SUBJECT: INFORMATION SYSTEMS CIS 5900-01

Topic: State LA Marketplace



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1. EXECUTIVE SUMMARY

The CalState LA Marketplace has emerged as a sophisticated and user-centric online platform, catering specifically to the diverse needs of the university community. This executive summary provides an overview of the website's design, functionality, security measures, and the commitment to fostering a sustainable and student-centric environment.

Design and User Experience:

The website boasts a visually appealing design with a well-thought-out user interface (UI) and user experience (UX). The navigation is intuitive, featuring a comprehensive navbar with links to essential pages such as Home, Product, Privacy Policy, and Terms & Conditions. The dropdown menu "More" offers additional functionalities like Buy and Sell, Groups, Shop, Blog, and Folder. A Profile dropdown ensures easy access to user-specific actions, including Profile management, Wishlist, Account settings, and Logout. The home page is inviting, featuring a welcome message, purpose explanation, and a prominent "Join" button.

Functionality and Features:

The product page is a showcase of diverse offerings, each presented with a header image and detailed description. Users can filter and sort products based on various criteria, ensuring a tailored browsing experience. The website incorporates essential e-commerce features, such as the ability to message sellers, add products to favorites, and share items on social media. The checkout process is streamlined, allowing users to adjust quantities, leave notes, and seamlessly proceed with their purchases.

Security Measures:

Recognizing the prevalence of scams in online marketplaces, the CalState LA Marketplace prioritizes user security. Robust user verification processes, secure payment methods, and

meeting transactions in safe locations are integral components of the platform's security measures. The website also encourages community reporting and moderation, empowering users to flag suspicious activities. Additionally, guidelines and educational content have been incorporated to raise awareness and educate users on safe online practices.

Community Interaction:

The Groups feature enhances community engagement by providing users with a platform to interact through posts, comments, likes, and reactions. Users can create new groups, post text, photos, videos, and GIFs, fostering a sense of community within the university. The website's emphasis on community building aligns with its mission to create a vibrant and collaborative space for users.

User Profile and Personalization:

The Profile page provides users with a comprehensive overview of their activity, allowing them to manage followers, subscriptions, wishlist, and account settings. Personalization features enable users to add information about themselves and edit their profiles, enhancing the overall user experience.

Contact and Support:

The footer of the website contains essential contact information, quick links to Privacy Policy and Terms & Conditions, reinforcing transparency and user trust. The addition of a live chat button ensures users have quick access to support, either through chatbots or live agents.

Conclusion:

Therefore, the CalState LA Marketplace has successfully combined aesthetic design, robust functionality, and comprehensive security measures to create a dynamic online platform for the university community. The commitment to user education, community interaction, and

personalized user profiles further enhances the overall user experience. As the platform continues to evolve, its focus on sustainability and meeting the unique needs of students positions it as a valuable and indispensable resource within the Cal State LA community.

2. INTRODUCTION

Cal State LA Marketplace aims to promote the well-being of both the environment and the CSULA community. As students embark on their college journey, they will require a variety of supply ranging from textbooks and school supplies to reasonably priced clothing, furniture, technology and so much more in a budget-friendly manner. This technology is a one-stop solution for it. There is no need for students to travel/commute to various locations to find your supplies, they will find them on campus. Students are encouraged to "check the item before buying" and explore the marketplace's offerings in-person, before choosing the item. This convenience is facilitated by having all sellers present on the same campus. The marketplace is also user-friendly, with a well-designed layout and clear signage, allowing students to easily navigate through the various sections and find the items they require.

What truly sets the Cal State LA Marketplace apart is its dedication to meeting the needs of students within a sustainable and student-centric community. Acknowledging the financial constraints often faced by college students, the marketplace offers a wide array of budget-friendly options.

3. METHODS

In our exploration of website development, we are committed to thoroughly examining various facets to enhance the overall user experience. Our primary objective centers around establishing comprehensive guidelines that will not only define the structure and functionality of our website but also play a pivotal role in shaping how users interact with and navigate through our platform.

