<u>RECIRCULATION</u>

CALL FOR PROPOSAL

DEVELOPMENT OF HYBRID MOBILE AND DESKTOP APPLICATION

Mode of Assignment: Development of hybrid mobile application (android & iOS) and its configuration into web-based Data Management System (DMS)

Duration of Consultancy: 75 days (starting from the signing of the Agreement)

Requested documents: Prospective individual/ firms should provide a CV/ company profile detailing their relevant skills and experience. The overall package must have following documents:

- Cover letter (Maximum 2 pages clearly demonstrating the suitability of applicant for stated assignment)
- Updated profile of the individual Consultant or a Firm supported with resume of Chief Consultant and maximum of other 2 key team members/developers (Maximum 3 pages each)
- Technical Proposal including cost of assignment covering all expenses (Maximum 4 pages)
- One example of previous similar work. Submit soft copy on USB/ CD.

Instructions to be followed

- All documents must be forwarded through postal service only. Please clearly write **'Proposal for Mobile Application'** on sealed envelope.
- Please fold details of cost of assignment in a separate envelop to send along with other documents.
- Please send your proposals to Director Monitoring Evaluation and Research (MER), Rahnuma Family Planning Association of Pakistan, 3 A Temple Road, Lahore, 54000.
- **Resubmission of already submitted proposals is not desired. The previous submission will be considered for final review by the organization.**

Note: Rahnuma FPAP reserves the right of disqualifying proposals with pages more than above mentioned numbers and/or if any of the above instruction is not followed adequately. Proposals sent through an email will not be considered for shortlisting.

Shortlisted consultants may be required to undertake a face-to-face, telephone or zoom discussion before finalization of decision.

Deadline for the submission of proposal: 23rd August, 2022

Expected date of initiation of consultancy: 01st September, 2022

Payment schedule:

30% advance payment will be made on signing of contract for the proposed assignment as first installment. 20% will be paid on the receipt of Beta version of software along with all draft of important documents i.e. Software

flow Diagrams etc., while remaining 50% payment will be made upon satisfactory submission of finalized deliverables approved by the Rahnuma FPAP and in house testing of the mobile App.

All payments shall be made to the Consultant through cross cheque in Pak Rupees after deduction of Withholding of Income Tax as per Law of Government of Pakistan.

The current rate at the time of signing of Agreement shall be applied for the deduction of taxes defined by the Federal Board of Revenue and Punjab Regulatory Authority.

Liaison person from Rahnuma FPAP:

Director Monitoring Evaluation and Research, Rahnuma FPAP, 3-A Temple Road, Lahore Phone: (042) 111 22 33 66, Ext. 323. Direct line: (042) 3636 1583. Email address: asifa@fpapak.org

About Rahnuma FPAP

Rahnuma FPAP is one of the largest NGO based health (SRH) infrastructure all over Pakistan with its head office at Lahore with five regional offices, along with its offices In Gilgit Baltistan and Azad Jammu and Kashmir, whereas services are provided through static clinics. Furthermore Rahnuma FPAP has extensive service delivery network. Apart from the specific projects implemented, Rahnuma FPAP works closely with the key national, provincial and district level government and private sector stakeholders that directly works with vulnerable population.

Background

Rahnuma FPAP is delivering services through a network of various channels like Static Clinics, Associated Clinics, Mobile Services Units (MSU), Private Practitioners (PPs) and Community Based Distributors (CBDs) all over Pakistan. This service delivery network is managed through 15 Program Management Offices (PMOs), 5 Regional Offices (ROs) and Head Office at Lahore. Services statics of all channels are managed through a web-based Data Management Software (DMS) for data entry of services statistics of clinics at PMO level. The DMS is developed on PHP framework and SQL database, used for data input and generating number of customized output reports.

Rahnuma FPAP intends to further streamline the data collection process from individual Private Practitioner (PP) to compilation and consolidation of data and integration of app into existing DMS for producing standardized output reports. For this purpose a mobile application based solution is to be developed and integrated with the existing web-based DMS. The solution must be able to record individual PPs' profile, stock of contraceptive commodities distributed to PPs and recording data of monitoring visits carried out to ensure authenticity and verifiability of data. As mentioned, entire data collected through mobile app is to be synced and configured into DMS. Few output reports also required to be developed within both mobile app and DMS. The overall purpose of introducing this app is obtain and maintain the verifiable data.

