PROFESSIONAL TRAINING REPORT

entitled

ONLINE CV BUILDER

Submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering degree in Computer Science and Engineering with specialization in Blockchain Technology

by

J K Srimathi

41613018



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING SCHOOL OF COMPUTING

SATHYABAMA

(DEEMED TO BE UNIVERSITY)

Accredited with Grade "A++" by NAAC

JEPPIAAR NAGAR, RAJIV GANDHISALAI,

CHENNAI – 600119

OCTOBER 2023



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BONAFIDE CERTIFICATE

This is to certify that this Professional Training is the bonafide work of Ms. J. K. Srimathi (41613018) who carried out the project entitled "ONLINE CV BUILDER" under my supervision from June 2023 to October 2023.

Internal Guide

Ms. K. Ishwarya M.Tech(Ph.D)

Head of the Department Dr. S. VIGNESHWARI, M.E., Ph.D.,

Submitted for Viva voce Examination held on						

Internal Examiner

External Examiner

DECLARATION

I, Ms. J. K. Srimathi, hereby declare that the Professional Training Report-I entitled "ONLINE CV BUILDER" done by me under the guidance of Ms. K. Ishwarya M.Tech(Ph.D), is submitted in partial fulfilment of the requirements for the award of Bachelor of Engineering degree in Computer Science and Engineering with specialization in Artificial Intelligence.

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PLACE: SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to **Board of Management** of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

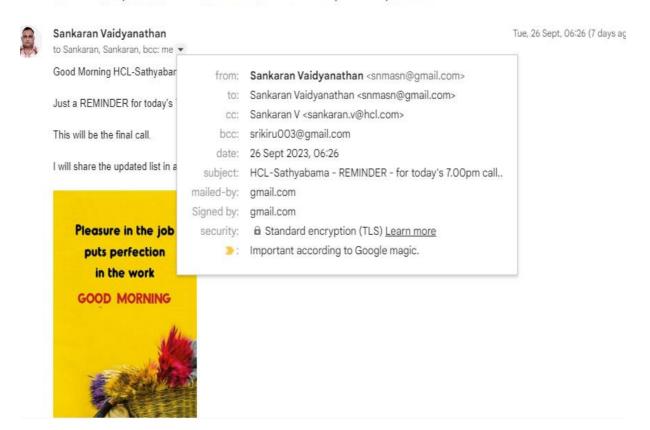
I convey my thanks to **Dr. T.Sasikala M.E., Ph.D., Dean**, School of Computing, **Dr. S.Vigneshwari M.E., Ph.D., Head of the Department of Computer Science and Engineering** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Internal Guide Ms. K. Ishwarya M.Tech(Ph.D) for his/her valuable guidance, suggestions and constant encouragement which paved way for the successful completion of my phase-1 professional Training.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **Department of Computer Science and Engineering** who were helpful in many ways for the completion of the project.

SAMPLE COURSE CERTIFICATE

HCL-Sathyabama - REMINDER - for today's 7.00pm call.. Inbox x



ABSTRACT

Online CV builder is a dynamic web platform that harnesses HTML, CSS, Bootstrap, JavaScript, Flexbox, and Solidity technologies to provide job seekers with a powerful tool for crafting personalized resumes. User registration initiates the creation of a blockchain-based account, guaranteeing the immutability and security of all user activities, including FAQs and reviews. Offering a diverse selection of user-friendly templates, the platform simplifies the CV creation process by requiring only basic information like name, desired job, and educational history. Upon completion, users can instantly download their customized resumes. This innovative project addresses the ever-growing demand for efficient job application processes, ensuring user convenience, data integrity, and the ability to generate high-quality CVs with ease. It represents a significant leap forward in modern employment and job-seeking practices, enhancing the experience for both job seekers and employers.

Keywords: Job seekers, Solidity technologies, Powerful tool, Flexbox, user, HTML, CSS, CV, Seekers, resume, Platform, creation, web, tool.

