

PRD: VirtuID

Date last updated: 04/21/2024

Team Name and Number: VirtuID Guardians (Group 6)

List all students who actively worked on this Assignment:

1. Name: Aaditya Gupta
2. Name: Gautham K K
3. Name: Lucky Jain Praveenkumar
4. Name: Sanjana Rayapudi
5. Name: Yashwanth Vellore Umashankar

Vision

For modern digital individuals who must navigate the challenges of carrying physical IDs and combat identity theft, VirtuID is a new digital identity management solution that provides seamless conversion of physical IDs to digital format. Unlike traditional IDs and basic digital alternatives, VirtuID enhances security with multi-factor authentication and encryption, offering a safe and genuine platform for managing digital identities.



Motivation

Customer Segments:

International Immigrants (Students and Work Visa holders):

A significant issue for many F-1 and H-1B visa holders, including students and non-immigrant workers, lies in the secure storage of their physical passports, driver's licenses, and state IDs. The recurring difficulty in securely handling these vital documents exposes international immigrants to a significant risk of misplacing or losing them.

American Youngsters (Age group 18-25):

Youngsters, particularly those aged 18 to 25, often enjoy socializing and vibrant nightlife experiences. According to the 2022 NSDUH, many individuals in this age group reported drinking in the past year. The challenge for this demographic lies in the potential misplacement or forgetfulness regarding essential ID proofs, with some resorting to creating fake IDs to access clubs and other venues.

Unmet Needs:

Secure and Accessible Digital Record Keeping:

One of the most frequent problems faced by international students, especially those with F1 and M1 visas are safely storing and retrieving important documents including identity and visa records. Because there is currently no safe and convenient way to store digital records, there is cause for concern over identity theft and data breaches. In the event of a security breach or leak, users struggle with the possibility of valuable information being compromised. This highlights the need for a comprehensive, encrypted, and user-friendly platform like VirtuID to successfully meet this unmet requirement.

Ease of Access to Nightlife Venues:

Because physical IDs are required, young adults between the ages of 18 and 25 have difficulty entering nightlife places without difficulty. VirtuID is a digital identity system designed specifically for social interactions to overcome this problem. There is currently a lack of simplified procedures for identity verification in nightlife clubs, which causes delays and inefficiencies. By doing away with the requirement for physical IDs, VirtuID provides a solution and develops a dependable and effective system that satisfies the needs of both users and businesses.

Tackling Emergency Situations:

Having quick access to valuable information becomes essential in emergency scenarios. Users frequently find themselves in situations where they need quick access to crucial information, especially overseas students. The lack of a prompt and dependable access mechanism is a major source of inconvenience. To fill this gap in the market, VirtuID offers a platform that guarantees quick access to and dissemination of critical information in an emergency. This enhances response times and helps people deal with unforeseen obstacles more skillfully.

Quick Access for Various Scenarios:

One of VirtuID's unique selling points is its rapid availability in various circumstances, from routine identity checks to life-threatening emergencies. Users are inconvenienced by the current situation, which lacks a uniform and effective method for displaying digital identity across different interactions. VirtuID's simplified methodology guarantees quick and easy access, improving the user experience in both routine and unexpected situations and successfully satisfying the changing demands of its heterogeneous user base.

Differentiation - Why VirtuID Excels:

Set against rivals such as Spruce ID, Apple Wallet, and ID.me, VirtuID makes use of its advantages to rethink digital identity. VirtuID distinguishes itself by combining the best features into a streamlined platform. It meets a variety of purposes by ensuring safe, decentralized storage with dynamic privacy restrictions. VirtuID, which works with both iOS and Android, is aimed at tech-savvy young people. Offering a unified, secure, and flexible digital identification solution is the mission, and it is stated clearly. VirtuID stands out as the competitive landscape's strategic option with a vision to transform identity management.

Why now?

The necessity for a convenient and safe way to manage identification documents is evident in the growing digitization of daily tasks and the increasing reliance on digital identities. Furthermore, the increase in identity theft cases and the vulnerabilities in conventional identity systems emphasize the need for innovative security solutions. Advancements in technology, such as biometrics and encryption, provide the necessary tools to develop robust identity management solutions. Also, the shifting consumer preferences towards digital and contactless solutions further emphasize the demand for a product like VirtuID.



Existing Solutions:

Spruce ID: California has introduced a mobile ID program in partnership with TruAge that enables consumers to purchase age-restricted goods by installing the DMV wallet app, taking pictures of their identification documents, and undergoing facial recognition technology to confirm their identity¹.

Mississippi Mobile ID: The Mississippi Secretary of State's office allows voters to submit a digital copy of their state driver's license at polling locations.

Apple Wallet: Apple has taken a big stride towards modernizing identification processes with its recent effort to incorporate driver's licenses into Apple Wallet. Users can scan their state ID card or driver's license in person. The integration will initially begin in Arizona and Georgia.

**Table: Competitive Analysis**

	Spruce ID	Apple Wallet	ID. me	Mississippi Mobile ID	VirtuID
Document/Cards Type	Passports, State IDs, Driver's license	Payment cards, driver's license, state ID, student ID, and employee badge	Government, Financial, Healthcare, Educational, etc.	Mississippi state-issued IDs.	Passport, State IDs and Driver's License.
Available States	California	Arizona, Colorado, Maryland, and Georgia	All USA states	Mississippi State	All USA states
Cost	Free trial provided for a subscription-based plan.	Can be used on Apple devices for free	Free service, but premium services may incur expenses	Free service provided by the state of Mississippi.	Free (Govt. partnered) & Subscription based plans
Platform Compatibility	iOS and Android	iOS only	iOS and Android	iOS and Android	iOS and Android
Security Measures	End-to-end encryption to safeguard data.	Face ID or Touch ID authentication	Uses encryption and MFA	Biometric Authentication and MFA	MFA, Face ID/ Touch ID authentication

Places it can be used	Mobile Driver's License.	TSA, Hotel check-ins, Accessing events, Liquor stores.	Government offices, Hospitals, Banks, Schools, and Colleges.	Age Verification, Government offices, Accessing events.	Age Verification, Accessing events, Government offices, Traffic stops.
Stakeholders	Spruce systems Inc., California DMV	Apple Inc, Government Agencies, Third-Party Developers	ID.me Company, Government Agencies, Businesses and Organizations	Mississippi Department of Public Safety (DPS), Government Agencies and Service Providers	Government of USA, VirtuID Guardians company, Service providers.
Notable features	Decentralized Storage	Offers accessibility for the blind or visually impaired.	Business Integration and online transaction.	Accessible features for impairments, cover vehicle, and voter registration.	Dynamic privacy controls, Decentralized Storage, Ephemeral IDs.

