## Part I: Request for Proposal (RFP)

### 1.0 Project Vision and Strategic Context

#### 1.1 Introduction to the Initiative

This document outlines a Request for Proposal (RFP) for the design, development, and deployment of a comprehensive, multi-platform application for the **West African Design Forum (WADF)**. The WADF is a pioneering initiative dedicated to elevating the region's creative industry, foster collaboration, and showcase the immense potential and talent present within its boundaries.1

The application is envisioned as the central digital pillar of the WADF experience, serving participants across **mobile (iOS, Android), web, and desktop platforms**. It is not merely a logistical tool but a strategic platform designed to enhance engagement before, during, and after the event, creating a persistent and valuable connection with our community.2 The application will serve as the primary interface for all participants—including attendees, speakers, sponsors, and organizers—unifying the conference journey into a single, cohesive, and branded digital environment.

#### 1.2 Problem Statement

Currently, the WADF experience is fragmented across multiple communication channels and manual processes. This leads to logistical complexities, difficulty in disseminating real-time updates, a lack of measurable engagement, and a missed opportunity for building a sustained post-event community.4 The absence of a centralized digital hub diminishes the overall participant experience and creates an unnecessary administrative burden on the organizing team.6 This project seeks to solve these issues by creating a single, reliable source of truth that streamlines operations and elevates the value proposition for all stakeholders.7

#### 1.3 Strategic Goals

The development of this application is directly aligned with WADF's mission to empower and connect designers, promote cultural heritage, and foster innovation in West Africa.1 The application will be instrumental in:

* **Increasing Participant Registration and Retention:** By providing a superior and engaging user experience across all platforms.
* **Elevating the Speaker and Sponsor Experience:** Simplifying the proposal, management, and payment processes for speakers and sponsors, providing a direct, measurable channel for interaction.
* **Streamlining Event Management:** Radically improving operational efficiency for the organizing team through automation and centralized control.6
* **Building a Year-Round Digital Community:** Transforming the WADF from a point-in-time event into an ongoing platform for discussion, networking, and knowledge sharing.

### 2.0 Core Product Objectives

#### 2.1 User-Centric Goals

* **For Attendees:** To provide a seamless, informative, and engaging conference journey, from effortless ticket purchasing to personalized agenda creation and interactive session participation.2
* **For Speakers:** To create a frictionless and professional experience, including an intuitive process for submitting session proposals and managing presentation materials.9
* **For Sponsors:** To offer a clear and secure platform for exploring sponsorship packages, making payments online, and managing their brand's presence at the event.11
* **For Organizers:** To develop a powerful, centralized command center for managing the entire conference lifecycle across all user groups and platforms.6

#### 2.2 Business & Technical Goals

* **Multi-Platform Development:** Develop a single, high-performance application for **iOS, Android, Web, and Desktop (Windows, macOS, Linux)** from a unified codebase, mandating the use of the **Flutter framework**.
* **Uncompromising Security:** Engineer the application to be highly secure, with a particular emphasis on the protection of personal user data and the integrity of all financial transactions (attendee tickets and sponsorships). The solution must adhere to globally recognized security standards.12
* **Culturally Resonant Design:** Create a visually appealing, intuitive, and culturally resonant UI/UX that is specifically tailored for a diverse West African audience, accounting for regional factors like varying internet connectivity and digital trust patterns.14
* **Scalable Backend:** Implement a robust and scalable backend using **Firebase** (Firestore, Cloud Functions, Authentication) for the initial launch, with a clear architecture that allows for future migration if necessary.

### 3.0 High-Level Functional Overview

The initial scope of the project (MVP) will encompass the following core feature sets 3:

* **User Management & Onboarding:** Secure user account creation integrated with payment, and login functionalities supporting distinct user profiles (Attendee, Speaker, Sponsor, Organizer).
* **Conference Information Hub:** A section for content including 'About WADF', sponsor profiles, FAQs, and venue details.1
* **Call for Proposals (CFP) System:** An end-to-end workflow for speakers to submit proposals and for organizers to review and manage them.
* **Ticketing & Secure Payments:** An integrated module for attendees to purchase conference passes, with correctly labeled transactions. **Payment serves as automatic registration.**
* **Sponsorship Management:** A dedicated page showcasing sponsorship packages with detailed benefits and a secure online payment system for sponsors.11
* **Interactive Conference Agenda:** A live, personalized schedule that automatically populates based on accepted speaker proposals. Attendees can mark sessions to generate an attendance certificate.
* **Session Rating and Feedback:** A system for attendees to rate sessions they have attended and provide qualitative feedback, with data aggregated for organizer review.17
* **Automated Certificate Generation:** A system for automated digital generation and delivery of attendance certificates.
* **Centralized Communication Hub:** Push notifications and a role-based emailing system for targeted communication.
* **Administrative Control Panel:** A comprehensive, web-based dashboard for organizers to manage all aspects of the event, including a task management system.

