is presented with detailed information, images, pricing, discounts, and customer ratings to help users make informed decisions.

Medkit is built with a modern, responsive design that ensures seamless usability across desktops, tablets, and smartphones. The intuitive navigation, categorized product listings, and advanced search features make it easy for users of all ages to find what they need quickly. Secure payment gateways and multiple payment options provide a safe and hassle-free shopping experience.

In addition to product sales, Medkit emphasizes customer engagement and support. Features such as a shopping cart, order management, customer testimonials, and a dedicated help section enhance the overall user experience. Regular offers, discounts, and loyalty programs are integrated to provide added value to customers.

The project aims to bridge the gap between traditional pharmacies and digital convenience, making healthcare more accessible, affordable, and efficient. By leveraging technology, Medkit aspires to become a trusted partner in every household's healthcare journey, ensuring that quality products and reliable service are always just a click away.

What is Medkit?

Medkit is a comprehensive online platform that allows customers to purchase a wide range of medical products, including prescription medications, over-the-counter drugs, health supplements, and personal care items. With a user-friendly interface and a commitment to customer satisfaction, Medkit is dedicated to making healthcare more accessible for everyone.

1.2 Scope of Medkit:

Medkit is designed to provide a comprehensive and accessible online shopping experience for healthcare products. Its scope includes:

1. Online Medical Store:

- Medkit serves as a comprehensive digital platform where users can purchase a wide variety of medicines and healthcare products.
- It eliminates the need to visit physical stores, making healthcare more accessible and convenient for everyone.

2. Multiple Product Categories:

- The platform offers an extensive range of categories, including personal care, protein supplements, nutrition products, ayurvedic remedies, medical devices, food & drinks, home care & hygiene items, and newly launched products.
- This ensures that users can find all their healthcare needs in one place.

3. User Registration & Login:

- Medkit allows users to create personal accounts, log in securely, and manage their profiles.
- This feature helps in personalizing the shopping experience, tracking orders, and saving user preferences for future visits.

4. Product Browsing:

- Users can easily browse products by categories, popularity, or new arrivals.
- The intuitive navigation and organized layout make it simple for users to explore the full range of products available.

5. Product Search & Filter:

- Advanced search and filtering options enable users to quickly find specific products based on keywords, categories, price range, ratings, and more.
- This saves time and enhances the user experience.

6. Detailed Product Information:

- Each product listing provides comprehensive details, including high-quality images, descriptions, prices, available discounts, and customer ratings.
- This transparency helps users make informed purchasing decisions.

7. Shopping Cart:

- Users can add products to their shopping cart, adjust quantities, or remove items before proceeding to checkout.
- The cart feature streamlines the purchasing process and allows users to review their selections.

8. Secure Checkout:

- Medkit ensures a safe and secure checkout process by supporting multiple payment options, such as credit/debit cards, net banking, and digital wallets.
- User data and payment information are protected through secure protocols.

9. Order Management:

- Registered users can view their order history, track the status of current orders, and manage returns or cancellations.
- This feature provides transparency and control over the purchasing process.

10. Responsive Design:

- The website is designed to be fully responsive, ensuring optimal performance and appearance on desktops, tablets, and mobile devices.
- This makes Medkit accessible to users on any device.

11. Customer Support:

- Medkit includes a robust customer support system, featuring FAQs, contact forms, and dedicated support channels to assist users with their queries and issues.

12. Special Offers & Discounts:

- The platform regularly provides special promotions, discount codes, and exclusive deals to users, making healthcare products more affordable and encouraging repeat purchases.

13. Newsletter Subscription:

- Users can subscribe to newsletters to receive updates on new products, special offers, and health tips directly in their inbox, keeping them engaged and informed.

14. Testimonials & Reviews:

- Customers can read and submit reviews and ratings for products, helping others make better choices and building trust in the platform's offerings.

15. Social Media Integration:

- Medkit integrates with popular social media platforms, allowing users to share products, follow updates, and engage with the brand on channels like Facebook, Instagram, and Twitter.

16. Loyalty & Rewards (Future):

- There is scope to implement a loyalty program where users earn points or rewards for purchases, referrals, or other activities, encouraging long-term engagement.

17. Prescription Upload (Future):

- Medkit plans to introduce a feature that allows users to upload prescriptions for restricted medicines, ensuring compliance with regulations and expanding the range of available products.

18. Telemedicine Integration (Future):

- The platform may offer telemedicine services, enabling users to consult with healthcare professionals online for advice, prescriptions, or follow-ups.

19. Multi-Language Support (Future):

- To cater to a diverse user base, Medkit aims to support multiple languages, making the platform accessible to people from different regions and linguistic backgrounds.

20. Scalable Architecture:

- Medkit is built on a scalable architecture, allowing for easy addition of new features, categories, and third-party integrations as the business grows and user needs evolve.

1.3 Objective of Medkit:

The primary objective of Medkit is to enhance healthcare accessibility and convenience for consumers by providing a comprehensive online platform for purchasing medical products. Key objectives include:

1. Provide a Digital Healthcare Platform:

- Medkit aims to create a comprehensive online platform where users can conveniently purchase medicines and healthcare products.
- This eliminates the need to visit physical stores, making healthcare more accessible, especially for those with mobility issues or living in remote areas.

2. Offer a Wide Range of Products:

- The platform ensures the availability of a diverse selection of products, including personal care, protein supplements, nutrition products, ayurvedic remedies, medical devices, food & drinks, home care & hygiene items, and new launches.
- This variety allows users to fulfill all their healthcare needs in one place.

3. Enable Secure User Registration & Login:

- Medkit provides a secure system for users to create accounts and log in.
- This ensures that personal information is protected and allows users to manage their profiles, view order history, and receive personalized recommendations.

4. Facilitate Easy Product Browsing:

- The website is designed with intuitive navigation and category-wise browsing, enabling users to quickly and easily find the products they are looking for.
- Clear categorization and a user-friendly interface enhance the overall shopping experience.

5. Implement Advanced Search & Filtering:

- Advanced search and filtering options are provided so users can locate products by name, category, price, rating, or other attributes.
- This saves time and helps users find exactly what they need without hassle.

6. Display Detailed Product Information:

- Each product listing includes comprehensive details such as high-quality images, detailed descriptions, prices, available discounts, and customer ratings.
- This transparency helps users make informed purchasing decisions.

7. Integrate a Shopping Cart System:

- Users can add products to their shopping cart, adjust quantities, or remove items before proceeding to checkout.
- The cart system streamlines the purchasing process and allows users to review their selections before payment.

8. Ensure Secure Checkout & Payment:

- Medkit integrates secure payment gateways and offers multiple payment options, such as credit/debit cards, net banking, and digital wallets.
- This ensures that user data and transactions are protected from fraud and unauthorized access.

9. Enable Order Management:

- The platform allows users to view their order history, track the status of current orders, and manage returns or cancellations.
- This feature provides transparency and control over the purchasing process.

10. Design for Responsiveness:

- Medkit is built with a responsive design, ensuring that the website functions seamlessly on desktops, tablets, and mobile devices.
- This makes the platform accessible to users regardless of the device they use.

11. Provide Customer Support:

- A robust customer support system is in place, including FAQs, contact forms, and dedicated support channels.
- This ensures that user queries and issues are resolved promptly, enhancing user satisfaction.

12. Promote Special Offers & Discounts:

- The platform regularly features promotions, discount codes, and exclusive deals to attract new customers and retain existing ones.
- These offers make healthcare products more affordable and encourage repeat purchases.

13. Enable Newsletter Subscription:

- Users can subscribe to newsletters to receive updates on new products, special offers, and health tips.
- This keeps users engaged and informed about the latest developments on the platform.

14. Collect and Display Testimonials & Reviews:

- Customers can submit and view product reviews and ratings.
- This builds trust among users, helps others make better choices, and provides valuable feedback to improve the platform's offerings.

15. Integrate social media:

- Medkit connects with users through social media platforms, sharing updates, promotions, and engaging content.
- This helps in brand building and reaching a wider audience.

16. Plan for Loyalty & Rewards Programs:

- The platform is designed to support future implementation of loyalty points and rewards programs.
- These initiatives encourage repeat purchases and foster long-term customer relationships.

17. Prepare for Prescription Upload Feature:

- Medkit plans to introduce a feature allowing users to upload prescriptions for restricted medicines.
- This ensures regulatory compliance and expands the range of products available to users.

18. Scope for Telemedicine Integration:

- The system is designed to accommodate future integration with telemedicine services, enabling users to consult with healthcare professionals online for advice, prescriptions, or follow-ups.

19. Support Multi-Language Accessibility:

- To cater to a diverse user base, Medkit aims to support multiple languages, making the platform accessible to people from different regions and linguistic backgrounds.

20. Build a Scalable and Extensible System:

- The platform's architecture is scalable and extensible, allowing for the easy addition of new features, categories, and third-party integrations as the business grows and user needs evolve.

STUDENT PROFILE

Team Size : 3

Member 1 details:

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Enrolment No: 231091020.

Member 2 details:

Student Name: Riddhi V. Gajera

Enrolment No: 231091007.

Member 3 details:

Student Name: Priyanka S. Bhesaniya

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SYSTEM ANALYSIS AND SPECIFICATION

2.1 Existing System

The current e-pharma (electronic pharmacy) system refers to the online platforms and websites that allow users to purchase medicines and healthcare products over the internet. While these systems have improved accessibility compared to traditional pharmacies, they still have several characteristics and limitations:

1. **Basic Online Ordering:** Most e-pharma platforms provide a website or app where users can search for medicines and place orders online. However, the user experience may not always be intuitive or user-friendly.
2. **Limited Product Information:** Some existing platforms provide only basic details about products, such as name and price, without comprehensive descriptions, images, or customer reviews.
3. **Prescription Upload:** For prescription medicines, users are required to upload a scanned copy of their prescription. The process can be cumbersome and may not always be verified promptly.
4. **Payment Options:** While online payment is available, not all platforms offer a wide range of secure payment gateways. Some may lack support for digital wallets or cash on delivery.
5. **Delivery Coverage:** Delivery services are often limited to major cities or urban areas, leaving rural customers underserved.
6. **Order Tracking:** Not all e-pharma systems provide real-time order tracking, making it difficult for users to know the status of their orders.
7. **Customer Support:** Customer support is often limited to email or phone, with slow response times and no live chat or 24/7 support.
8. **Inventory Management:** Some platforms do not update their inventory in real-time, leading to situations where users order out-of-stock products.
9. **Lack of Personalization:** Most existing systems do not offer personalized recommendations based on user history or preferences.
10. **No Loyalty Programs:** Few e-pharma platforms offer loyalty points, rewards, or special discounts for regular customers.

11. **Limited Health Content:** Health tips, blogs, or educational content are often missing, reducing user engagement and value.
12. **Security Concerns:** Some platforms may not follow best practices for data security, putting user information at risk.
13. **Mobile Experience:** Not all e-pharma websites are optimized for mobile devices, leading to a poor user experience on smartphones and tablets.
14. **Language Barriers:** Most platforms are available only in English or one regional language, limiting accessibility for a diverse population.
15. **No Telemedicine Integration:** Existing systems rarely offer integrated telemedicine services for online doctor consultations.
16. **Manual Verification:** Prescription and order verification are often manual, causing delays in processing and delivery.
17. **No Real-Time Notifications:** Users may not receive timely updates about order status, offers, or new product launches.
18. **Limited Product Range:** Some e-pharma platforms focus only on medicines, with limited options for wellness, personal care, or medical devices.
19. **Return and Refund Issues:** The process for returns and refunds can be complicated and time-consuming.
20. **Regulatory Compliance:** Not all platforms strictly adhere to government regulations regarding the sale of medicines online, which can pose legal and safety risks.

2.2 Limitations of Existing System

The existing system, though functional, has several limitations that affect its efficiency, user experience, and scalability. These limitations are detailed below:

1. **Limited Accessibility:** Traditional pharmacies require customers to visit in person, which is inconvenient for elderly, disabled, or remote users. Even many e-pharma platforms do not serve rural or remote areas.
2. **Restricted Operating Hours:** Physical stores operate only during specific hours, making it difficult to purchase medicines during emergencies or at night.

3. **Limited Product Range:** Local pharmacies often have a limited stock and may not carry all required medicines or healthcare products. E-pharma platforms may also have limited categories or out-of-stock issues.
4. **Manual Inventory Management:** Inventory is often managed manually, leading to errors, stockouts, or expired products being sold.
5. **No Real-Time Stock Updates:** Many e-pharma sites do not update stock in real time, resulting in users ordering unavailable products.
6. **Cumbersome Prescription Handling:** For prescription medicines, customers must physically present or upload prescriptions, which can be slow and inconvenient.
7. **Lack of Personalization:** Existing systems rarely offer personalized recommendations or tailored offers based on user history or preferences.
8. **Limited Payment Options:** Some platforms offer only basic payment methods, lacking support for digital wallets, UPI, or cash on delivery.
9. **No Order Tracking:** Customers often cannot track their orders in real time, leading to uncertainty about delivery status.
10. **Minimal Customer Support:** Support is usually limited to in-person queries or slow email/phone responses, with no live chat or 24/7 help.
11. **No Loyalty or Rewards Programs:** Most existing systems do not reward repeat customers or offer loyalty points.
12. **No Telemedicine Integration:** Customers cannot consult doctors online or get digital prescriptions through most platforms.
13. **Language Barriers:** Information and support are often available only in one language, limiting accessibility for diverse users.
14. **No Health Content or Education:** Most platforms do not provide health tips, blogs, or educational resources to engage and inform users.
15. **Security Concerns:** Some e-pharma platforms may not follow best practices for data security, risking user privacy and payment safety.
16. **Complicated Return/Refund Process:** Returning products or getting refunds can be slow and complicated, discouraging users from online purchases.