Verbal/Visual Walkthrough of Use Cases

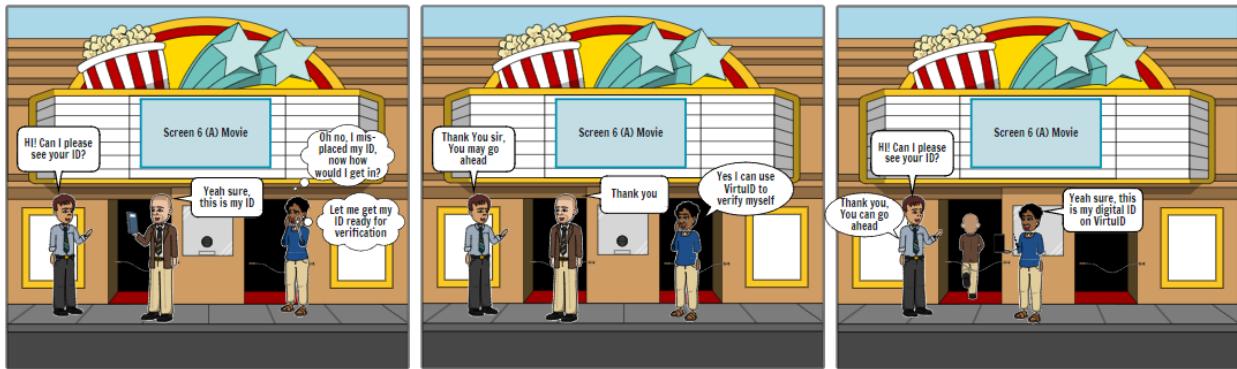
Alex:



Alex approaches the counter, ready to purchase a bottle of wine. The clerk politely asks to see some ID to verify his age. Alex realizes he forgot his physical ID at home, but then remembers he has the VirtuID app on his phone. He shows the clerk his virtual ID through the app, and the clerk verifies it. Happy that VirtuID came in handy and saved the day, Alex thanks the clerk as he completes the purchase and receives his bottle of wine.

Sam:

The line snaked its way towards the club, the air thick with pulsing music. The big guy at the door, the bouncer, checked everyone's ID to make sure they were old enough. Duke nudged Sam. "Hey man, ID?" Sam scoffed, a playful jab at his friend's concern. "Why do I need that tonight? Come on, Duke, lighten up!" Just then, the bouncer asked Sam to show his ID please." Sam's playful facade crumbled. He had completely forgotten his ID, caught up in the pre-club hype. Panic started to bloom in his chest, but then a memory sparked! VirtuID! He had downloaded that app a while back, storing his government ID on it. "Actually," Sam stammered, pulling out his phone, "I got it right here. See, VirtuID?" The bouncer eyed the phone with suspicion, unsure about this newfangled method. But after scrutinizing the app and verifying Sam's age, he grunted in approval. "VirtuID verified," he muttered, stepping aside. Relief flooded Sam as he and Duke entered the club, ready to have a blast. Turns out, even the best plans need a little backup, and luckily, Sam had a high-tech solution in his pocket.

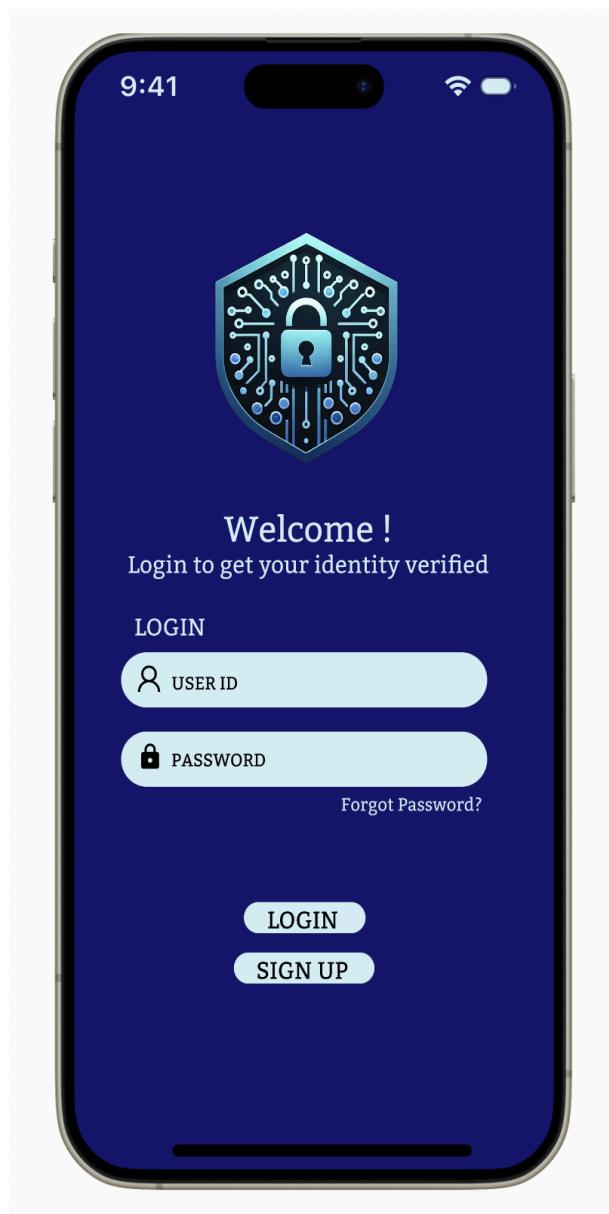
Lisa:

Lisa joined the queue at the movie theater, knowing she would need to present identification to watch the age-restricted film. As her turn approached, she searched for her physical ID but realized with a sinking feeling that she had misplaced it. Lisa grew upset, wondering how she would verify her age without the proper documentation. However, she then remembered the VirtuID app on her phone, which provides secure, government-approved virtual identification. Relieved, Lisa realized she could use VirtuID for age verification instead of her lost physical ID. When Lisa reached the front of the line, the clerk politely requested to see her ID. Lisa proudly displayed her VirtuID credentials through the app. After a quick verification, the clerk confirmed Lisa's identity and age eligibility. Thanks to VirtuID, the day was saved. Lisa could now enjoy the movie without any hassle, despite temporarily misplacing her physical ID. The convenient virtual identification solution enabled a smooth, self-service age verification process, allowing Lisa to proceed with her plans uninterrupted.