Location of assignment

Rahnuma FPAP, Head office, Lahore

Objective of this assignment

The main objective of this consultancy assignment is to design and develop hybrid mobile application and its configuration into web-based DMS.

(**Annexure I** is attached with document providing details of scope of work. Layout of data input and output templates are also drafted for broader understanding of expected deliverables).

Support from Rahnuma FPAP
The Rahnuma FPAP will be facilitating in the following:
* Hold inception meeting with the consultant for assignment briefing and discussion on modalities of assignment under consideration.
* Provide all relevant information and discuss essentials for the development of system requirement specifications (SRS) or functional specifications (FS) documents.
* Ensuring ongoing facilitation during entire course of assignment.
* Share feedback on first front-end design of the app components.
* Hold beta testing exercise in consultation of the developer to ensure configuration of all desired features in the app as well in the DMS.
* Identify relevant staff for first hand training on all functionalities of the app.
* Arrange all training logistics; which would most likely be the virtual training of selected staff.
* Remain available for multiple rounds of discussions and reviews during the entire course of this assignment.

Role and responsibilities of the consultant
The consultant will be required to do the following:
* Attend inception meeting with Rahnuma FPAP staff for deeper understanding of consultancy assignments and to gain clarity on deliverables.
* Propose technical recommendations for improved functionalities of expected deliverables.
* Share front end design or wire frame within initial 10 days of assignment for review by the Rahnuma FPAP.
* Share refined beta version of the mobile app within first 45 days this assignment.
* Facilitate training of staff nominated for beta testing by Rahnuma FPAP.
* Incorporate feedback vigilantly and efficiently within 20 days after receiving inputs from Rahnuma FPAP to fix all kinds of bugs and to ensure absolute alignment of input and output reports with the specifications defined and agreed by both parties.
* Address all technical requirements after final upload of data management system.
* The APK file should be uploaded to desktop application for ease of downloading on mobile phones.
* Produce manual about the mobile app on standardized template.

Important Note:
* Do not budget purchase of equipment in your financial proposal.
* The Rahnuma FPAP will not be providing any hardware, software and/or computer utilities needed for this assignment.
* The Rahnuma FPAP will not be responsible of any additional cost beyond agreed consultancy fee which is incurred in producing the committed deliverables unless agreed and documented by both parties.
* The solution is expected to be fully responding to all data management requirement as per TORs comprehending the scope of work (refer **Annexure I**).

Expected deliverables

- System Requirement Specification (SRS) or Functional Specifications (FS) Document
- Entity Relationship Diagram (ERD) or Software Design Document (SDD)
- Fully tested and functional solution with all source codes
- Complete programming and database scripts
- APK file uploaded on DMS for ease of downloading by concerned staff.
- User and administrator manuals for the reference of users
- Test data entry and output reports
- Full access to coding/programming and all administrative rights handed over to the Rahnuma FPAP.
- Facilitate 1 day Training of Master Trainers organized by the Rahnuma FPAP
- Handover all relevant documents, supporting software/ applications, etc. evolved during the solution development process.
- One year free Service Level Agreement (SLA) for software maintenance

Qualification and experience of the Consultant

The consultant must have:

- More than 5 years' experience in the development of software for national and/or international organizations.
- Have qualified/ certified team of developers to meet modern application requirements.
- Must have qualified business analyst to get proper software requirement of the Rahnuma FPAP.
- Must be committed with the timeframe agreed by both parties for the completion of this assignment.

<center>**Annexure I: SCOPE OF WORK**</center>

Objective:

The primary objective of the assignment is to design and develop data management system consisting of mobile application as well as its configuration into DMS. The consultant should work cross functionally with FPAP's Monitoring, Evaluation & Research (MER) team and IT/MIS team to review the Mobile Application's standards, infrastructure requirement and security benchmarking.

