Business Requirement Document PayViz

1.Introduction:

PayViz is a service that allows users to create virtual payment cards directly linked to their bank accounts. These virtual cards provide a secure way to make online purchases without sharing actual bank account details. This document outlines the business requirements for our system. Our goal is to offer users a secure and private method for managing online transactions, reducing the risk of fraud. This integration will help enhance user privacy, improve security, and ensure a smooth payment experience.

2.Purpose:

The purpose of this document is to outline the business requirements for our system,PayViz. Payviz allows users to link their bank accounts and create virtual payment cards for online transactions. These virtual cards help protect user's bank account details by keeping them private and reducing the risk of fraud.

This document will define the key features, security protocols, and user interface design necessary to provide a secure, easy-to-use, and efficient payment solution. By clearly stating these requirements, we

aim to ensure that Privacy.com meets user needs, enhances transaction security, and offers a reliable service for managing online payments.

3.Overview:

PayViz is a cutting-edge mobile application designed to provide users with virtual cards that enhance the security, convenience, and flexibility of online transactions. In an era where digital payments are rapidly becoming the norm, PayViz stands out by offering a robust set of features tailored to protect users' financial information while providing seamless access to a wide array of virtual card services. The app allows users to link multiple bank accounts, create and manage unlimited virtual cards, and customize these cards to suit their specific needs. Pay Viz also integrates with major gift card providers and includes advanced security features to ensure a safe user experience.

4.Scope:

The scope of the Pay Viz project includes the design, development, and deployment of a mobile application that will be available on both iOS and Android platforms. The app will incorporate the following key features:

4.1 Core Functionalities:

- **Multi-Bank Support:** Users can link and manage multiple bank accounts within the app.

- **Unlimited Virtual Cards:** Ability to create an unlimited number of virtual cards for different purposes.

- **One-Time Usable Virtual Cards:** Option to generate virtual cards for single-use transactions, enhancing security.

- **Gift Code Renewal:** Users can renew gift codes and integrate them into their virtual cards.

- **Physical Card Ordering:** Option to order a physical card if needed.

- **Card Customization:** Users can customize their virtual cards by setting spending limits and other preferences.

- **Card Management:** The ability to delete or block existing cards to prevent unauthorized use.

- **Gift Card Creation and Redemption**: Create gift cards, load funds, and redeem them into virtual cards within the app.

- **Transaction History and Reporting**: Users can view transaction history in graphical formats and download reports.

- **Membership Options**: Premium membership for access to superior features and services.Eg:PayViz contains Free ,Pro and Plus membership options.

4.2 Security Features:

- **Third-Party Services**: Integration with third-party services for payment processing, KYC ID verification, security, and cloud hosting.
- **PIN for Payments**: Setting a PIN for completing transactions.
- **OTP Verification**: OTP verification for email and phone number to ensure user identity.

5.Out of Scope :

- **Integration with Non-Financial Services:** The app will not include any integration with non-financial platforms, such as social media.
- **Multi-Currency Support**: The initial version of the app will only support transactions in the user's local currency, with no option for multi-currency accounts.
- **Physical Branch Services**: The app is fully digital, so users will not need to visit any physical branches for any services.

6.Resources:

To successfully develop and deploy Pay Viz, the following resources are required:

6.1 Development Team:

- **Mobile App Developers:** For building the iOS and Android versions of the app.
- **Web App Developers:** Responsible for building the Web versions of the app.
- **Backend Developers:** Responsible for server-side integration, third-party services, and data security.
- **UI/UX Designers:** To create a user-friendly interface that is both functional and aesthetically pleasing.
- **Business Analysts :** Bridge the gap between business needs and technical implementation. Gather and document requirements, analyze processes, and ensure the app meets business objectives.
- **DevOps Engineers:** Manage the deployment and operations of the app. Ensure efficient development and deployment workflows, automate processes, and monitor app performance.
- **Quality Assurance (QA) Engineers:** Ensure the app meets quality standards.Conduct testing to identify bugs and issues, verify that features function as intended, and maintain documentation of test cases.

6.2 Third-Party Services:

- Payment Processing
- KYC Services
- Security

- Cloud Services
- Google Analytics
- Google Firebase

6.3 Budget

- **Development Costs**: Covering the expenses related to app development, design, testing, and deployment.
- **Third-Party Service Fees**: Costs associated with integrating and maintaining third-party services for payments, KYC, security, and cloud hosting.
- **Marketing and Launch**: Funds for promoting the app and acquiring initial users.

