
SAFESCAPE
Your Defense Against Counterfeits

Project Title : SafeScape (Your Defense Against Counterfeits)

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Introduction:

In recent years, Counterfeit products play an important role in product manufacturing industries. This affects the companies name, sales, and profit of the companies.

Blockchain technology is used to identification of real products and detects fake products.

Blockchain technology is the distributed, decentralized, and digital ledger that stores transactional information in the form of blocks in many databases which is connected with the chains. Blockchain technology is secure technology therefore any block cannot be changed or hacked.

By using Blockchain technology, customers or users do not need to rely on third-party users for confirmation of product safety.

In this project, with emerging trends in mobile and wireless technology, Quick Response (QR) codes provide a robust technique to fight the practice of counterfeiting the products. counterfeit products are detected using a QR code scanner, where a QR code of the product is linked to a Blockchain.

So this system may be used to store product details and generated unique code of that product as blocks in the database. It collects the unique code from the user and compares the code against entries in the Blockchain database. If the code matches, it will give a notification to the customer, otherwise it will give the notification to the customer that the product is fake.

Objectives:

- **Improve supply chain transparency:** One of the primary objectives of our project is to improve transparency in the supply chain. By implementing a blockchain-based system that tracks the movement of products across the supply chain, we can improve visibility into product movement and transactions.

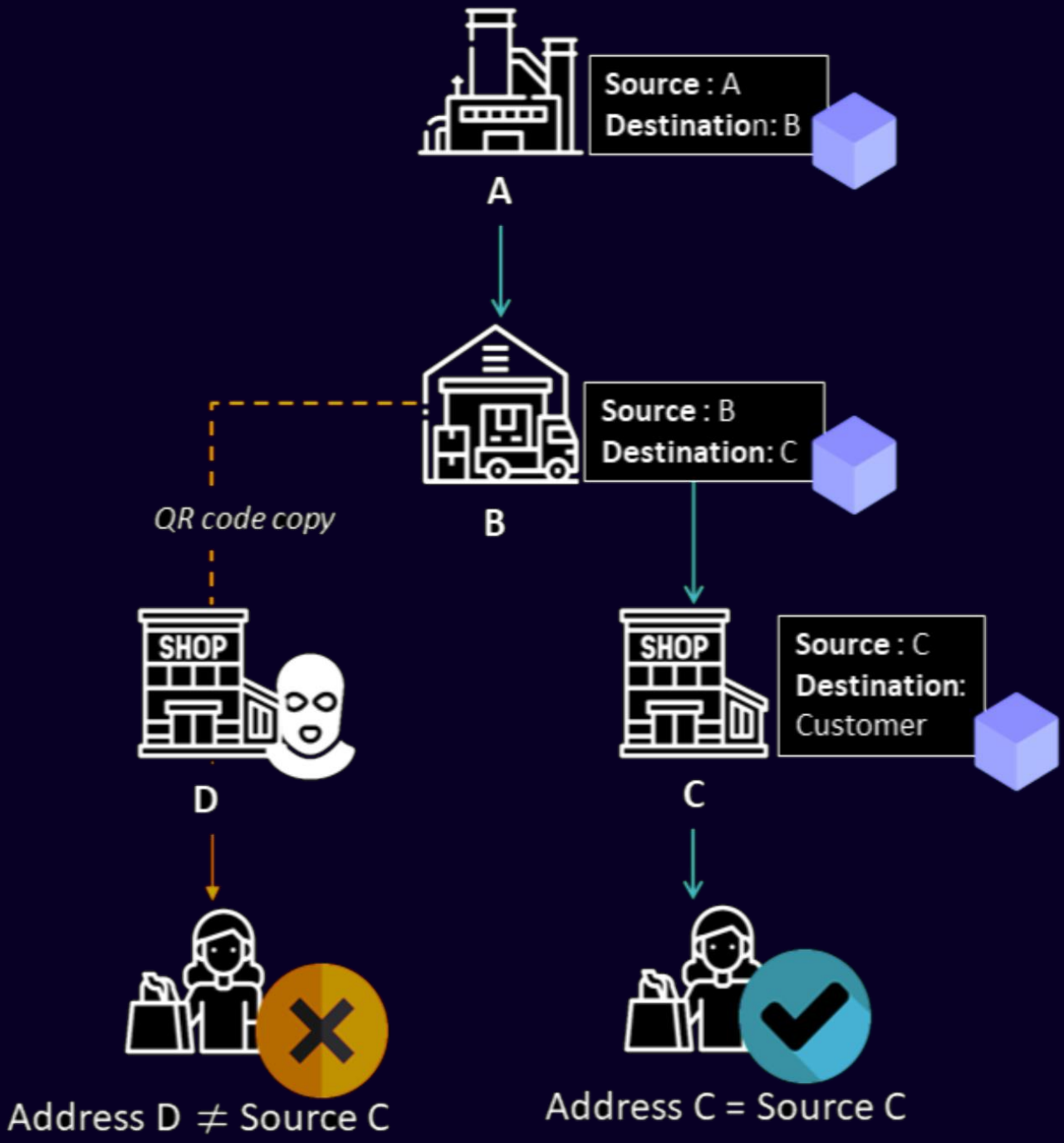
- **Prevent counterfeiting**: Another objective of our project is to prevent the production and sale of fake products. By implementing a system that can identify and track fake products in the supply chain, we can reduce the risk of counterfeit products entering the market.

- **Enhance customer trust**: By improving supply chain transparency and preventing the sale of counterfeit products, we can enhance customer trust in the products and brands involved in the supply chain. This can help to improve customer loyalty and drive sales.