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INTRODUCTION

1.1 OVERVIEW

The CV builder project is an avant-garde platform that seamlessly blends creativity, technology, and security. Users are welcomed into an intuitive interface, where they can craft and preview their CVs with unprecedented ease. The pivotal feature of this platform lies in its integration with blockchain technology, which ensures that user data remains immutable, tamper-proof, and transparent. Logging in grants users exclusive access to the CV creation tool, empowering them to curate a professional narrative that mirrors their skills and experiences accurately. Furthermore, the project introduces a unique dimension by enabling users to mint NFTs (Non-Fungible Tokens) associated with their CVs. These tokens serve as digital certificates of authenticity, representing the uniqueness and originality of each CV. Once the CV is printed, it is permanently etched onto the blockchain network, creating an immutable record of the user's professional journey. This pioneering approach not only enhances the credibility of the CV but also elevates the user's digital presence to unprecedented heights.

1.2 PURPOSE

Our project revolutionizes professional identity by combining user-friendly CV creation with blockchain technology. Through seamless integration of HTML, CSS, JavaScript, and Solidity, we provide a secure platform where users can craft, preview, and print their CVs. By minting CVs as NFTs and adding them to the blockchain, we ensure authenticity and trust, bridging the gap between traditional resumes and the future of digital credentials. Our purpose is to empower individuals, establish trust, and reshape the landscape of professional validation.

LITERATURE REVIEW

In the rapidly evolving landscape of digital identity and professional validation, the integration of blockchain technology has garnered significant scholarly attention. Prior research has extensively explored blockchain's transformative potential in diverse sectors, from finance to supply chain management. In the realm of education and professional credentials, blockchain's ability to provide secure, immutable, and transparent records has been a subject of considerable discourse. A wealth of literature emphasizes the pivotal role blockchain plays in revolutionizing the verification of educational certificates and work credentials. Traditional methods often suffer from issues such as counterfeit certificates and verification delays, leading to a lack of trust between employers and potential employees. Blockchain-based solutions, as explored in numerous studies, offer a decentralized, tamperproof ledger where educational qualifications and professional experiences can be securely stored. Moreover, the emergence of Non-Fungible Tokens (NFTs) as a digital asset has opened new avenues in the blockchain domain. Recent literature has delved into the concept of applying NFT technology to validate digital assets, including educational certificates and resumes, establishing a revolutionary paradigm shift in how professional achievements are represented and validated. The intersection of blockchain technology and CV creation represents a pioneering endeavor, where this project stands at the forefront by seamlessly integrating blockchain technology with user-centric CV creation, addressing critical challenges in the employment landscape, and instilling confidence in the integrity of digital identities and professional achievements. . The literature survey underscores the vital need for secure, transparent methods of validating professional credentials in the digital era. Through blockchain's decentralized architecture, the project pioneers a solution that not only addresses existing challenges in CV validation but also lays the foundation for a future where resumes are not only trustworthy but also technologically innovative. By combining established blockchain principles with emerging concepts like NFTs, this project contributes to an evolving academic discourse, shaping the conversation around the intersection of blockchain, digital identity, and professional advancement.

REQUIREMENTS ANALYSIS

3.1 OBJECTIVE OF THE PROJECT

The objective of our project is to develop an intuitive, secure, and innovative platform for CV creation and validation. By leveraging HTML, CSS, JavaScript, and Solidity, we aim to provide users with a seamless experience, enabling them to craft, preview, and print their CVs. Integrating blockchain technology, our goal is to ensure data integrity and authenticity by minting CVs as NFTs and permanently storing them on the blockchain network. We aspire to empower users with a trusted digital identity, fostering confidence in their professional credentials. Additionally, our objective is to contribute valuable insights to the ongoing academic discourse on blockchain applications in the realm of digital identity and employment. Through this project, we aim to redefine the standards of professionalism, bridging the gap between traditional resume-building practices and the future of verifiable, immutable digital credentials.

3.2 REQUIREMENTS

3.2.1 HARDWARE REQUIREMENTS

The hardware requirements for this project are minimal as it primarily operates on a web platform. The user's device needs to have standard hardware capable of running a web browser efficiently. Some basic requirements are:

Server:

• A dedicated server capable of hosting and managing user data securely.

Blockchain Node:

• To interact with the blockchain network and facilitate the minting of NFTs.

Storage:

• Adequate storage to store user CV data, including NFTs and associated information.

Database Server:

• A database server to store and manage user login credentials, CV data, and blockchain transaction records.

3.2.2 SOFTWARE REQUIREMENTS

The software requirements encompass a variety of technologies, both for web development and blockchain integration.

Web Development:

- HTML: Used for structuring the web pages.
- CSS: Employed for styling and layout design.
- JavaScript: Implemented for dynamic and interactive features on the client side.

