



SafeSG

Your AI-Driven Defense Against
Evolving Financial Scams

Business Case for SafeSG

1. Executive Summary

1.1 Brief Introduction to SafeSG

SafeSG is a cutting-edge community-driven platform designed to combat the rising threat of scams and phishing attempts, particularly targeting vulnerable populations such as the elderly. With an intuitive interface and powerful backend, SafeSG empowers users to report and verify suspicious activities, receive real-time alerts, access educational resources, and contribute to a crowdsourced database of scam reports. By leveraging advanced validation techniques and partnerships with relevant stakeholders, SafeSG aims to protect users' financial well-being and personal information while fostering community trust and collaboration in the fight against fraud.

1.2 Summary of Benefits and Objectives

Enhanced User Protection: SafeSG empowers users to protect themselves from scams and phishing attempts by providing tools for reporting and verifying suspicious activities, thereby safeguarding their financial well-being and personal information.

Ease of Use for Non-Technically Adept Users: SafeSG is designed with a user-friendly interface that prioritises accessibility and simplicity, making it easy for individuals who are not technologically adept to navigate and utilise its features effectively. With intuitive design elements and clear instructions, SafeSG minimizes barriers to entry for users of all levels of digital literacy, ensuring that even those who may be more vulnerable to financial fraud can easily access and benefit from the platform.

Community Collaboration: By fostering a community-driven approach, SafeSG encourages users to share their experiences and insights, creating a valuable network effect that enhances the platform's effectiveness in identifying and combating scams.

Real-Time Alerts: SafeSG delivers real-time alerts about new scams reported in the user's area, enabling proactive measures to avoid falling victim to fraudulent activities and stay informed about emerging threats.

Educational Resources: SafeSG offers access to a library of articles and tips on how to recognize and avoid scams, empowering users with the knowledge and awareness needed to protect themselves and others from fraudulent activities.

Trust and Transparency: SafeSG prioritizes trust and transparency by providing users with immediate feedback on the legitimacy of reported scams and implementing rigorous validation techniques to ensure the accuracy of scam detection.

2. Problem Statement

Financial frauds are becoming increasingly prevalent, posing a threat to both individuals and businesses. Current anti-scam strategies face challenges due to gaps in public awareness, legal limitations, and the

constant evolution of scam tactics. SafeSG aims to address these challenges by implementing a comprehensive solution to combat bank scams effectively.

3. Market Analysis

In Singapore, the demand for anti-scam solutions like SafeSG is significant due to the increasing prevalence of financial frauds. Reports from the Singapore Police Force highlight thousands of cases reported annually, with phishing scams targeting customers of major banks, such as DBS, on the rise. With Singapore's stringent regulatory landscape and proactive measures against cybercrime, there is a clear market demand for comprehensive anti-scam solutions. SafeSG addresses this demand by offering innovative tools to protect individuals and businesses from scams and phishing attempts, particularly catering to the vulnerability of DBS customers.

4. Business Goals and Strategy

4.1 Strategic Objectives

Protecting Users: The primary goal of SafeSG is to protect users, especially the elderly, from falling victim to scams and phishing attempts, thus safeguarding their financial well-being and personal information.

Building Community Trust: Establishing SafeSG as a trusted platform for reporting and verifying scams fosters a sense of community and solidarity among users, enhancing trust and engagement.

Educating Users: By providing educational resources and real-time alerts, SafeSG aims to educate users about the latest scam tactics and empower them to recognize and avoid potential threats.

Collaborating with Authorities: SafeSG seeks to collaborate with law enforcement agencies and regulatory bodies to enhance anti-scam efforts and contribute to the prosecution of scammers.

4.2 Business Strategy:

Advanced Technology Integration through Leveraging Language Model Testing: SafeSG harnesses the power of Language Model Testing (LLM) to enhance its scam detection algorithms. By employing sophisticated natural language processing techniques, SafeSG can analyze the content of user-generated reports, emails, and messages to identify patterns indicative of scams and phishing attempts. SafeSG can accurately identify and flag suspicious communications by analyzing linguistic cues, context, and semantic patterns. This advanced technology enables SafeSG to stay ahead of evolving scam tactics and enhances its ability to detect previously unseen scam variations.

Community-Driven Approach: SafeSG adopts a community-driven approach, leveraging user-generated reports and feedback to identify and analyze potential scams effectively.

Continuous Improvement: SafeSG is committed to continuous improvement, regularly updating its database of known scam numbers and emails and refining its algorithms to enhance accuracy and efficiency.

Partnerships and Collaborations: Forming partnerships with banks, telecommunications companies, and other relevant stakeholders enables SafeSG to access valuable data and resources, enhancing its effectiveness in combating scams.