### 4.0 Foundational Technical & Design Mandates

#### 4.1 Technology Stack

* **Frontend:** The application **must** be developed using the **Flutter framework** to ensure a single, maintainable codebase for iOS, Android, Web, and Desktop platforms.
* **Backend:** The initial backend **must** be built on **Google Firebase**, utilizing Firestore for the database, Firebase Authentication for user management, and Cloud Functions for server-side logic.
* **Hosting:** The web and desktop versions of the application will be initially deployed using **Firebase Hosting**.

#### 4.2 Security & Compliance

Security is paramount. The proposal must detail a robust security strategy adhering to the following:

* **OWASP MASVS:** The architecture must be guided by the OWASP Mobile Application Security Verification Standard.18
* **Data Encryption:** All data must be encrypted both in-transit (TLS 1.2+) and at-rest (AES-256).21
* **Secure Payment Processing:** All payment integrations must be fully PCI DSS compliant to secure financial transactions for both tickets and high-value sponsorships.24

#### 4.3 UI/UX Design Philosophy

The design must be functional, inclusive, and trust-inspiring within the West African context.15

* **Culturally Resonant:** The visual language (colors, typography, iconography) must reflect the rich diversity of West Africa without resorting to stereotypes. The design should feel authentic, modern, and respectful.28
* **Data-Efficient & Offline-Capable:** The application must be optimized for performance in low-bandwidth environments. Key functionalities, like a personalized agenda, must be available offline.14
* **Trust-Building:** The design must incorporate clear visual cues for security and familiar interaction patterns to build user confidence, especially around payments.14

## Part II: Detailed Project Description (Product Requirements Document)

### Section 1: Product Vision & Success Metrics

#### 1.1 Detailed Problem Statement & Value Proposition

The West African Design Forum (WADF) currently relies on a disparate set of tools, creating data silos and a disjointed experience. This project is predicated on a core hypothesis 31:

*I BELIEVE THAT* a centralized, multi-platform, and culturally-aware application for the WADF *WILL* increase overall participant engagement by 30% and reduce administrative overhead by 50% *FOR* all stakeholders (attendees, speakers, sponsors, organizers) *BECAUSE* it provides a single, reliable, and intuitive platform for all conference-related activities, from registration and scheduling to sponsor payments and real-time communication.

#### 1.2 Key Performance Indicators (KPIs) & Measurement

* **User Engagement & Adoption:** App Downloads/Web Visits, Daily Active Users (DAU), Session Length, Feature Adoption Rate.33
* **Conversion & Business Metrics:** Ticket Sales Revenue, **Sponsorship Sales Revenue**, **Sponsor Conversion Rate**.7
* **Operational Efficiency:** Reduction in support queries, Reduction in time for CFP and sponsorship management.
* **User Satisfaction:** App Store/Web Ratings, Net Promoter Score (NPS), **Average Session Rating**.17

#### 1.3 Feature Prioritization (MoSCoW Method)

The following features are prioritized for the initial release 34:

| **Category** | **Feature** | **Priority** |
| --- | --- | --- |
| **User Management** | Integrated Registration via Payment | Must-Have |
| **User Management** | Secure Login (Email/Password, Social) | Must-Have |
| **Information** | About WADF, FAQs, Sponsor Pages | Must-Have |
| **Call for Proposals** | CFP Submission & Management | Must-Have |
| **Agenda & Schedule** | Personalized & Offline Agenda | Must-Have |
| **Ticketing** | Attendee Ticket Purchasing | Must-Have |
| **Sponsorship** | View Sponsorship Packages | Must-Have |
| **Sponsorship** | Secure Online Payment for Sponsors | Must-Have |
| **Engagement** | Push Notifications | Must-Have |
| **Administration** | Web-Based Admin Panel | Must-Have |
| **Engagement** | Session Rating & Feedback | Should-Have |
| **Certification** | Automated PDF Certificate Generation | Should-Have |
| **Engagement** | Role-Based Email System | Should-Have |
| **Engagement** | In-App Networking/Chat | Could-Have |