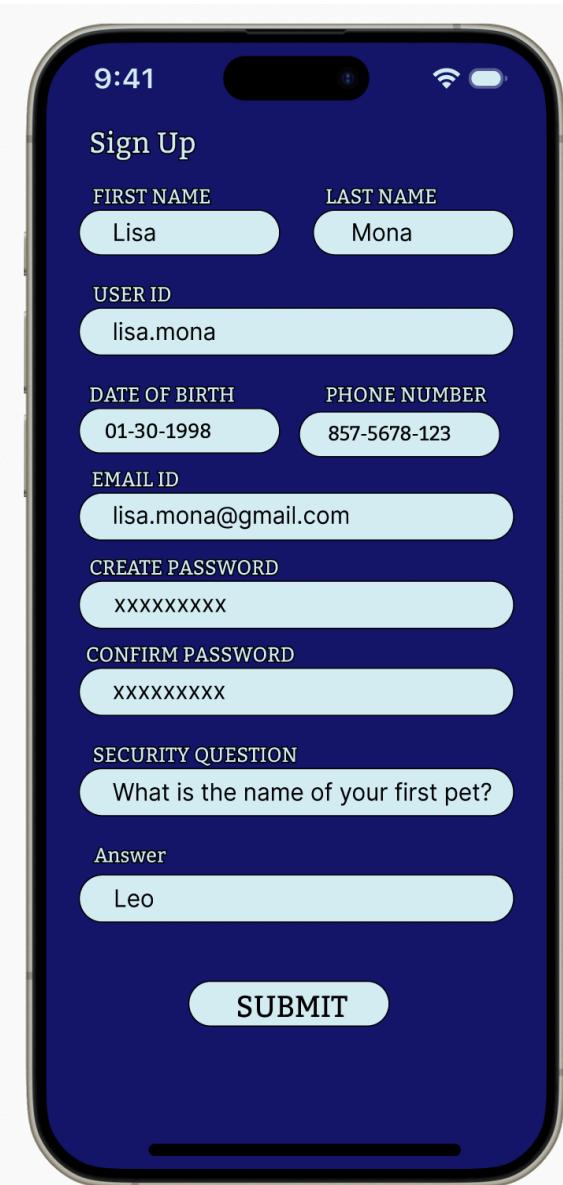
Visual Walkthrough of Use Case



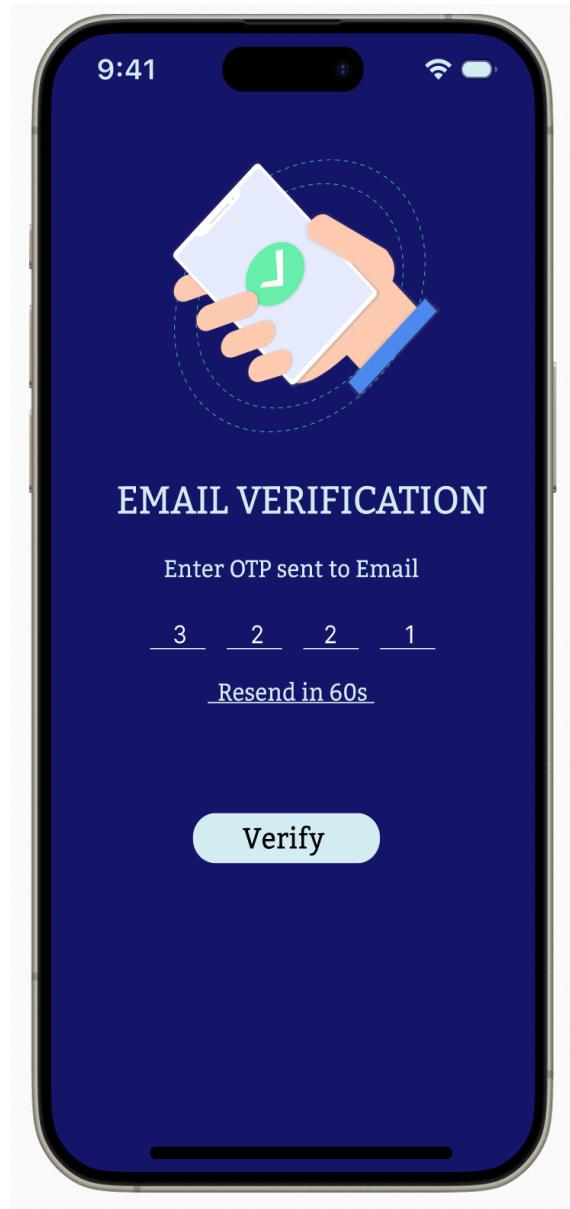
Lisa downloads the Virtu ID app from the app store. As soon as Lisa launches the VirtuID application, the logo of the Product appears.



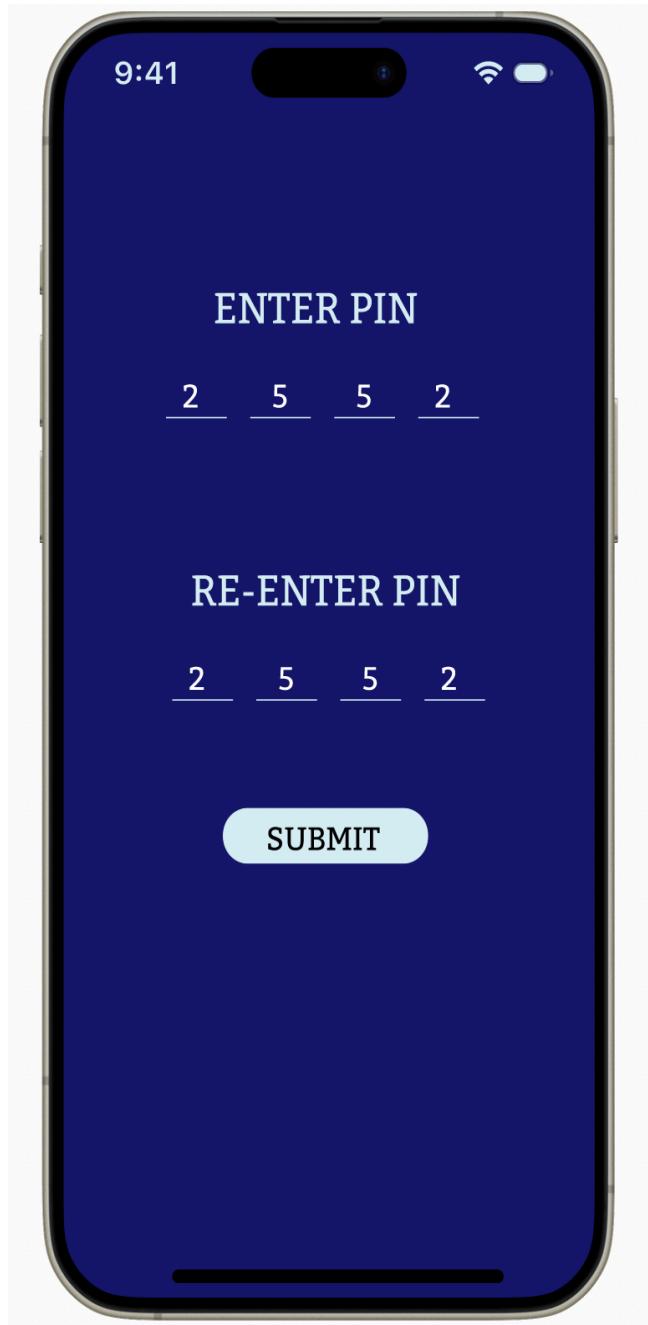
Lisa arrives at the initial screen of the VirtuID app where she can either log in with her existing user ID and password or sign up as a new user. There is also an option for her to recover her password if she forgets it.