17. **No Real-Time Notifications:** Users do not receive timely updates about order status, offers, or new product launches.
18. **Manual Record Keeping:** Customer and order records are often maintained manually, increasing the risk of errors and data loss.
19. **No Access to Reviews or Ratings:** Customers cannot read or submit reviews, making it hard to judge product quality or service reliability.
20. **Limited Marketing and Outreach:** Traditional pharmacies and some e-pharma platforms rely on local advertising, restricting their reach and growth potential.

2.3 Feasibility Study

A feasibility study evaluates and analyses the potential of a proposed system to determine whether it is technically, economically, and operationally achievable within the required resources and time frame. The main types of feasibility considered for this system are:

1. Technical Feasibility:

- **Technology Stack:** Medkit uses widely adopted web technologies such as HTML, CSS, JavaScript, and frameworks/libraries for frontend and backend development. These are well-supported and scalable.
- **Integration:** The system can integrate with payment gateways, email services, and third-party APIs for product data and delivery tracking.
- **Hosting & Deployment:** The platform can be hosted on reliable cloud services (e.g., AWS, Azure, or shared hosting), ensuring uptime and scalability.
- **Security:** Standard security protocols (HTTPS, data encryption, secure authentication) can be implemented to protect user data and transactions.
- **Maintenance:** The modular design allows for easy updates, bug fixes, and feature enhancements.

2. Economic Feasibility:

- **Development Cost:** Initial development can be managed with a small team, using open-source tools to minimize costs.

- **Operational Cost:** Ongoing costs include hosting, domain, payment gateway fees, and customer support, which are manageable for a startup.
- **Return on Investment:** Revenue can be generated through product sales, delivery charges, and promotional partnerships. The growing demand for online healthcare solutions indicates strong ROI potential.
- **Scalability:** The platform can be expanded with more products, services, and features as the user base grows, supporting long-term profitability.

3. Operational Feasibility:

- **User Adoption:** The user-friendly interface, wide product range, and convenience of home delivery encourage adoption among various age groups.
- **Staff Requirements:** Minimal staff is needed for order processing, customer support, and inventory management, especially if automation is implemented.
- **Customer Support:** FAQs, contact forms, and support channels are in place to handle user queries efficiently.
- **Order Fulfillment:** Partnerships with pharmacies and logistics providers ensure timely delivery and product availability.

4. Legal Feasibility:

- **Regulatory Compliance:** The platform can comply with government regulations for online medicine sales, including prescription verification and data privacy laws.
- **Licensing:** Necessary licenses can be obtained for selling medicines and healthcare products online.
- **Data Protection:** User data is handled according to privacy policies and legal standards.

5. Schedule Feasibility

- **Development Timeline:** A basic version of Medkit can be developed and launched within a few months, with additional features added iteratively.
- **Resource Availability:** Skilled developers, designers, and support staff are readily available in the market.

Conclusion:

The Medkit project is highly feasible from technical, economic, operational, legal, and scheduling perspectives. With proper planning and execution, it can become a successful and sustainable online medical store, meeting the growing demand for digital healthcare solutions.

2.4 Need of New System

The existing system has several limitations such as manual operations, lack of real-time updates, inefficient data management, and difficulty in tracking and managing records. To overcome these challenges, a new system is required that offers enhanced functionality, better performance, and an improved user experience.

The major needs for the new system are:

1. Overcoming Accessibility Barriers:

- Traditional pharmacies and many current e-pharma platforms are limited by geography and store hours, making it difficult for people in remote areas, the elderly, or those with mobility issues to access essential medicines and healthcare products.
- A new system like Medkit ensures 24/7 accessibility from anywhere.

2. Expanding Product Availability:

- Local stores often have a limited range of products and may not stock specialized medicines, wellness items, or new launches.
- Medkit provides a comprehensive catalog across multiple categories, ensuring users can find everything they need in one place.

3. Real-Time Inventory and Stock Updates:

- Manual inventory management in existing systems leads to stockouts and customer dissatisfaction.
- The new system offers real-time inventory updates, reducing the chances of ordering unavailable products.

4. Enhanced User Experience:

- Many existing platforms lack intuitive navigation, advanced search, and filtering options.
- Medkit is designed for ease of use, allowing users to quickly find, compare, and purchase products with minimal effort.

5. Secure and Diverse Payment Options:

- Security concerns and limited payment methods deter users from online purchases.
- The new system integrates secure payment gateways and supports multiple payment options, including cards, wallets, and UPI.

6. Personalization and Recommendations:

- Current systems rarely offer personalized experiences.
- Medkit can provide tailored product recommendations and offers based on user history and preferences, improving satisfaction and engagement.

7. Order Tracking and Transparency:

- Users often face uncertainty about order status and delivery timelines.
- The new system includes real-time order tracking and notifications, keeping users informed at every step.

8. Efficient Prescription Handling:

- Uploading and verifying prescriptions is cumbersome in many e-pharma systems.
- Medkit streamlines this process, ensuring compliance and faster order processing for prescription medicines.

9. Customer Support and Engagement:

- Traditional and many online systems offer limited support.
- Medkit provides multiple support channels, including FAQs, contact forms, and potentially live chat, ensuring prompt resolution of user queries.

10. Loyalty and Rewards Programs:

- Most existing systems do not reward repeat customers.
- The new system can introduce loyalty points, rewards, and special discounts to encourage customer retention.

11. Educational Content and Health Tips:

- Users often lack access to reliable health information.
- Medkit can offer blogs, tips, and educational resources, empowering users to make informed health decisions.

12. Multi-Language and Inclusive Design:

- Language barriers limit accessibility for many users.
- The new system can support multiple languages, making healthcare accessible to a broader audience.

13. Telemedicine Integration:

- With growing demand for remote consultations, Medkit can integrate telemedicine features, allowing users to consult doctors online and receive digital prescriptions.

14. Scalability and Future Growth:

- The new system is designed to be scalable, allowing easy addition of new features, categories, and integrations as user needs evolve and the business grows.

15. Data Security and Privacy:

- With increasing cyber threats, robust data protection and privacy measures are essential.
- Medkit ensures user data is encrypted and handled according to best practices and regulations.

16. Automated Notifications and Updates:

- Users benefit from timely notifications about order status, new products, and special offers, enhancing engagement and satisfaction.

17. Streamlined Returns and Refunds:

- The new system simplifies the process for returns and refunds, building trust and encouraging users to shop online without hesitation.

18. Social media and Community Engagement:

- Integration with social media platforms allows for broader outreach, user engagement, and brand building.

19. Regulatory Compliance:

- Medkit is designed to comply with all legal and regulatory requirements for online medicine sales, ensuring safe and lawful operations.

20. Competitive Advantage:

- By addressing the shortcomings of existing systems, Medkit positions itself as a modern, reliable, and user-centric platform, standing out in the competitive online healthcare market.

2.5 Front-End

Frontend Tools:

HTML5: For structuring the web pages.

CSS3: For styling and responsive design.

JavaScript: For interactivity and dynamic content rendering.

SYSTEM REQUIREMENT SPECIFICATION

The System Requirement Specification (SRS) defines the functional and non-functional requirements for the proposed system. It outlines the key expectations and provides a structured approach to building a system that meets user needs effectively.

3.1 Proposed System and Advantages

Proposed System:

The proposed system, Medkit, is an advanced online medical store designed to address the limitations of traditional pharmacies and existing e-pharma platforms. It leverages modern web technologies to provide a seamless, secure, and user-friendly experience for purchasing medicines and healthcare products.

Advantages of the Proposed System:

1. Comprehensive Online Platform:

- Medkit offers a centralized digital platform where users can browse, search, and purchase a wide range of healthcare products and medicines from anywhere, at any time.

2. Multiple Product Categories:

- The system organizes products into clear categories such as personal care, protein, nutrition, ayurved, medical devices, food & drinks, home care & hygiene, and new launches, making it easy for users to find what they need.

3. User Registration and Secure Login:

- Users can create accounts, log in securely, and manage their profiles.
- This enables personalized experiences, order tracking, and secure access to purchase history.

4. Advanced Search and Filtering:

- The platform provides robust search and filtering options, allowing users to quickly locate products by name, category, price, rating, and more.

5. Detailed Product Information:

- Each product listing includes images, descriptions, prices, discounts, and customer ratings, helping users make informed decisions.

6. Shopping Cart and Order Management:

- Users can add products to their cart, update quantities, and proceed to a secure checkout.
- They can also view order history and track current orders.

7. Secure Payment Gateway:

- Multiple payment options are supported, including credit/debit cards, net banking, and digital wallets, ensuring safe and convenient transactions.

8. Responsive and Modern Design:

- The website is fully responsive, providing an optimal experience on desktops, tablets, and mobile devices.

9. Customer Support and Engagement:

- Integrated FAQs, contact forms, and support channels ensure prompt assistance.
- Users can also subscribe to newsletters for updates and offers.

10. Special Offers and Loyalty Programs:

- Regular discounts, promotional codes, and future loyalty programs encourage customer retention and satisfaction.

11. Prescription Upload (Future Scope):

- The system is designed to allow users to upload prescriptions for restricted medicines, ensuring regulatory compliance.

12. Telemedicine Integration (Future Scope):

- Medkit can be expanded to include telemedicine services, enabling users to consult healthcare professionals online.

13. Multi-Language Support (Future Scope):

- The platform can support multiple languages, making it accessible to a broader audience.

14. Scalable and Secure Architecture:

- The system is built to be scalable, allowing for easy addition of new features and categories, and follows best practices for data security and privacy.

3.2 Development Strategy Model

Development Strategy:

The development of the Medkit system will follow an organized strategy to ensure systematic progress and high-quality output. The preferred model for this project is:

If Waterfall Model is selected:

- **Requirement Analysis:** Gather all system requirements through user and stakeholder interactions, ensuring a clear understanding of project goals and constraints.
- **System Design:** Create the overall system architecture, database schema, and detailed interface designs to serve as blueprints for development.
- **Implementation:** Code and perform unit testing of individual modules according to the design specifications.
- **Integration and Testing:** Combine all modules and conduct thorough system testing to identify and fix defects or inconsistencies.
- **Deployment:** Release the fully tested system to end-users for real-world operation.
- **Maintenance:** Provide ongoing support, bug fixes, and updates to ensure the system remains functional and up-to-date.

If Agile Model is selected:

- **Iterative Development:** Divide the project into small iterations or sprints, each focusing on delivering specific features or improvements.
- **Continuous Feedback:** After each iteration, gather feedback from users and stakeholders to refine and adjust the system as needed.
- **Incremental Delivery:** Deliver working features frequently, allowing for early user interaction and validation of the system.
- **Flexibility to Changes:** Adapt to changing requirements, even late in the development cycle, to ensure the final product meets user needs and expectations.

SYSTEM DESIGN

System design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. It transforms the detailed requirements into complete, detailed system architecture.

Proper system design ensures that the system will be reliable, scalable, maintainable, and fulfil user requirements effectively.

4.1 Data Flow Diagram (DFD)

Definition:

A Data Flow Diagram (DFD) represents the flow of information within the system. It shows how input data is transformed into output results through a series of processes.

Context Level DFD (Level 0):

1. Entities:

- Admin
- User

2. Process:

- Online Medicines Purchase

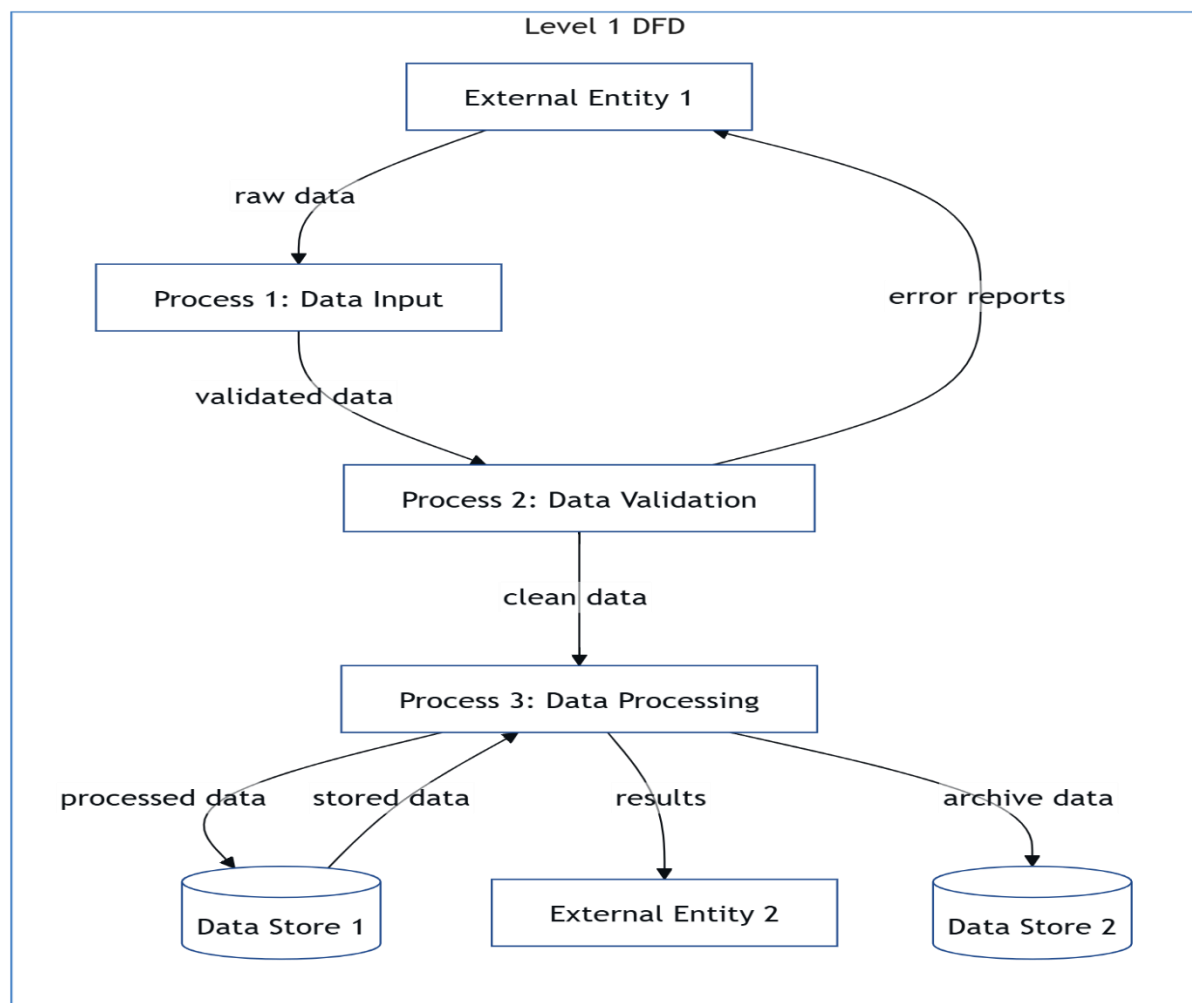
3. Data Flows:

- **From Admin to Process:**
 - Request for Login
 - Response
- **From User to Process:**
 - Request for Registration
 - Response
- **From Process to User:**
 - Response (including possible registration and login confirmation)
- **From Process to Admin:**
 - Response (including login information)



Level 1 DFD:

- Breaks down the main process into sub-processes.
- Details how data moves between these processes and external entities.



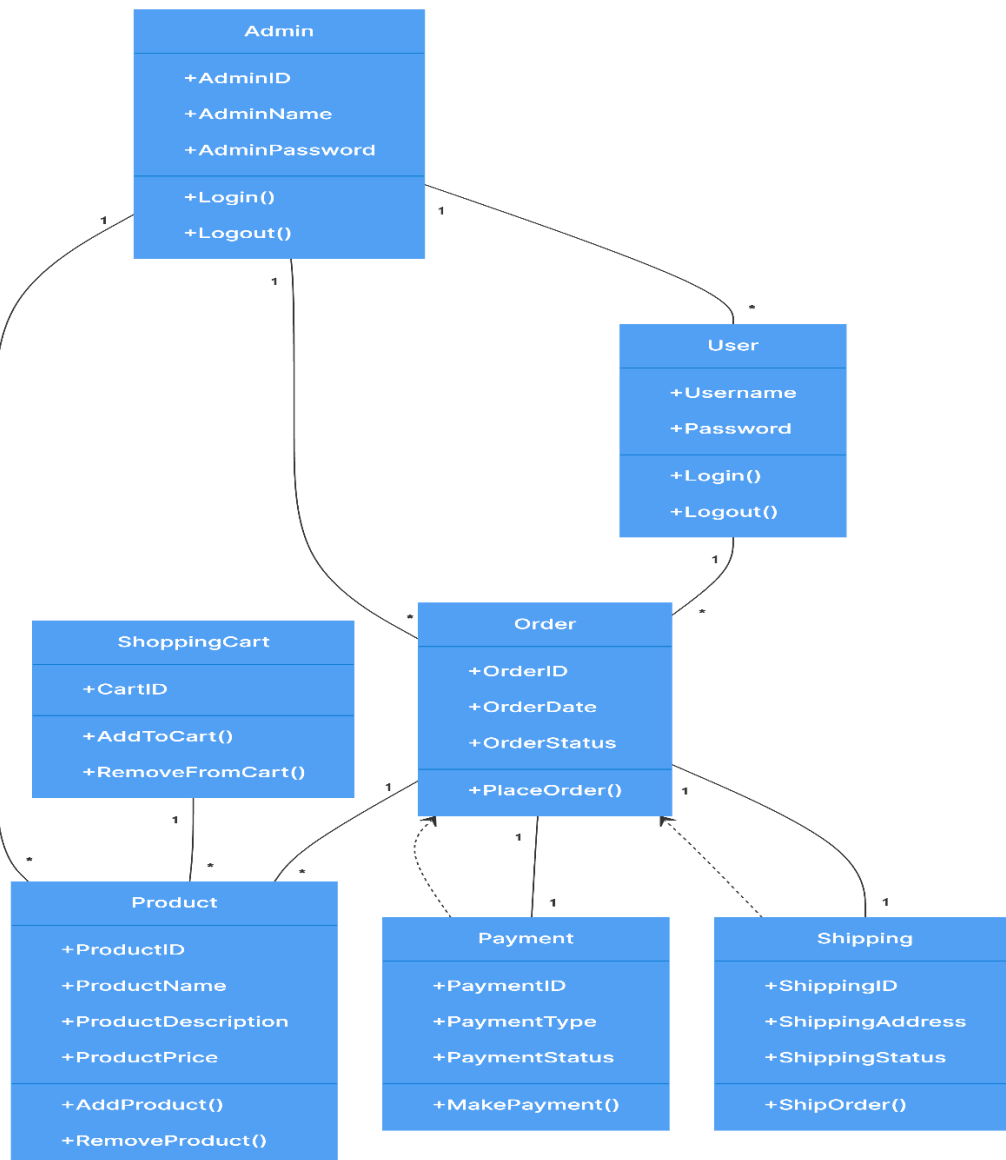
4.2 Class Diagram

Definition:

A Class Diagram represents the static structure of the system. It shows the system's classes, their attributes, operations (methods), and the relationships among objects.

Main Components:

- **Classes:** Patient
- **Relationships:** Inheritance, Association, Aggregation.



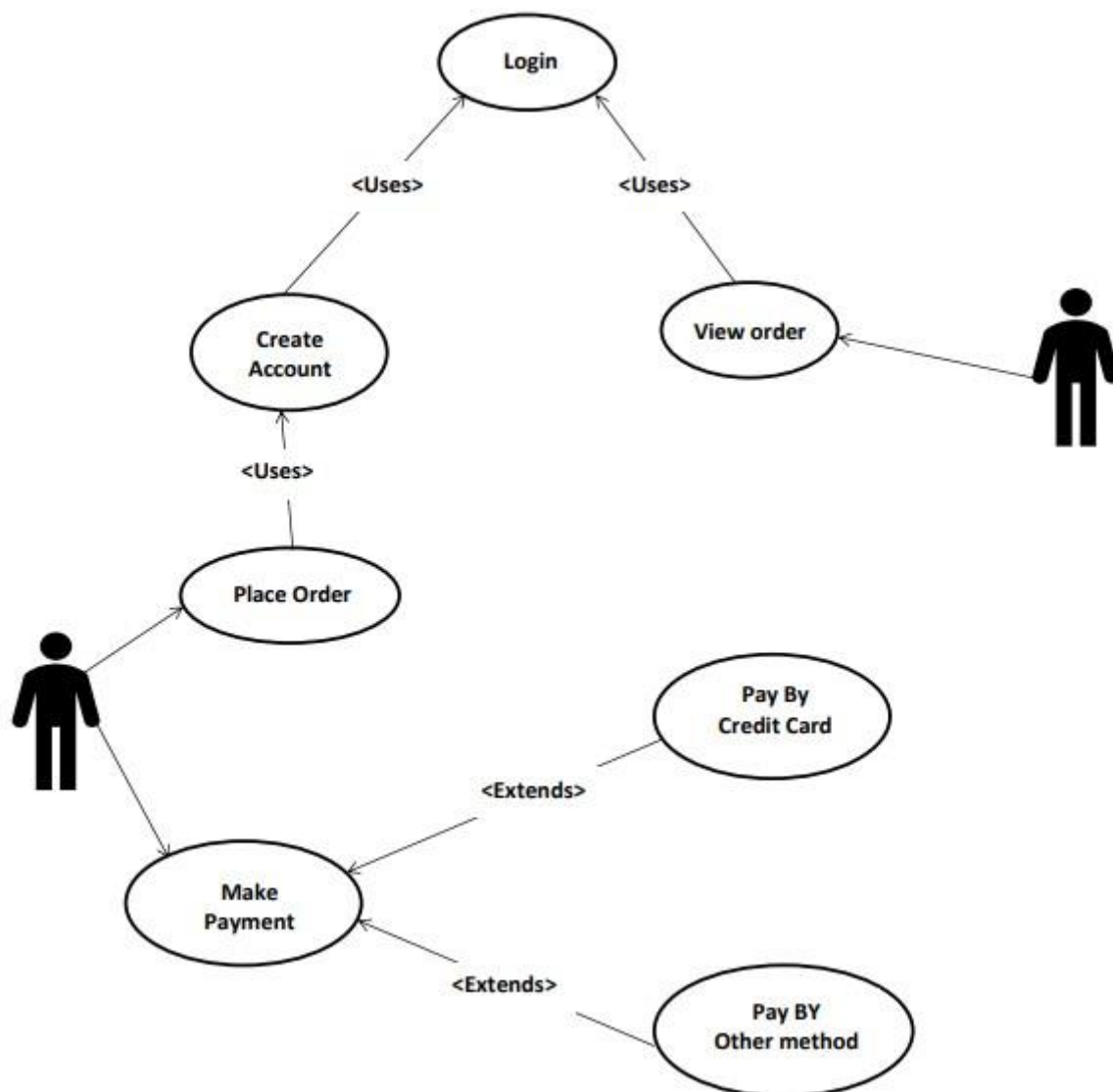
4.3 Use Case Diagram

Definition:

A Use Case Diagram shows the interactions between a user (actor) and the system. It describes the functional requirements of the system.

Use Cases:

- Login
- Register
- Select Categories
- ADD to Cart
- Check Out



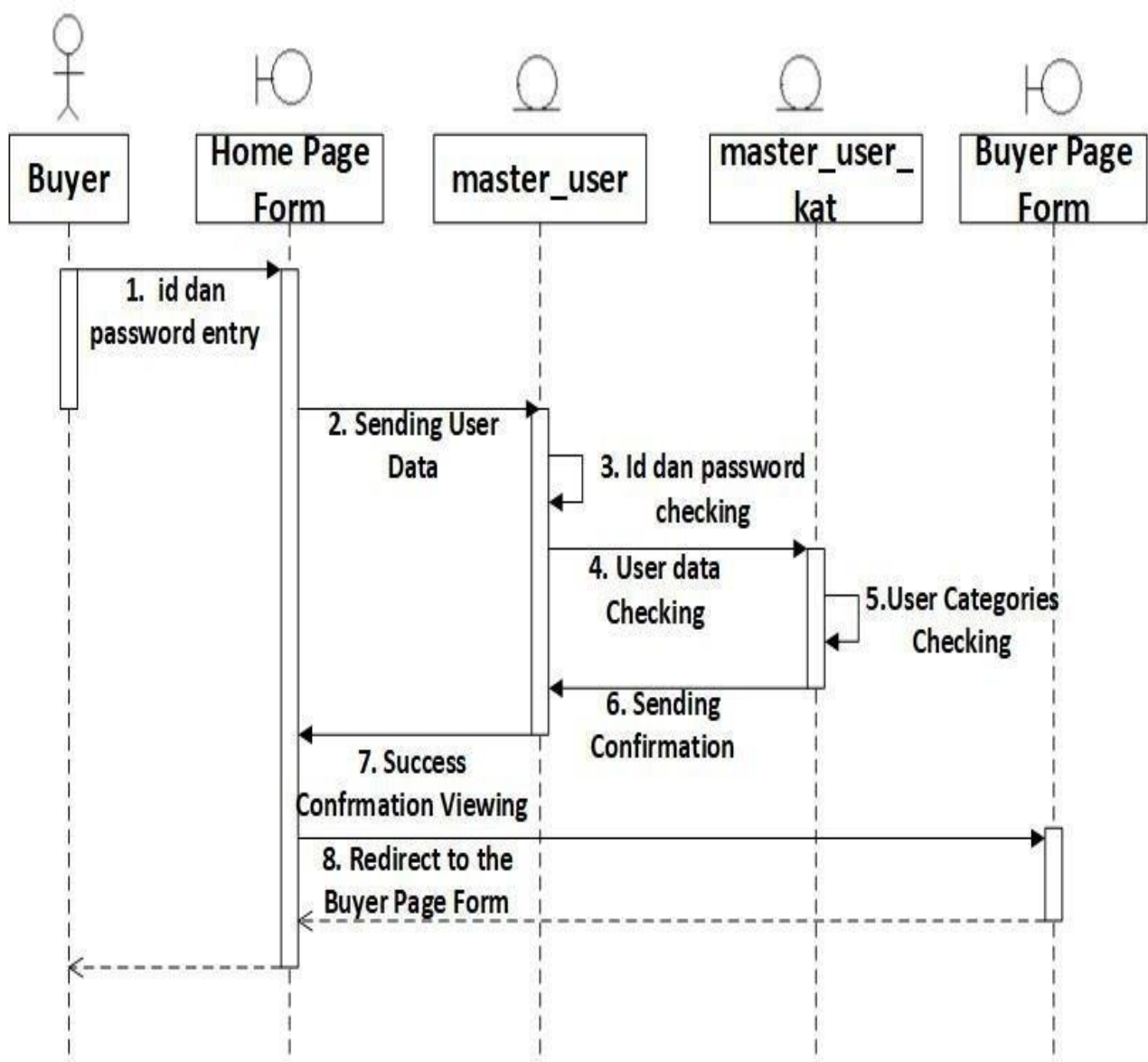
4.4 Sequence Diagram

Definition:

A Sequence Diagram depicts the sequence of messages exchanged between objects needed to carry out a function or a process.

