PUSL2021

COMPUTER GROUP PROJECT

PLYMOUTH BATCH 11

PROJECT PROPOSAL

SRI LANKA COMPUTER PARTS DATA HUB

GROUP B 100

GROUP MEMBERS DETAILS

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OVERVEIW AND INTORDUCTION

In Sri Lanka there’s a noticeable gap in the market for a platform that brings together data on computer parts. This gap makes it challenging for consumers to make informed buying decisions. Our project aims to fill this void by collecting and organizing data from popular online stores.

Our team proposes a project to create a user-friendly website dedicated to gathering and presenting information about computer parts available in Sri Lanka. It’s known as Sri Lanka computer parts Hub. Our System is envisioned as a centralized platform designed to streamline and optimize the management of computer components within the country. The main functionality of our system is to serve as a comprehensive database that catalogues information about various computer parts, including processors, memory modules, storage devices, graphics cards and more. Users, ranging from individual consumers to business and technicians, can access our hub to obtain detailed specifications, compatibility information, and real-time market prices for a wide array of computer components. This platform will address the current lack of a comprehensive source for consumers to compare prices, specification and contact details from various online retailers.

It enhances the efficiency of the computer parts ecosystem by providing a one-step destination for users to make informed decisions about their hardware needs. It will facilitate easy comparison of products, allowing users to select components based on their requirements and budget constraints. Additionally, the hub will feature a user-friendly interface, enabling quick searches, and will incorporate user reviews to further guide purchasing decision.

In essence, our project not only acts as a valuable resource for consumers but also serves as a dynamic platform for sellers and manufacturers to showcase their products. Our system’s overarching goal is to foster a more transparent and accessible marketplace for computer parts, fostering a technologically empowered community in Sri Lanka.

OBJECTIVES

1. To establish a centralized database to store comprehensive information about a wide range of computer parts.
2. To provide detailed specification for each computer component, including technical details, compatibility information, and performance benchmarks.
3. To integrate real-time pricing data to enable users to make informed decisions based on current market conditions.
4. Develop a user-friendly interface for easy navigation and quick access to information.
5. Incorporate a user review and rating system to provide insights into the real-world performance and reliability of computer components.
6. To implement comparison tools to allow users to compare different computer parts side by side, aiding in decision making.
7. Provide educational resources, including guides and articles, to help users understand technical aspects and make informed choices.
8. Foster a community by enabling users to share their experiences, insights, and recommendation within the platform.
9. Implement a notification system to alert users about price changes, new product launches, or important updates.

IMPLEMENTING SOLUTION FOR ABOVE OBJECT

1. Design and develop a robust database architecture to efficiently store and manage vast amounts of computer parts data.
2. Create visually appealing user interface, ensuring easy navigation and accessibility.
3. Establish connections with reliable data sources to integrate real-time market prices and ensure up to date information.
4. Implement modules for product comparison and user reviews, enhancing the decision- making process for users.
5. Develop informative and educational content, such as guides and articles, to empower users with knowledge.
6. Implement a notification system to keep users informed about relevant updates, ensuring an engaged and informed user base.

TARGET USER

1. Individual Consumers: Everyday consumers looking to purchase computer parts for personal use, gaming, or general computing needs. They seek detailed information and reliable reviews to make informed decisions.
2. System builders: Who build custom computer systems. They require comprehensive information and performance benchmarks to ensure the seamless integration of components.
3. IT Professionals: IT professional and system administrators seeking reliable and up to date information on computer parts for business and enterprise-level computing needs.
4. Educational institutions: Schools, colleges and universities involved in setting up computer labs or upgrading existing infrastructure. They require cost-effective and reliable computer parts tailored to educational needs.
5. Vendors and Manufactures: Computer parts vendors and manufacturers seeking a platform to showcase their products to wide audience. They aim to engage with potential customers and build brand visibility.
6. Repair and Maintenance Professionals: Technicians and professionals involved in computer repair and maintenance. They rely on the platform for accurate specifications and compatibility information when sourcing replacement parts.
7. Tech Reviewers and Influencers: Online influencers and tech reviewers who contribute to the community by sharing insights, reviews and recommendations on computer components.
8. Government and Institutions: Government entities and institutions involved in procuring computer equipment. They seek a reliable source for information on computer parts for large scale deployments.
9. General Technology Enthusiasts: Individual with a general interest in technology who us the platform to stay informed about the latest advancement in computer hardware.

APPLIACTION FEATURE AND DESCRIPTION

1. User registration and Authentication: Users can create accounts, log in securely and access personalized features such as saved preferences and history.

1. Product Search and filters: Robust search functionality with filters to help users find specific computer parts based on criteria such as brand, specification and price range.

1. Product Listings: Comprehensive product listings with detailed information, including specifications.

1. Real time pricing updates: Integration of real time market prices to ensure users have access to the most current pricing information.

1. Product Comparison Tools: Tools that allow users to compare multiple computer parts side by side, facilitating informed decision-making.

1. User Reviews and Ratings: User can read and contribute reviews and ratings for computer components, sharing their experiences and insights.

1. Vendor and Manufacture Showcases: Dedicated spaces for vendors and manufacturers to showcase their experiences and insights.

1. Educational Resources Section: A section with guides, articles and educational content to help users understand technical aspects and make informed choices.

1. Community forums: Interactive community forums for users to discuss products, share insights and seek advice.

1. Compatibality check tool: A tool the compatibility of selected computer components, ensuring users build systems with seamlessly integrated parts.

1. User Account Dashboard: Personalized user dashboards displaying saved preferences, purchase history and personalized recommendations.

1. Notification System: Users receive notifications about price changes, new product launches and important update based on their preferences.

1. Accessibility features: Features to enhance accessibility, including text-to-speech, high contrast modes and keyboard shortcut.

1. Reporting and Analytics Dashboard: Reporting tools for administrators to generate insights into user behavior, popular products and market trends.

1. Feedback and support Center: A dedicated section for users to provide feedback, seek assistance and report issues.

TIME FRAME (GANTT CHART)

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| |  |  |  |  | | --- | --- | --- | --- | | Id | Task name | Pred eces sors | Duration | | 1 | start |  | 0 | | 2 | Project proposal | 1 | 26 days | | 3 | Technical and  functional | 1 | 40 days | | 4 | Web scraping | 3 | 15 days | | 5 | Data Analysis | 3 | 23 days | | 6 | Interim document 1 | 3 | 32 days | | 7 | Database setup | 4,5 | 38 days | | 8 | Development and Implementation | 5 | 40 days | | 9 | User Interface development | 5 | 15 days | | 1  0 | Interim doc. 2 | 6,7,8  ,9 | 7 days | | 1  1 | Automation | 9,10 | 12 days | | 1  2 | Quality Assurance | 11 | 12 days | | 1  3 | Debugging and  testing | 11 | 20 days | | 1  4 | Final Report | 13 | 5 days | | 1  5 | End | 12,1  4 | 0 days | |  |