### Section 2: User Personas and Journey Maps

This section defines the key user archetypes for the WADF application 36:

* **Persona 1: The Attendee ("Amara")** - A tech-savvy designer from Nairobi looking to learn and network.
* **Persona 2: The Speaker ("Dr. Ben")** - A busy professor from Accra who needs a simple and efficient submission process.
* **Persona 3: The Organizer ("Chidinma")** - An event manager from Lagos who needs a powerful, centralized system to manage the forum.
* **Persona 4: The Sponsor ("Kwame")** - A marketing director for a pan-African corporation looking to increase brand visibility and needs a trustworthy platform to process a significant sponsorship payment.

### Section 3: System Features & Functional Requirements

#### 3.1 User Authentication, Onboarding, and Role-Based Access Control (RBAC)

The system's security and functionality are predicated on a robust authentication and authorization model.

* **Onboarding & Registration Flow:**
  + **User Story:** "As a new attendee, when I purchase a ticket, I want to provide my name and email during checkout, which will automatically register me for the event and create my user account, so I can access the app without a separate sign-up step."
  + **Logic:** The primary registration path for attendees is integrated directly into the ticket purchase workflow. A user account is automatically created upon the first successful ticket payment. This eliminates the need for a separate registration form, reducing user friction.
* **Login:**
  + **User Story:** "As a registered user, I want to log in using my email and password or with my device's biometric authentication (fingerprint or face ID) so that I can access my account quickly and securely." 40
* **Password Management:** Users must be able to securely reset their passwords via an email link.
* **Role-Based Access Control (RBAC):** Upon account creation via ticket purchase, users will be assigned the role of 'Attendee'. Other roles like 'Speaker' or 'Sponsor' may have different registration paths (e.g., creating an account to submit a proposal before paying). 'Organizer' and 'Admin' roles will be assigned manually.42

#### 3.2 Call for Proposals (CFP) & Speaker Management

An end-to-end workflow for submitting, reviewing, accepting, and managing session proposals. Accepted speakers will be automatically added to a pool of available sessions for scheduling.9

#### 3.3 Ticketing, Sponsorship, and Secure Payments

This module handles all revenue-generating activities.

* **Payment Gateway Integration:** The application must integrate with a leading, secure, Africa-focused payment gateway. **Paystack** and **Flutterwave** 46 are the preferred choices due to their robust APIs, multi-currency support, and wide adoption across West Africa. The integration must be PCI DSS compliant.46
* **Attendee Ticketing & Automatic Registration:**
  + **User Story:** "As a first-time guest, I want to select a ticket, enter my name, email, and payment details in a single step, and upon successful payment, be automatically registered and logged into the app."
  + **Technical Requirement:** The payment workflow must capture the user's full name and email. Upon successful payment confirmation (e.g., via webhook), a Cloud Function will trigger to create a new user in Firebase Authentication and a corresponding user profile in the users Firestore collection with the 'Attendee' role.
  + Transactions will be clearly labeled (e.g., "WADF24 Ticket - Early Bird").
* **Sponsorship Page & Payments:**
  + A dedicated page will display all available sponsorship packages with detailed benefits and pricing, as sourced from WADF documentation.11
  + **Packages Include:** Diamond Sponsor (€15,000), Gold Sponsor (€10,000), Official Gala Dinner Sponsor (€5,000), and others.11
  + Sponsors can select a package and complete the payment securely online.
  + All sponsorship transactions must be explicitly labeled for clear accounting (e.g., "WADF24 Sponsorship - Diamond").

#### 3.4 Interactive Agenda and Certificate Generation

The agenda will be automatically populated from accepted sessions. Attendees can build a personal schedule and mark attendance at sessions via QR code scanning. Based on attendance records, a personalized digital certificate will be automatically generated using a PDF generation package and delivered in-app.48

#### 3.5 Session Rating and Feedback

This feature provides crucial data for event improvement and speaker evaluation.17

* **User Story:** "As an attendee, after a session has concluded, I want to be able to rate it on a scale of 1-5 stars and optionally leave a brief comment, so I can provide feedback to the organizers and the speaker."
* **Implementation:**
  + The option to rate a session will become available in the attendee's agenda view shortly after the session's scheduled end time.
  + A push notification can be sent to attendees who had the session in their personal agenda, reminding them to provide a rating.
  + The rating system will use a simple and intuitive 1-5 star interface.
  + An optional text field will allow for qualitative comments.
  + Submissions will be anonymous to the speaker but linked to the user's ID in the backend for data integrity.