7.App Objectives:

The key App features that are required for the Pay Viz app are:

7.1 Sign Up Options:

- Allow users to sign up with email, providing name, phone, password, and confirm password fields.
- Require email and phone number verification via OTP sent to the provided number
- Enable sign up with Google and Apple accounts

7.2 Login Options:

- Allow login with email or phone number

- Support login with Google and Apple accounts

- Require OTP verification for email and phone number logins

- Provide option to reset password if forgotten

7.3 Core Features:

- Allow adding multiple bank accounts to fund virtual cards

- Enable creating unlimited virtual cards for flexibility

- Offer one-time use virtual cards for enhanced security

- Allow renewing gift card codes in virtual cards

- Partner with major gift card providers like Amazon for wide acceptance

- Allow ordering physical cards for offline use

- Enable customizing cards for personalization

- Let users set spending limits on cards for better control

- Allow deleting or blocking cards that have already been created

- Provide option to create and redeem gift card codes within the app

- Display transaction and spending history in graphical formats

- Offer option to download transaction reports

7.4 Security and Authentication:

- Use third-party services for payments, KYC, security, cloud, and analytics
- Enable two-step verification for added security
- Require PIN for payments
- Require OTP verification for email and phone number

7.5 Membership Options:

- Offer membership tiers with superior options
- Provide additional features or higher limits for members

7.6 Other Requirements:

- Ensure app is compatible with iOS 13.0+ and Android 6.0+
- Optimize for mobile use with intuitive navigation and design
- Provide FAQ, support, and contact options for users
- Comply with relevant financial regulations and data privacy laws
- Implement robust security measures to prevent fraud and data breaches
- Continuously monitor and improve app performance and user experience

8.Stakeholders :

8.1 Project Manager

- Oversees the planning, execution, and delivery of the project.
- Ensures that the project is completed on time, within budget, and meets the defined quality standards.

8.2 Development Team

- Includes software developers, testers, UI/UX designers, and system architects responsible for building the app.
- Ensures that the app is developed according to the specified requirements and adheres to technical and quality standards.

8.3 Marketing Team

- Develops and implements marketing strategies to promote the app and increase user adoption.
- Ensures that the app reaches the target audience and achieves desired user engagement and growth metrics.

8.4 Legal and Compliance Team

- Ensures that the app complies with all relevant laws, regulations, and industry standards.
- Minimizes legal risks and ensures that user data is handled in compliance with privacy laws and regulations.

8.5 Customer Support Team

- Provides support and assistance to app users, addressing their queries and issues.

- Ensures a positive user experience and maintains high customer satisfaction levels.

8.6 End Users(Customers)

- Individuals and businesses using the Pay Viz app for managing their virtual and physical cards.
- Seeks a user-friendly, secure, and efficient way to manage their finances and make payments.

8.7 Third-Party Service Providers

- Companies providing payment processing, KYC, security, cloud, analytics, and other services integrated into the app.
- Ensures that their services are effectively integrated and used within the app, enhancing the overall user experience.

8.8 Regulatory Authorities

- Government and industry bodies responsible for overseeing financial services and data protection.
- Ensures that the app operates within legal frameworks and adheres to industry standards.

9.Functional requirements :

9.1 User Authentication:

Sign Up:

- **Email Registration:** Users must be able to sign up using their email address, providing the following information:
    - Name

- Phone number
- Password
- Confirm password

- **OTP Verification:** After entering their email and phone number, users must receive an OTP (One-Time Password) for verification. The user must enter this OTP to complete the registration process.
- **Social Media Sign Up:** Users can sign up using their Google or Apple accounts, which should facilitate a seamless registration process without requiring additional information.

Login:

- **Login Options:** Users must be able to log in using:
    - Email
    - Phone number
    - Google account
    - Apple account
- **OTP Verification:** For email and phone logins, users must receive an OTP to verify their identity before accessing their account.
- **Password Reset:** Users should have the option to reset their password if they forget it, through a secure process.

9.2 Virtual Card Management:

Card Creation and Management:

- **Unlimited Virtual Cards:** Users must be able to create an unlimited number of virtual cards.
- **One-Time Use Cards:** The app should allow users to create virtual cards that can be used for one-time transactions only.
- **Gift Card Integration:** Users should be able to create gift cards and redeem gift codes into their virtual cards. This includes:
    - Adding money to the gift card.
    - Gifting the card to others.
    - Redeeming the card within the app using a code.
- **Customization:** Users must be able to customize their virtual cards, including design and spending limits.
- **Physical Card Ordering:** Users should have the option to order a physical card linked to their account.
- **Card Deletion/Blocking:** Users must be able to delete or block any virtual card they have created.

Spending Control:

- **Set Spending Limits:** Users should be able to set limits on each virtual card to control their spending.

9.3 Transaction Management:

Transaction History:

- **Transaction History:** The app must display a history of all transactions made with the virtual cards.
- **Graphical Representation:** Users should be able to view their spending history in various graphical formats for better understanding.
- **Download Reports:** Users must have the option to download transaction reports for their records.