4.3 Strategic Position:

Market Leader in Anti-Scam Solutions: SafeSG aims to establish itself as a market leader in anti-scam solutions by offering a comprehensive platform that combines community reporting, real-time alerts, and educational resources.

Differentiation through Innovation: By leveraging advanced technologies such as machine learning and data analytics, SafeSG differentiates itself from competitors by offering more accurate and efficient scam detection capabilities.

Focus on User Experience: SafeSG prioritizes user experience by offering an intuitive interface, seamless integration with existing communication channels, and personalized recommendations based on user preferences and behaviour.

5. Technical Implementation

SafeSG's technical architecture is meticulously crafted to provide a seamless and effective user experience in combating scams and phishing attempts. The frontend of SafeSG is developed using Flutter, a cross-platform framework renowned for its ability to create beautiful and intuitive mobile applications. Leveraging Flutter ensures that SafeSG users, who are predominantly mobile-centric, can access the platform conveniently from their smartphones. With the prevalence of scams occurring through phone calls and emails, the decision to use a mobile app built with Flutter aligns with the need for a user-friendly and accessible solution. Users can effortlessly upload screenshots of suspicious calls and emails directly from their mobile devices, enabling swift reporting and analysis to identify potential scams.

On the backend, SafeSG utilizes Express, a robust Node.js framework, to handle data processing and communication between the frontend and backend components. This choice of backend technology enables efficient handling of user requests and seamless integration with SafeSG's scam detection mechanisms. Additionally, SafeSG incorporates the Ollama 3 model, an advanced AI model, to analyze extracted information from screenshots and identify scam patterns effectively.

To enhance the platform's scam detection capabilities, SafeSG leverages Tesseract.js, a JavaScript library for optical character recognition (OCR). This allows SafeSG to extract text from uploaded screenshots, enabling automated analysis of call details and email contents for potential scam indicators. By integrating OCR capabilities, SafeSG streamlines the process of reporting and verifying suspicious activities, empowering users to take proactive measures against scams.

SafeSG's backend architecture includes sophisticated scam detection mechanisms that utilize Language Model Testing (LLM) techniques to analyze extracted text and identify potential scams. By comparing the extracted information against a database of known scam numbers and emails, SafeSG can detect and flag suspicious communications accurately. Furthermore, SafeSG employs blacklist checks to verify the legitimacy of phone numbers and email addresses, enhancing scam detection accuracy and reliability.

In summary, SafeSG's technical implementation prioritizes user convenience, efficiency, and accuracy in combating scams and protecting users from financial frauds. Through the strategic use of Flutter for the frontend, along with robust backend technologies and advanced AI models, SafeSG delivers a comprehensive and user-centric anti-scam solution accessible to all.

6. Revenue Model and Monetization Strategy:

SafeSG employs a multifaceted revenue model designed to ensure sustainability while providing value to users.

Partnerships: In Singapore, SafeSG can forge strategic partnerships with local banks, such as DBS Bank and OCBC Bank, as well as telecommunications companies like Singtel and StarHub. These partnerships could involve data sharing agreements, where SafeSG gains access to real-time data on reported scams targeting customers of these institutions. By collaborating with key stakeholders in the financial and telecommunications sectors, SafeSG can enhance its anti-scam capabilities and provide targeted protection to Singaporean consumers. These collaborative efforts not only improve the effectiveness of SafeSG in combating scams but also foster a sense of trust and reliability among users.

Government Funding: To further support its mission, SafeSG can explore opportunities for funding from the Singaporean government. The government offers various grants and funding schemes to support initiatives that address societal challenges, including cybersecurity and fraud prevention. SafeSG can apply for grants from agencies such as the Infocomm Media Development Authority (IMDA) or the Cyber Security Agency of Singapore (CSA) to fund research and development efforts, technology enhancements, and public awareness campaigns. By aligning with the government's priorities in enhancing cybersecurity and protecting consumers from financial fraud, SafeSG can secure funding to scale its operations and expand its reach within the Singaporean community. Additionally, collaborating with government agencies on joint initiatives and pilot programs can demonstrate SafeSG's value proposition and potential impact, further strengthening its position as a trusted and reputable anti-scam platform in Singapore.

7. Conclusion

SafeSG's comprehensive revenue model ensures financial sustainability while aligning with its mission to protect users from scams and phishing attempts. By offering a combination of freemium features, subscription plans, partnerships, and non-intrusive advertisements, SafeSG maximizes value for users while generating revenue to support ongoing development and expansion. With its innovative approach to combating financial frauds and its commitment to user protection, SafeSG is poised to make a significant impact in safeguarding individuals and businesses from the growing threat of scams and phishing attempts.