Example Flow:

- User → Login → Select Categories → View Confirmation



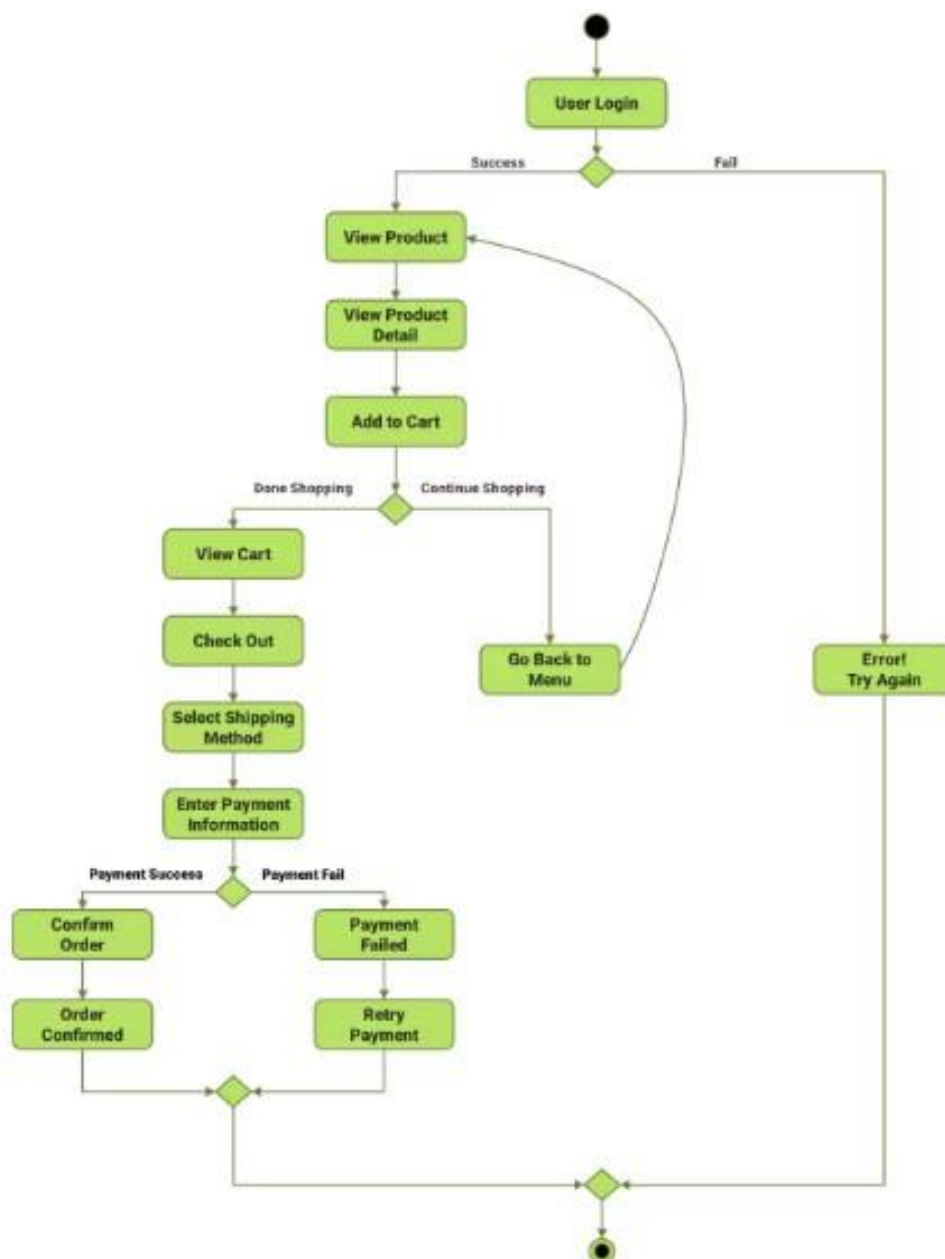
4.5 Activity Diagram

Definition:

An Activity Diagram shows the flow of activities in a process. It highlights the flow from one activity to another.

Example:

- Start → Login → Select Action → Add to Cart → Checkout → Logout



SCREEN DESIGN

5.1 Sign up & login Page

Definition:

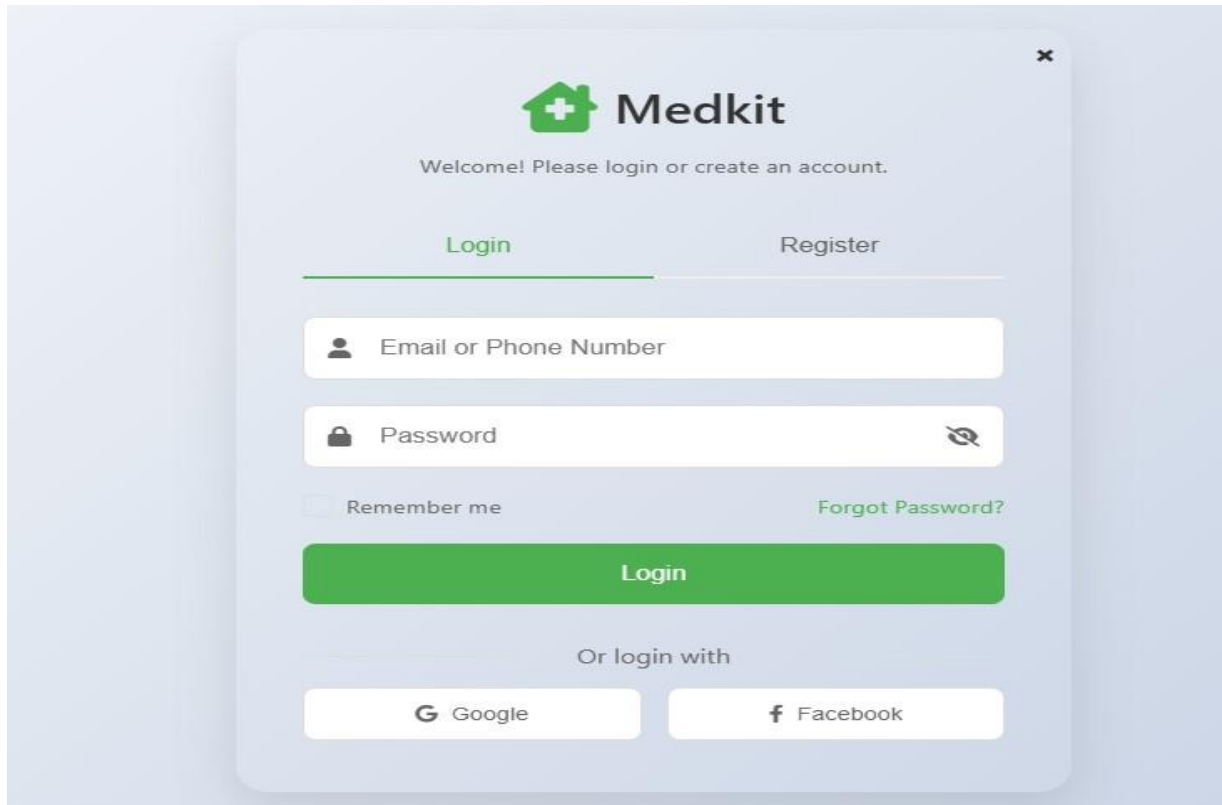
Input Design is the process of designing screens through which users will enter data into the system. It ensures that the data collected is accurate, valid, and easy to input.

Objectives of Input Design:

1. **Accuracy:** Ensure that all data entered by users is correct and valid, minimizing errors and inconsistencies.
2. **Simplicity:** Make input forms easy to understand and use, reducing user confusion and input mistakes.
3. **User-Friendliness:** Design input screens that are intuitive and require minimal effort from users, enhancing the overall user experience.
4. **Consistency:** Maintain a uniform format and style for all input fields across the system to avoid confusion.
5. **Validation:** Implement real-time validation to check for missing, incorrect, or out-of-range data before submission.
6. **Security:** Protect sensitive user data (like passwords and payment details) through secure input methods and encryption.
7. **Efficiency:** Minimize the amount of data entry required by using features like dropdowns, auto-complete, and default values.
8. **Error Handling:** Provide clear, helpful error messages and guidance to users when incorrect data is entered.
9. **Accessibility:** Ensure input forms are accessible to all users, including those with disabilities, by following accessibility standards.
10. **Data Integrity:** Safeguard the quality and reliability of data entered into the system, supporting accurate processing and reporting.

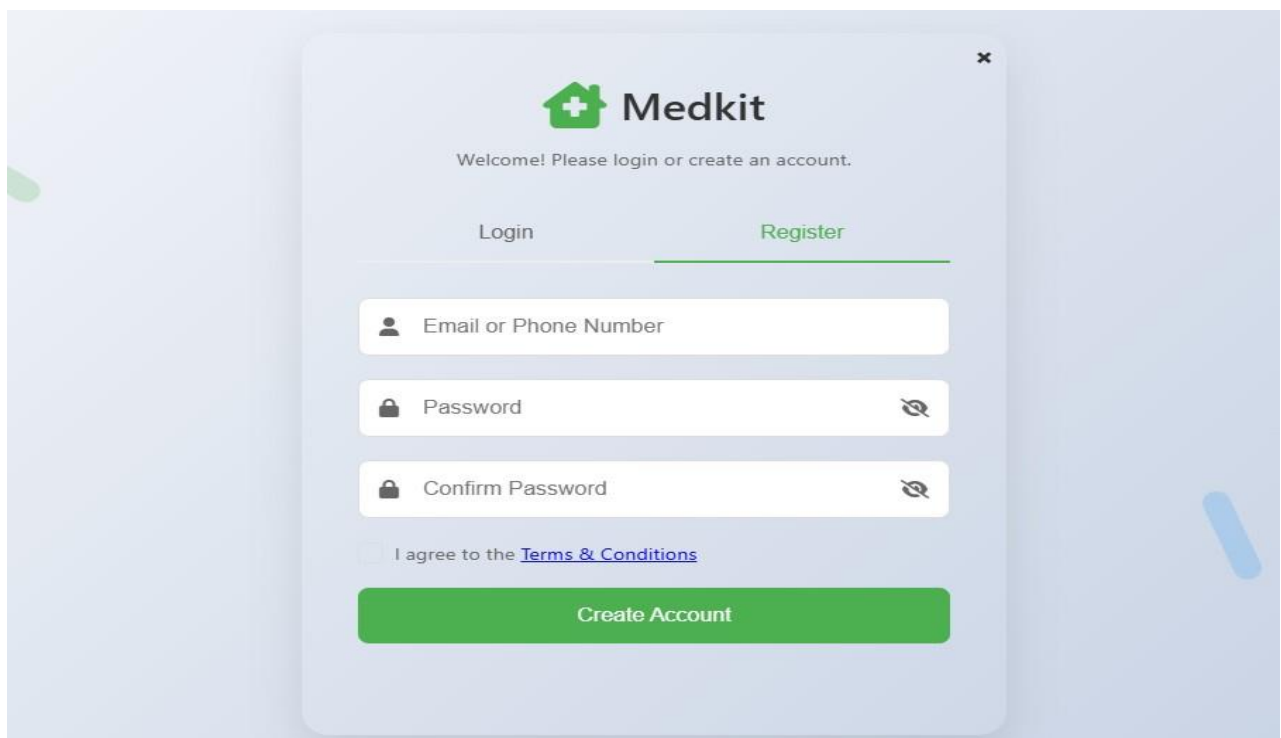
Types of Input Screens:

- **Login Form:** Username, Password fields with validation.



The image shows a login form for the Medkit application. At the top, there is a green house icon with a white cross, followed by the text "Medkit". Below this is a welcome message: "Welcome! Please login or create an account." There are two tabs: "Login" (active) and "Register". The "Login" tab has a green underline. Below the tabs are two input fields: "Email or Phone Number" and "Password". The "Password" field has a toggle icon for visibility. Below these fields is a checkbox labeled "Remember me" and a link "Forgot Password?". A large green button labeled "Login" is at the bottom. Below the button is a section "Or login with" with two buttons: "Google" and "Facebook".

- **Registration Form:** Name, Email, Password, Phone Number, etc.