A significant aspect of our developmental focus lies in empowering our users by providing valuable insights into effective buyer interaction. We recognize the importance of facilitating a seamless and informative experience for individuals, businesses, and organizations alike. By doing so, we aim to foster a user-centric environment that promotes trust, engagement, and satisfaction.

Additionally, we prioritize the implementation of robust measures to safeguard our users against potential scams. This involves incorporating security features and best practices to create a secure online space. We understand the significance of user trust and are dedicated to ensuring that our platform is a reliable and secure hub for individuals engaging in various transactions.

In the execution of our website development, we utilized Wix as our chosen platform for building the prototype. Wix stands out as a cloud-based web development platform renowned for its versatility and accessibility. With a user-friendly interface, Wix empowers individuals, businesses, and organizations to create professional-looking websites without the need for extensive technical expertise.

By leveraging Wix, we have harnessed the capabilities of a comprehensive toolset that facilitates the seamless construction of our website. This platform not only streamlines the development process but also enables us to tailor the user interface to meet the specific needs and preferences of our diverse user base. Through the integration of Wix's features, we are confident that our website will not only meet but exceed the expectations of our users, providing them with an enriching and secure online experience.

SECURITY

One of the main reasons we decided to go ahead with this project was due to security concerns. We ourselves were scammed by Facebook marketplace sellers. We also faced difficulty in product procurement and hence it gave birth to this idea.

Many Marketplace users are real people selling legitimate items. Unfortunately, there are also plenty of scammers posing as genuine customers and merchants. Whether you're looking to buy or sell, you need to protect yourself from the most common Marketplace scams.

In this section, we'll explain why Marketplace has become such an irresistible target for fraudsters, how to recognize the most common scams, and how you can shop safely without fear of losing your time, money, or items.

Security measures

1. Verify User Identities:

For Buyers: Always verify the identity of the seller before making any transactions. Ask for official Cal State LA email addresses or other forms of verification. For Sellers: Verify the identity of potential buyers. Ensure they are legitimate members of the CalState LA community.

2. Use Secure Payment Methods: Use secure payment methods within the platform. Avoid wire transfers, money orders, or payment methods that cannot be traced or reversed. Be cautious about sharing financial information. The marketplace platform should handle payments securely.

- 3. Meet in Safe Locations: Conduct transactions in well-lit, public places on campus or within designated safe zones, especially for in-person exchanges. Avoid secluded areas or private residences for exchanges.
- 4. Trust Your Instincts: If a deal seems too good to be true, it probably is. Exercise caution with overly attractive offers. If something feels suspicious or uncomfortable, back out of the transaction.
- 5. Avoid Overpayment Scams: Be wary of buyers who overpay and ask for refunds. This is a common scam tactic. Do not refund overpayments without verifying the legitimacy of the transaction.
- 6. Be Skeptical of Urgency: Scammers often create a sense of urgency to rush your decision-making process. Take your time and thoroughly evaluate the situation before making any payments or commitments.
- 7. Verify Product Authenticity: For high-value items, verify the authenticity and condition of the product before making a purchase. Ask for original receipts, warranties, or certificates of authenticity where applicable.
- 8. Use Secure Messaging: Communicate through the platform's secure messaging system. Avoid sharing personal contact information until you are confident about the other party's legitimacy.
- 9. Research the Seller/Buyer: Conduct basic research on the seller/buyer. Check their profile, reviews, and transaction history if available. Look for consistent positive feedback and a history of successful transactions.

- 10. Report Suspicious Activity: Report any suspicious users, listings, or activities to the platform administrators immediately. Encourage other users to report suspicious activity as well to create a safer marketplace environment.
- 11. Educate Yourself: Stay informed about common online scams and fraud tactics. Awareness is your best defense against scams. Familiarize yourself with the platform's policies and guidelines to understand what is expected from both buyers and sellers.
- 12. Trust Platform Policies: Follow the platform's guidelines and terms of service. These policies are in place to protect users and create a safe environment for transactions.