### Section 4: Administrative Control Panel Specifications

A web-based dashboard for organizers with features for 52:

* **Central Task Management Dashboard:** An overview of registrations, ticket sales, **sponsorship revenue**, pending tasks, and a live **average session rating** widget.17
* **User and Role Management:** Manage all user accounts and permissions.
* **Content Management System (CMS):** Update app content like 'About Us' and sponsor pages.
* **CFP & Agenda Management:** Review submissions and build the conference schedule with a drag-and-drop interface.
* **Sponsorship Management:** Track incoming sponsorship payments, manage sponsor tiers, and fulfill sponsorship benefits.
* **Analytics and Reporting:** Real-time data on audience demographics, session popularity, and financial performance. This must include a **Session Performance Report** detailing average ratings, number of ratings, and qualitative feedback for each session and speaker.7

### Section 5: UI/UX Principles and Cultural Design Mandate

The design must embody a **"Modern Africana"** aesthetic—contemporary, clean, and professional, infused with authentic elements of West African art and culture.14

* **Color Palettes:** Leverage colors with symbolic meaning in West African cultures (e.g., Red for vitality, Yellow for wealth, Green for growth, Blue for trust) while maintaining a modern feel.54 Avoid stereotypical palettes.
* **Typography:** Use clean, modern sans-serifs for readability, paired with culturally inspired display fonts for headings that draw from African scripts or artistic motifs like Adinkra symbols, but avoid clichés.28
* **Patterns & Iconography:** Use subtle, geometric patterns inspired by African textiles (e.g., Kente, Bogolanfini) as background textures. Icons should be clear and universally understandable but styled to align with the overall aesthetic.57

### Section 6: Non-Functional Requirements (NFRs)

#### 6.1 Security Architecture & Data Privacy

The application must be architected with a security-first mindset, adhering strictly to the **OWASP MASVS** framework.59 This includes secure token storage (flutter\_secure\_storage), SSL pinning, code obfuscation, and protection against common vulnerabilities.62

#### 6.2 Platform Compatibility

The application must be fully functional and responsive across:

* **Mobile:** iOS (last 2 major versions), Android (9.0+).
* **Web:** Latest versions of Chrome, Firefox, Safari, and Edge.
* **Desktop:** Windows, macOS, and Linux.

### Section 7: Firebase Backend Architecture & Integrations

#### 7.1 Firestore Database Schema

The NoSQL database will be structured with the following primary collections:

* users: Stores profile information for all roles, including name, email, and role.
* proposals: Contains all CFP submissions with fields for title, abstract, speakerId, and status.
* sessions: Stores accepted proposals that have been scheduled.
* sponsors: Details of sponsoring organizations, including packageLevel and payment status.
* transactions: A log of all payments for both tickets and sponsorships, with a descriptive label.
* attendanceRecords: Links userId to sessionId with a timestamp.
* session\_ratings: Stores feedback for sessions. Each document includes sessionId, userId, rating (number 1-5), comment (string, optional), and createdAt (timestamp).

#### 7.2 Firestore Indexes

Composite indexes will be created to support efficient querying, such as:

* An index on the sessions collection to filter by track and sort by startTime.
* An index on the transactions collection to query by userId and type.
* An index on the session\_ratings collection to query by sessionId to calculate average ratings.

#### 7.3 Cloud Functions

The following serverless functions will be implemented to handle backend logic:

* **onPaymentSuccess (HTTP Trigger):** A secure endpoint to receive webhooks from the payment gateway. It will verify the transaction, update the transactions collection, and **trigger the createAccountAndAssignRole function**.
* **createAccountAndAssignRole (Callable Function):** Triggered by onPaymentSuccess. It checks if a user exists; if not, it creates a new user in Firebase Auth and a profile in the users collection with the appropriate role ('Attendee' or 'Sponsor').
* **submitSessionRating (Callable Function):** An authenticated function that allows an attendee to submit a rating for a session. It will perform validation (e.g., check if the user attended the session and has not already rated it) before writing the new rating document to the session\_ratings collection.
* **generateCertificate (Callable Function):** Triggered by a user post-event to generate a personalized PDF certificate.
* **updateProposalStatus (HTTP Trigger, Admin-only):** An endpoint for organizers to accept or reject a proposal, which updates its status and makes it available for scheduling.
* **sendTargetedCommunication (HTTP Trigger, Admin-only):** A function that uses a third-party service like **SendGrid** 65 to send targeted emails to users based on their role.