Duties and Responsibilities

1. Develop Hybrid Mobile Application for Phones / Tablets (Android & IOS) application and its configuration into DMS for reviewing and extracting output reports.
2. Follow the FPAP's design standards, technology process, security principles and change management process to develop the required system.
3. Gather requirements, specifications, analyze and produce prototypes.
4. Clean coding standards & procedures compliance to the industry standards.
5. Test, debug and improve application's optimization for improved performance.
6. The app should be operational within Android and iOS operating systems.
7. The APK file should be uploaded to desktop application for ease of downloading on mobile phones.
8. Develop Stock Management System and Monitoring Management System
9. All of the reports should be extracted in excel and PDF format.
10. After launching the system, monitor application performance, analyze, gather feedback, fix the issues and manage the life cycle of the system.

Required Features

The application should have the feature of Private Practitioners' (PPs) Profiling and recording individual transactions with each PP.

1. Users Management Panel: Create, edit or delete users/employees. There are mainly two types of users i.e. Family Planning Representative (FPR) and monitoring staff.
2. PP Profiling: Register, edit or delete Private Practitioner (PP).
3. A comprehensive stock management system is desired to reflect stock positions at FPRs and PPs level.
4. Report authorization and submission mechanism: Each user should be submitting the data to his/her PM, who will be submitting the data to HO.
5. Un-processing of submitted reports: Only HO staff should be authorized to un-process report(s) to make necessary corrections.
6. The solution should be able to produce consolidated and trends analysis reports. The reports should also be consolidating data from PPs, FPRs, PMOs, and Regions to Overall FPAP level.
7. Provide detailed Admin and User Manuals which will facilitate the admin and functional users in successfully using the system.
8. The system must have standard security features inbuilt to ensure integrity of data. System should not have any flaws or bugs which inadvertently or by design, permit the users to tamper, alter or modify any data without the appropriate permissions.
9. The system would ensure that only the authorized users should be able to login.

10. The access to the software should be based on assigned user roles of the organization.
11. A proper log system must be maintained.
12. In-built password management policy should be properly implemented. Including but not limited to change password by user/admin, forgot password feature, minimum characters, complexity, etc.
13. The mobile app developed must be compatible with and well rendered in Android as well as iOS environments. The desktop application must be compatible with Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, Safari or any other available browsers.
14. The desktop application must run on any screen sizes (i.e. computer, mobile and tablet). Using modern User Interface (UI) frameworks for responsive design is highly desired.
15. The consultant must provide free support for a period of **1 year** from the time of acceptance of the software by R-FPAP (Warranty support). During this warranty period, the consultant will be responsible to fix the bugs, if any.
16. Provide the Plan for recovery, if the system package or the database fails, which includes managing backups of the database and the package itself. Perform necessary recovery of the system when needed.
17. Provide comprehensive training to master trainers in the operation of the software, backup, configuration, etc.
18. In case of unavailability of internet, the data should be stored locally in mobile device and it should be routed to server when the internet signals available.

Expected Outputs

The expected output of the assignment is to develop well-designed mobile and web based system are as follows;

1. Registration of Family Planning Representatives (FPRs) and Management Staff **(See Annex A)**
2. Roles and rights management of FPAP Staff **(See Annex B)**
3. Enrollment of Private Practitioners (PPs) **(See Annex C)**
4. Assets distribution to PPs **(See Annex D)**
5. Data recording of contraceptives distribution to PPs by FPRs **(See Annex E)**
6. Output reports in standard reporting formats **(See Annex F)**
   a.   Consolidated Report
   b.   Monthly Trends (CYP & Commodities)
7. Data recording of PPs monitoring (Physical & Telephonic) **(See Annex G)**
8. PPs Verification Report **(See Annex H)**
9. FPRs' Stock Management **(See Annex I)**

Registration of Family Planning Representative (FPR) and Monitoring Staff (Input Form)

Note: This component is required within DMS only.