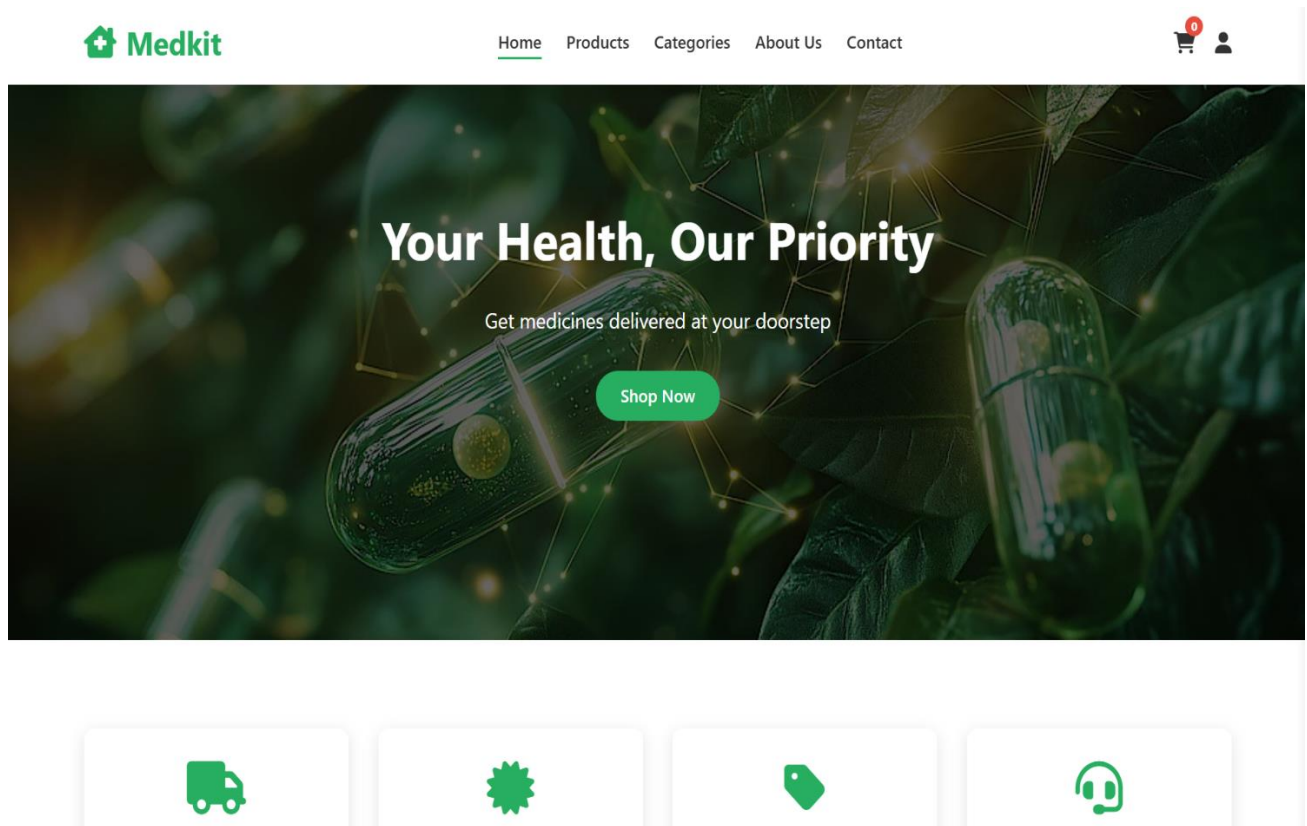


The image shows a registration form for the Medkit application. At the top, there is a green house icon with a white cross, followed by the text "Medkit". Below this is a welcome message: "Welcome! Please login or create an account." There are two tabs: "Login" and "Register" (active). The "Register" tab has a green underline. Below the tabs are three input fields: "Email or Phone Number", "Password", and "Confirm Password". The "Password" and "Confirm Password" fields have toggle icons for visibility. Below these fields is a checkbox labeled "I agree to the [Terms & Conditions](#)". A large green button labeled "Create Account" is at the bottom.

Features in Input Design:

1. **User-Friendly Forms:** Input forms are designed to be simple, clear, and easy to navigate for all users.
2. **Field Validation:** Real-time validation checks for correct data formats (e.g., email, phone number, password strength) as users' type.
3. **Error Highlighting:** Invalid or missing fields are visually highlighted, and helpful error messages are displayed to guide users.
4. **Input Masks and Placeholders:** Use of input masks (e.g., for phone numbers) and placeholders to show the expected format and reduce input errors.
5. **Auto-Completion:** Frequently used fields (like email or address) may offer auto-complete suggestions to speed up data entry.
6. **Password Visibility Toggle:** Users can show or hide password fields to reduce typing mistakes.
7. **Accessibility:** Input forms are accessible to users with disabilities, supporting keyboard navigation and screen readers.
8. **Security:** Sensitive inputs (like passwords) are masked, and data is transmitted securely.
9. **Responsive Design:** Input forms are optimized for all devices, ensuring usability on desktops, tablets, and mobiles.
10. **Confirmation and Feedback:** Users receive immediate feedback on successful submissions or errors, improving confidence and reducing frustration.

5.2 Home Page



Description:

The **Home Page** is the visually prominent area at the top of the Medkit homepage. It serves as the first point of interaction for visitors and is designed to immediately communicate the platform's value proposition.

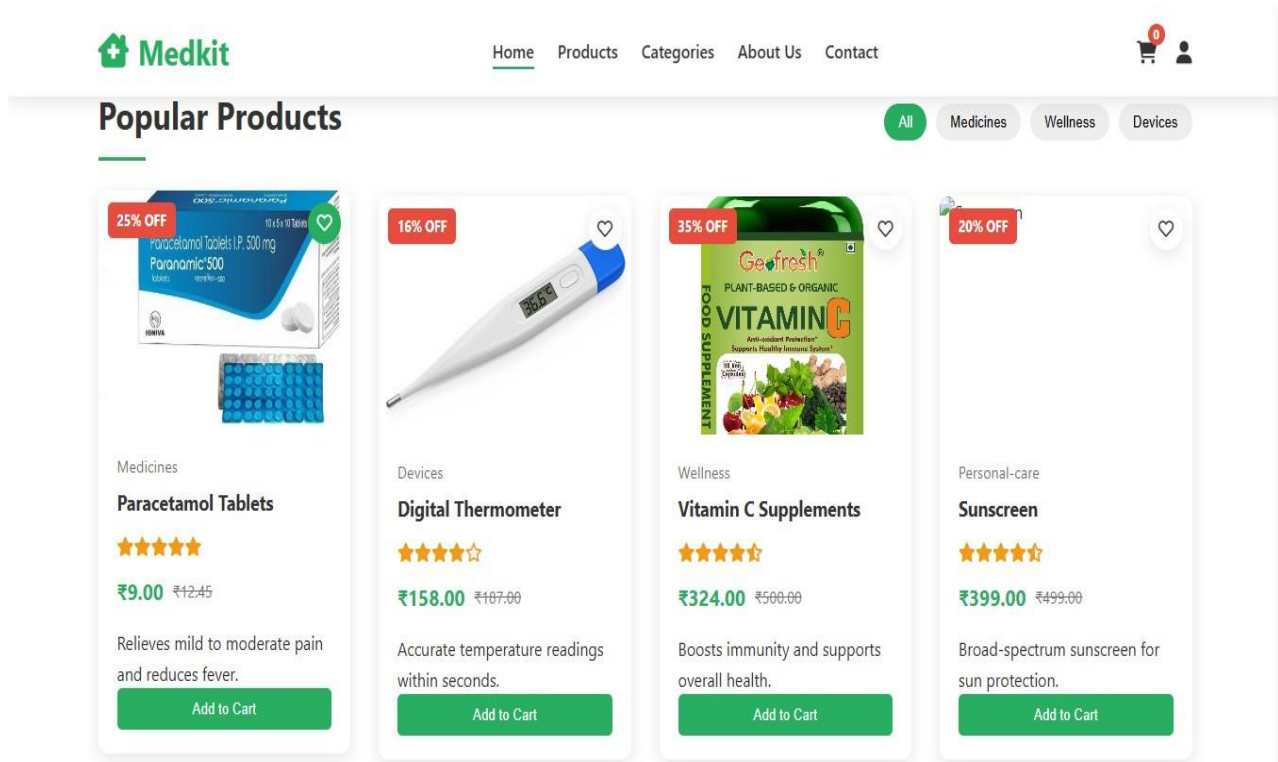
- **Headline & Tagline:** The section features a bold headline, "Your Health, Our Priority," and a supporting tagline, "Get medicines delivered at your doorstep," which quickly informs users about the core service.
- **Call-to-Action (CTA):** A prominent "Shop Now" button encourages users to start browsing products, driving engagement and conversions.
- **Visual Focus:** The hero section uses a clean layout with ample spacing, ensuring the message is clear and attention-grabbing.
- **Purpose:** This section aims to build trust, highlight convenience, and guide users toward making their first purchase.

Features Section Description

The Features Section highlights the key benefits and unique selling points of the Medkit platform, helping users understand why they should choose Medkit over competitors.

- **Feature Cards:** Four distinct cards, each with an icon, title, and short description, visually summarize the platform's main advantages:
 - **Fast Delivery:** Medicines delivered within 24 hours.
 - **Genuine Products:** 100% authentic medicines.
 - **Best Prices:** Discounts up to 30% on medicines.
 - **24/7 Support:** Customer service always available.
- **Icons:** Each feature is accompanied by a relevant Font Awesome icon, making the section visually appealing and easy to scan.
- **Layout:** The cards are arranged in a row (or grid on smaller screens), ensuring clarity and responsiveness.
- **Purpose:** This section quickly communicates the platform's strengths, reassuring users of quality, affordability, and support.

5.3 Products Page



Description:

The **Popular Products** section on the Medkit homepage is a strategically designed feature aimed at enhancing user experience and driving sales by showcasing the most sought-after and highly-rated healthcare products available on the platform. This section serves as an essential gateway for users, allowing them to easily discover trending items and bestsellers across various healthcare categories.

Key Features Explained:

1. Section Title and Introduction:

- The section is prominently labeled as "Popular Products," immediately capturing user attention.
- This clear designation indicates that the items featured are customer favorites or top sellers, enticing users to explore further.

2. **Category-Based Filtering:**

- At the top of the section, users are presented with interactive filter buttons such as "All," "Medicines," "Wellness," and "Devices."
- This feature allows users to quickly narrow down their product search to specific areas of interest without needing to navigate away from the homepage, enhancing the overall user experience.

3. **Dynamic Product Grid:** The products are displayed in a visually appealing grid layout, making it easy for users to browse. Each product card includes:

- **Product Image:** A high-quality image for easy identification.
- **Product Name:** Clearly displayed for quick recognition.
- **Price and Discount:** Current pricing alongside any available discounts or previous prices, helping users identify deals at a glance.
- **Rating:** Visual star ratings based on customer feedback, which builds trust and aids in decision-making.
- **Add to Cart Button:** A single-click option that allows users to add products directly to their cart, streamlining the shopping process.

4. **View More/View Less Functionality:**

- The section includes buttons for "View All Products" and "View Less Products," enabling users to expand or collapse the grid.
- This feature improves navigation and keeps the homepage uncluttered, allowing users to control their browsing experience.

5. **Responsive and Accessible Design:**

- The product grid and filter controls are fully responsive, ensuring a seamless experience across desktops, tablets, and mobile devices.
- The design adheres to accessibility best practices, ensuring that all users, including those with disabilities, can interact with the section effectively.

6. **Integration with Cart and Rating System:**

- When a product is added to the cart, the cart sidebar updates in real-time, providing immediate feedback to users.

- Additionally, users can rate products directly from this section, allowing them to share their experiences and help others make informed choices.

7. **Highlighting Special Offers:**

- Products that have ongoing promotions or discounts are visually tagged, making it easy for users to spot the best deals and encouraging them to take advantage of these offers.

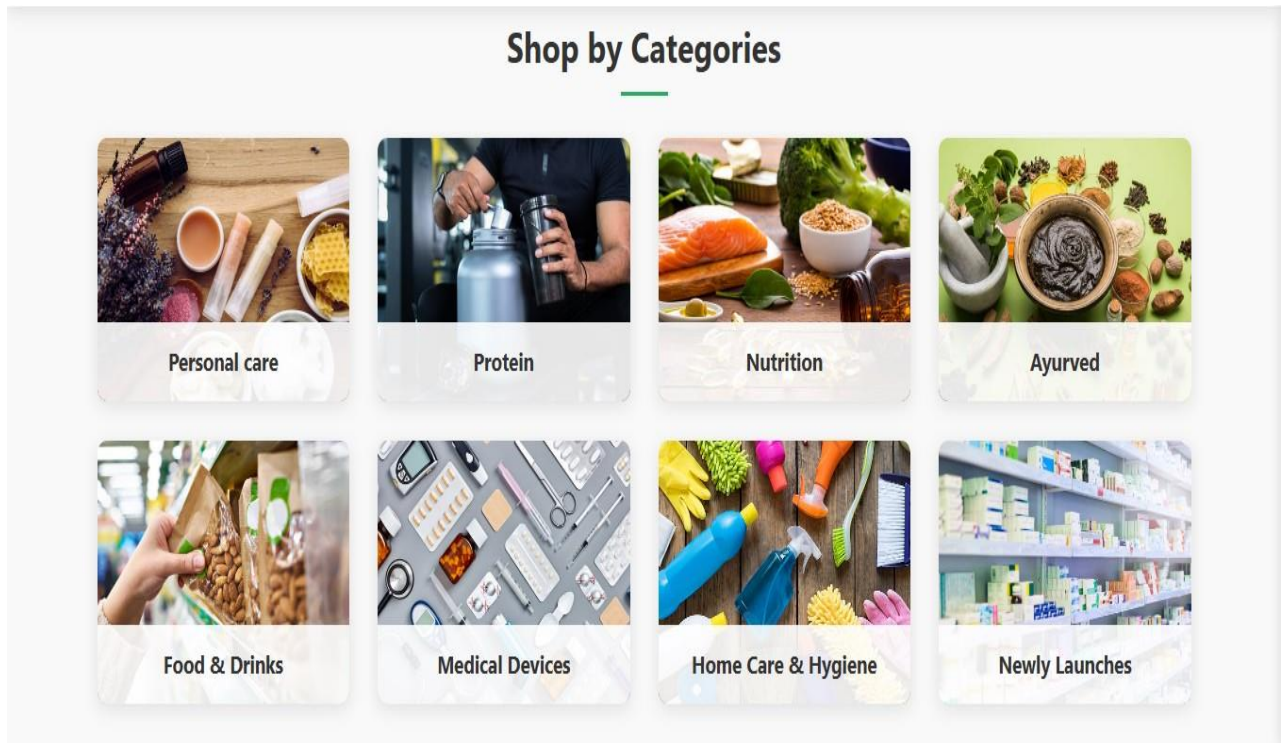
8. **Performance Optimizations:**

- The section utilizes dynamic loading through JavaScript, ensuring fast page loads and up-to-date information without requiring a full-page refresh.
- This enhances the overall user experience by minimizing wait times.