#### 7.4 Third-Party Service Integrations

* **Payment Gateway:** Paystack or Flutterwave API for processing all payments.
* **Email Service:** SendGrid API for sending transactional and role-based emails.68
* **Analytics:** Firebase Analytics for tracking KPIs and user behavior.

#### Works cited

1. West African Design Forum\_\_\_
2. The Ultimate Guide to Mobile Apps for Events and Conferences - vFairs.com, accessed October 16, 2025, <https://www.vfairs.com/blog/best-event-apps-for-conferences/>
3. Holistic Event Management Software - Zoho Backstage, accessed October 16, 2025, <https://www.zoho.com/backstage/>
4. 20 Event Management Software & Tools to Simplify Planning - Whova, accessed October 16, 2025, <https://whova.com/blog/free-event-planning-software-make-you-rockstar/>
5. The Event Attendee Journey I Sweap, accessed October 16, 2025, <https://www.sweap.io/en/blog/event-attendee-journey>
6. Terms of Reference - West African Design Forum (WADF24)
7. Guide to Event Management Dashboard - Databrain, accessed October 16, 2025, <https://www.usedatabrain.com/blog/event-management-dashboard>
8. How to Create an Effective Attendee Journey Map | MemberClicks, accessed October 16, 2025, <https://memberclicks.com/blog/creating-an-attendee-journey-map/>
9. Proposal management process | PandaDoc, accessed October 16, 2025, <https://www.pandadoc.com/blog/how-a-more-efficient-proposal-process-can-help-you-close-more-sales/>
10. Speaker Management Software For Events | EventUp Planner, accessed October 16, 2025, <https://eventupplanner.com/platform-overview/speaker-management/>
11. parrainage-WADF
12. 9 Essential Mobile App Security Best Practices for 2025 - NextNative, accessed October 16, 2025, <https://nextnative.dev/blog/mobile-app-security-best-practices>
13. Mobile Application Security - OWASP Cheat Sheet Series, accessed October 16, 2025, <https://cheatsheetseries.owasp.org/cheatsheets/Mobile_Application_Security_Cheat_Sheet.html>
14. Designing Digital Products for Africa: A Comprehensive UI/UX guide - Vanguard News, accessed October 16, 2025, <https://www.vanguardngr.com/2025/03/designing-digital-products-for-africa-a-comprehensive-ui-ux-guide/>
15. UX and Trust: Designing African Apps That Actually Retain Users - Tekedia, accessed October 16, 2025, <https://www.tekedia.com/ux-and-trust-designing-african-apps-that-actually-retain-users/>
16. Conference Planning 101 (Plus a Checklist!) - Wild Apricot, accessed October 16, 2025, <https://www.wildapricot.com/blog/conference-planning>
17. 10 Must-Have Features in an Event Management Tool - Eventdex, accessed October 16, 2025, <https://www.eventdex.com/blog/10-must-have-features-in-an-event-management-tool/>
18. The OWASP MASVS (Mobile Application Security Verification Standard) is the industry standard for mobile app security. - GitHub, accessed October 16, 2025, <https://github.com/OWASP/masvs>
19. OWASP MASTG Best Practices Checklist for Mobile App Security - Appknox, accessed October 16, 2025, <https://www.appknox.com/blog/owasp-mastg-best-practices-checklist>
20. muellerberndt/android\_app\_security\_checklist: Android App Security Checklist - GitHub, accessed October 16, 2025, <https://github.com/muellerberndt/android_app_security_checklist>
21. Mobile App Data Encryption: Mobile Development Explained - Netguru, accessed October 16, 2025, <https://www.netguru.com/glossary/mobile-app-data-encryption>
22. Mobile App Data Encryption Best Practices - HeyCoach | Blogs, accessed October 16, 2025, <https://heycoach.in/blog/mobile-app-data-encryption-best-practices/>
23. How to Use Data Encryption to Protect Your Mobile Apps & Websites - Net Solutions, accessed October 16, 2025, <https://www.netsolutions.com/hub/mobile-app-development/data-encryption/>
24. Guide to Secure Mobile Payments – Protect Your Data - E-Complish, accessed October 16, 2025, <https://e-complish.com/blog/mobile-payment-security-guideline/>