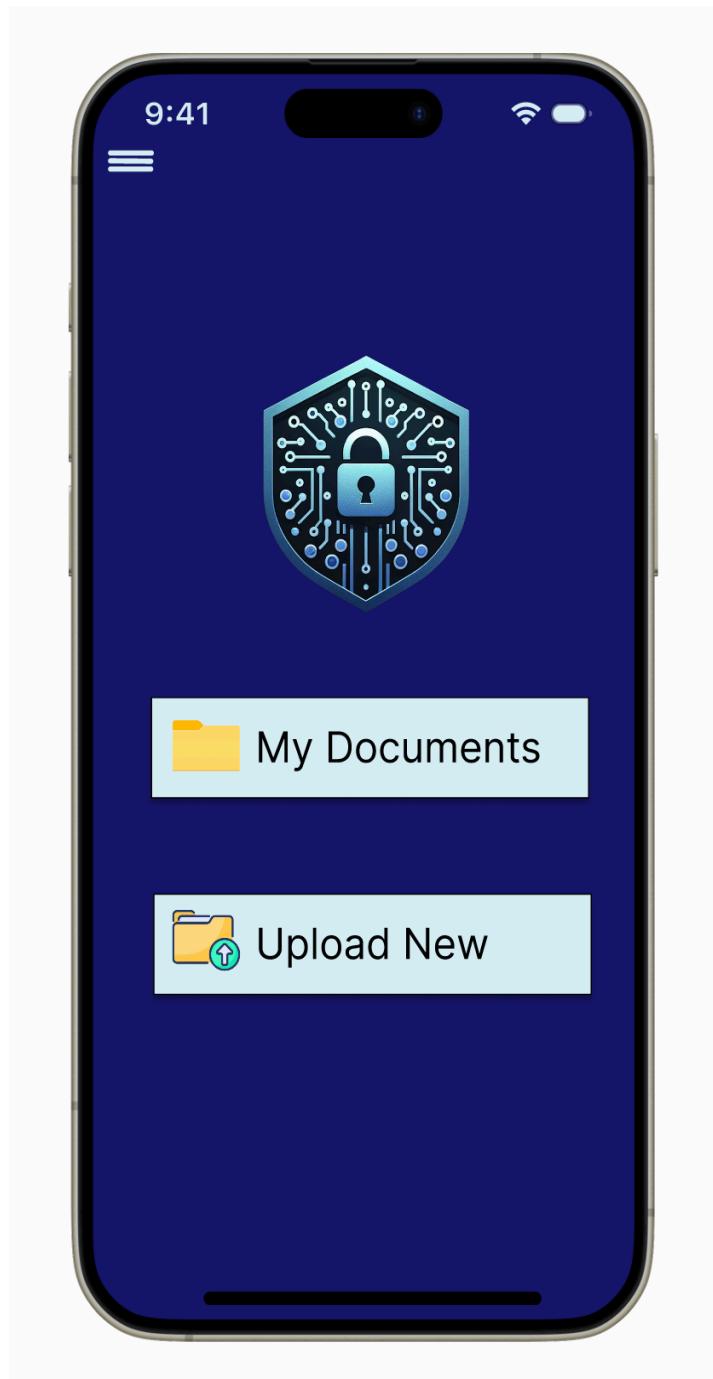
As a new user, Lisa is on the sign-up page. She provides her first name, and last name, creates a user ID, enters her email address, and sets a password. Lisa also answers a security question for account recovery. Finally, she enters her date of birth and phone number and submits the form to complete signing up.



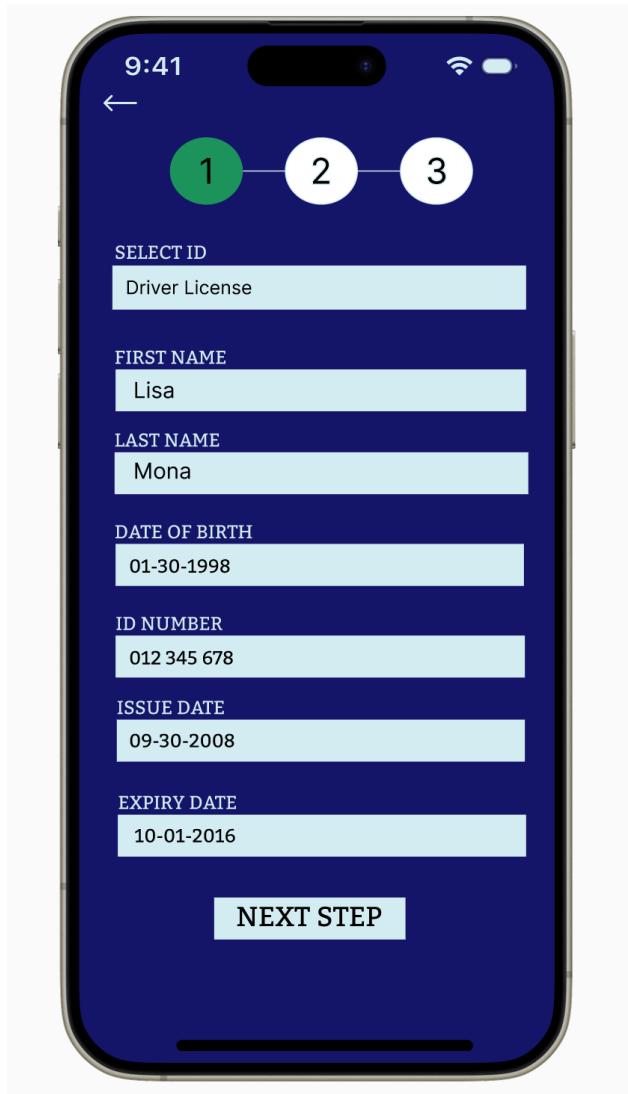
After signing up, the app sends an OTP to Lisa's email address for verification. She needs to enter the OTP received in her email to confirm her email address. Verified E-mail will help Lisa change her password through the reset link sent in the email.



This is a security step where Lisa needs to re-enter a PIN, set during sign-up, to proceed further.



Lisa is now on the home screen of the VirtuID app! From here, she can access various features like uploading new documents, viewing existing documents, updating her profile, and more. There are also options for her to refer a friend, check FAQs, and get help.



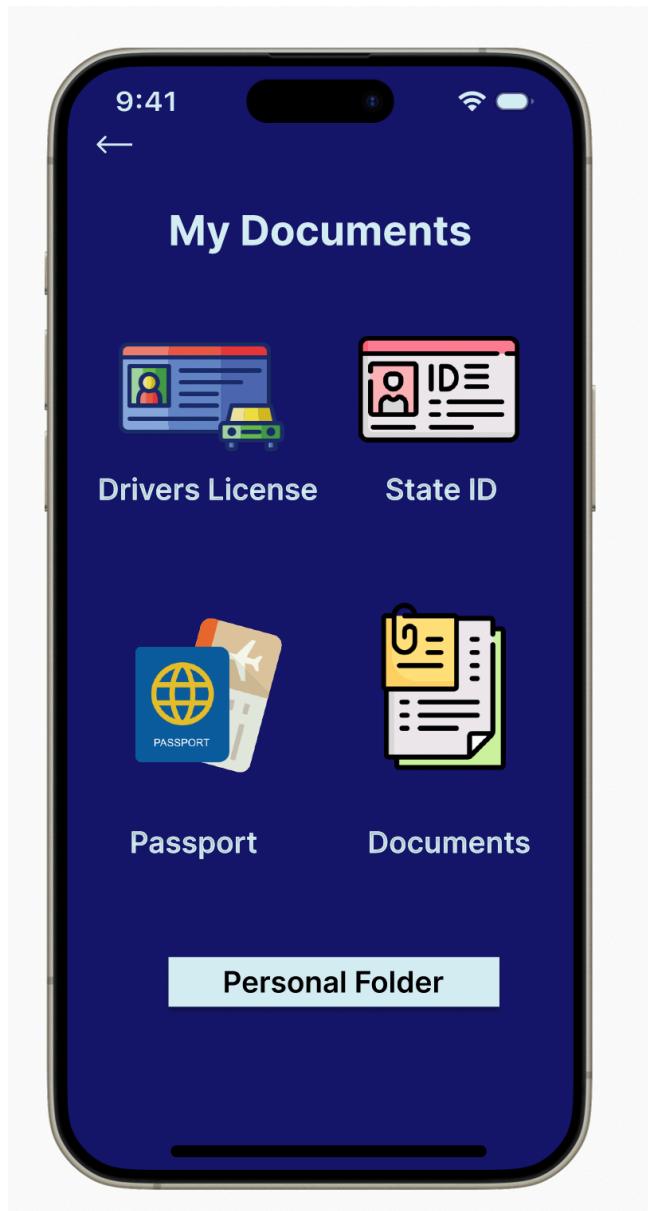
Lisa taps on "Upload New" and selects the type of ID she wants to upload, in this case, "Driver's License". The app provides instructions on how to properly capture images of the ID document. Lisa uploads the front and back images of her driver's license. If the OCR (optical character recognition) fails to accurately extract details from these images, Lisa has the option to manually enter details like ID number, issue date, expiry date, etc. Once the images and details are provided, she proceeds to the next step by clicking "Next Step".