10.Security Features:

Verification and Security:

- **Two-Step Verification:** The app should enable two-step verification for added security during login.
- **PIN for Payments:** Users must enter a PIN for completing payments.
- **Fraud Prevention:** Implement measures to detect and prevent fraudulent activities.

Third-Party Services:

- **Payment Processing:** The app should utilize third-party services for payment processing, KYC (Know Your Customer) verification, and security.
- **Analytics:** Integrate Google Analytics for tracking user behavior and app performance.

10.1 Membership Options:

Membership Tiers:

- Membership Program: Offer users the option to join a membership program that provides superior features and benefits.

11.Non functional requirements (PURS & METRICS)

11.1 Performance:

Response time: The system must respond to user requests within 2 seconds under normal operating conditions.

Scalability: The system should be able to handle a 100% increase in users during peak times without degradation in its performance.

Throughput: The system should support up to 10,000 transactions per second during peak usage.

11.2 Usability:

User Interface (UI) Design: The user interface should be neat, clear and easy to navigate, following modern design standards.

Accessibility: The platform must be compliant with WCAG 2.1 AA standards to ensure accessibility for users with disabilities.

Customer Support: The system should provide 24/7 customer support via chat, email, and phone, with an average response time of less than 1 hour.

11.3 Reliability:

Uptime: The platform should have an uptime of 99.9% over a year, with no downtime longer than 10 minutes during critical hours.

Data Backup: All critical data must be backed up in real-time with full system backups every 24 hours.

Disaster Recovery: The system should have a disaster recovery plan that allows full recovery within 2 hours of a critical failure.

11.4 Security:

Encryption: All data, both in transit and at rest, must be encrypted using at least AES-256 encryption.

Authentication: Multi-factor authentication (MFA) should be required for all users accessing sensitive features or data.

Incident Response: The platform must have an incident response plan that ensures any security breach is identified, and reported within 30 minutes of detection.

11.5 Maintainability:

Code Quality: The code must follow industry best practices, including clear documentation, and adherence to coding standards.

System Updates: The system should support updates with no downtime required for minor updates and less than 30 minutes for major updates.

Monitoring: The system must have real-time monitoring with automated alerts for any performance or security issues.

11.6 Metrics:

User Satisfaction: Target a customer satisfaction score of 90% or higher.

Transaction Success Rate: Ensure a 99% transaction success rate.

Average Transaction Time: Aim for an average transaction processing time of less than 3-5 seconds.

12.Third Party Services

12.1 Payment Processing Gateways:

- Integration with secure and reliable payment gateways (like Stripe, PayPal, etc.) to process transactions.

- Real-time API integration with banking systems for creating and managing virtual cards.

12.2 Identity Verification Services:

- Integration with third-party identity verification providers to ensure user identity during registration and account setup.

- To make sure that financial requirements are followed, use third-party services for KYC (Know Your Customer) verification.

12.3 Fraud Detection:

- Integration with advanced fraud detection services to analyze transactions in real-time and flag suspicious activities.

- Machine learning models from third-party providers to improve fraud detection accuracy.

12.4 Cloud Services:

- Utilize cloud infrastructure for scalable and reliable app hosting, data storage, and processing.

12.5 Login Services:

- Login integration (with Google, Apple) for secure and seamless user authentication.

12.6 Customer Support Tools:

- Integration with customer support platforms for managing user inquiries and support.

- Automated chatbot solutions to handle common customer queries and reduce response time.

12.7 Data Analytics:

- Integration with third-party analytics tools (like Google Analytics) to track user behavior, transaction patterns, and system performance.

- Dashboard tools (e.g., Tableau, etc) to visualize data for business insights.

13.Compliance

13.1 Data Protection:

CCPA Compliance (California Consumer Privacy Act): Compliance with the CCPA's standards for the gathering, use, and protection of user rights with regard to personal data.

13.2 Payment Security:

PCI DSS Compliance: The app must comply with PCI DSS standards for secure payment processing.

KYC/AML Compliance: Implement KYC and Anti-Money Laundering (AML) measures to prevent financial fraud and ensure regulatory compliance.

13.3 Data Residency:

Ensure that data storage complies with local data residency laws. To comply with regulatory obligations, data transfers across borders should have clear policies and procedures.

13.4 Regulatory Compliance:

Adherence to financial regulations such as those set by OFAC and FinCEN, ensuring the app meets all necessary legal requirements for financial transactions.

14. Risks

14.1 Data Security Breaches:

Risk Appetite: Low

Risk Resolve:

Implement top-tier security protocols, conduct regular security audits, and ensure compliance with industry standards.

14.2 Third-Party Service Dependence:

Risk Appetite: Moderate

Risk Resolve:

Collaborate with dependable suppliers, set up robust service level agreements, and keep backup providers for crucial services like cloud security, KYC, and payments.