Purpose and Benefits:

- **Quick Discovery:** The Popular Products section facilitates quick access to popular and recommended items, significantly reducing the time users spend searching for products.
- **Increased Engagement:** The interactive filters and dynamic content keep users engaged, encouraging them to explore different categories and discover new products.
- **Boosts Sales:** By prominently showcasing bestsellers and attractive deals, the section drives conversions and increases the average order value, benefiting the overall sales performance of the platform.
- **Builds Trust:** Displaying ratings and reviews for popular products reassures new users about the quality of the products and the reliability of the service, fostering a sense of trust and confidence in their purchasing decisions.

5.4 Categories Page



Description:

The **Categories Page** on the Medkit homepage is designed to help users easily explore the wide range of healthcare products available on the platform. This section acts as a visual and interactive gateway, allowing users to quickly navigate to their desired product category with a single click.

Key Features:

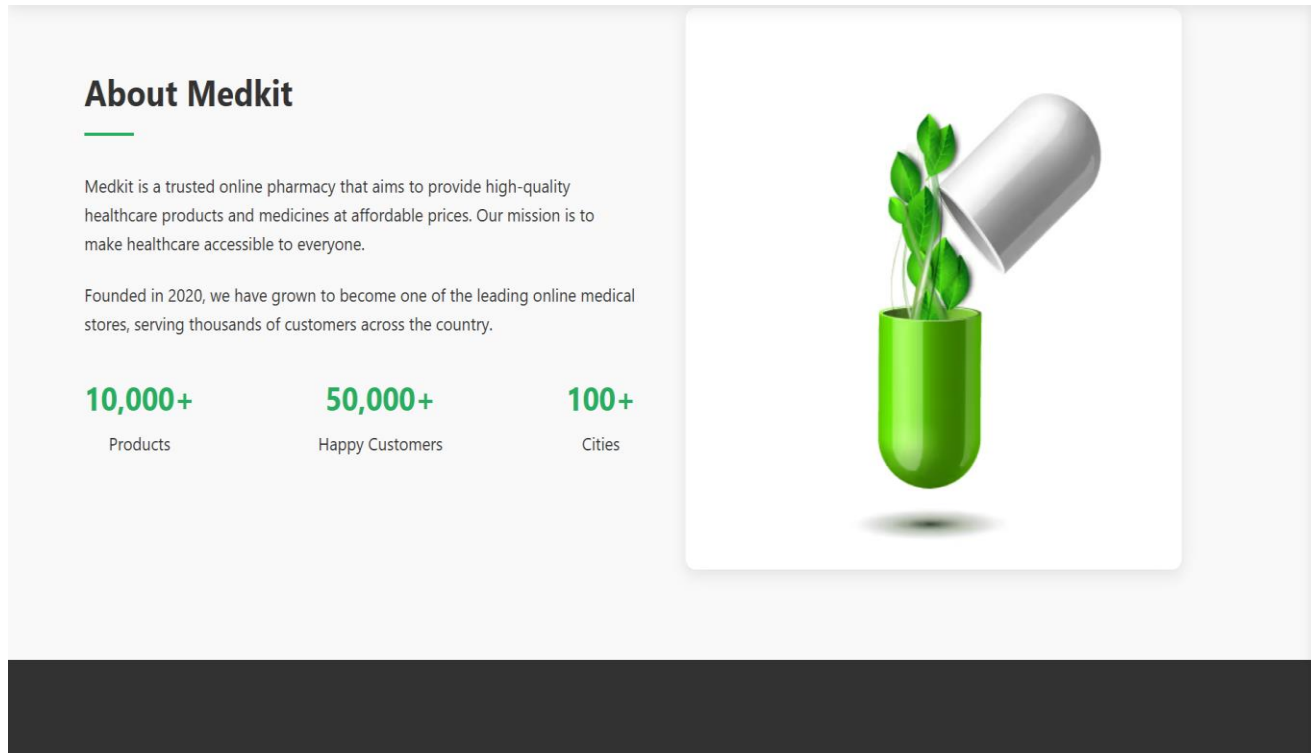
- **Section Title:** The section is introduced with a prominent heading, "Shop by Categories," making it clear to users that they can browse products by category.
- **Category Grid Layout:** Categories are displayed in a visually appealing grid format. Each category is represented by a card that includes:
 - **Category Image:** A relevant, high-quality image that visually represents the category, making it easy for users to identify at a glance.
 - **Category Name:** Clearly labeled below each image for quick recognition.
- **Clickable Category Cards:** Each card is a clickable link that directs users to a dedicated page for that category (e.g., Personal Care, Protein, Nutrition, Ayurved, Food & Drinks, Medical Devices, Home Care & Hygiene, Newly Launches). This enables users to instantly filter products and view only those relevant to their interests.

- **Comprehensive Coverage:** The section covers all major healthcare and wellness categories offered by Medkit, ensuring users can find everything from daily essentials to specialized products.
- **Responsive Design:** The grid layout is fully responsive, ensuring that the categories are displayed neatly and are easy to interact with on desktops, tablets, and mobile devices.
- **User Engagement:** By providing a quick and intuitive way to access different product categories, this section enhances user engagement and encourages exploration of the full product range.

Purpose and Benefits:

- **Easy Navigation:** Simplifies the shopping experience by allowing users to jump directly to their category of interest.
- **Visual Appeal:** The use of images and a grid layout makes the section attractive and inviting.
- **Improved User Experience:** Reduces the time and effort needed to find specific products, especially for new users.
- **Encourages Exploration:** Users are more likely to discover new products and categories they might not have considered otherwise

5.5 About Us Page



Description:

The **About** page on the Medkit homepage provides users with essential information about the company, its mission, and its achievements. This section is designed to build trust, establish credibility, and communicate the values and goals of Medkit to both new and returning customers.

Key Features:

- **Section Title:** The section begins with a clear heading, "About Medkit," making it easy for users to identify the purpose of this section.
- **Company Overview:** A concise yet informative paragraph explains what Medkit is—a trusted online pharmacy dedicated to providing high-quality healthcare products and medicines at affordable prices. The mission statement emphasizes making healthcare accessible to everyone.
- **History and Growth:** The section highlights the founding year (2020) and describes Medkit's growth into one of the leading online medical stores, serving thousands of customers across the country. This demonstrates the company's experience and reliability.


- **Achievements and Statistics:** The section features visually appealing statistics, such as:
 - **10,000+ Products:** Showcasing the extensive range of products available.
 - **50,000+ Happy Customers:** Indicating a large and satisfied customer base.
 - **100+ Cities:** Demonstrating wide geographical coverage and reach.
- **Visual Element:** An image related to Medkit or healthcare is included to make the section more engaging and visually appealing.
- **Layout:** The content is organized in a two-column layout, with text on one side and an image on the other, ensuring readability and a modern look.


Purpose and Benefits:


- **Builds Trust:** By sharing the company's mission, history, and achievements, the section reassures users of Medkit's credibility and commitment to quality service.
- **Informs New Users:** New visitors quickly learn about Medkit's background, values, and what sets it apart from competitors.
- **Encourages Engagement:** Highlighting achievements and growth encourage users to explore the platform further and become part of the Medkit community.


5.6 Contact Page





Contact Us

 **Address**
Medkit Motibag, 123 Medical Plaza, junagadh - 362001

 **Phone**
+91 63510 79049
+91 63562 47202
+91 63521 09112

 **Email**
harshitrnk329@gmail.com
piyubhesaniya061@gmail.com
harshitrnk329@gmail.com

 **Working Hours**
Monday - Saturday: 9am - 8pm
Sunday: 10am - 6pm

Description:

The **Contact Page** of the Medkit homepage is designed to provide users with multiple ways to reach out for support, inquiries, or feedback. This section ensures that customers can easily connect with the Medkit team, enhancing trust and improving the overall user experience.

Key Features:

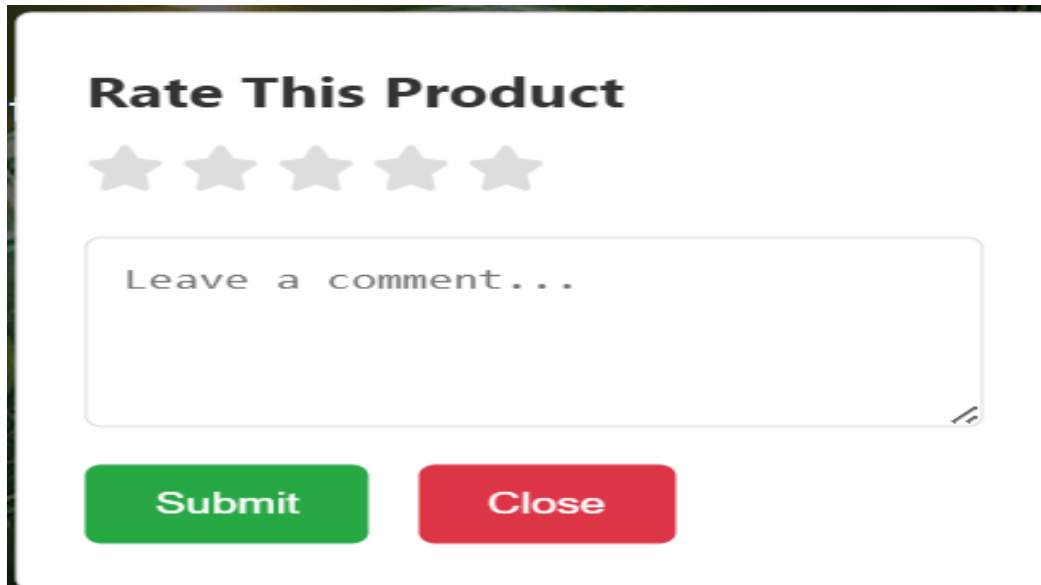
- **Section Title:** The section is clearly labeled with a heading, "Contact Us," making it easy for users to identify where to find support information.
- **Contact Information:** The section displays essential contact details in a structured format:
 - **Address:** The physical location of Medkit is provided, helping users know where the business is based.
 - **Phone Numbers:** Multiple contact numbers are listed, allowing users to call for immediate assistance or inquiries.
 - **Email Addresses:** Email contacts are provided for users who prefer written communication or need to send documents.
 - **Working Hours:** Clearly states the business hours for both weekdays and weekends, so users know the best times to reach out.

- **Social Media Links:** Icons and links to Medkit's social media profiles (Facebook, Twitter, Instagram, LinkedIn) are included, encouraging users to connect and stay updated through their preferred platforms.
- **Contact Form:** An interactive form allows users to send messages directly from the website. The form includes fields for:
 - Name
 - Email
 - Subject
 - MessageThis makes it easy for users to submit queries, feedback, or requests without leaving the site.
- **Responsive Design:** The contact section is fully responsive, ensuring that all information and forms are accessible and easy to use on desktops, tablets, and mobile devices.

Purpose and Benefits:

- **Easy Communication:** Provides multiple channels for users to get in touch, ensuring their questions and concerns are addressed promptly.
- **Builds Trust:** Transparent and accessible contact information reassures users about the legitimacy and reliability of Medkit.
- **Encourages Feedback:** The contact form invites users to share their experiences, suggestions, or issues, helping Medkit improve its services.
- **Social Engagement:** Social media links foster a sense of community and keep users engaged with updates, offers, and health tips.

5.7 Rate Page



Description:

The **Rating Section** on the Medkit homepage allows users to provide feedback on products by submitting ratings and comments. This interactive feature is designed to enhance user engagement, build trust, and help future customers make informed decisions.