In this step, the details extracted from Lisa's license images via OCR are displayed for her to review and confirm their accuracy. If confirmed, her driver's license goes through VirtuID's verification workflow, which may involve automated checks as well as manual review. Once the verification process is complete and VirtuID approves her ID, it gets digitally certified by VirtuID.



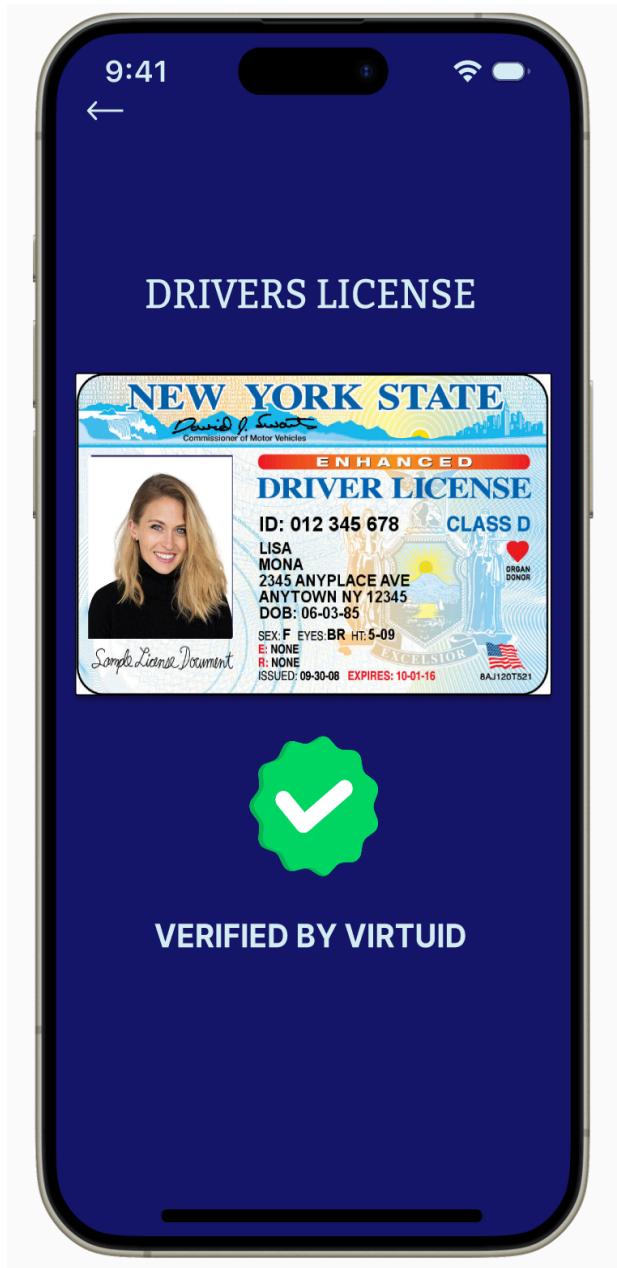
Here, Lisa can see that her ID has been verified and she is good to go. Now she can use this virtual ID wherever ID is required.



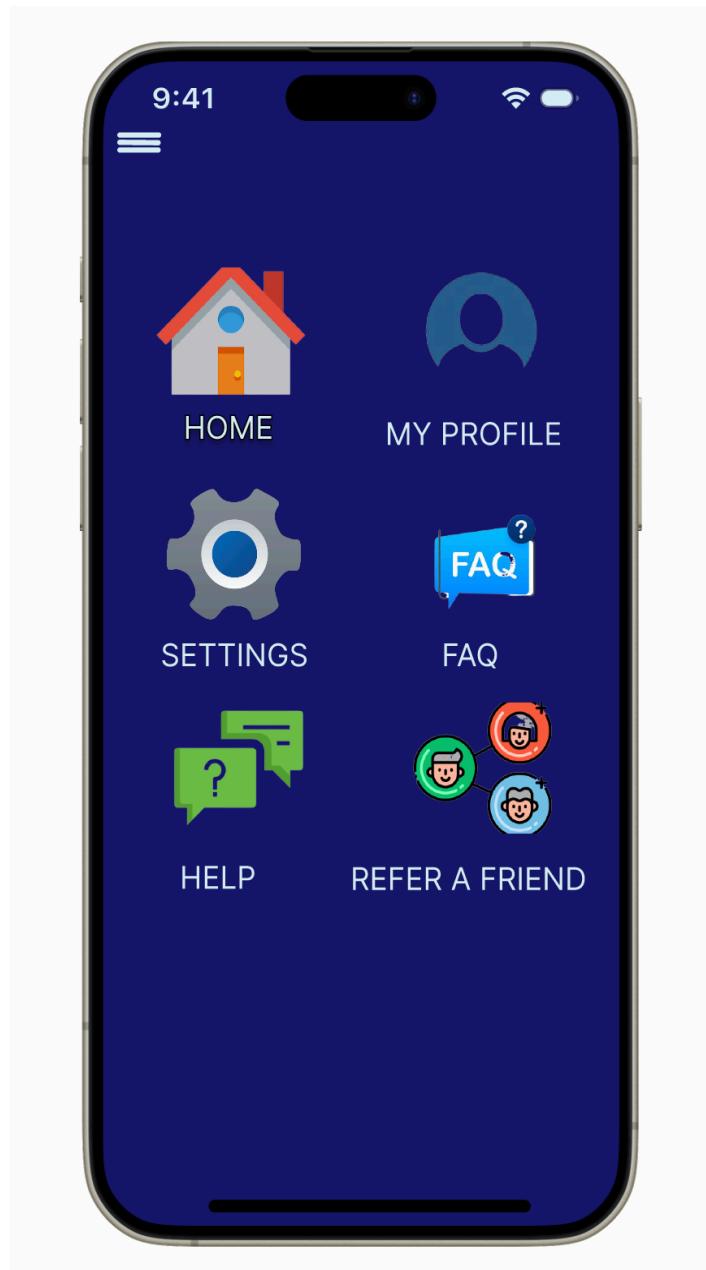
This screen displays all the documents Lisa has uploaded to the VirtuID app, categorized into different folders like Driver's License, Passport, State ID, and Personal Folder.