- Region: Dynamic Dropdown (fetched from DMS)
- PMO: Dynamic Dropdown (fetched from DMS)
- Role: Radio button (FPR/Monitoring)
- Emp Code: Numeric Field
- User Code: Alpha-numeric Field
- Name: Text Field
- Email: Text Field
- Father Name: Text Field
- CNIC: Numeric Field
- Gender: Radio Button (Male / Female / Other)
- Address: Text Field
- Phone: Numeric Field
- Status: Radio Button (Active / Inactive)

Roles and Rights Management of Users (User Management Panel)

- This component is required within DMS only.
- This right should be restricted with master user (HO staff) only.
- Master user should be able to assign the roles and rights according to user's location and designation.

Enrollment of Private Practitioner (PP) (Input Form)

Note: This component is required on mobile application only. Each FPR should be able to enroll his/her assigned PPs only.

Name of Region: Dynamic Dropdown (fetched from DMS)
Name of PMO: Dynamic Dropdown (fetched from DMS)
District: Dynamic Dropdown (fetched from DMS)
PP Code: Auto Incremental (e.g. PPLHR001)
Date of Enrollment: Calendar
Project Name: Dynamic Dropdown (fetched from DMS) (multiple projects may be assigned to individual PP
Name of PP: Text Field
Qualification of PP: Dynamic Dropdown (create form for managing degree titles by FPAP staff)
Scope of facility: Text Field (Checkbox: FP, SRH, Non-SRH)
Name of Clinic: Text Field
Complete address of Clinic: Text Field
Contact Number: Numeric Field
Area: Radio Button (Urban/Semi Urban/Rural)
Registered with HCC: Radio Button (Yes/No)

Registration Certificates No. of HCC: Text Field
Registered with PWD/Health: Radio Button (Yes/No)
Registration No. of PWD/Health: Text Field
Next date of registration renewal: Calendar
Clinic timings: Start Time, End Time
Thumb Impression for Verification Purpose: Take Thumb Impression of PP and its authorized staff as well

Assets Distribution to PPs (Input Form)

Note: This component is required within mobile application only.

PP Name: Dynamic Dropdown
Assets Distributed

Sr.	Asset Description	Quantity	Date

Thumb Impression for Validation of Receipt: Take Thumb Impression of PP and its authorized staff as well

Data Recording of Contraceptives Distribution to PPs by FPRs (Input Form)

Note: This component is required within mobile application only.
Date: Calendar
PP Name: Dynamic Dropdown (fetch from PPs' profile)

Note: For each PP seven forms (as mentioned below) are required during one visit.

Contraceptive Method: Dynamic Dropdown (create form for managing degree titles by FPAP staff)
Opening Balance   Automatically fetched closing balance from previous visit
Received from FPAP Store: Numeric Field
Received from Other: Numeric Field
Issued to Clients: Numeric Field
Wastage: Numeric Field
Return to FPAP: Numeric Field
Closing Balance: Automatically calculated
Demanded by PP: Numeric Field
Unit Rate of Commodity: Numeric Field
Total Price: Automatically calculated (Received from FPAP x Unit Rate)

Clients Data (Input Form)

Age Bracket	Never Users	Ever Users	Follow Up Clients
<15			
15-19			
20-24			
25 & Above			

Thumb Impression for Validation of Receipt: Take Thumb Impression of PP and its authorized staff as well

<div align="right"><u>Annex F</u></div>

Output reports in standard reporting formats (Output Report)

This report is required within DMS only.

Contraceptive Distribution Report

Consolidated Contraceptive Distribution Report							
Starting Month:		Calendar		Ending Month		Calendar	
Region:		Dropdown	PMO:	Dropdown	FPR:	Dropdown	
PP:	Dropdown	Project:	Dropdown				
						Date and Time Stamp	
Stock Data							
Methods	Opening Balance	Rec-FPAP	Rec-Others	Total Available	Issued	Closing Balance	Demanded
IUCD							
Depo							
Norigest							
Implant							
Condom							
Oral Pills							
Sayana Press							

Clients Data (Output Report)

Age	Type	IUCD	Depo	Norigest	Implant	Condom	Oral Pills	Sayana Press
<15	Never							
	Ever							
	Follow-up							
15-19	Never							
	Ever							
	Follow-up							
20-24	Never							
	Ever							
	Follow-up							
25 & above	Never							
	Ever							
	Follow-up							
Total	Never							
	Ever							
	Follow-up							

List of Private Practitioners (PPs) (Output Report)

Region: Dynamic Dropdown
PMO: Dynamic Dropdown
FPR: Dynamic Dropdown
District: Dynamic Dropdown

This report is required within mobile app and DMS.