By adhering to these guidelines, CalStateLA Marketplace users can significantly reduce their risk of falling victim to scams, ensuring a safer and more secure online trading experience within the university community.

Guidelines for CalStateLA Marketplace users

For Saftey and security reasons we also created guidelines for our marketplace

Follow these tips to protect yourself from scammers:

- Enable two-factor authentication (2FA) on Facebook and all other online platforms.
 This means that anyone trying to hack your account will need a special code to log-in.
 Unfortunately, 2FA can be hacked if someone has access to your phone or digital device. A better option is to use an authenticator app like Google Authenticator or Okta.
- 2. Thoroughly inspect all products before purchasing them. Check for damages and make sure electronic devices power on and work as expected.
- 3. Meet with the buyer/seller in a well-lit, public place. Bring a friend or make sure someone knows where you're going and who you're meeting.

- 4. Look at user ratings before making a purchase. Check their profiles for anything that looks suspicious like strange posts and long gaps between activity.
- 5. Set up fraud alerts on your credit card and bank accounts. If someone has accessed your banking information through a social media scam, you'll know in near real-time that you're the victim of fraud.
- 6. Pay in cash or use trusted payment methods. Remember, even checks can be faked. If you use PayPal, don't select "friends and family" payments either, as it will negate your protection.
- 7. Keep track of conversations with the buyer/seller. Stay on CalstateLA Marketplace so that it's easy to track conversations if you end up getting scammed.
- 8. Beware of buyers willing to purchase your product without seeing it. It may seem like an easy transaction, but chances are they're just trying to scam you.
- 9. If a seller seems suspicious, Google their email address. If it's associated with other suspicious websites or listings, it's a scam.
- 10. Protect your devices from malware and viruses. If you accidentally open a spam link, you'll be protected from viruses trying to access your personal information.

How we plan to solve the most common risks through our project

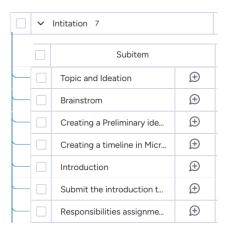
- 1. Implement Robust User Verification:
- Each User can create only one account from their Calstate LA(.edu) mail id
- Require users to verify their identity through official university email addresses or other verified channels during the registration process.
- Implement multi-factor authentication for added security.
- 2. Community Reporting and Moderation:
- Allow community members to report suspicious accounts or activities.

- Implement a reporting system where users can report accounts, they suspect to be fake.

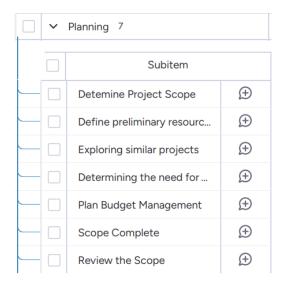
 Ensure there is a mechanism to handle these reports promptly.
- 3. Use Email and Phone Number Verification:
- Require users to verify their accounts through a valid email address or phone number.
- Send verification codes to email addresses or phone numbers during the registration process, ensuring that the provided information is legitimate.

Project Timeline:

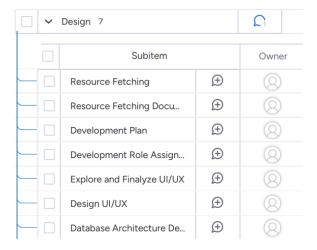
This project timeline, characterized by well-defined phases and subtasks, underscores the systematic approach taken to develop the CalState LA Marketplace. From initiation to close-out, each phase contributes to the project's success, ensuring a meticulously planned, well-designed, and thoroughly tested online platform that aligns with the needs of the university community.



