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DAY 7 - LIVE DEPLOYMENT AND POST-LAUNCH PRACTICES

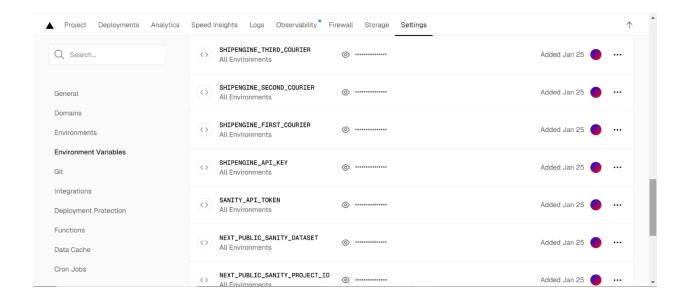
Objective:

On Day 7, I have taken the final step in the Hackathon by deploying my Nike Ecommerce marketplace to a live production environment. This phase brings together all previous work to deliver a fully operational and customer-ready platform. The focus will be on implementing industry-standard deployment practices, ensuring security, scalability, and seamless operation. Additionally, this document will provide guidance on post-launch strategies, including branding, marketing, and business collaborations, while reinforcing the importance of staying aligned with the evolving technology landscape.

1. Production Deployment:

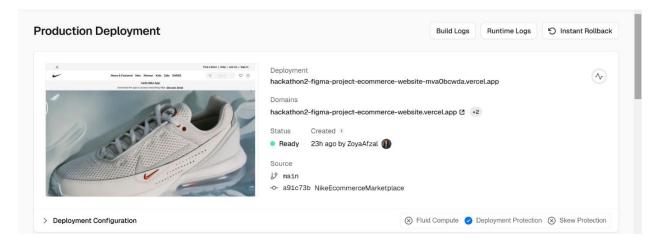
Environment Setup:

Yes, configuring production environment variables securely is crucial. Sensitive data such as API keys, database credentials, and third-party service secrets is stored in environment variables (.env files) and managed securely using tools like Vercel's Environment Variables Manager. Encryption is applied to prevent unauthorized access.



Secure Hosting:

Yes, using reliable hosting platforms like Vercel ensured scalability, uptime, and performance optimization. Enabled HTTPS for all traffic through SSL certificates is necessary to encrypt data transmission and protect users from security threats like man-in-the-middle attacks.



⊘ Codebase Management:

Yes, keeping the production repository private is essential to safeguard intellectual property and sensitive business logic. A separate staging repository helps test new features before deployment, reducing production risks. Maintaining detailed documentation of the deployment process ensures

consistency and smooth updates, allowing developers to troubleshoot and improve the workflow efficiently.

2. Penetration Testing and Security

Penetration Testing:

♥ Prioritizing Critical Areas:

Yes, security testing should prioritize sensitive sections of the marketplace, including payment gateways, login authentication, user sessions, and data storage. Since these areas handle confidential user data, ensuring their security is crucial to prevent breaches.

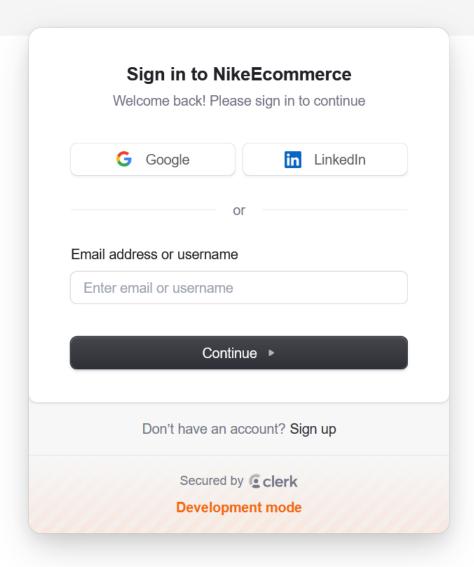
✓ Focusing on Customer Trust & Efficiency:

Yes, addressing vulnerabilities that could undermine customer trust or disrupt operations is a priority. A secure marketplace fosters customer confidence, ensures smooth transactions, and protects business reputation. Regular penetration testing helps maintain a secure and efficient platform.