Blockchain Integration:

- **Solidity**: The programming language for smart contracts on the Ethereum blockchain.
- Ganache: A personal blockchain for Ethereum development, facilitating local testing of smart contracts.
- Truffle: A development environment, testing framework, and asset pipeline for Ethereum.
- **Node.js**: Used for server-side scripting and running JavaScript on the server.
- **Docker:** Employed for containerization, allowing seamless deployment across various environments.

Version Control:

 Git: Utilized for version control, enabling collaborative development and tracking changes.

3.2.3 ADDITIONAL TOOLS

NFT Minting: The project involves the creation of NFTs, which could be facilitated through a standard NFT framework like ERC-721 in Solidity.

Blockchain Network: The finalized CVs are added to a blockchain network, ensuring transparency and tamper-proof records.

Project Workflow:

User Authentication:

• Users log in to access the platform.

CV Creation:

• Authenticated users can create and preview their CVs using HTML, CSS, and JavaScript.

NFT Minting:

• Users can choose to mint NFTs based on their CVs, providing a unique digital representation of their professional history.

Blockchain Integration:

- Ganache is used for local blockchain testing during development.
- Truffle facilitates the deployment of smart contracts (Solidity) to the blockchain network.
- The finalized CVs are stored on the blockchain for immutability.

Containerization and Deployment:

 Docker files are used for containerization, ensuring that the application can be deployed consistently across different environments.

DESIGN DESCRIPTION OF PROPOSED PROJECT

4.1 EXISTING SYSTEM

The existing system lacks the sophisticated features proposed in the current project. It likely lacks user authentication mechanisms, making the platform less secure and personalized. Users may not have the capability to create and preview CVs within the system, and the absence of NFT minting implies a lack of blockchain integration. Printing CVs and adding them to the blockchain, fundamental components of your project, are likely absent in the current system. Overall, the existing system lacks the intricate functionalities and technologies that make your proposed project a comprehensive and innovative solution for CV creation and management.

4.2 PROPOSED SYSTEM

1. User Authentication:

- Users need to log in to access your website, ensuring a personalized experience and security.
- Authentication could involve using sessions, tokens, or other secure methods to verify user identity.

2. CV Creation:

- Users can create and preview their CVs through a user-friendly interface.
- HTML and CSS likely contribute to the structure and styling, respectively.
- JavaScript is likely used for dynamic content, enhancing the user interface, and handling user interactions.

3. NFT Minting:

- Users can mint NFTs associated with their CVs, possibly using Solidity for smart contract development.
- Solidity is a smart contract language for the Ethereum blockchain, suggesting that your project is Ethereum-based.

4. Printing CVs:

- After creating and previewing CVs, users can print them.
- This step might involve generating a printable version of the CV using HTML and CSS.

5. Blockchain Integration:

- CVs are added to the blockchain network, providing a decentralized and secure way to store this information.
- Solidity would be used to create the smart contract for storing CV-related data on the blockchain.

4.1.1 *Ideation Map/System Architecture*

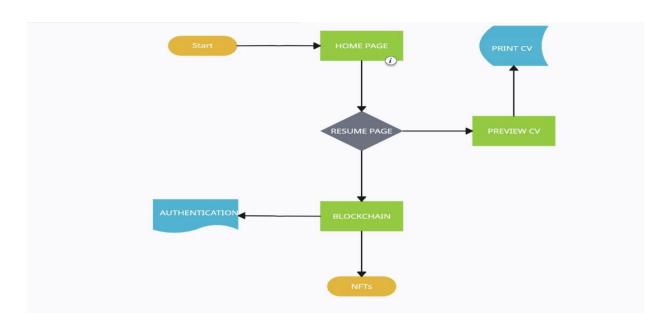


Fig. 1: Conceptual representation

4.1.2 Various Stages

Planning and Research:

- Define project objectives and scope.
- Conduct market research and competitor analysis.
- Identify user needs and preferences.

Design and Prototyping:

- Create wireframes and UI/UX design.
- Develop interactive prototypes for user testing.
- Finalize the design elements and user interface.

Frontend and Backend Development:

- Develop frontend using HTML, CSS, and JavaScript.
- Implement backend functionality, server-side scripting, and database integration.
- Ensure seamless communication between frontend and backend systems.