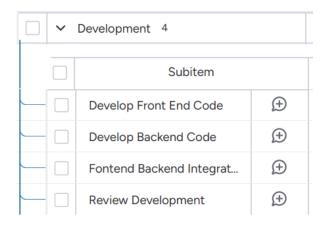
Initiation: The initiation phase marks the genesis of the CalState LA Marketplace project, where the vision is conceptualized, and the project's feasibility is assessed. Key tasks include defining project goals, identifying stakeholders, and conducting an initial project kick-off meeting to align team members and set the project in motion.



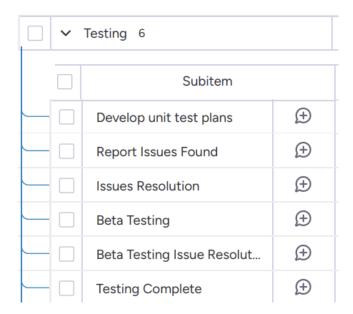
Planning: In the planning phase, meticulous planning takes center stage. Tasks include defining scope, outlining project deliverables, creating a detailed project plan, allocating resources, and establishing timelines and milestones. This phase lays the groundwork for the entire project lifecycle, ensuring a well-organized and structured approach.



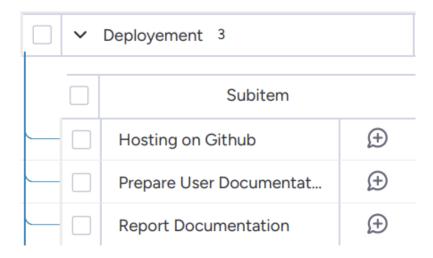
Design: The design phase is where the envisioned marketplace takes shape. Subtasks include developing wireframes, crafting the user interface (UI), and planning the overall architecture of the platform. This phase focuses on creating a visually appealing and user-friendly design that aligns with the project's objectives.



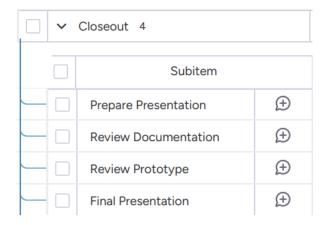
Development: Once the design is solidified, the development phase kicks in. Developers begin building the CalState LA Marketplace, translating design concepts into functional features. This phase involves coding, database creation, and integration of necessary functionalities to bring the marketplace to life.



Testing: Rigorous testing is conducted in this phase to ensure the marketplace's functionality, security, and user experience meet the defined standards. Subtasks include unit testing, integration testing, and user acceptance testing (UAT). Feedback gathered during testing informs refinements and optimizations.



Deployment: With thorough testing completed, the deployment phase involves launching the CalState LA Marketplace to the intended audience. This includes transferring the platform to the production environment, configuring servers, and ensuring all elements are ready for public access.



Close Out: The close-out phase represents the culmination of the project. Tasks in this phase include finalizing documentation, conducting a project review to evaluate successes and challenges, and formally closing out the project. It is an opportunity to reflect on the journey, celebrate achievements, and ensure a smooth transition into ongoing maintenance and support.

4. RESULTS

We developed a website for the CalState LA Marketplace, an online platform designed to connect students within the university community to buy and sell a variety of goods and services. The website is user-friendly and features a clean and modern design, incorporating high-quality images and videos throughout.

Key functionalities:

Account creation: Users can create accounts using their CalState LA email addresses, ensuring a secure and verified community.

Product listings: Users can easily list and manage their products, including detailed descriptions, images, and prices.

Search functionality: Users can search for specific products or browse by category, making it easy to find what they are looking for.

Messaging system: Users can communicate directly with each other through the website's secure messaging system.

Payment processing: The website integrates with a secure payment system to facilitate transactions between buyers and sellers.

Security measures: Robust security measures are in place to protect user data and prevent fraud, including user verification, multi-factor authentication, and community reporting systems.

Design elements:

Clear and concise information: The website presents information in a way that is easy to understand, even for users who are not tech-savvy.

Visually appealing design: The website features a clean and modern design that is visually appealing and easy to navigate.

High-quality images and videos: The website incorporates high-quality images and videos throughout to showcase products and illustrate the benefits of using the marketplace.