Data Encryption:

♥ Encrypting Sensitive User Data:

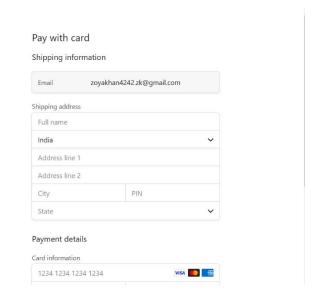
Yes, for user authentication and data security, I have used Clerk, which is a secure authentication service that ensures user credentials are encrypted and safely managed. Clerk handles authentication, session management, and secure storage, reducing the risk of unauthorized access.



Secure Payment Processing with Stripe:

Yes, Stripe is a PCI-DSS-compliant payment gateway that encrypts card details using AES-256 encryption and transmits data securely using TLS (Transport Layer Security). Since card information is never stored on the application's server, it eliminates the risk of data leaks.





♥ Ensuring Secure Data Transmission:

Yes, all data transmitted between the client and server is encrypted via HTTPS with SSL/TLS certificates, preventing unauthorized interception.

3. Disaster Recovery (DR) Planning:

✓ GitHub for Codebase Backup:

- Every change in the project is version-controlled and stored securely in GitHub repositories.
- This allows easy rollback to previous versions in case of issues or accidental deletions.
- It also enables seamless collaboration and ensures the code remains accessible from anywhere.

✓ Vercel for Deployment & Automatic Backups:

- Vercel not only deploys the application but also keeps a history of past deployments.
- In case of failure, I can instantly roll back to a previous stable version with one click.
- Vercel ensures high availability, preventing downtime due to deployment errors.

V DR Environment:

Yes, a Disaster Recovery (DR) plan should be in place to quickly restore in case of server failures, cyberattacks, or data corruption. This plan should include predefined steps for recovery, estimated downtime, and responsible team members.

Periodic DR testing ensures the recovery process works as expected. Conducting mock failure drills, failover tests, and data restoration simulations helps verify that backups and infrastructure can handle unexpected disruptions.

Yes, a chain of responsibility should be established, assigning specific roles to team members, DevOps engineers, and IT administrators for executing the DR plan, identifying issues, and ensuring a smooth recovery process.

4. Monitoring and Maintenance:

≪ Monitoring Tools:

Yes, I have implemented **Sentry** for monitoring errors, performance issues, and application health in real time. Sentry provides detailed insights into crashes, slow API responses, and JavaScript errors, helping to quickly identify and resolve problems.

Additionally, tools like Google Analytics can be used for tracking user behavior, and Pingdom can monitor uptime and server health.

Performance Optimization:

Yes, regular site performance monitoring ensures optimal speed and reliability. Performance audits using Google Lighthouse, Next.js built-in optimizations, and Vercel Analytics help in identifying areas for improvement, such as:

- Optimizing image loading with Next.js Image Optimization
- Using lazy loading and caching strategies
- Minimizing unused JavaScript and CSS

✓ Issue Management:

Yes, I maintain a detailed log of bugs and issues for continuous improvement. With Sentry's error tracking, logs are automatically recorded, making debugging efficient. Additionally, maintaining a GitHub Issues tracker helps track and resolve reported problems systematically.

Business Pitch Deck and Presentation

Tagline:

"Step into Innovation – Shop Smarter, Move Faster!"

1. Overview of Business Idea & Vision:

MY Nike E-Commerce Platform is a seamless, user-friendly marketplace designed to provide an exceptional shopping experience for sneaker enthusiasts and athletes. Built with Next.js, Sanity CMS, Clerk, ShipEngine, and Stripe, it ensures fast, secure, and personalized shopping with real-time product updates, easy checkout, and worldwide shipping.