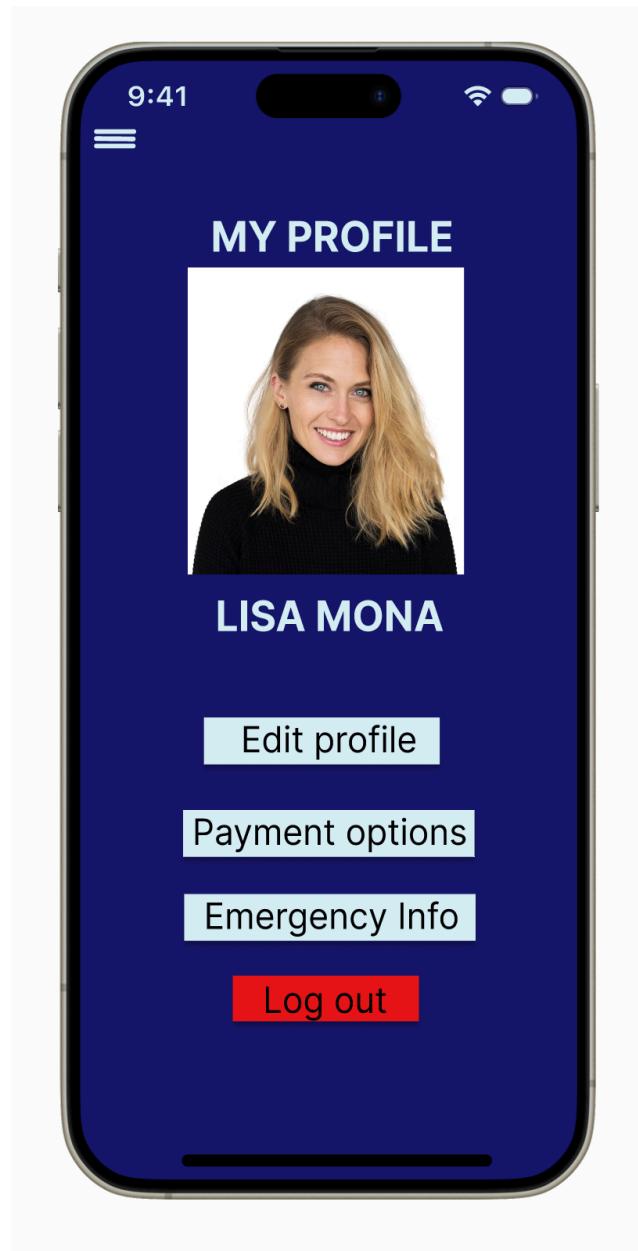
Whenever Lisa needs to access sensitive areas of the app, like viewing her uploaded documents, she is prompted to enter a PIN for added security.



Finally, this frame shows a sample verified document, like a driver's license, stored on Lisa's VirtuID app. It displays all the relevant details and confirms that the document has been verified and authorized by the VirtuID platform.



Here, Lisa can access My profile where she can see and update her profile, also she can access settings, FAQ, and Help chat where she can work with the technical support team.



By accessing "My Profile" from the menu, Lisa can view and edit her profile information like updating her name, user ID, email, date of birth, and phone number. She can also change her password, update her security question/answer, add emergency contact information, and eventually log out from her VirtuID account.

Detailed Design & Features Description

Design Principles

- Security & Privacy
- Simple & Intuitive UI
- Mobile-First Design
- Regulatory Compliance
- Scalability

Features/Information Architecture

Feature	Detail	Dependencies	Priority
User Authentication	Sign up with personal details, email OTP verification, create password	User database, email/SMS integration	1
ID Upload	Upload images of government IDs (driver's license, passport etc.)	Image upload, OCR integration	1
ID Verification	OCR to extract ID details, manual review, digital certification by VirtuID	OCR, document verification workflows	1
My Documents	List of users uploaded and verified IDs, ability to update	Secure document storage	1
Personal folder	Place to store files and folders	Secure folder storage	2
User Profile	View/edit profile details, emergency contacts, change password	User database	2
Verifier Role	Ability to review and verify uploaded IDs	Verification workflows, access controls	2
Notifications	Push notifications for ID upload, verification status updates etc.	Push notification service	2
Settings	Notification preferences, FAQ/Help access	User preferences database	3
Log out	Ability to log out of the app.	Inbuilt feature	3

MVP: Minimum Viable Product

Priority 0 – Critical Feature:

- **User Authentication:** Sign up with personal details, email OTP (One Time Password) verification, and create a password.
- **ID Upload:** Upload images of government IDs (driver's license, passport, etc.).
- **ID Verification:** OCR to extract ID details, manual review, and digital certification by VirtuID.
- **My Documents:** List of users uploaded and verified IDs, the ability to update.

Priority 1 – Nice to have features:

- **User Profile:** View/edit profile details, emergency contacts, change password.
- **Verifier Role:** Ability to review and verify uploaded IDs.
- **Notifications:** Push notifications for ID upload, verification status updates, etc.

Next release:

- **Card wallet:** Wallet for credit/debit cards
- **Personal folder:** Place to store files and folders.

Long-term:

- Masked app usage and expanded storage for private documents.
- Optimization for stability and performance.
- Customization for different regulatory environments across various states.
- Integration with third-party services for document storage and verification.
- Premium model offerings.

Roadmap / Timing

Alpha Launch:

- Develop the first iteration of VirtuID, including encryption, multi-factor authentication, and digital ID conversion.
- The development team conducts internal testing to evaluate functioning in various user scenarios and ensure that IDs are scanned correctly, retrieving all necessary information and cross-checking with the database.
- Resolving bugs and improving the user experience in response to internal input.
- Investigate joint ventures with governmental bodies and institutions to position VirtuID as a reliable digital identity management solution.

Beta Launch (MVP):

- Invite a small number of individuals who registered for prompt access to test the VirtuID beta. Have them upload their IDs and construct fictitious scenarios to ensure the software works well in every scenario.
- Prioritize gathering user input via channels of active involvement, such as in-app surveys and email correspondence.
- Analyse user behavior and usage trends with analytics tools to find areas that might be improved so that product bugs can be found and fixed.

Post-Beta Analysis and Version 2 Roadmap:

- Analyse beta users' input and prioritize feature improvements according to the app's security and performance.
- Create and describe the plan for VirtuID version 2, taking security, Personal document management, and user experience into account.
- To improve the design and solve issues raised by beta testers, do usability testing and UX research.
- Improve performance and dependability to guarantee a smooth user experience on many devices and in various network scenarios.

Version 2 and Beyond:

- Introduce new features to improve privacy, like masked app usage and expanded storage for private documents.
- Optimize the programme to increase stability and performance while lowering crash rates and speeding up load times.
- Examine prospects for growth by customizing offerings for geographical areas, beginning with different states across the US to follow their regulations when it comes to ID authorization.
- Investigate integrating with outside businesses to find out about further possibilities for document storage and verification.
- Provide a Premium model with more storage and improved security features to entice consumers away from the Freemium plan.

Full Launch and Market Expansion:

- As you get ready for VirtuID's official debut, concentrate on your marketing strategies to expand your reach, and increase user acquisition.
- Release more features and services in response to feedback from the beta test phase and further market research.

Long term Plans:

- Make VirtuID the one-stop app for all digital wallets by implementing payment methods like Apple Pay and digital wallets, where users may keep their credit/debit cards to make payments whenever it is convenient and with high-tech security.
- To stay ahead of the competition and satisfy changing customer expectations, you must constantly develop and iterate depending on market dynamics, user feedback, and emerging technology.