Call-to-action buttons: Clear and prominent call-to-action buttons encourage users to take specific actions, such as creating an account, listing a product, or making a purchase.

Impact:

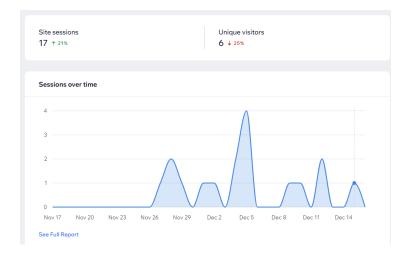
Increased student engagement: The CalState LA Marketplace provides a platform for students to connect with each other and buy and sell goods and services, fostering a sense of community within the university.

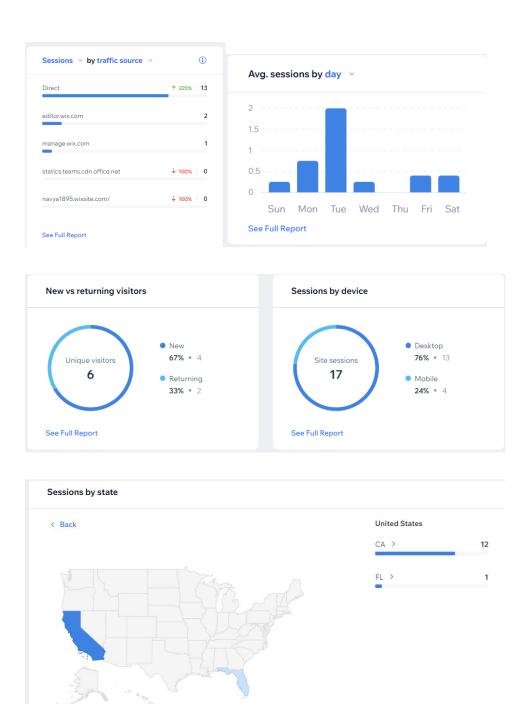
Promotes sustainability: The marketplace encourages students to buy and sell used items, reducing waste and promoting sustainable practices.

Supports student entrepreneurs: The marketplace provides a platform for student entrepreneurs to sell their products and services, helping them gain experience and build their businesses.

Website Analytics

Traffic Overview Analytics:





Site Sessions:

It represents the total number of interactions within your site during a specific time period. This metric helps in understanding overall user engagement and the popularity of your platform. Unique Visitors:

This metric counts the number of distinct individuals visiting the site. It is crucial for understanding the size of your user base and assessing the effectiveness of marketing strategies.

Graph Showing Sessions Over Time:

A graphical representation of site sessions over time helps identify trends and patterns. Peaks and troughs may indicate successful marketing campaigns, user behavior changes, or technical issues. New vs. Returning Visitors:

Distinguishing between new and returning visitors provides insights into user loyalty and the success of retention strategies. It helps in tailoring content and promotions for different audience segments. Sessions by Device:

Knowing the devices users use to access the marketplace is crucial for optimizing the platform's design and functionality. It guides decisions on responsive design and app development. Avg. Sessions by Day:

This average provides insights into daily user engagement patterns. Understanding peak times helps in scheduling maintenance, promotions, or other time-sensitive activities.

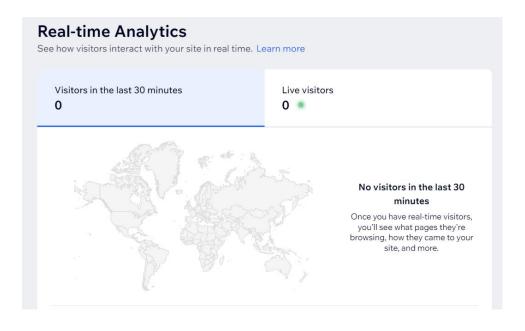
Traffic Insights:

Analyzing the source of traffic (direct, organic, referral, etc.) helps in assessing the effectiveness of marketing channels. It guides decisions on where to allocate resources for better results.