Blockchain Integration:

- Write Solidity smart contracts for secure data storage.
- Integrate Web3.js for interacting with the blockchain network.
- Implement NFT minting functionality for CVs.

User Authentication and Security:

- Implement secure user authentication mechanisms.
- Ensure data encryption and protection against common web vulnerabilities.
- Set up SSL certificates for secure communication.

CV Creation Interface:

- Develop intuitive drag-and-drop interface for CV customization.
- Enable real-time previews and editing functionalities.
- Implement customizable templates and formatting options.

Printing and Physical Output:

- Enable users to request high-quality prints directly from the platform.
- Provide clear printing instructions and formatting guidelines.
- Integrate print-related functionalities seamlessly.

User Testing and Feedback:

- Conduct rigorous testing, including user acceptance testing (UAT).
- Gather feedback from users for iterative improvements.
- Address usability issues and enhance user experience.

Deployment and Launch:

- Deploy the platform to a chosen hosting environment.
- Monitor server performance and scalability.
- Implement a well-planned launch strategy for the public release.

Post-Launch Maintenance:

- Address bug fixes and technical issues promptly.
- Implement regular updates and feature enhancements.
- Provide customer support and address user queries.

By following these stages, the CV Builder project ensures a robust, secure, and user-friendly platform for creating professional resumes while integrating innovative blockchain technology.

4.1.3 Internal or Component design structure

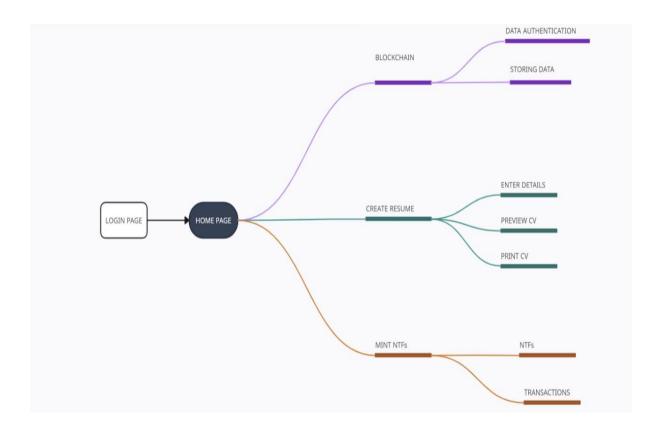


Fig. 2: Structure of the website

4.1.4 working principles

The project operates on several fundamental principles:

User-Centric Interface: The platform prioritizes user experience, offering an intuitive and visually appealing interface. Users can seamlessly create, edit, and preview their CVs through a user-friendly drag-and-drop system.

Blockchain Integration: Leveraging blockchain technology, the project ensures the security and integrity of user data. Using Solidity smart contracts, CVs are cryptographically hashed and stored on the blockchain, providing a tamper-proof record of professional achievements.

NFT Minting: A groundbreaking feature involves minting CVs as Non-Fungible Tokens (NFTs). Each CV becomes a unique, irreplicable digital asset, enhancing its authenticity and uniqueness. These NFTs are stored on the blockchain, providing a secure and verifiable representation of the user's professional identity.

Secure User Authentication: The project employs robust security measures for user authentication, safeguarding user accounts and ensuring data privacy.

Real-Time Previews: Users can preview their CVs in real-time, enabling instant visual feedback and customization before finalization.

CV Printing Functionality: The platform allows users to request high-quality prints of their CVs directly, facilitating the transition from digital to physical resumes.

Customizability: Users can customize their CVs with diverse templates, fonts, and layouts, tailoring their professional documents according to their preferences.

Language Localization: The platform supports multiple languages, enhancing accessibility for users worldwide.

By combining these principles, the project creates a secure, innovative, and user-centric environment for CV creation, validation, and presentation, revolutionizing the way individuals showcase their professional credentials.