My vision is to redefine online sportswear shopping by integrating cutting-edge technology, secure transactions, and efficient logistics, making Nike's premium products accessible to customers globally.

2.Problem Statement:

Despite the popularity of Nike products, many online shoppers face challenges such as:

<u>Limited Accessibility</u> – Customers struggle to find **genuine** Nike products on various marketplaces.

Slow & Inefficient Shopping Experience – Many platforms lack real-time inventory updates, personalized recommendations, and seamless navigation.

Complicated Checkout & Payment Issues – Lengthy checkout processes and limited payment options often lead to cart abandonment.

Shipping Difficulties & Delays Issues— Customers face delays, lack of transparency and limited tracking options when ordering products online.

Lack of Trust in Online Shopping -- Customers often worry about receiving fake or low-quality products. Poor customer support and unclear return policies create doubts about reliability.

3. Solutions:

✓ Guaranteed Product Authenticity & Secure Shopping:

- My platform only offers genuine Nike products, eliminating concerns about counterfeit goods.
- I have used Clerk for secure authentication, ensuring a safe login and account management process.
- Stripe integration provides encrypted and secure payment processing, reducing fraud risks.

Fast & Reliable Shipping:

- I've integrated ShipEngine to offer accurate shipping estimates and faster deliveries and fewer delays.
- Customers receive instant updates on their order status, improving transparency and trust.

Seamless & Quick Checkout Process:

- My platform features a streamlined, user-friendly checkout flow, reducing unnecessary steps.
- Customers can save their shipping and payment details for a one-click checkout experience.

✓ Real-Time Inventory Updates:

- My platform integrates Sanity CMS to provide live inventory updates, ensuring customers see only available products.
- No more frustration over ordering out-of-stock items—customers get instant availability status.

✓ Personalized Shopping Experience:

- I utilize dynamic product recommendations based on:
 - Browsing history
 - Customer preferences

✓ Blazing-Fast Performance & Seamless Navigation:

- Built with Next.js and optimized using server-side rendering (SSR) and static generation (SSG) for ultra-fast loading speeds.
- Tailwind CSS ensures a responsive, mobile-friendly design, allowing a smooth experience across all devices.
- Advanced search and filter options help customers quickly find their desired products without hassle.

4. Market Opportunity:

Target Market Size & Growth Potential:

The global sportswear and footwear industry is experiencing substantial growth, fueled by increasing e-commerce adoption, demand for premium athletic gear, and the rise of direct-to-consumer (DTC) brands.

- Global E-commerce Footwear Market: Expected to reach \$196.1 billion by 2030, growing at a CAGR of 6.1%.
- Nike's Market Position: With a 38.8% market share, Nike dominates the global sportswear industry.
- DTC & Online Sales Growth: Nike's e-commerce revenue has seen significant year-over-year growth, aligning with consumer shifts toward online shopping.

Key Market Trends & Insights:

E-commerce Boom & Mobile Shopping

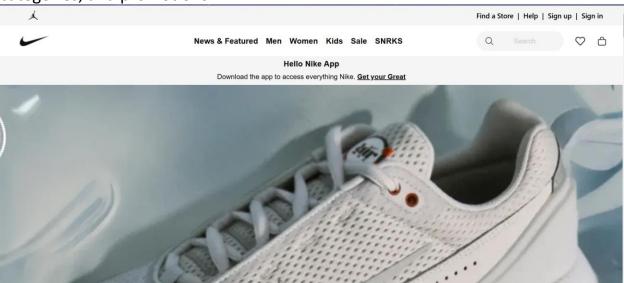
 Online shopping is becoming the preferred channel for sneaker and apparel purchases. • Over 70% of consumers use mobile devices for buying sportswear, highlighting the importance of a mobile-first platform.