Key Features:

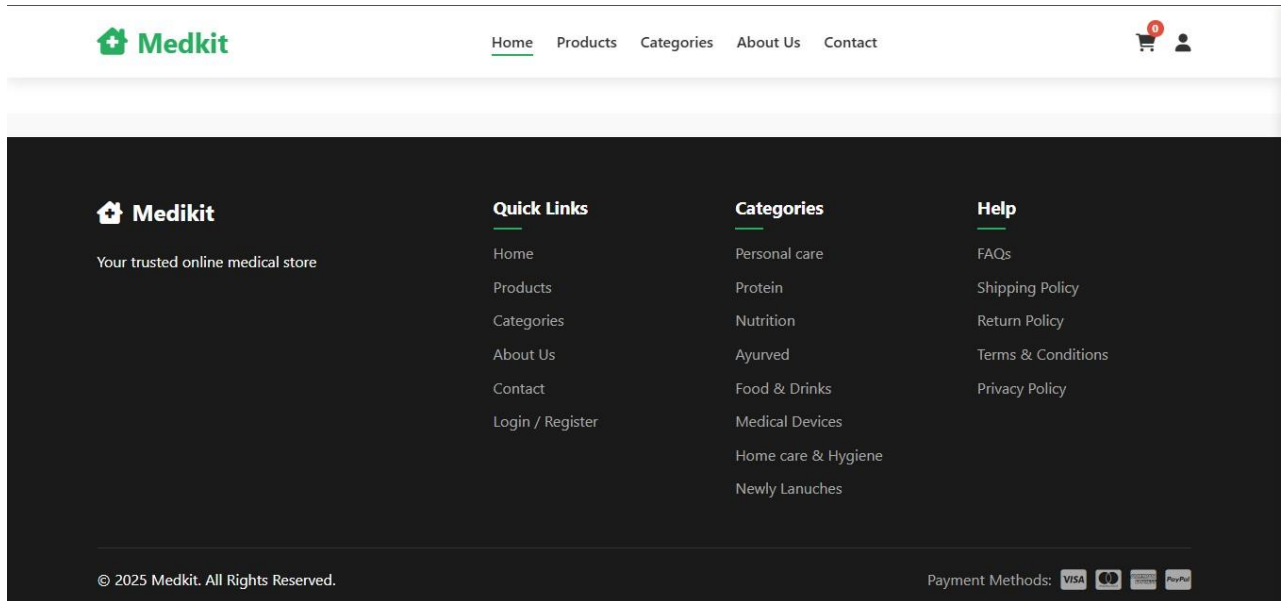
- **Rate Us Button:** A prominently placed "Rate Us" button invites users to share their experience with products or the platform.
- **Popup Interface:** When the button is clicked, a popup window appears, providing a dedicated space for users to submit their ratings and comments without leaving the current page.
- **Star Rating System:** Users can select a rating from 1 to 5 stars by clicking on the star icons. This visual and intuitive system makes it easy for users to express their satisfaction level.
- **Comment Box:** A text area is provided for users to leave detailed feedback or comments about their experience with the product or service.
- **Submit and Close Buttons:** Users can submit their rating and comment with the "Submit" button, or close the popup without submitting using the "Close" button.

- **User Engagement:** The rating section encourages users to participate in improving the platform and helps Medkit gather valuable feedback for quality enhancement.
- **Trust and Transparency:** Displaying ratings and reviews builds trust among new users, as they can see genuine feedback from other customers.
- **Responsive Design:** The popup and rating controls are fully responsive, ensuring a smooth experience on all devices.

Purpose and Benefits:

- **Improves Product Quality:** Feedback collected through the rating section helps Medkit identify areas for improvement and maintain high standards.
- **Guides New Customers:** Ratings and comments assist new users in making informed purchasing decisions.
- **Enhances User Experience:** Providing an easy way to share feedback makes users feel valued and heard.

5.8 Footer Section



Description:

The Footer Section of the Medkit homepage provides users with essential links, contact information, and additional resources, ensuring easy navigation and building trust. It is designed to be informative, accessible, and visually consistent with the rest of the site.

Key Features:

- **Branding:** Displays the Medkit logo and a brief tagline, reinforcing brand identity and trust.
- **Quick Links:** Offers direct links to important pages such as Home, Products, Categories, About Us, Contact, and Login/Register, allowing users to navigate the site efficiently.
- **Categories:** Lists all major product categories (Personal Care, Protein, Nutrition, Ayurved, Food & Drinks, Medical Devices, Home Care & Hygiene, Newly Launches) for quick access to specific product sections.
- **Help Section:** Provides links to FAQs, Shipping Policy, Return Policy, Terms & Conditions, and Privacy Policy, helping users find answers to common questions and understand site policies.
- **Payment Methods:** Displays icons for accepted payment methods (Visa, MasterCard, Amex, PayPal), assuring users of secure and flexible payment options.
- **Copyright:** Includes a copyright notice with the current year, indicating ownership and

professionalism.

- **Responsive Design:** The footer layout adapts to different screen sizes, ensuring readability and usability on desktops, tablets, and mobile devices.

Purpose and Benefits:

- **Easy Navigation:** Users can quickly find and access important sections of the website from any page.
- **Trust and Transparency:** Displaying policies, contact info, and payment methods builds user confidence.
- **Consistent User Experience:** The footer maintains the site's visual style and provides closure to each page.

CODING (FEW CODE SNIPPETS)

6.1 Login Form Validation (JavaScript)

```
// Form Validation and Submission
const loginForm = document.getElementById('login-form');
const registerForm = document.getElementById('register-form');

const validateIdentifier = (value) => {
  const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/; // Email validation regex
  const phoneRegex = /^[0-9]{10}$/; // Phone number validation regex (10 digits)
  return emailRegex.test(value) || phoneRegex.test(value);
};

// Validate Login Form
if (loginForm) {
  loginForm.addEventListener('submit', (e) => {
    e.preventDefault();
    const identifier = document.getElementById('login-identifier').value.trim();

    if (!validateIdentifier(identifier)) {
      alert('Please enter a valid email or phone number.');
```

```
      return;
    }

    alert('Login successful!');
    loginForm.reset();
    window.location.href = 'index.html';
  });
}
```

6.2 Contact Us Form

```
// Contact form validation and submission
document.addEventListener('DOMContentLoaded', () => {
  const contactForm = document.getElementById('contact-form');

  if (contactForm) {
    contactForm.addEventListener('submit', (e) => {
      e.preventDefault(); // Prevent the default form submission behavior

      const name = contactForm.querySelector('input[placeholder="Your Name"]').value.trim();
      const email = contactForm.querySelector('input[placeholder="Your Email"]').value.trim();
      const subject = contactForm.querySelector('input[placeholder="Subject"]').value.trim();
      const message = contactForm.querySelector('textarea[placeholder="Your Message"]').value.trim();

      // Regular expression for Gmail validation
      const gmailRegex = /^[a-zA-Z0-9._%+-]+@gmail\.com$/;

      // Regular expression to allow only string values in the subject
      const stringRegex = /^[a-zA-Z\s.,!?'-]+$/;
```



```

// Validate name
if (!name) {
  alert('Name is required. Please enter your name.');
```

```
  return;
}

// Validate Gmail
if (!gmailRegex.test(email)) {
  alert('Please enter a valid Gmail address (e.g., example@gmail.com).');
```

```
  return;
}

// Validate subject
if (subject && !stringRegex.test(subject)) {
  alert('Please enter a valid subject (letters, spaces, and basic punctuation only).');
```

```
  return;
}

// Validate message
if (!message) {
  alert('Message is required. Please enter your message.');
```

```
  return;
}

// Show a success popup message
alert(`Thank you, ${name}! Your message has been sent successfully.`);
contactForm.reset(); // Reset the form fields
});
}

```

6.3 Rating Star

```

// Handle star selection
if (stars.length > 0) {
  stars.forEach((star) => {
    star.addEventListener('click', (e) => {
      const value = e.target.getAttribute('data-value');
      stars.forEach((s) => s.classList.remove('active'));
      for (let i = 0; i < value; i++) {
        stars[i].classList.add('active');
      }
      console.log(`You rated ${value} stars`);
    });
  });
}
});

```

6.4 Responsive Design

```
/* Responsive Design */
@media (max-width: 1024px) {
  .about-content,
  .contact-content {
    grid-template-columns: 1fr;
  }

  .about-content {
    gap: 30px;
  }

  .about-image {
    order: -1;
  }

  .features .container {
    grid-template-columns: repeat(2, 1fr);
  }
}
```

TESTING (MANUAL, TEST CASES AND TEST DATA)

7.1 Manual Testing

1. Homepage Navigation:

- Test all navigation links (Home, Products, Categories, About Us, Contact).
- Verify logo redirects to homepage.
- Check hamburger menu and navigation on mobile devices.
- Ensure active page highlighting and browser navigation (back/forward).

2. Hero Section:

- Confirm headline, tagline, and "Shop Now" button display correctly.
- Test "Shop Now" scrolls to Products section.
- Check hero section responsiveness and background image scaling.

3. Features Section:

- Verify all feature cards (Fast Delivery, Genuine Products, Best Prices, 24/7 Support) are visible.
- Check icons, titles, and descriptions for accuracy.
- Test hover effects and alignment on all devices.

4. Categories Section:

- Click each category card and verify navigation to correct category page.
- Check category images, titles, and hover effects.
- Test for broken or incorrect category links.

5. Products Section:

- Test product filters (All, Medicines, Wellness, Devices).
- Verify dynamic product loading and correct display of details.
- Test "View All Products" and "View Less Products" buttons.
- Click product cards for more details (if implemented).

6. Cart Functionality:

- Add, remove, and update product quantities in the cart.
- Verify cart sidebar updates and persists after page refresh.
- Test "Checkout" and "Continue Shopping" buttons.
- Check cart total calculations and empty cart behavior.

7. Login & Registration:

- Test login and registration with valid/invalid data.
- Check password visibility toggle, form validation, and error messages.
- Verify social login buttons (Google, Facebook).
- Test "Forgot Password" and "Remember Me" features.

8. Contact Section:

- Submit contact form with valid and invalid data.
- Verify contact info, phone numbers, emails, and social links.
- Check confirmation message and form reset functionality.

9. Newsletter Subscription:

- Enter valid and invalid emails and test subscription.
- Check for success/error messages and duplicate email handling.

10. Rating & Review Popup:

- Open rating popup, select stars, enter comment, and submit.
- Test validation for missing stars or comments.
- Check display/processing of submitted ratings.

11. Special Offers Section:

- Verify offer cards display correct information and codes.
- Test "Shop Now" buttons and offer code application (if implemented).

12. Testimonials Section:

- Check testimonial slider functionality and navigation dots.
- Verify testimonial content, customer names, and star ratings.

13. About Section:

- Confirm company description, mission, and statistics display correctly.
- Check about image and layout on all devices.

14. Footer Section:

- Test all footer links (Quick Links, Categories, Help).
- Verify payment method icons and copyright.
- Check responsiveness and alignment.

15. Cart Sidebar & Overlay:

- Open/close cart sidebar and overlay.
- Test overlay click closes cart.
- Check cart item removal and quantity adjustment.

16. Accessibility:

- Test keyboard navigation for all interactive elements.
- Check alt text on images and proper labeling of form fields.
- Use screen reader to verify accessibility compliance.

17. Responsive Design:

- Test layout and functionality on desktop, tablet, and mobile devices.
- Check orientation changes and touch target sizes.

18. Performance & Usability:

- Check page load times and responsiveness.
- Test for broken images, missing icons, or layout shifts.
- Ensure all buttons and links provide visual feedback.

19. Security & Data Validation:

- Test input validation for all forms (XSS, SQL injection prevention).
- Check password masking and secure data handling.
- Verify no sensitive data is exposed in URLs or error messages.

20. Error Handling & Notifications:

- Submit forms with missing/invalid data and check error messages.
- Test notification system for login, registration, and actions.
- Check for graceful handling of 404 and other error pages.

7.2 Test Cases

In this project, manual testing was performed to verify the working of the Contact Us form and the Product Rating Modal.

The testers manually filled out the form fields, submitted the message, rated products with different star values, and verified the UI responsiveness across various devices.

Test Cases:

Test Case No.	Scenario	Expected Result	Status
TC01	Submit Contact Form with all valid inputs	Message submitted successfully	Pass
TC02	Submit Contact Form with missing fields	Error message displayed	Pass
TC03	Rate a product with 4 stars and submit comment	Rating and comment submitted successfully	Pass
TC04	Click Close button on rating modal	Modal closes without any issue	Pass
TC05	Check responsive design on mobile	Layout adjusts properly	Pass
TC06	Remove product from cart	Product is removed from cart	Pass
TC07	Login with invalid credentials	Error message displayed	Pass

Test Case No.	Scenario	Expected Result	Status
TC08	Login with valid credentials	User is redirected to homepage	Pass
TC09	Register with existing email	Error message displayed	Pass
TC10	Register with new email	Registration successful	Pass
TC11	Navigate to each category page	Correct category page loads	Pass
TC12	Submit contact form with invalid email	Error message displayed	Pass
TC13	Use product filter in Popular Products	Only selected category products are shown	Pass
TC14	Use social login buttons	Social login process starts	Pass
TC15	Open and close cart sidebar	Sidebar opens and closes smoothly	Pass

ENHANCEMENTS

8.1 Advantages of Your Project

The **advantages** of your project highlight the key strengths and benefits that the system offers, both from a user perspective and a technical perspective. Below are the main advantages of your project:

1. Convenience:

- Medkit allows users to order medicines and healthcare products directly from their homes, eliminating the need to visit physical stores.
- This saves significant time and effort, especially for elderly, disabled, or busy individuals, and is particularly beneficial during emergencies or unfavorable weather conditions.

2. Wide Product Range:

- The platform offers a comprehensive selection of products across multiple categories, including personal care, protein supplements, nutrition, ayurvedic remedies, medical devices, food & drinks, home care & hygiene, and new launches.
- This ensures that users can find all their healthcare needs in one place.

3. User-Friendly Interface:

- Medkit features a clean, modern, and intuitive user interface.
- The navigation is straightforward, making it easy for users of all age groups and technical backgrounds to browse, search, and purchase products without confusion.