- **Streamline supply chain processes:** Another objective of our project is to streamline supply chain processes. By implementing a system that automates supply chain transactions and provides visibility into product movement, we can reduce the need for manual processes and improve supply chain efficiency.

- Provide data insights: By tracking product movement and supply chain transactions, our system can provide valuable data insights that can be used to identify potential risks and issues in the supply chain. This data can be used to make informed decisions and improve supply chain management processes.

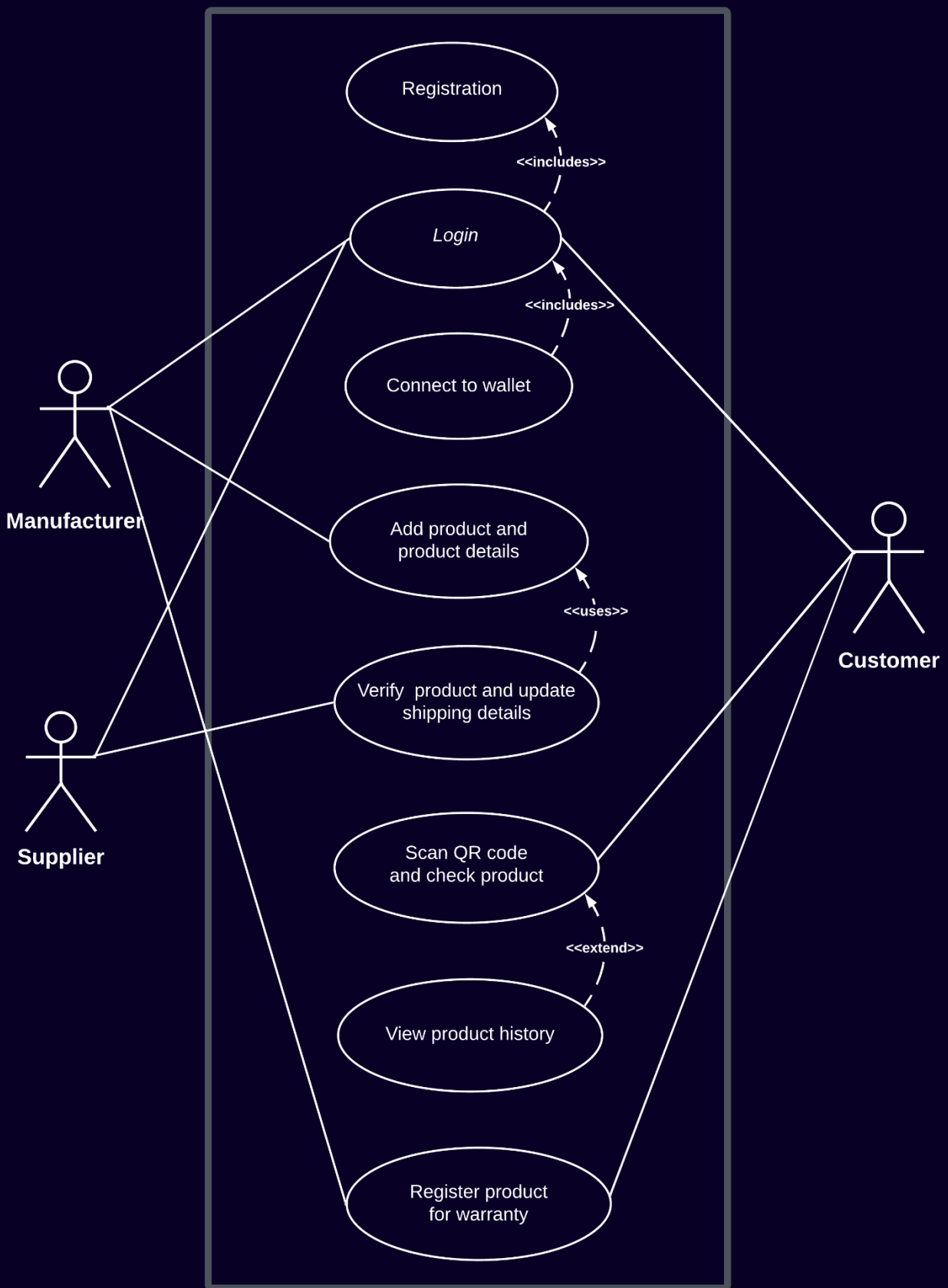
Overview of our project :