Timing Sensitivities:

- Competitive Environment: To guarantee prompt replies and preserve a competitive edge, keep an eye on rivalry and industry developments.
- Market dynamics: Be adaptable and nimble to adjust to shifting consumer demands and shifting market conditions.
- Regulatory Environment: To guarantee VirtuID stays secure and compliant, stay up to date on regulatory developments and compliance needs pertaining to digital identity management.

Metrics

Below are our important metrics to measure the success of our product.

Number of successful ID Authorizations per month/quarter (Most important metric for our product): The ability to securely authorize digital IDs is the fundamental feature and value proposition of VirtuID, and it is measured by this metric. Monitoring the quantity of approved ID authorizations yields information on how the platform is being adopted and used. Increased user confidence and dependence on VirtuID for identity verification is indicated by a higher number of authorizations, which is indicative of the product's efficacy and usefulness.

Security Breaches/Incidents: VirtuID places a high priority on maintaining the security and integrity of user data since personal identity information is critical. The team can proactively detect and address vulnerabilities or threats to the platform by keeping an eye on security breaches and occurrences. Reducing security breaches preserves VirtuID's reputation as a safe digital identity management system in addition to safeguarding user privacy.

User Retention Rate: The sustainability and long-term profitability of VirtuID depend heavily on user retention. A high rate of user retention suggests that people find the platform useful and stick with it over time. VirtuID can evaluate the performance of its features, user interface, and overall value proposition by monitoring user retention. Increasing user loyalty and engagement can result from improving retention rates through focused interventions and enhancements.

Platform Uptime and Reliability: A flawless user experience depends on the VirtuID platform's dependability and availability. By keeping an eye on platform uptime, users may be guaranteed uninterrupted access to their digital IDs at any time. User happiness and platform confidence may suffer from outages or service interruptions. To maintain a high degree of service quality and customer happiness, measuring platform uptime and reliability metrics like uptime % and mean time to recovery is helpful.

User Engagement Rate: User engagement is a measure of how much people use the VirtuID platform and interact with it. It is possible to gain insights into how users are interacting with the product by tracking metrics related to user engagement, such as active users, session duration, and feature usage. More user interaction suggests that people are actively using VirtuID and benefiting from its capabilities. VirtuID can pinpoint areas in need of development, enhance user experience, and promote sustained usage and adoption by examining patterns of user activity.

International

We intend to exclusively concentrate on the US domestic market when we expand VirtuID internationally. We shall ensure that our product complies with all rules and guidelines issued by the US government concerning database management and ID verification. We are aware of the difficulties in internationalizing VirtuID due to the intricacy and variance of laws in various countries. As a result, we have strategically chosen to target availability in all 50 states in the United States while abiding by state laws.

We will not be developing or making available any international versions of VirtuID at this time, as our main priority is to guarantee compliance with all applicable federal and state laws in the United States. We can commit resources to upholding the highest levels of security, privacy, and

regulatory compliance unique to the US regulatory framework by focusing our efforts on the domestic market.

The decision to not pursue internationalization eliminates potential complexities and challenges associated with navigating diverse regulatory environments, data protection laws, and cultural considerations in different countries. Instead, we can streamline development efforts, enhance user experience, and ensure robust compliance with US regulations, thereby providing a reliable and trustworthy digital identity management solution for users across the United States.

Projected Costs

Development Team:

We plan to have a lean development team of 2 full-stack engineers and 1 intern initially. This should allow us to build the VirtuID MVP iOS and Android app in around 4-5 months.

Assuming an average salary of \$120,000 per year for a software engineer in a metro city like Boston, the projected salary costs are:

$$2 \text{ Engineers} \times \$120,000 = \$240,000 \text{ per year}$$

We can offset some of these costs by hiring an intern from a local university's computer science program at approximately \$30/hour for 20 hours/week for 6 months.

$$\text{Intern costs} = \$30 \times 20 \times 24 = \$14,400$$

$$\text{Total Development Team Costs} = \$240,000 + \$14,400 = \$254,400 \text{ annually}$$

After the initial development, we plan to downsize to a team of 1 engineer and 1 intern to maintain the app and work on subsequent versions.

Infrastructure Costs:

We will leverage cloud services like AWS (Amazon Web Services) or Azure for hosting the VirtuID app and storage of user data/documents.

Using a pricing model like AWS's - the costs for hosting a small app could be:

- \$30/month for 1 EC2 instance
- \$25/month for an RDS database instance
- \$50/month for serverless functions/serverless computing
- Storage costs of \$30/month for 1TB

This puts the projected monthly infrastructure costs at around \$135 initially. These can be scaled up as per increasing usage/traffic.

Other Operational Costs:

- Access to cloud-based OCR/document verification services: \$500/month
- Access to authoritative ID databases for verification: \$1000/month
- Marketing/customer acquisition costs: \$5000/month
- Customer support: \$2000/month (1 resource)
- Office/coworking space: \$1000/month

Total Other Costs: \$9,500 per month

The biggest costs are the development team, access to verification data sources, and customer acquisition marketing.

In the first year, the total projected costs could be:

Development Team: \$254,400

Infrastructure: $\$135 \times 12 = \$1,620$

Other Operational: $\$9,500 \times 12 = \$114,000$

Total Year 1 Costs: Approx. \$370k

These can be brought down in subsequent years by optimizing the development team and operational costs based on growth. The costs can also be adjusted based on factors like hiring locally vs. remotely, leveraging more/less serverless, marketing spending, etc.

Operational Needs

1. User Support Team with Government Liaison: Apart from customary customer assistance duties, VirtuID will create a dedicated team to handle communication with government organizations. This group will respond to questions on cooperation opportunities, government policies, and regulatory compliance. Additionally, they will help to communicate with government agencies involved in VirtuID to build confidence and support for the platform.

Commitment: Ongoing. The government liaison position within the user support team will necessitate ongoing involvement to respond to regulatory queries, form alliances, and guarantee alignment with government goals.

2. Technical Operations Team for Government Compliance: Personnel with experience in data security, privacy, and regulatory compliance will be part of the technical operations team. They will put strong security measures in place to guard citizen data kept in VirtuID's database and make sure that all federal regulations about data management and protection are followed.

Commitment: Ongoing. The technical operations team will place a high focus on complying with federal rules, which call for ongoing audits, upgrades, and monitoring to ensure that standards are being followed.

3. Government Partnership Proposal: VirtuID will create a detailed proposal that outlines the advantages of government integration and cooperation. The potential of VirtuID to improve citizen services, expedite identity verification procedures, and bolster national security initiatives will be emphasized in this proposal. The proposal would look to the appropriate government authorities for formal endorsement and assistance by highlighting how VirtuID complies with regulations and government goals.

Commitment: To establish official agreements and partnerships, the first proposal is developed and then continual communication with government stakeholders is carried out.

4. Database Management and Compliance Solutions: To securely store and maintain citizen identity information, VirtuID will make investments in reliable database management systems and compliance solutions. To guarantee data integrity, confidentiality, and compliance with federal standards like the General Data Protection Regulation (GDPR) and the Health Insurance Portability and Accountability Act (HIPAA), these systems will make use of encryption, access controls, and audit trails.

Commitment: Constant investment in compliance solutions and database management technologies to improve data security and regulatory compliance.