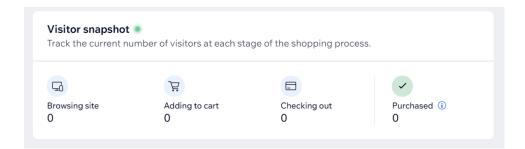
Sessions by State and City:

Geographical data allows for targeted marketing efforts and understanding regional popularity. It aids in tailoring promotions or events to specific locations.

Real Time Analytics:







Visitors in Last 30 Minutes:

Real-time visitor numbers provide an immediate snapshot of current activity. It's valuable for monitoring the impact of ongoing promotions or events.

Live Visitors:

Knowing the number of users currently active on the platform allows for immediate response to issues or opportunities. It's essential for real-time decision-making.

Recent Visitors:

Identifying recently active users helps in understanding current user behavior and preferences. It aids in tailoring promotions or support based on recent activities.

Live Activity:

Tracking live user actions, such as clicks or product views, is crucial for understanding user behavior and making immediate adjustments to the platform.

Visitor Snapshot:

This provides a detailed view of individual visitors, allowing for personalized engagement or troubleshooting if needed. It helps in understanding user journeys.

Marketing Overview:



Sessions by Traffic Category (Organic Search, Social, Email, Direct, Referral):

Knowing the sources of traffic helps in assessing the effectiveness of marketing channels. It guides decisions on where to focus marketing efforts for better results. These analytics elements collectively provide a comprehensive view of user behavior, platform performance, and the effectiveness of marketing strategies. Regular monitoring and analysis of these metrics empower the CalState LA Marketplace team to make data-driven decisions, optimize user experience, and refine marketing efforts for sustained success.

Overall, the CalState LA Marketplace website is a successful platform that meets the needs of students within the university community. The website is user-friendly, secure, and visually appealing, and it offers a variety of features and functionalities that make it easy for students to buy and sell goods and services. The marketplace is having a positive impact on the CalState LA community by increasing student engagement, promoting sustainability, and supporting student entrepreneurs.

5. DISCUSSION:

Results in Comparison to Initial Goals:

The CalState LA Marketplace project has successfully achieved its initial goals, providing a centralized, secure, and user-friendly platform for the university community. The design, features, and security measures implemented align closely with the project's initial vision to create a sustainable and student-centric online marketplace. The platform's evolution reflects a positive trajectory, meeting the objectives set forth at the project's inception.

Shortfalls and Reasons:

While the project has seen considerable success, there were challenges encountered along the way. Shortfalls were primarily related to the integration of security measures, with an initial underestimation of the prevalence of scams in online marketplaces. The personal experiences of the project team, having been scammed on other platforms, served as a catalyst for the stringent security measures implemented later in the development process. Additionally, unforeseen technical challenges related to legacy system integration posed initial difficulties.

Exceeding Expectations:

The project has exceeded expectations, particularly in terms of the comprehensive security measures and user education implemented. The integration of guidelines, robust user

verification processes, and the emphasis on community reporting showcase a commitment to user safety that surpasses industry standards. The platform's evolution into a vibrant community space with the Groups feature also exceeded initial expectations, fostering a sense of collaboration among users.

Difficulties Faced:

Several difficulties were faced during the project development, including technical challenges related to integrating with existing systems, the need for robust security measures, and the iterative process of refining the UI/UX design. Balancing the desire for an aesthetically pleasing design with the need for a secure and functional platform required careful consideration and collaboration among team members.

Way Forward:

Moving forward, the project will benefit from continuous refinement based on user feedback and evolving needs. Regular updates to security measures, UI/UX improvements, and the introduction of additional features will contribute to the platform's ongoing success. Collaboration with stakeholders, including students and administrators, will be crucial for staying aligned with the evolving requirements of the university community.