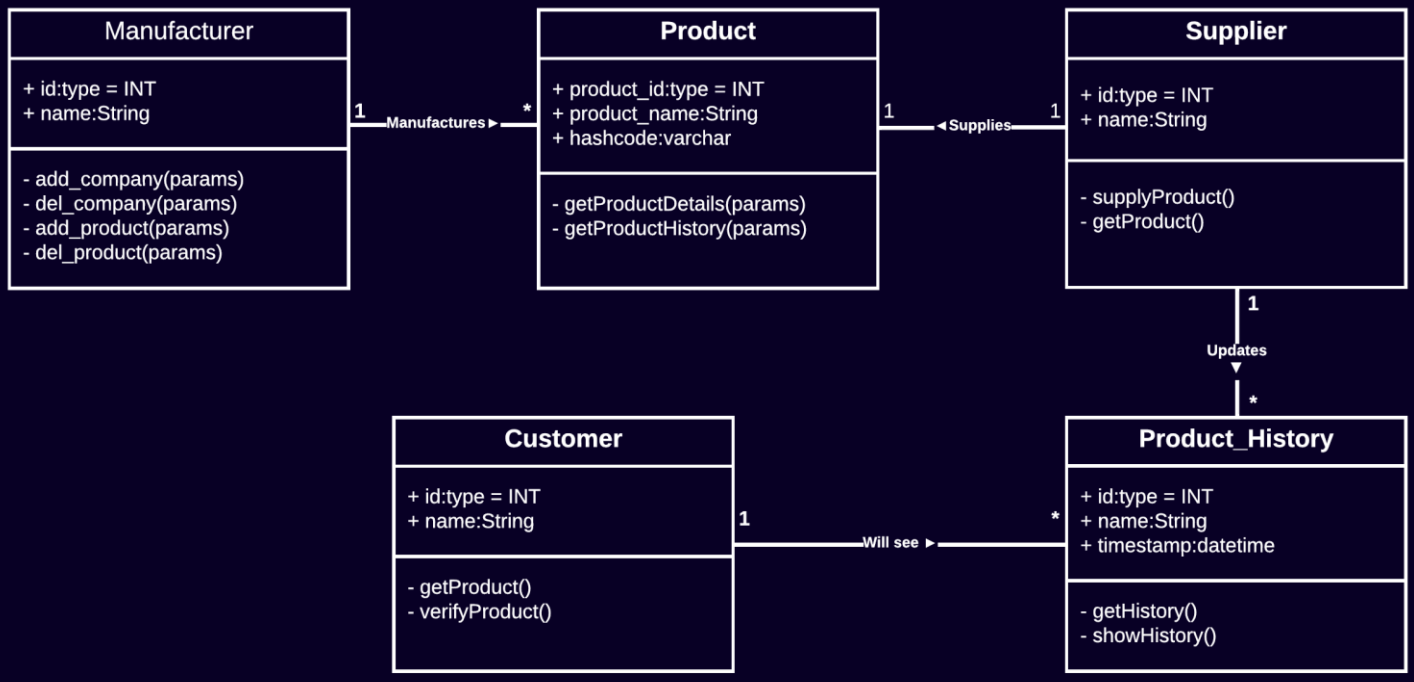
Scope of the project:

1. **User Management**
   - User signup and login
   - User authentication and authorization
   - User profile management
2. **Product Management**
   - Ability to add products to the blockchain.
   - Ability to view product details and history.
   - Ability to track product movement across the supply chain.
   - Ability to identify and report fake products.
3. **Supply Chain Management**
   - Ability to track product movement from supplier to end consumer.
   - Transparency in supply chain transactions
4. **Blockchain Integration**
   - Integration with a suitable blockchain platform
   - Development of smart contracts to automate processes such as product verification and transaction management
   - Implementation of secure data storage on the blockchain
5. **Reporting and Analytics**
   - Ability to generate reports on product movement and supply chain transactions
   - Real-time analytics to identify potential risks and issues
   - Integration with data visualization tools for easy data interpretation
6. **User Interface**
   - Development of a user-friendly interface for easy navigation and interaction with the system
   - Implementation of responsive design to support different devices and screen sizes

Use Case Diagram:

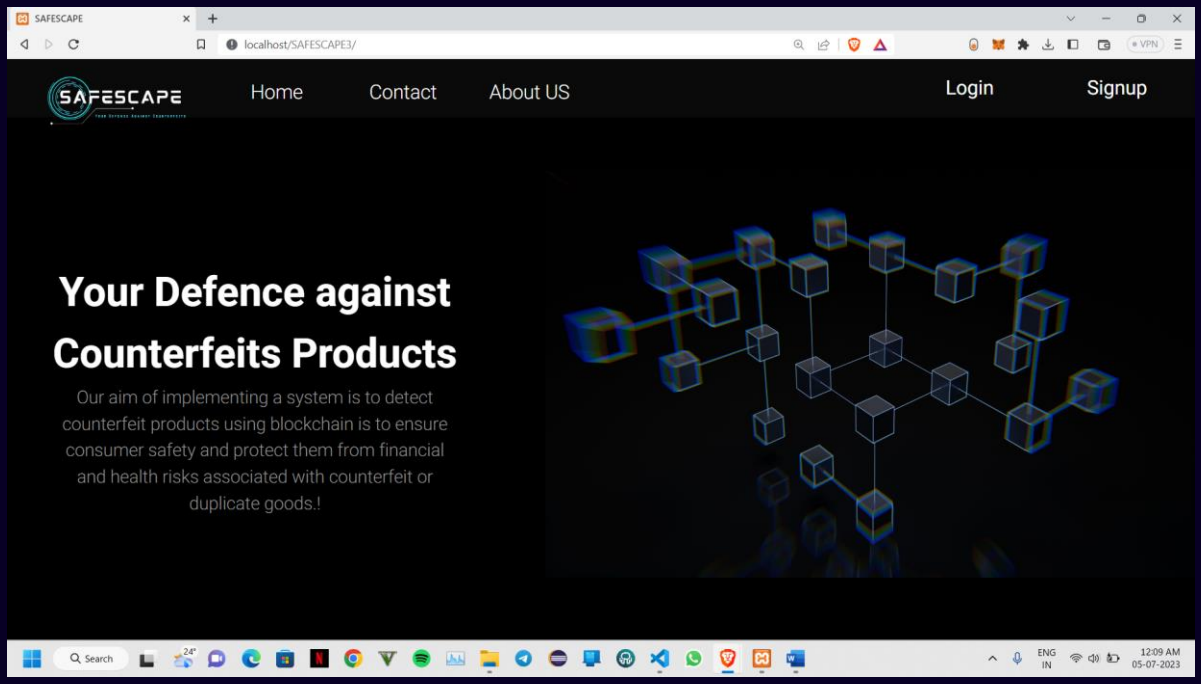


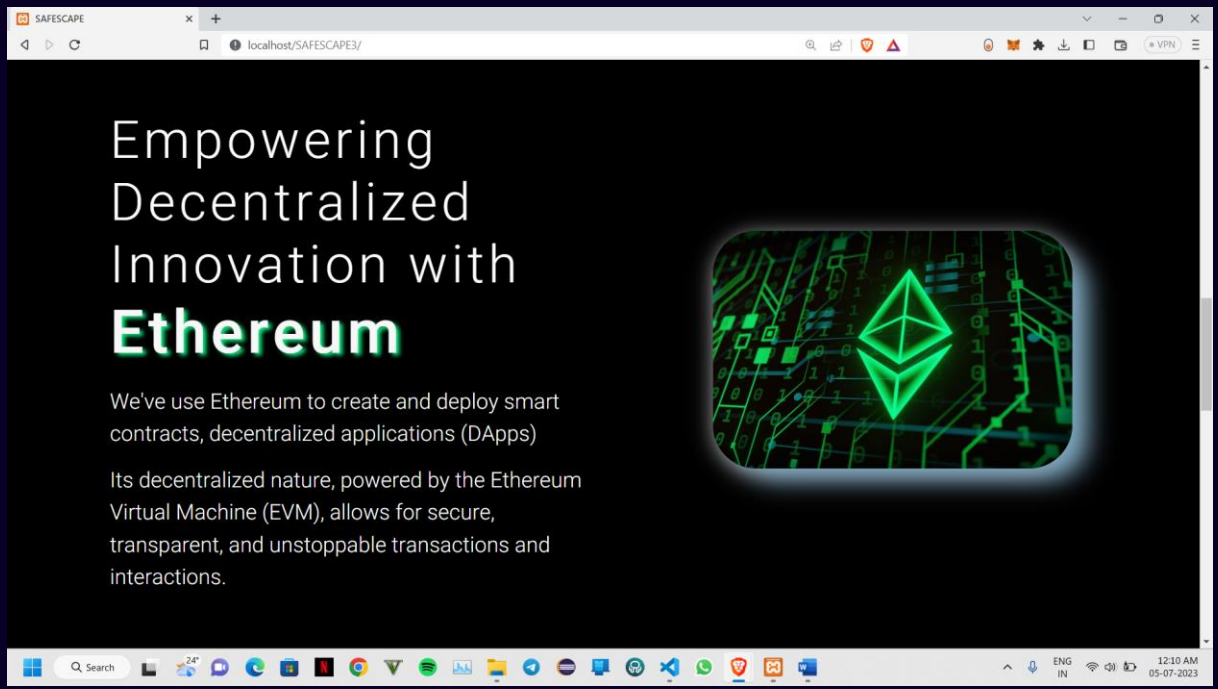
Class Diagram :

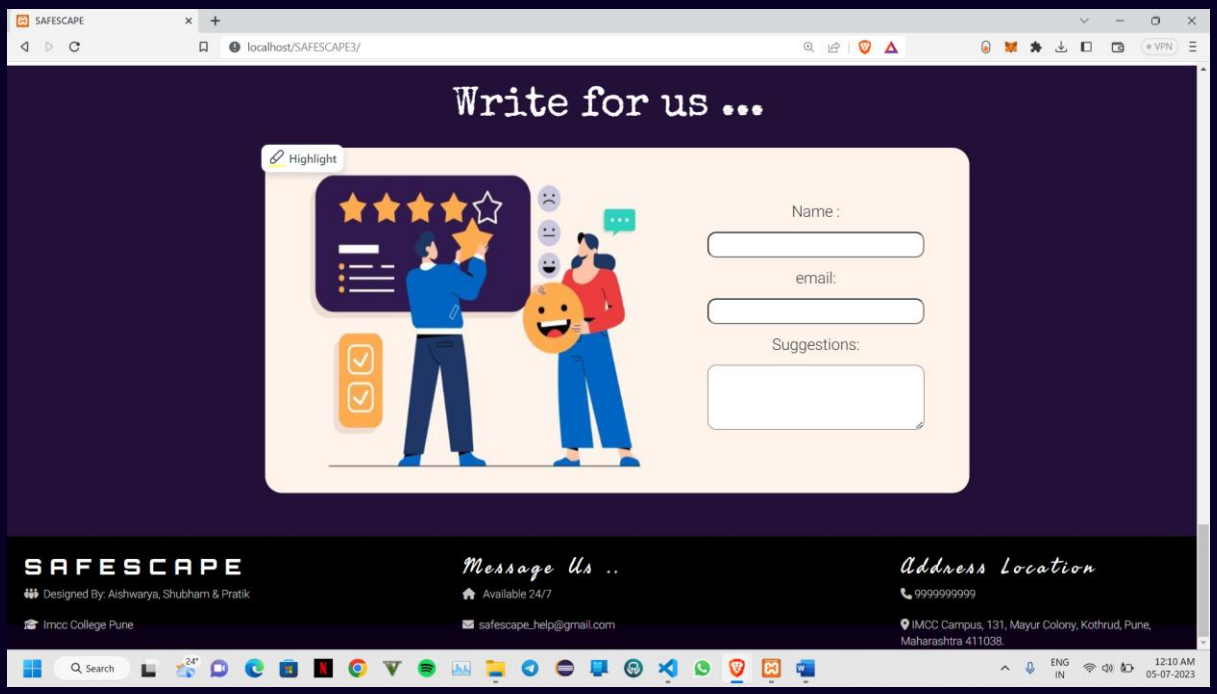


Screenshots:

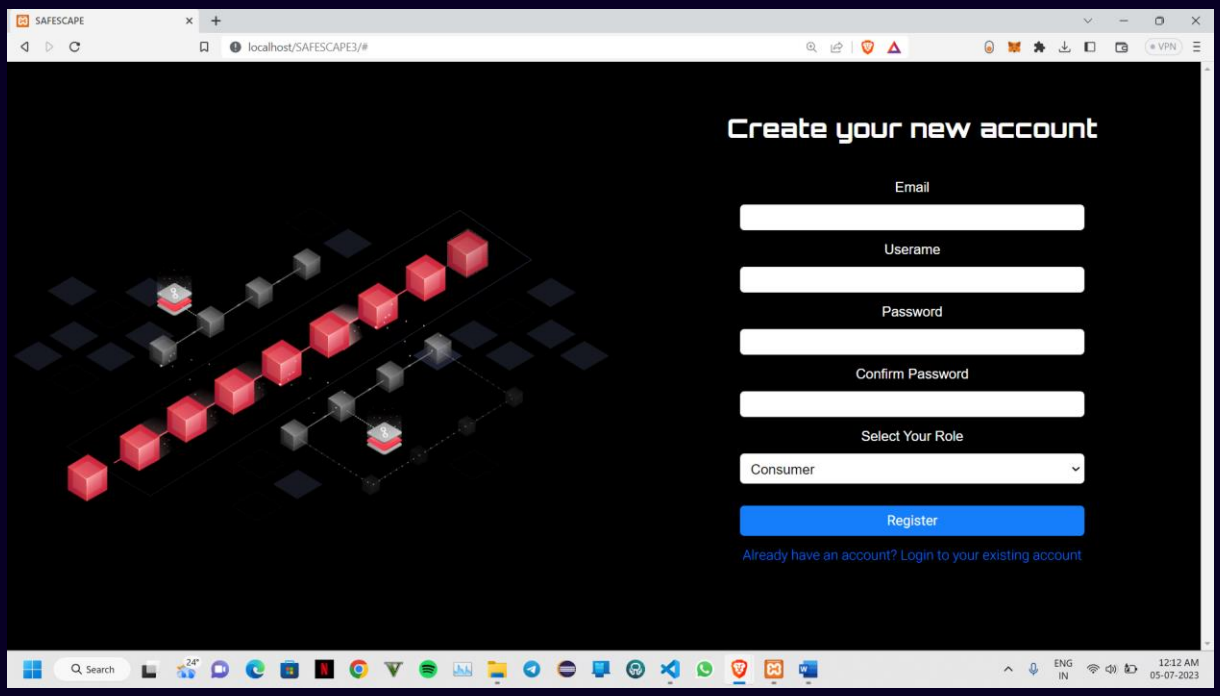
Landing Page:



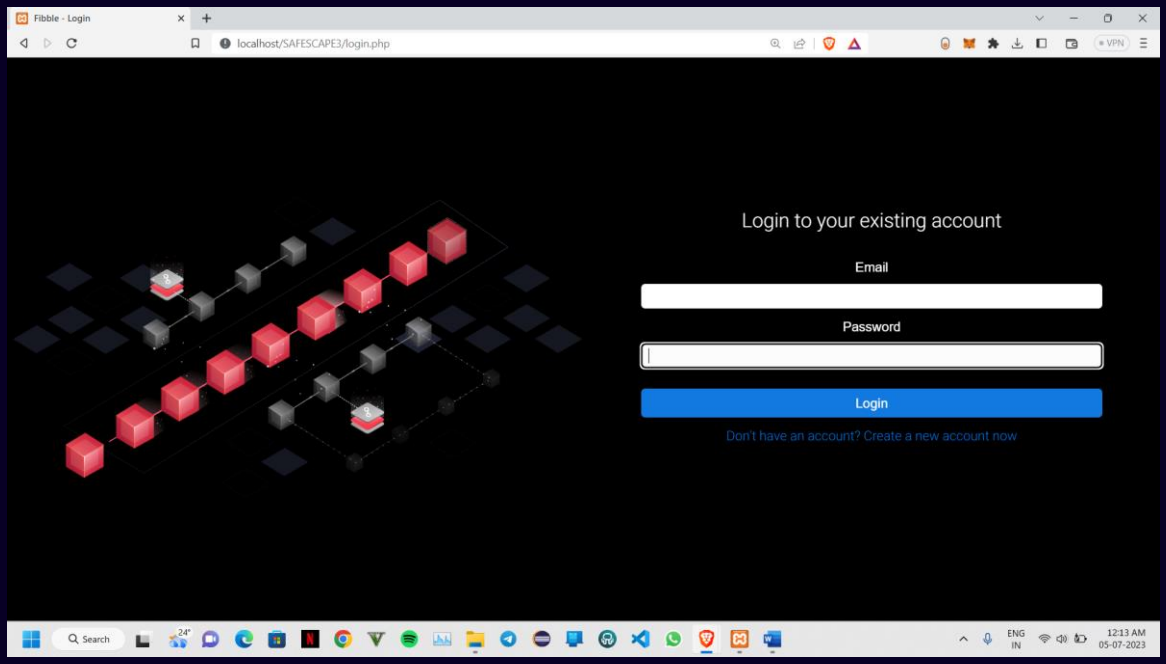



SAFESCAPE
localhost/SAFESCAPE3/
Write for us ...
Highlight
Name :
email:
Suggestions:
SAFESCAPE
Designed By: Aishwarya, Shubham & Pratik
Imcc College Pune
Message Us ..
Available 24/7
safescape_help@gmail.com
Address Location
9999999999
IMCC Campus, 131, Mayur Colony, Kothrud, Pune, Maharashtra 411038.