14.3 Fraud and Abuse:

Risk Appetite: Low

Risk Resolve:

Implement advanced fraud detection algorithms, real-time monitoring, and strict user verification processes to minimize fraudulent activities.

14.4 Technological Failures:

Risk Appetite: Low to Moderate

Risk Resolve:

Develop a robust IT infrastructure with real-time monitoring, and disaster recovery plans to minimize downtime.

14.5 Market Competition:

Risk Appetite: Moderate to High

Risk Resolve:

Focus on differentiation through unique features like customizable cards, tap-to-pay, and integrations with major gift card providers. Invest in strategic marketing to strengthen brand presence.

15. Budget & Cost

15.1 Budget

- **App Development**:
  - **Frontend and Backend Development**: Costs associated with building the user interface and server-side logic.
  - **UI/UX Design**: Expenses for designing a user-friendly interface and seamless user experience.
  - **Quality Assurance and Testing**: Costs for testing the application to ensure reliability and performance.
- **Third-Party Service Integrations**:
  - **Payment Processing**: Fees for integrating with payment gateways and services.
  - **KYC Verification**: Costs for identity verification services to comply with legal requirements.
  - **Security Services**: Expenses for implementing security features like encryption and fraud detection.
  - **Cloud Services**: Costs for using cloud-based services for data storage and processing.
- **Infrastructure**:
  - **Cloud Hosting**: Fees for hosting services such as AWS, Azure, or Google Cloud.
  - **Database Management**: Costs for setting up and maintaining databases.
- **User Acquisition:**
  - **Digital Marketing**: Expenses for online advertising campaigns (Google Ads, Facebook Ads, etc.).
  - **Content Marketing**: Costs for creating and distributing content to attract and retain users.

- **Promotional Activities:**
  - **Partnerships and Collaborations**: Costs associated with partnering with other businesses and influencers.
  - **Launch Events**: Expenses for organizing events to promote the app's launch.
- **App Support:**
  - **Customer Support**: Salaries for support staff and costs for support tools.
  - **Bug Fixes and Updates**: Ongoing development costs for fixing issues and releasing updates.
- **Server Maintenance:**
  - **Monitoring and Security**: Expenses for monitoring app performance and ensuring security.
  - **Scalability Enhancements**: Costs for scaling infrastructure as the user base grows.

15.2 Cost

- **Salaries:**
  - **Developers**: Costs for hiring and paying frontend, backend, and full-stack developers.
  - **Designers**: Salaries for UI/UX designers responsible for the app's look and feel.
  - **Testers**: Costs for hiring QA testers to ensure the app's functionality and reliability.
- **Subscription Fees:**
  - **Payment Services**: Monthly or per-transaction fees for payment gateway services.
  - **KYC Services**: Fees based on the number of verifications performed.

- - **Security Tools**: Subscription costs for security services like encryption and fraud detection.
  - **Cloud Hosting and Database:**
    - **Cloud Service Providers**: Costs based on usage and storage needs for services like AWS, Azure, or Google Cloud.
    - **Database Solutions**: Expenses for database solutions like SQL or NoSQL databases.

16. Milestones

Project Initiation (Month 1)

- **Finalize Requirements and Design Specifications:**
  - Conduct meetings with stakeholders to gather detailed requirements.
  - Create wireframes and design specifications for the app's interface.
- **Set Up Project Team and Resources:**
  - Assemble a team of developers, designers, and testers.
  - Set up development environments and tools.

Prototype Development(Month 2-3)

- **Develop Initial Prototypes for Core Features:**
  - Build a working prototype of the app's main features.
  - Focus on core functionalities like virtual card creation and bank account management.
- **Conduct User Testing and Gather Feedback:**

- ○ Perform usability testing with a small group of users.
- ○ Collect feedback and make necessary adjustments to the prototype.

Feature Development (Month 4-6)

- **Implement All Core Features and Integrations:**
  - ○ Develop and integrate all planned features, including gift card management and tap-to-pay functionality.
  - ○ Ensure all third-party integrations are functioning correctly.
- **Perform Rigorous Testing and Quality Assurance:**
  - ○ Conduct comprehensive testing to identify and fix bugs.
  - ○ Perform performance testing to ensure the app can handle expected user loads.

Official Launch(Month 7-8)

- **Release the App to the Public:**
  - ○ Launch the app on app stores.
  - ○ Ensure all marketing materials and support are in place.
- **Initiate Marketing Campaigns:**
  - ○ Execute planned marketing strategies to attract new users.
  - ○ Leverage social media, content marketing, and partnerships to increase visibility.

17. Sign off

S.No	Name	Sign
1)	Santhosh	
2)	Lokesh K	
3)	Priyadarshini S	
4)	Raccitha S	

18. Version control

S.No	Version	
1	Version 1	