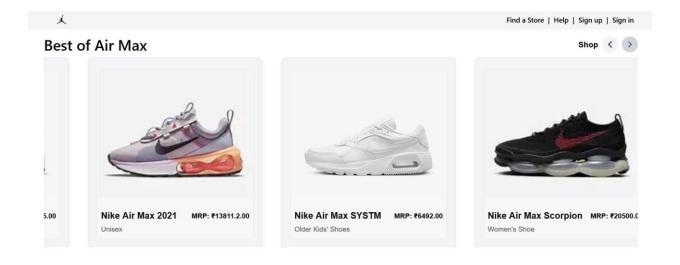
▲ Athleisure & Performance Wear Surge:

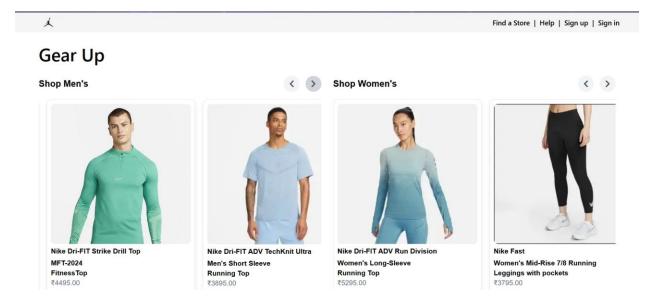
- Growing demand for multi-purpose sneakers that blend style with functionality.
- Consumers prioritize comfort, performance, and brand trust when making online purchases.

5.Product Features of Our Nike E-Commerce Platform:

User-Friendly Home Page: Clean, visually appealing layout showcasing banner, categories, and promotions







Product Detail Page:

Product Title & Brand: Clear titles and Nike branding for easy identification.

Pricing Information: Price displayed prominently with any discounts or offers.

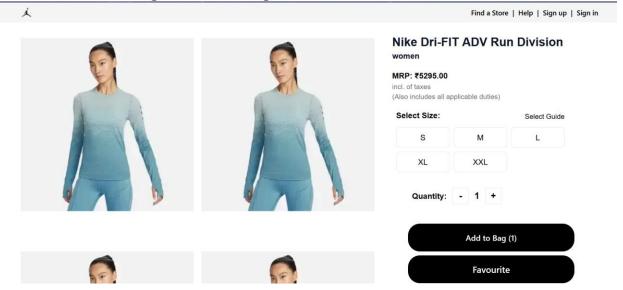
Size Options: Available sizes and colors, with a size guide for better fit.

Product Description: Detailed info including features, materials, and care instructions.

Add to Cart & Wishlist: Easy options to add to cart or wishlist.

Easy Quantity Selection: Users can effortlessly choose the quantity of the product they want to purchase with a simple "+" and "-" button or an input field. This feature enhances the user experience by making the purchasing process more

intuitive and reducing friction during checkout.

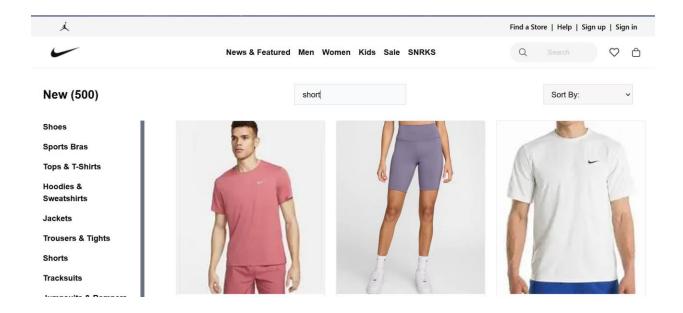


The **Featured Products** section showcases the latest and most popular Nike shoes, apparel, and accessories. Users can explore a wide range of products categorized by type, such as men'shoes, short, running, women's shoes, kid's, shoe name and more.