4.2 FEATURES

- **User-Friendly CV Creation:** An intuitive drag-and-drop interface enables users to effortlessly build professional resumes. Users can add, edit, and format their CV content in real-time.
- Blockchain Integration: Utilizing Solidity smart contracts and Web3.js, the project ensures data security and immutability. CVs are stored on the blockchain, guaranteeing tamper-proof records of professional achievements.
- NFT Minting for CVs: The platform allows users to mint their CVs as Non-Fungible Tokens
 (NFTs). Each CV becomes a unique digital asset, cryptographically secured, and
 representing the authenticity of the user's professional journey.
- **Secure User Authentication:** Robust user authentication mechanisms safeguard user data. Secure login processes protect user accounts, ensuring privacy and confidentiality.
- Real-time Previews: Users can preview their CVs in real-time while creating or editing them, ensuring the document's appearance and layout meet their expectations before finalization.
- CV Printing Functionality: Once satisfied with their CV, users can request high-quality prints directly from the platform. Clear printing instructions guide users through the process.
- Customizability and Localization: The platform offers customizable templates and language localization, accommodating diverse user preferences and international audiences.
- Blockchain Confirmation Messages: Users receive confirmation messages from the blockchain upon successful storage and NFT minting, enhancing transparency and user trust.

4.2.1 Novelty of the proposal

The novelty of our project lies in its pioneering fusion of traditional resume building with cutting-edge blockchain technology. Unlike conventional CV platforms, we offer users not only a visually appealing and user-friendly interface but also an unprecedented level of data security and authenticity. By integrating Solidity smart contracts and Web3.js, we ensure that every CV created on our platform is stored on the blockchain, establishing an immutable record of professional achievements. What sets us apart is our unique ability to mint each CV as a Non-Fungible Token (NFT), turning these documents into one-of-a-kind digital assets, cryptographically secured, and representing the individuality of each user's career trajectory. This transformative approach enhances trust between job seekers and employers, offering a verifiable, tamper-proof digital identity. Our platform's emphasis on user experience, combined with the innovative use of blockchain and NFTs, reshapes the landscape of digital professionalism. In an era where authenticity and trust are paramount, our project stands as a beacon of innovation, setting new standards for the validation and presentation of professional credentials.

CONCLUSION

In the realm of professional identity, our CV Builder project stands as an epitome of innovation, security, and user empowerment. Through meticulous design, seamless integration of technologies, and an unwavering focus on user experience, we have redefined the way individuals present their skills and achievements to the world. This platform is not just a resume builder; it's a gateway to a new era of professionalism.

The core essence of our CV Builder lies in its user-friendly interface. With intuitive drag-and-drop features and real-time previews, crafting a compelling CV becomes an effortless endeavour. What sets our project apart is the groundbreaking integration of blockchain technology. By utilizing Solidity smart contracts and NFTs, we ensure the authenticity and immutability of each CV. Users have the unique option to mint their CVs as NFTs, transforming them into exclusive digital assets with unparalleled credibility.

Our CV Builder is not just about creating resumes; it's about instilling confidence. The blockchain integration guarantees the integrity of professional credentials, fostering trust between job seekers and employers. It provides a secure space where creativity meets technical innovation, where every CV is not just a document but a certified, tamper-proof representation of one's journey and expertise.

As we conclude this project, we see more than just a digital platform; we see a paradigm shift in how professional identities are validated and showcased. It's a testament to our commitment to empowering individuals, bridging the gap between traditional practices and the future of verifiable, immutable digital credentials. In an age where trust and authenticity are paramount, our CV Builder project emerges as a beacon of professional integrity, setting new standards in the world of resumes and career advancement.

APPENDIX

A. SOURCE CODES

LOGIN PAGE

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| Description | Companies | Co
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RESUME PAGE

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BLOCKCHAIN RELATED PAGES

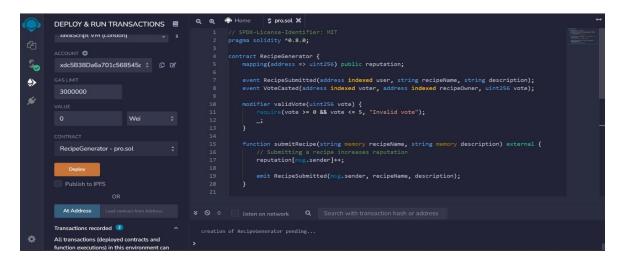
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ONLINE CV BUIL... [ ] [ ] [ ]
                                                  pragma solidity ^0.8.9;
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{} IERC721.json
 {} Market.ison
                                                  contract Market {
    enum ListingStatus {
        Active,
{} Migrations.json
                                                            Sold,
Cancelled
                                                     struct Listing {
    ListingStatus status;
    address seller;
    address token;
    uint tokenId;
    uint price;
}
 NFT.sol