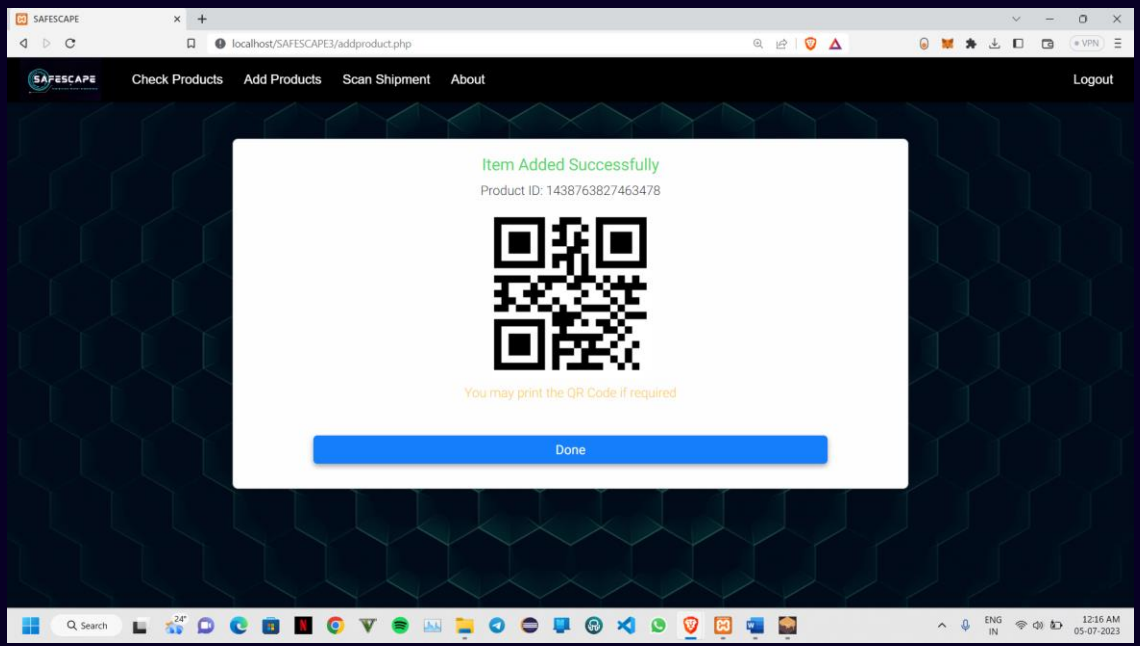
Signup Page:


SAFESCAPE
localhost/SAFESCAPE3/#
Create your new account
Email
Userame
Password
Confirm Password
Select Your Role
Consumer
Register
Already have an account? Login to your existing account

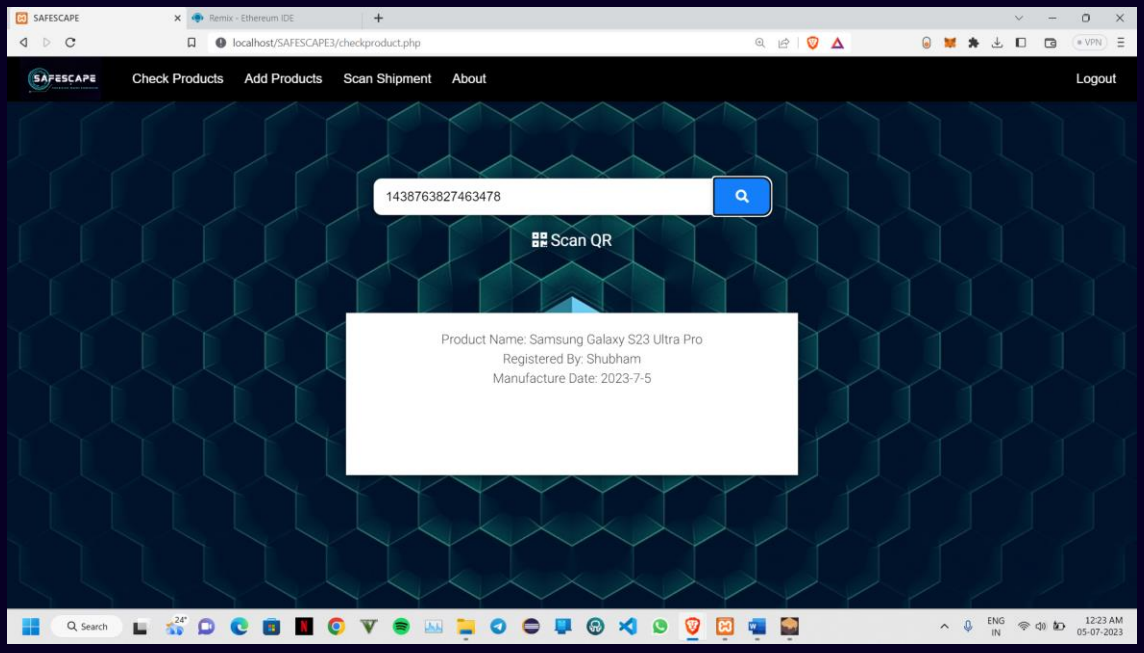
Login Page:



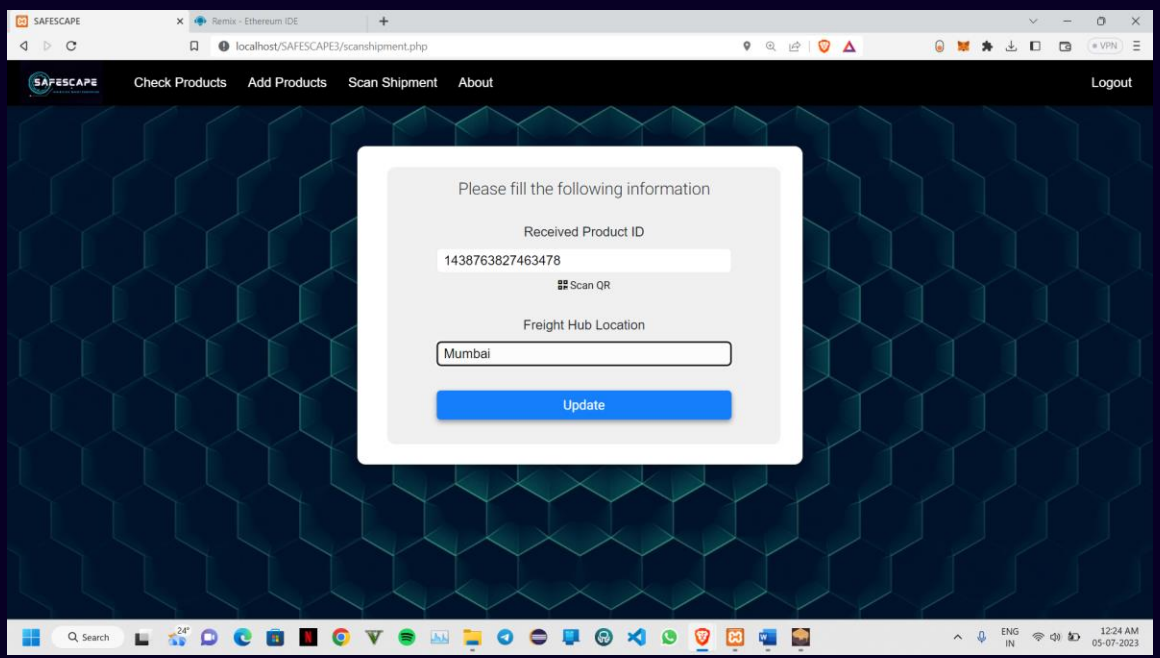
Add Product:



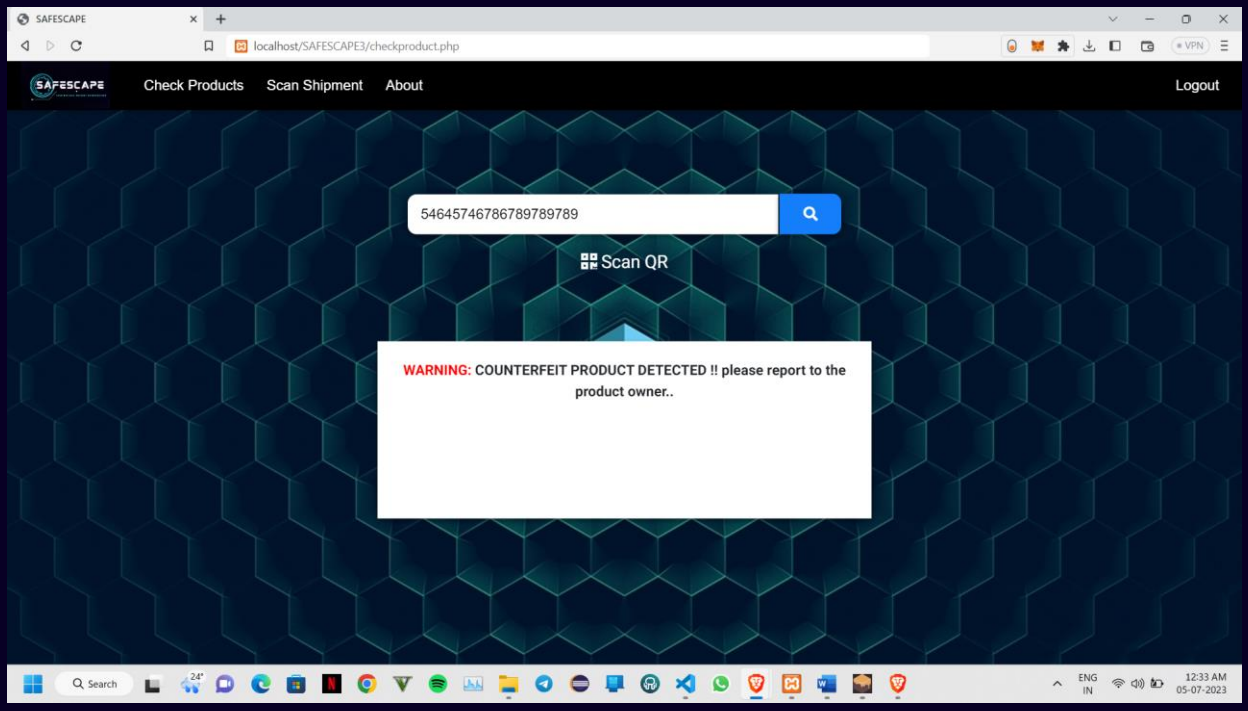
Check Product:



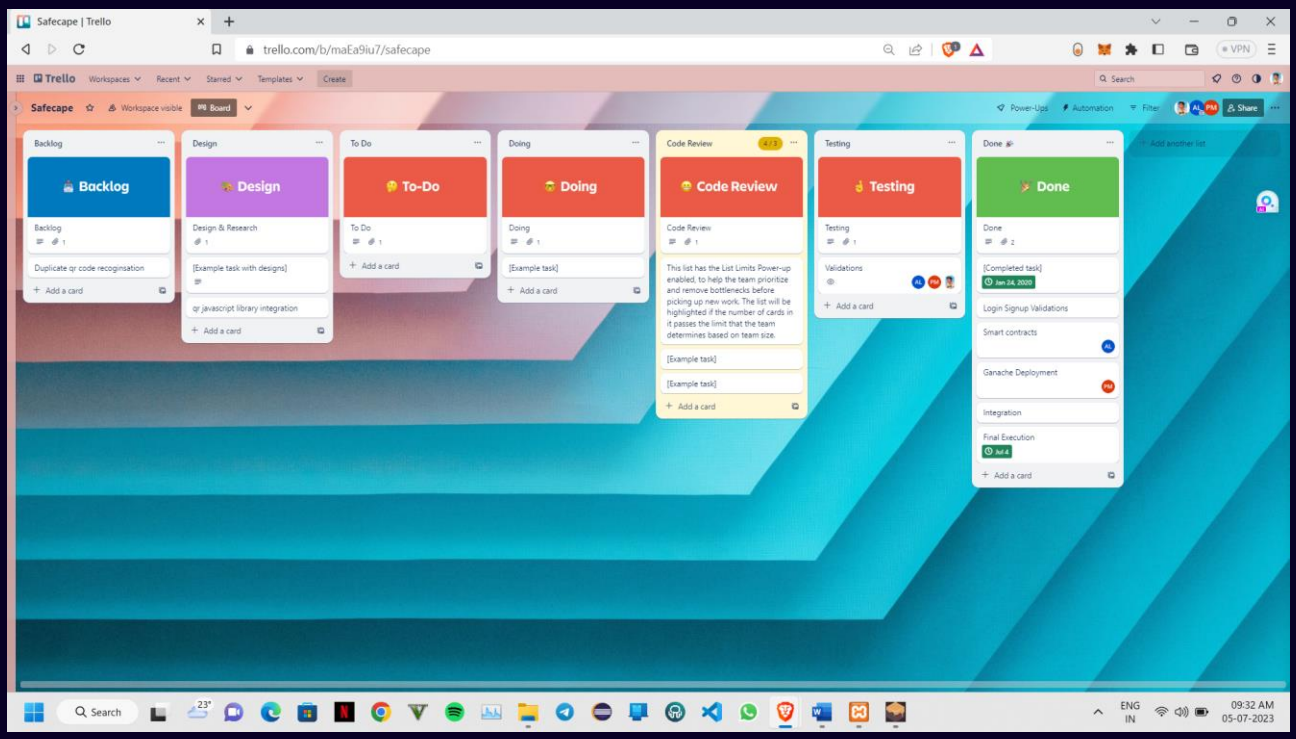
Update Shipment Details:



Fake Product Detection:



Project History:



Conclusion:

SafeScape, our supply chain application utilizing blockchain technology and secure product verification processes, has successfully addressed the challenge of counterfeit products. By leveraging the immutability and transparency of the blockchain, we have provided a trusted and tamper-proof system for verifying product authenticity. Through unique identifiers stored on the blockchain, stakeholders can easily access and validate product information, ensuring consumer protection and promoting trust in the supply chain. SafeScape has demonstrated the potential of blockchain in combating counterfeits and has laid the foundation for a more secure and transparent supply chain ecosystem.

Future Scope:

- Expansion to Multiple Supply Chains: SafeScape can be further developed to cater to multiple supply chains across various industries. This would involve creating separate smart contracts and interfaces tailored to the specific needs of each industry, allowing for broader adoption and impact.

- Integration of IoT and RFID Technology: Integrating Internet of Things (IoT) devices and Radio Frequency Identification (RFID) technology with SafeScape can enhance product tracking and verification. This integration would enable real-time monitoring of product movement and automatically update the blockchain with relevant data, further strengthening the authentication process.

- Collaboration with Regulatory Bodies: Collaborating with regulatory bodies and industry associations can enhance the credibility and adoption of SafeScape. Working together, the project can align with existing standards and regulations, providing a unified approach to combating counterfeits and improving consumer protection.

- Mobile Application Development: Developing a mobile application for SafeScape would make it more accessible and convenient for users to verify product authenticity on the go. The app could integrate features such as barcode scanning or QR code recognition to streamline the verification process and enhance user experience.

- Analytics and Insights: Implementing analytical tools within SafeScape can provide valuable insights into supply chain performance, product authenticity trends, and potential areas of improvement. Data analytics can help identify patterns of counterfeiting activities, enabling stakeholders to take proactive measures to prevent and mitigate risks.

- Integration with E-commerce Platforms: Integrating SafeScape with popular e-commerce platforms would enable consumers to verify product authenticity before making a purchase. This integration would strengthen consumer trust in online transactions and contribute to reducing the circulation of counterfeit products.

- By pursuing these future scopes, SafeScape can continue to evolve as a powerful solution against counterfeits, driving innovation in supply chain management and consumer protection.