25. Peach Payments: Payment Gateway, accessed October 16, 2025, <https://www.peachpayments.com/>
26. The Importance Of UX Design In South African Web Design – A Web Developer's Perspective, accessed October 16, 2025, <https://www.newperspectivestudio.co.za/The-Importance-of-UX-Design-in-South-African-Web-Design-A-Web-Developers-Perspective/>
27. Elevating User Experiences: UX Design and UI Design in South Africa - Lincoln Collective, accessed October 16, 2025, <https://lincolncollective.com/elevating-user-experiences-ux-design-and-ui-design-in-south-africa/>
28. One Year in Type Design: An African Designer's Journey Through Barriers and Cultural Identity - Chisaokwu Joboson, accessed October 16, 2025, <https://jobosonchisa.medium.com/one-year-in-type-design-an-african-designers-journey-through-barriers-and-cultural-identity-e66ca24532be>
29. Maasai-Inspired Typography and the Rise of African Fonts | African ..., accessed October 16, 2025, <https://www.africandigitalart.com/maasai-inspired-typography-and-the-rise-of-african-fonts/>
30. Typography + Language + Writing Systems = Afrikan Alphabets - ART AFRICA Magazine, accessed October 16, 2025, <https://artafricamagazine.org/typography-language-writing-systems-afrikan-alphabets/>
31. How to prepare mobile app requirements document (+ free app spec template) - Devsolutely, accessed October 16, 2025, <https://devsolutely.com/blog/mobile-app-requirements-document>
32. How to write a product requirements document : r/ProductManagement - Reddit, accessed October 16, 2025, <https://www.reddit.com/r/ProductManagement/comments/nh700w/how_to_write_a_product_requirements_document/>
33. How to define mobile app product requirements for successful development - Touchlane, accessed October 16, 2025, <https://touchlane.com/how-to-define-mobile-app-product-requirements-for-successful-development/>
34. How to write Good Requirements for an App Project - knockmedia.com, accessed October 16, 2025, <https://www.knockmedia.com/how-to-write-good-requirements-for-an-app-project/>
35. How to Write and Document Project Requirements - Flowlu, accessed October 16, 2025, <https://www.flowlu.com/blog/project-management/project-requirements/>
36. A Complete Guide to Customer Journey Mapping | Atlassian Team Playbook, accessed October 16, 2025, <https://www.atlassian.com/team-playbook/plays/customer-journey-mapping>
37. How to do customer journey mapping for mobile apps - Contentsquare, accessed October 16, 2025, <https://contentsquare.com/guides/customer-journey-map/mobile-apps/>
38. Customer Journey Map: Why It's Important & How to Create One - Glassbox, accessed October 16, 2025, <https://www.glassbox.com/customer-journey-maps/>
39. Create a Customer Journey Map (Free Templates, Tips) - Canva, accessed October 16, 2025, <https://www.canva.com/online-whiteboard/customer-journey-map/>
40. Security checklist - Android Developers, accessed October 16, 2025, <https://developer.android.com/privacy-and-security/security-tips>
41. Flutter App Security — Vulnerabilities & Best Practices - Touchlane, accessed October 16, 2025, <https://touchlane.com/5-overlooked-flutter-security-vulnerabilities-and-how-to-address-them/>
42. User roles in Eventee, accessed October 16, 2025, <https://help.eventee.com/en/articles/125-user-roles-in-eventee>
43. User Roles Defined - GivePulse, accessed October 16, 2025, <https://support.givepulse.com/hc/en-us/articles/209458528-User-Roles-Defined>
44. User roles and permissions - Calendly Help Center, accessed October 16, 2025, <https://help.calendly.com/hc/en-us/articles/4410722852759-User-roles-and-permissions>
45. Request for Proposals (RfP) User Interface and Experience – SIS Redesign - IUCN, accessed October 16, 2025, <https://iucn.org/sites/default/files/2024-07/attachment-1-terms-of-reference.pdf>
46. Collect payments - Flutterwave, accessed October 16, 2025, <https://flutterwave.com/us/collect-payments>