Search by Category – Users can easily browse products based on categories like shoes, sports bras, jackets, trousers, and more. This ensures a streamlined shopping experience, allowing them to find exactly what they need.

✓ Price Filtering – Customers can refine their search by filtering products based on price, selecting from low to high or high to low pricing options.

Sorting Options – Users can sort products.



6. Business Model:

Commissions:

The marketplace will generate revenue through commissions on each sale made by third-party sellers on the platform. A percentage of each transaction will be collected as a fee for providing the marketplace services.

Subscription Fees:

Sellers can opt for premium subscription plans to access additional features like better visibility, featured listings, and advanced analytics. This creates a recurring revenue stream for the platform.

Advertising:

The marketplace will allow businesses to run targeted ads for their products on the platform. Revenue will be generated by charging businesses for ad placements.

Transaction Fees:

• A small transaction fee may be applied to every purchase made on the platform to ensure smooth payment processing and security.

7. Marketing Strategy:

Social Media Marketing: Leverage platforms like Instagram, Facebook, and Twitter to reach a broad audience by running paid campaigns, sharing engaging content, and collaborating with influencers.

Search Engine Optimization (SEO): Optimize the website for search engines to drive organic traffic from Google searches, ensuring that the marketplace ranks high for relevant keywords.

Google Ads & Retargeting: Use targeted ads on Google to reach potential customers actively searching for products, as well as retargeting ads for users who have previously visited the site.

8. Team:

- Founder/CEO: Responsible for overseeing the overall vision and strategy of the marketplace, leading the team, and establishing key business partnerships.
- **Product Manager**: Manages the development and enhancement of the platform, ensuring the user experience is top-notch, and working closely with the development team to implement features.
- Marketing Lead: Develops and executes marketing strategies to acquire and retain customers, handling social media, SEO, and paid advertising campaigns.
- Sales Manager: Focuses on acquiring new sellers to join the marketplace, developing partnerships, and building relationships with key stakeholders.
- Customer Support Lead: Manages the customer service team, ensuring a
 positive experience for users and resolving issues quickly and efficiently.

9. Financial Projections:

Revenue:

- First Year: I expect a modest start, generating revenue primarily through commissions from initial sellers and advertising revenue. Estimated revenue: \$10,000.
- Second Year: As the user base and number of sellers grow, revenue will increase with higher commissions, premium subscriptions, and more advertising opportunities. Estimated revenue: \$20,000 to \$30.000.
- Third Year: With a fully established customer and seller base, the marketplace will focus on expanding product offerings and increasing sales volume. Estimated revenue: \$50,000+.

Costs:

- Platform Development: Significant initial investment in building and maintaining the marketplace. Estimated cost: \$50,000 for the first year.
- Marketing & Advertising: Budget for digital marketing campaigns to attract customers. Estimated cost: \$20,000 in the first year.
- Operational Costs: This includes team salaries, server costs, and customer support. Estimated cost: \$60,000 per year.
- Miscellaneous: Additional costs for legal, logistics, and unforeseen expenses. Estimated cost: \$20,000 annually.

10. Call to Action:

I am currently seeking funding to support the growth of my marketplace, including development, marketing, and team expansion. I am also open to **partnerships** with e-commerce brands, logistics providers, and payment gateways to enhance the user experience. If you're interested in investing or collaborating, please reach out to us to explore how we can work together to build a successful, scalable marketplace.

Thank You Note:

I would like to express my heartfelt gratitude to **Sir Ameen Alam** for his unwavering support, insightful guidance, and for organizing these hackathons that challenged us to push our limits and discover our true potential. His dedication to nurturing our skills has been truly inspiring.

A huge thank you to all my teachers specially **Sir Hamzah Syed**, teaching assistants, and mentors who have been a constant source of knowledge and encouragement, always guiding us toward excellence. I am also incredibly grateful to my fellow students and team members for their collaboration, motivation, and support throughout this journey.

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