4. Fast Delivery:

- The system is designed to ensure quick and reliable delivery of medicines and healthcare products to the customer's doorstep.
- This is especially important for urgent medical needs and enhances user satisfaction.

5. Secure Payment:

- Medkit integrates multiple secure payment options, such as credit/debit cards, net banking, and digital wallets.
- This ensures that all transactions are safe, protecting users from fraud and unauthorized access.

6. 24/7 Accessibility:

- Unlike traditional stores with limited operating hours, Medkit is accessible online at any time and from anywhere.
- Users can place orders whenever it is convenient for them, including late nights and holidays.

7. Discounts & Offers:

- The platform regularly provides special discounts, promotional codes, and exclusive offers.
- This helps users save money on their purchases and encourages them to return for future shopping.

8. Detailed Product Information:

- Each product listing includes high-quality images, comprehensive descriptions, prices, available discounts, and customer ratings.
- This transparency helps users make informed decisions and choose the best products for their needs.

9. Order Tracking:

- Users can track the status of their orders in real-time (if implemented), providing transparency and peace of mind about delivery timelines and order progress.

10. Responsive Design:

- Medkit is built with a responsive design, ensuring that the website functions seamlessly on desktops, tablets, and mobile devices.
- This makes the platform accessible and easy to use on any device.

11. Customer Support:

- The platform offers dedicated customer support through help sections, FAQs, and contact forms.
- Users can easily get assistance with their queries, issues, or feedback, enhancing their overall experience.

12. Personalized Experience:

- Medkit can provide personalized product recommendations based on user preferences, browsing history, and previous purchases, making the shopping experience more relevant and efficient.

13. Loyalty Programs:

- The system can reward regular customers with loyalty points, discounts, or special benefits, encouraging repeat purchases and building long-term customer relationships.

14. Secure Data Handling:

- User data, including personal and payment information, is protected using modern security practices such as encryption and secure authentication, ensuring privacy and safety.

15. Scalability:

- The platform is designed to be scalable, allowing for easy addition of new features, categories, and integrations as the business grows and user needs evolve.

16. Easy Prescription Management:

- Medkit can allow users to upload prescriptions directly through the platform (if implemented), simplifying the process of ordering prescription medicines and ensuring compliance with regulations.

17. Order History and Reordering:

- Users can view their past orders and quickly reorder frequently purchased items, saving time and improving convenience for regular customers.

18. Health Tips and Educational Content:

- The platform can provide users with health tips, blogs, and educational resources, empowering them to make informed health decisions and promoting overall wellness.

19. Multi-Language Support:

- Medkit can be designed to support multiple languages, making the platform accessible to a wider and more diverse audience.

20. Telemedicine Integration:

- The system can integrate telemedicine features, allowing users to consult healthcare professionals online for advice, prescriptions, or follow-ups.

21. Automated Notifications:

- Users receive timely notifications about order status, special offers, and new product launches via email or SMS, keeping them informed and engaged.

22. Eco-Friendly Initiatives:

- Medkit can promote eco-friendly packaging and delivery practices, contributing to environmental sustainability and appealing to environmentally conscious users.

23. Community and Social Engagement:

- Integration with social media and community features allows users to share experiences, reviews, and recommendations, building a supportive healthcare community.

24. Regulatory Compliance:

- The platform is designed to comply with all relevant healthcare and data protection regulations, ensuring safe and lawful operations.

25. Robust Admin Panel:

- A comprehensive admin dashboard allows for efficient management of products, orders, users, and analytics, streamlining business operations.

8.2 Limitation of Your Project

While the project offers numerous advantages, there are also certain **limitations** that need to be considered for improvement in future versions or iterations. Below are the key limitations of the project:

1. No Real-Time Inventory Updates:

- The platform does not update product stock levels instantly. This means that users might place orders for items that are already out of stock, leading to order cancellations, delays, and a poor user experience.
- Real-time inventory management is essential for accurate product availability.

2. Limited Prescription Handling:

- Currently, the system may not support uploading or verifying prescriptions for restricted medicines.
- This limits the ability to sell certain regulated products and may not comply with legal requirements for prescription drugs, reducing the platform's credibility and service range.

3. Basic Personalization:

- Product recommendations and user experiences are not deeply personalized.
- The system lacks advanced analytics or AI-driven features that could suggest products based on user behavior, purchase history, or preferences, resulting in a generic shopping experience.

4. Limited Payment Options:

- The payment gateway integration is basic and may not support popular digital wallets, UPI, or EMI options.
- This restricts user choice and convenience, potentially leading to cart abandonment if a preferred payment method is unavailable.

5. No Dedicated Mobile App:

- Medkit is currently accessible only through a web browser.
- There is no native mobile application for Android or iOS, which limits accessibility and convenience for users who prefer shopping via mobile apps.

6. Restricted Delivery Coverage:

- Delivery services may be limited to specific geographic areas, excluding remote or rural locations.
- This restricts the platform's reach and prevents a significant segment of the population from accessing its services.

7. No Telemedicine Integration:

- The platform does not offer telemedicine features, such as online consultations with doctors or healthcare professionals.
- This limits the platform's ability to provide comprehensive healthcare solutions and integrated services.

8. Basic Customer Support:

- Customer support is limited to FAQs and contact forms.
- There is no live chat or 24/7 real-time support, which can delay issue resolution and reduce user satisfaction, especially during emergencies.

9. Single Language Support:

- The platform may only be available in one language, making it less accessible to users who are not fluent in that language.
- This limits the platform's usability for a diverse, multilingual user base.

10. Limited Return/Refund Automation:

- The process for returning products or obtaining refunds is not fully automated or user-friendly.

- Users may face delays or complications when trying to return items or get their money back, which can negatively impact trust and repeat business.

11. No Real-Time Order Tracking:

- Users may not be able to track their orders in real time after placing them.
- This lack of transparency can lead to uncertainty and dissatisfaction regarding delivery status and timelines.

12. Security Limitations:

- Advanced security features such as two-factor authentication or biometric login are not implemented.
- This may expose users to higher risks of unauthorized access or data breaches.

13. No Loyalty or Rewards Program:

- The system does not offer loyalty points, rewards, or special benefits for repeat customers.
- This reduces incentives for users to return and make additional purchases, impacting customer retention.

14. Limited Health Content:

- The platform may lack educational resources, health tips, or blogs.
- This limits user engagement and the platform's value as a source of reliable health information.

15. Scalability Constraints:

- The current system architecture may not be designed to handle a significant increase in users, products, or categories.
- Scaling up the platform could require major changes or redevelopment, affecting future growth and flexibility.

8.3 Future Scope

The Medkit platform lays a strong foundation for online medical retail. In future iterations, the system can be expanded in the following ways:

1. Mobile Application Development:

- Medkit plans to launch dedicated Android and iOS mobile applications.
- These apps will provide a seamless shopping experience optimized for mobile devices, including features like push notifications for order updates and offers, as well as offline browsing so users can view products and manage their cart even without an internet connection.

2. Real-Time Inventory Management:

- The platform will integrate advanced inventory systems that update stock levels instantly as purchases are made.
- Automatic restocking alerts and supplier integration will ensure products are always available, reducing the chances of users ordering out-of-stock items.

3. AI-Based Personalization:

- Artificial intelligence and machine learning will be used to analyze user behavior and purchase history.
- This will enable personalized product recommendations, dynamic pricing, and targeted offers, making the shopping experience more relevant and engaging for each user.

4. Telemedicine Integration:

- Medkit will enable users to consult with certified doctors and healthcare professionals directly through the platform via video calls or chat.
- This will provide users with expert advice, digital prescriptions, and follow-up care without leaving their homes.

5. Prescription Upload and Verification:

- Users will be able to upload prescriptions for restricted medicines.

- The system will feature automated or pharmacist-assisted verification to ensure compliance with regulations and enhance safety for users.

6. Multi-Language and Multi-Currency Support:

- To make Medkit accessible to a broader audience, the platform will support multiple regional and international languages and currencies.
- Allowing users from different backgrounds and countries to shop comfortably.

7. Voice Search and Virtual Assistant:

- Voice search functionality and AI-powered virtual assistants will help users find products, answer queries, and place orders hands-free, improving accessibility for visually impaired users and those who prefer voice commands.

8. Subscription and Auto-Refill Services:

- Medkit will offer subscription models for recurring purchases, such as monthly medicines or supplements.
- Automated billing and scheduled deliveries will ensure users never run out of essential products.

9. Loyalty and Rewards Program:

- A comprehensive loyalty program will be introduced, offering points, cashback, exclusive deals, and referral bonuses.
- This will encourage repeat purchases and increase customer retention.

10. Advanced Analytics and Reporting:

- Both users and administrators will have access to detailed analytics, including health trends, purchase history, and product usage.
- This data will help users manage their health better and allow admins to optimize inventory and marketing strategies.

11. Order Tracking with Live Updates:

- Integration with logistics partners will provide real-time order tracking, estimated delivery times.

- Direct contact with delivery agents, enhancing transparency and user confidence.

12. Health Content and Community:

- Medkit will build a health blog, video library, and user forums where customers can share health tips, product reviews.
- Support each other, fostering a sense of community and continuous learning.

13. Integration with Wearables and Health Apps:

- The platform will sync with fitness trackers and health apps.
- Allowing users to receive personalized product suggestions and monitor their health metrics directly through Medkit.

14. Emergency Medicine Delivery:

- Express delivery options, including 1-hour delivery in select areas, will be introduced for urgent medicine needs, ensuring timely access to critical healthcare products.

15. Corporate and Institutional Solutions:

- Medkit will provide bulk ordering, health packages, and wellness programs tailored for companies, hospitals, and institutions.
- Supporting workplace and community health initiatives.

16. EHR (Electronic Health Record) Integration:

- Users will be able to securely store, manage, and share their medical records within the platform, making it easier to track health history.
- Share information with healthcare providers.

17. Insurance Integration:

- Partnerships with insurance providers will enable cashless purchases, easy claims processing, and health plan management directly through Medkit.

18. Augmented Reality (AR) for Product Visualization:

- AR technology will allow users to visualize products, read labels, and understand usage

instructions interactively, enhancing product understanding and confidence before purchase.

19. Global Expansion:

- Medkit aims to scale its platform to serve international markets, adapting to local regulations, healthcare needs, and cultural preferences for a truly global reach.

20. Sustainability Initiatives:

- The platform will implement eco-friendly packaging, carbon-neutral delivery options, and promote green healthcare products, contributing to environmental sustainability.

21. Accessibility Enhancements:

- Medkit will ensure full accessibility for users with disabilities, including screen reader support, high-contrast modes, and keyboard navigation, making the platform inclusive for all.

22. Fraud Detection and Enhanced Security:

- AI-driven systems will be used to detect fraudulent activities, secure transactions, and protect user data with advanced encryption and multi-factor authentication.

23. Integration with Local Pharmacies:

- Collaboration with neighborhood pharmacies will enable faster delivery, local pickup options, and strengthen community engagement.

24. Custom Health Packages:

- Users will be able to create and subscribe to custom health and wellness packages tailored to their specific needs, such as diabetic care kits or immunity boosters.

25. Regulatory Compliance Automation:

- Medkit will automate compliance with evolving healthcare regulations, ensuring safe, legal, and ethical operations in all regions it serves.

26. Family Account Management:

- Allow users to manage multiple family members' profiles and prescriptions under a single account, streamlining healthcare for the entire household.

27. In-App Chat Support:

- Provide instant chat support with customer service representatives, pharmacists, or healthcare professionals for real-time assistance and guidance.

28. Digital Health Wallet:

- Enable users to securely store prescriptions, invoices, insurance cards, and health records in a digital wallet for easy access and sharing.

29. Integration with Government Health Schemes:

- Support for government health programs and subsidies, allowing eligible users to avail benefits directly through the platform.

30. Smart Product Bundling:

- Offer intelligent product bundles based on user needs (e.g., diabetic care kits, immunity boosters), with discounts for bundled purchases.

31. AI-Driven Health Risk Assessment:

- Provide users with AI-powered health risk assessments and preventive care suggestions based on their purchase history and health data.

32. Medication Adherence Tracking:

- Remind users to take their medicines on time and track adherence, with notifications and progress reports.

33. Video Tutorials and Product Demos:

- Offer video guides for product usage, health tips, and wellness routines to educate and engage users.

34. Marketplace for Health Services:

- Expand into a marketplace model, allowing third-party clinics, labs, and wellness providers to offer their services through Medkit.

35. Integration with Diagnostic Labs:

- Allow users to book lab tests, receive digital reports, and consult with doctors based on their results, all within the Medkit platform.

REFERENCES

- **Mozilla Developer Network (MDN)**
Comprehensive reference for HTML5, CSS3, and JavaScript APIs and best practices.
- **Font Awesome**
Icon library used for all UI icons (e.g., medical symbol, stars, cart).
- **W3Schools**
Tutorials and code examples for HTML, CSS, and JavaScript fundamentals.
- **CSS-Tricks**
Articles on responsive grid layouts, flexbox, and modern CSS techniques.
- **Google Chrome DevTools**
Used for debugging, performance profiling, and responsive design testing.
- **Noble University Project Guidelines**
Official format and submission requirements provided by Noble University, Junagadh.
- **Internal Guide: Mrs. Khushbu Sama**
Guidance and feedback throughout project development and report preparation.
- **Team Collaboration and Personal Knowledge**
Insights and code optimizations derived from team discussions (Harshit B. Rank, Riddhi V. Gajera, Priyanka S. Bheshaniya) and individual experimentation.