47. Endless possibilities for every business - Flutterwave, accessed October 16, 2025, <https://flutterwave.com/us/>
48. Flutter Calendar - Display & Select Special Dates | Syncfusion, accessed October 16, 2025, <https://www.syncfusion.com/flutter-widgets/flutter-calendar>
49. Flutter PDF Library | PDF Generator API - Syncfusion, accessed October 16, 2025, <https://www.syncfusion.com/document-sdk/flutter-pdf-library>
50. syncfusion\_flutter\_pdf | Flutter package - Pub.dev, accessed October 16, 2025, <https://pub.dev/packages/syncfusion_flutter_pdf>
51. pdf | Dart package - Pub.dev, accessed October 16, 2025, <https://pub.dev/packages/pdf>
52. Task Dashboard Guide [Benefits & How to Create One] - Atlassian, accessed October 16, 2025, <https://www.atlassian.com/agile/project-management/task-management-dashboard>
53. Event planning with Asana, accessed October 16, 2025, <https://help.asana.com/s/article/event-planning-with-asana>
54. Africa's Vibrant Colour Palette: Symbolism in Art & Music - By Kerwin, accessed October 16, 2025, <https://bykerwin.com/africas-vibrant-colour-palette-symbolism-in-art-music/>
55. Exploring Symbolism & Colours in African Textiles and Cultures - Eva Sonaike, accessed October 16, 2025, <https://evasonaike.com/blogs/evasonaikeblog/exploring-symbolism-colours-in-african-textiles-and-cultures>
56. Understanding “African Colors” for Graphic Designers | by Oyemaja - Medium, accessed October 16, 2025, <https://medium.com/@oyemaja/understanding-african-colors-for-graphic-designers-fa8c5d606f8e>
57. African Patterns and Texture in Modern Interior Design - safiyayahaya.com, accessed October 16, 2025, <https://safiyayahaya.com/2025/02/28/the-role-of-african-pattern-and-texture-in-modern-interior-design/>
58. African Patterns in Graphic Design - RTF | Rethinking The Future, accessed October 16, 2025, <https://www.re-thinkingthefuture.com/architectural-community/a11149-african-patterns-in-graphic-designgraphic-design/>
59. OWASP MAS Checklist, accessed October 16, 2025, <https://mas.owasp.org/checklists/>
60. MAS checklist - OWASP Developer Guide, accessed October 16, 2025, <https://devguide.owasp.org/en/04-design/03-mas-checklist/>
61. OWASP MASVS, accessed October 16, 2025, <https://mas.owasp.org/MASVS/>
62. Enhancing Security in Flutter Applications: Best Practices and Secure Packages - Stackademic, accessed October 16, 2025, <https://blog.stackademic.com/enhancing-security-in-flutter-applications-best-practices-and-secure-packages-808a34aacb0e>
63. Implementing Secure Authentication and Authorization in Flutter, accessed October 16, 2025, <https://ms3byoussef.medium.com/implementing-secure-authentication-and-authorization-in-flutter-d824ae8fd813>
64. How to Securely Handle Authentication in Flutter - Technaureus, accessed October 16, 2025, <https://www.technaureus.com/blog-detail/secure-authentication-flutter>
65. How to integrate FlutterFlow with SendGrid API? - Rapid Dev, accessed October 16, 2025, <https://www.rapidevelopers.com/flutterflow-integrations/sendgrid-api>
66. sendgrid\_mailer - Dart API docs - Pub.dev, accessed October 16, 2025, <https://pub.dev/documentation/sendgrid_mailer/latest/>
67. sendgrid\_mailer package - All Versions - Pub.dev, accessed October 16, 2025, <https://pub.dev/packages/sendgrid_mailer/versions>
68. EmailJS, accessed October 16, 2025, <https://www.emailjs.com/>
69. EmailJS Integration in Flutter: Sending Emails Directly from Your Application - Medium, accessed October 16, 2025, <https://medium.com/@narasimhanaidukorrapati/emailjs-integration-in-flutter-sending-emails-directly-from-your-application-c67fe9b90f66>
70. How to Send Emails Programmatically in Your Flutter Projects - DhiWise, accessed October 16, 2025, <https://www.dhiwise.com/post/how-to-send-emails-programmatically-in-your-flutter-projects>
71. flutter\_email\_sender | Flutter package - Pub.dev, accessed October 16, 2025, <https://pub.dev/packages/flutter_email_sender>