5. Third-party Vendors for Storage and Security Enhancement: VirtuID will work with other suppliers who are experts in innovative security technology and safe cloud storage. These suppliers will offer more storage space for users to upload private documents and have experience putting advanced security measures like encryption, multi-factor authentication, and intrusion detection into place.

Commitment: Partnership agreements provide continuous storage and security support with outside vendors, including recurring evaluations to evaluate scalability, performance, and adherence to VirtuID's specifications.

Addressing Caveats / Risks:

Risk	Description	Mitigation Strategy
Government Cooperation Setbacks	Dependency on government databases and authentication systems may lead to delays or setbacks if cooperation is not secured.	Establish clear communication channels with government entities and involve them in the development process from the outset. Address any concerns or requirements they have proactively to ensure smooth collaboration.
Data Security Apprehension	Users may have concerns about the security of their digital identities and personal data stored on VirtuID.	Implement robust security measures such as encryption, multi-factor authentication, and regular security audits. Provide transparent information about data protection practices to build user trust.
Regulatory Compliance Shifts	Changes in government regulations regarding digital identity cards could complicate regulatory compliance.	Stay informed about regulatory changes and adapt VirtuID to meet evolving compliance requirements.
Encryption Vulnerabilities	Vulnerabilities in the encryption system could compromise the integrity of VirtuID.	Regularly update encryption protocols to address emerging threats. Conduct thorough security assessments and penetration testing to identify and mitigate vulnerabilities.
Reluctance to Switch	Users may be hesitant to transition from physical ID cards to digital ones due to concerns about reliability and trustworthiness.	Provide comprehensive user education and support to address misconceptions and build confidence in VirtuID's capabilities.

Appendix A: User Survey Analysis

The survey was conducted to determine the demand for digital locker platforms. Based on the responses, a survey visualization has been built. The quantitative overview of the information gathered from the possible target market is displayed in Table 1 below.

User Survey Analysis	
Q1: What are the challenges you face in managing and presenting multiple identification documents during certain instances?	
Physical Burden	13
Time and Efficiency	6
Security Concerns	8
Q2: Were there any circumstances where forgotten or misplaced IDs affected your or other's access to places or daily activities? How did these situations impact on your overall experiences?	
Access Impact	10
Delay and Inconvenience	12
Lost/stolen	3

The information displayed in Figure 1 pie chart sheds light on common misconceptions and difficulties related to digitizing, managing, and displaying IDs. Most respondents (48%) cited the physical weight of carrying identification as the main obstacle, highlighting a major drawback with the conventional physical format of identity. Another noteworthy issue is security, which is cited as a key barrier by 30% of participants. This suggests that there may be a need for more secure ID management solutions. 22% of respondents said that organizing and presenting IDs takes time and is inefficient, indicating a need for a more efficient procedure.

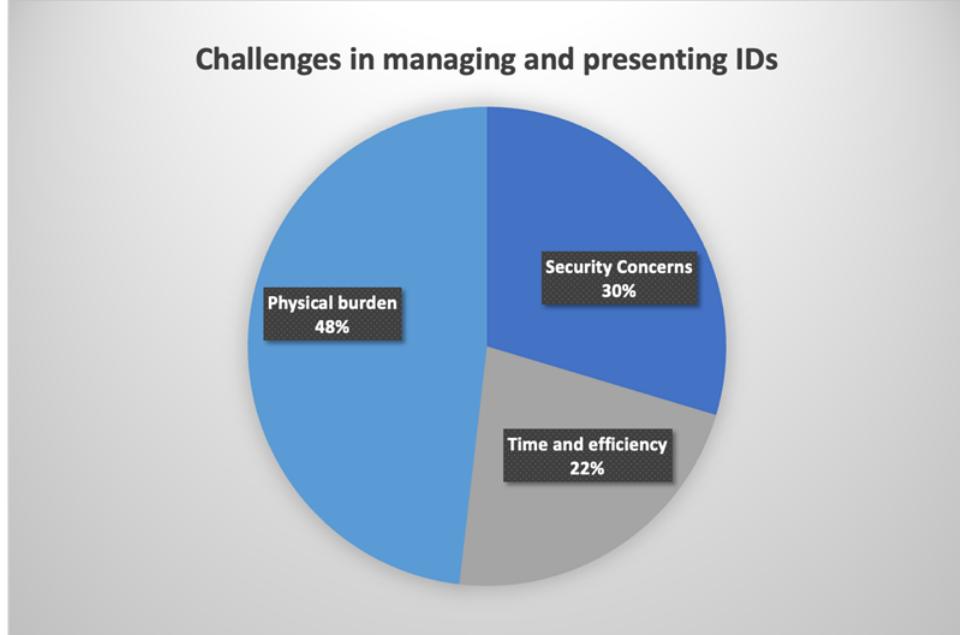


Figure 1: Challenges in managing and presenting multiple physical IDs

About half of the respondents (48%) cite delays and inconvenience as the main effects of forgetting or misplacing the IDs illustrated in Figure 2, which can seriously disrupt daily schedules and access to services. Significantly, 40% of respondents are worried about the impact on access, highlighting the vital role IDs play in securing services and gaining access to different domains. A smaller but significant portion (12%) is concerned about identity theft and security breaches caused by lost or stolen IDs.

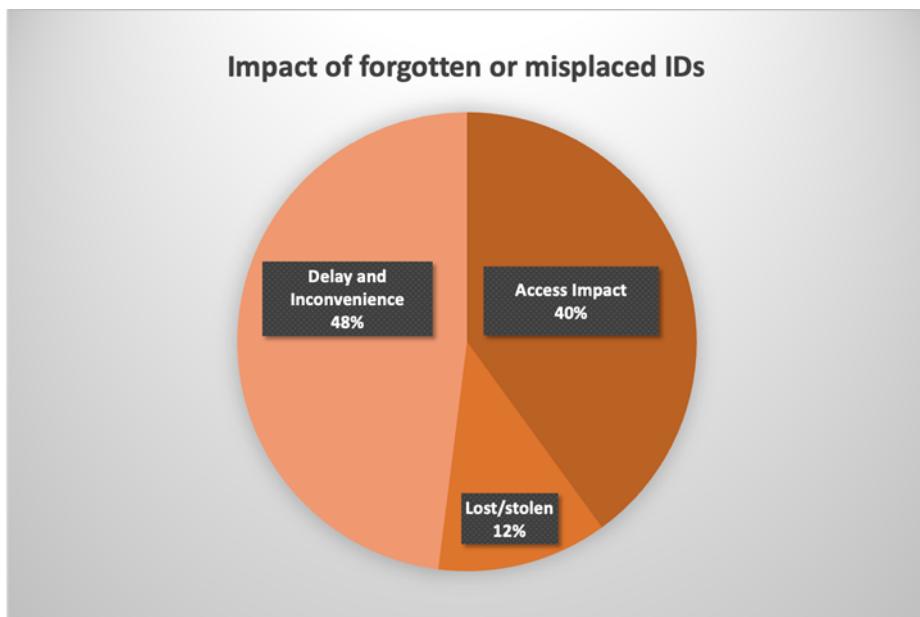


Figure 2: Impact of Forgotten or Misplaced IDs

References

¹ <https://monitor.icef.com/2023/05/full-year-us-visa-numbers-show-solid-gains-for-2022/#:~:text=For%20the%20calendar%20year%202022,a%2010.1%25%20increase%20over%202021>

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