



PALLI KARMA-SAHAYAK FOUNDATION (PKSF)

www.pksf.org.bd

TERMS OF REFERENCE (ToR)

of

Senior Mobile Application Developer

1.0 Background

Palli Karma-Sahayak Foundation (PKSF), an apex development organization founded by the Government of Bangladesh, is mandated for poverty alleviation through sustainable employment generation by providing appropriate financing, skill training, and other necessary services. As a second-tier organization, PKSF implements all programs and projects through more than 200 of its Partner Organizations (POs) across the country.

As part of its ongoing efforts to strengthen digital services and improve operational efficiency, PKSF's Information Technology and Digital Solutions Department (ITDSD) is expanding its software development capacity, including its mobile application development capabilities. This requires professionals capable of designing and delivering high-quality, secure, and user-friendly mobile applications that extend PKSF's digital services to its stakeholders, partner organizations, and field staff.

Given the volume and sensitivity of data involved, including financial, project, and partner organization records, the incumbent will lead mobile application design and engineering, ensuring robust authentication, offline capability, data encryption, and reliable performance across devices.

2.0 Position Title & Administrative Overview

- **Position Title:** Senior Mobile Application Developer
- **Duty Station:** PKSF Bhaban, Dhaka (with occasional field visits as required)
- **Employment Duration:** Initially 4 years (subject to annual renewal based on performance and demonstrated dynamism)
- **Age Limit:** Maximum 40 years on the last date of application
- **Years of Experience:** Minimum of **six (06) years** of professional experience in mobile application development.
- **Consolidated Monthly Salary:** BDT 1,60,000/- (inclusive of all taxes as per Government rules) plus admissible benefits (annual increments, festival allowances, Bangla Noboborsho allowance, mobile allowance, group insurance) as per PKSF policies.

3.0 Key Responsibilities and Tasks

The Senior Mobile Application Developer will work under the Information Technology and Digital Solutions Department (ITDSD) of PKSF and perform the following tasks:

PKSF Bhaban-1, E-4/B, Agargaon Administrative Area, Sher-e-Bangla Nagar, Dhaka-1207, Bangladesh
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A. Mobile Architecture & App Engineering

1. **Cross-Platform & Native Development:** Design, develop, and maintain high-performance mobile applications using **Flutter** (Dart) for cross-platform solutions, alongside native **Android** (Kotlin/Java) and **iOS** (Swift) applications.
2. **Clean Architecture & State Management:** Implement scalable mobile architecture patterns (such as **BLoC**, **Clean Architecture**, **MVVM**, or **Provider**) to ensure code modularity, testability, and maintainability.
3. **UI/UX & Accessibility:** Translate user requirements into intuitive wireframes, responsive mobile UIs, and accessible design systems conforming to Material Design and iOS Human Interface Guidelines.
4. **Offline-First & Data Syncing:** Design offline-first local storage, caching, and background database synchronization mechanisms (using SQLite, Room, Hive, or Realm) to guarantee uninterrupted field operations in low-bandwidth rural environments.

B. Security, Integration & Operations

1. **API Integration & Enterprise SSO:** Connect mobile apps with backend RESTful/SOAP APIs and integrate secure authentication frameworks (**OAuth2**, **JWT**, **Keycloak SSO**, and Biometric Auth like Fingerprint/FaceID).
2. **Mobile Application Security:** Enforce secure local data storage, token encryption, certificate pinning, secure key storage (Keychain/Keystore), and OWASP Mobile Top 10 vulnerability mitigations.
3. **Engagement & Push Notifications:** Implement real-time alerts, push notifications, and in-app messaging using Firebase Cloud Messaging (FCM) and Apple Push Notification service (APNs).
4. **Observability & Analytics:** Instrument mobile apps with crash monitoring, logging, and analytics tools (**Firebase Crashlytics**, **Sentry**) to track device metrics and resolve production crashes proactively.