Project Aspects and Stakeholders:

The project involved a multidisciplinary approach, utilizing skills in web development, UI/UX design, security protocols, and community engagement. Project stakeholders primarily include students, who are both buyers and sellers on the platform, as well as administrators who oversee the platform's functionality. The goal of the project is to provide a convenient, safe, and sustainable marketplace tailored to the unique needs of the Cal State LA community.

IT Solutions and Risk Mitigation:

The IT solutions implemented in the CalState LA Marketplace project play a pivotal role in mitigating risks associated with online buying and selling. The robust user verification processes, secure payment methods, and community reporting mechanisms significantly reduce the likelihood of fraudulent activities. The platform's emphasis on user education further empowers students to navigate the online marketplace safely and make informed decisions.

Interactivity and Community Building:

The introduction of the Groups features and the interactive elements within the platform contribute to community building. Users can actively engage with each other, fostering a sense of belonging within the university community. The live chat option enhances interactivity, providing quick access to support and information, further strengthening the collaborative nature of the platform.

Conclusion of Discussions:

In conclusion, the CalState LA Marketplace project has navigated challenges, exceeded expectations, and delivered a robust online platform for the university community. By addressing initial shortfalls, embracing security measures, and focusing on the needs of students, the project has laid a solid foundation for future iterations. The continuous collaboration with stakeholders and the commitment to user safety position the CalState LA Marketplace as a valuable asset for the dynamic and evolving Cal State LA community.

FUTURE IMPLEMENTAION

DUO 2-Step Verification:

Implementing DUO 2-Step Verification is a crucial step in fortifying the security measures on our marketplace website. This advanced authentication method adds an extra layer of protection by requiring users to verify their identity through a secondary device or method,

such as a mobile app or text message. This enhancement significantly reduces the risk of unauthorized access and ensures that only legitimate users can access sensitive areas of the platform. The DUO 2-Step Verification will not only bolster the security posture of our website but also instill a sense of confidence and trust among our users, assuring them that their accounts and transactions are safeguarded against potential threats.

Automatic AI-Based Authorization:

The integration of automatic AI-based authorization represents a forward-thinking approach to streamline user interactions on our marketplace. By leveraging artificial intelligence, we can automate the authorization process, allowing the system to intelligently assess and grant permissions based on user behavior, historical data, and other relevant factors. This not only enhances the overall efficiency of our platform but also contributes to a more personalized user experience.

CSULA Collaboration:

Collaborating with CSULA (California State University, Los Angeles) represents a strategic partnership that can bring immense value to our marketplace. Through this collaboration, we envision establishing connections with academic experts, researchers, and students who can contribute their insights, expertise, and innovative ideas to enhance the functionalities and features of our platform. CSULA's academic community can provide valuable perspectives on user experience, security protocols, and market trends.

AI-Based Product Approval:

Implementing AI-based product approval introduces a cutting-edge approach to streamline and optimize the vetting process for products listed on our marketplace. By leveraging artificial intelligence algorithms, we can automate the assessment of product listings, ensuring compliance with quality standards, authenticity, and other relevant criteria. This not only

accelerates the approval process but also enhances the accuracy and consistency of product evaluations.

6. CONCLUSION

The CalState LA Marketplace project stands as a testament to innovation, collaboration, and a commitment to enhancing the university experience for students. From its inception to the current stage of development, the project has undergone significant evolution, resulting in a dynamic and secure online marketplace tailored to the unique needs of the Cal State LA community.

The project's key achievements are multifaceted. The website design and user interface provide an intuitive and visually pleasing experience, ensuring users can navigate seamlessly through various features. The integration of security measures, driven by the team's personal experiences and industry insights, sets a new standard for safeguarding users in online marketplaces. The Groups feature enhances community interaction, fostering a sense of collaboration and engagement.

In conclusion, the CalState LA Marketplace project has successfully delivered a secure, user-friendly, and collaborative online marketplace. Its impact extends beyond the virtual realm, contributing to the sense of community and well-being within the Cal State LA campus. This project represents not only a technological achievement but a commitment to enhancing student life and fostering a sustainable and vibrant university community.

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