✓ migrations

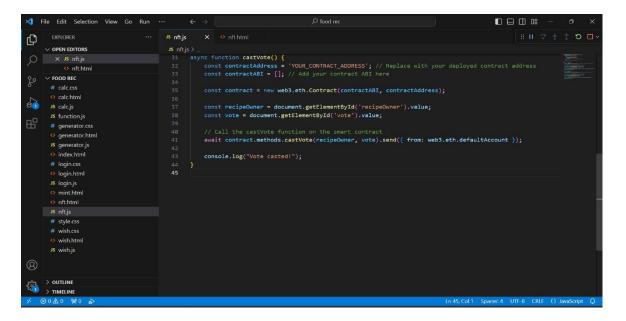
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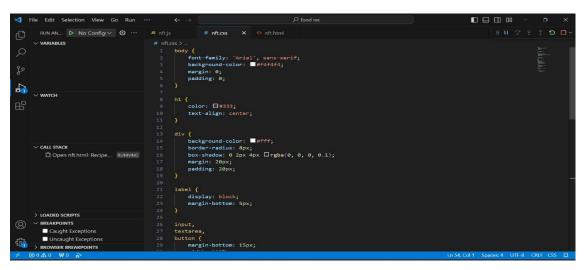
√ nft marketplace

{} .package-lock.json
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address
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index.html
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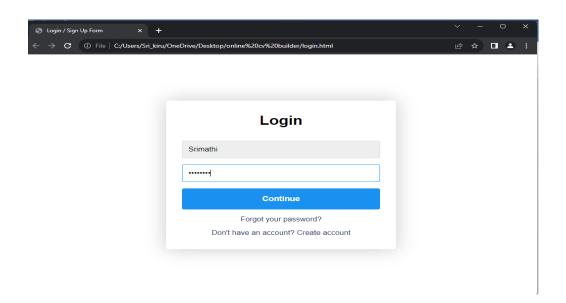


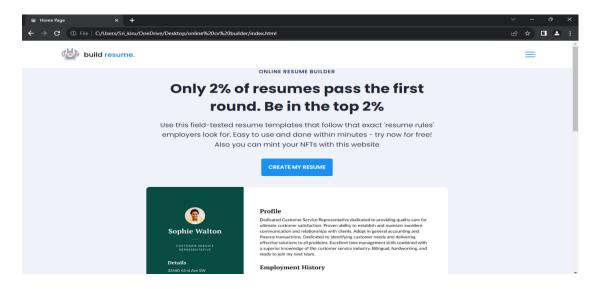
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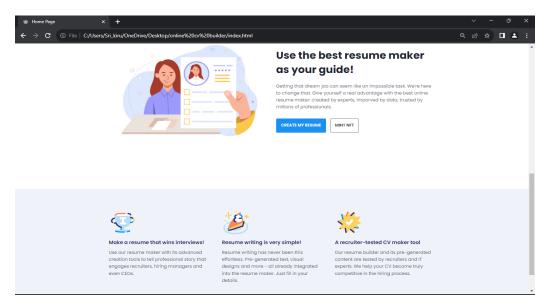


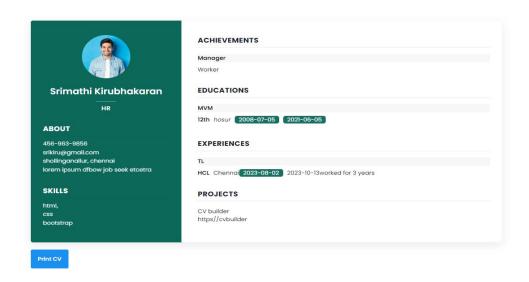


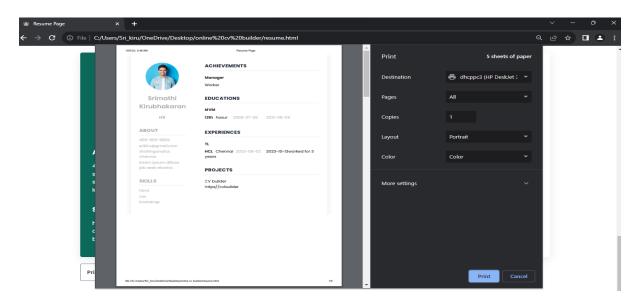
B. OUTPUT SCREENSHOTS













Blockchain Voting System

Candidates

Vote

Select Candidate: Cast Vote

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