C. App Store Management & DevOps

1. **App Store Publishing:** Lead the end-to-end app release cycle, managing code signing, provisioning profiles, store listing compliance, and publishing to the **Google Play Store** and **Apple App Store**.
2. **Mobile CI/CD Automation:** Establish automated mobile build, testing, and deployment pipelines using tools such as **Fastlane**, **GitHub Actions**, **GitLab CI/CD**, **Bitrise**, or **Jenkins**.

D. Quality Assurance, Mentorship & Documentation

1. **Testing & Code Quality:** Write clean, modular code backed by comprehensive unit, integration, and UI widget tests; perform structured code reviews.

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2. **Technical Documentation:** Maintain comprehensive technical documentation covering app architecture, state management diagrams, API integration specs, and release guidelines.
3. **Team Leadership & Collaboration:** Lead and mentor junior mobile developers, collaborating effectively with UI/UX designers, backend engineers, QA, DevOps, and project stakeholders.
4. Perform any other duties assigned by the supervisor/department head.

E. Capacity Building & Stakeholder Coordination

1. **User Training & SOPs:** Support the preparation of financial user manuals, SOPs, and training materials; conduct practical training for PKSF internal/external personnel.
2. **Interdisciplinary Coordination:** Serve as a bridge between pksf officials, business analysts, software engineers, Mobile Application Developres, and QA engineers to ensure technical outputs align with SDLC standards and organizational policies.

4.0 Academic and Other Qualifications

1. **Academic Degree:** Candidates must have a Bachelor's degree in Computer Science / Computer Science & Engineering / Information Technology / Software Engineering / Equivalent Degree from a reputed university.

or

Candidates with a Bachelor's degree in any other discipline will also be considered provided they possess substantial professional experience in the mobile application development field.

2. **Academic Record:** Applicants must have at least **three First Divisions/Classes** or equivalent CGPA across their academic record. The stated academic requirement may be relaxed for applicants demonstrating exceptional professional expertise and a proven track record.

- o *Note:* Any Third Division/Class in any examination is **not acceptable**.
- o First Class will be determined based on the candidate's regular degree (considering the first four degrees only).

5.0 Experience & Required Competencies

Mandatory Requirements:

- **Years of Experience:** Minimum of **six (06) years** of professional experience in mobile application development.
- **Core Technology Proficiency:** Hands-on experience developing and deploying production applications for both **Android** and **iOS** platforms.

Preferred Qualifications & Technical Competencies:

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- 1. Verifiable App Portfolio & GitHub Presence:** Preference will be given to candidates who provide links to published applications on the **Google Play Store / Apple App Store** or an active **GitHub/GitLab** profile demonstrating clean Flutter/Native code, architectural patterns (BLoC/Clean Architecture), and unit/UI testing.
- 2. Cross-Platform Mastery (Flutter):** Deep expertise in **Flutter & Dart**, including custom widget development, platform channels, state management (BLoC/Provider), performance profiling, and memory optimization.
- 3. Offline-First & Local DB:** Proven experience in offline data handling, background sync services, and local databases (**SQLite, Room, Hive, or Realm**).
- 4. App Store Deployment & CI/CD:** Hands-on experience with App Store Connect, Google Play Console, app signing, release management, and mobile CI/CD tools (**Fastlane, Bitrise, GitHub Actions**).
- 5. Mobile Security & Identity:** Practical knowledge of secure storage (Keystore/Keychain), certificate pinning, token-based authentication (**OAuth2, JWT, Keycloak**), and biometric authentication.
- 6. Enterprise Systems Integration:** Prior experience integrating mobile applications with enterprise financial systems, MIS/DSS platforms, workflow engines, or microservice backends.
- 7. Cloud & Professional Certifications:** Professional-level cloud credentials (e.g., AWS Certified Developer, Google Cloud Professional Cloud Developer, or Microsoft Certified: Azure Developer Associate), particularly demonstrating experience with mobile-to-cloud integration and serverless architectures.

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