Sr. #	PP Name	PP Code	Region	PMO	District	Date of Enrollment	Project Name	Qualification	Scope of Clinic	Contact number	HCC Registered (Y/N)	PWD/Health Registered (Y/N)	Clinic Timings (Y/N)

Monthly Trend Reports (Output Report)
CYP Generated by PPs

End Month: Dropdown for Months (from this dropdown previous 12 months' data should be fetched

Region: Dynamic Dropdown

PMO: Dynamic Dropdown

FPR: Dynamic Dropdown

District: Dynamic Dropdown

Status: Active/Inactive

This report is required within DMS only

Sr	PP Names	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Commodities Distributed by PP (Output Report)

End Month: Dropdown for Months (from this dropdown previous 12 months' data should be fetched

Region: Dynamic Dropdown

PMO: Dynamic Dropdown

FPR: Dynamic Dropdown

District: Dynamic Dropdown

Status: Active/Inactive

This report is required mobile app and DMS.

Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
IUCD												
Depo												
Sayana Press												
Norigest												
Implant												
Condom												
Oral Pills												
EC Pills												

Graphical presentation required.

Data Recording of Physical and Telephonic Verification of PPs (Input Form)

PP Name:	Dynamic Dropdown (fetched from PPs Profile data)
PP Code:	Auto Linked with PP Name
Region:	Auto Selected
PMO:	Auto Selected
FPR:	Auto Selected
Clinic Name:	Auto Selected
Clinic Address:	Auto Selected
Clinic Timings:	Auto Selected
Contact Number:	Auto Selected
Degree Title:	Auto Selected
Associated with FPAP (Years)	Auto Selected

Confirmation of PPs

Availability on the date of visit:	Radio Button (Yes/No) If No: End Interview
Verified as active PP:	Radio Button (Yes/No) If No: End Interview
Date of Monitoring Visit:	Calendar
Last Visit Date of FPR:	Calendar
Which commodities supplied during last visit by FPR:	Dynamic Dropdown with multiple selection
Commodities preference by your clients:	Dynamic Dropdown with multiple selection
Do you generate demands for contraceptives?	Radio Button (Yes/No)
How do you generate demand for contraceptives?	Dropdown (Telephonically, Written, During Physical Visit)
How often do you generate demand for contraceptives?	Dropdown (Monthly, Quarterly, Half Yearly, As per demand)
Do you sign the receipt of contraceptives received from FPR?	Radio Button (Yes/No)
Data recording of FPAP provided registers?	Radio Button (Yes/No)
Training received from FPAP during last 24 months:	Radio Button (Yes/No)
If yes, then No. of trainings:	Numeric Field
IEC material received during last 12 months:	Radio Button (Yes/No)

For project specific PPs only

Do you receive reporting honorarium regularly?	Radio Button (Yes/No)
Comments:	Text box
Thumb Impression of PP:	Thumb Impression box
Visited by:	Auto selected (Logged in User)
Designation of User:	Auto selected (Logged in User)
Location of User:	Auto selected (Logged in User)

PPs Verification Report (Output Report)

Starting Month: Ending Month:

Region: PMO: Designation: FPR: PP:

This report is required within mobile app and DMS.

Sr	PP Name	Monitoring Date	Mode of Verification	Available at the time of visit	Verified as Active PP	Verified by	Designation	Location Drop down?	Link for detailed report
1	A	28/05/2022	Telephonic	No	No	Naushen	Manager MER	HO	View Report
2	B	30/05/2022	Physical	Yes	Yes	Samad	Manager MER	RO	View Report
3	C	02/06/2022	Physical	Yes	No	Seemab	MER Officer	PMO	View Report
4	D	05/06/2022	Telephonic	Yes	Yes	Seemab	MER Officer	PMO	View Report

PPs Wise Monitoring Report (Output Report)

Starting Month: Ending Month:

Region: PMO: FPR: PP:

This report is required within DMS only.

Sr. #	PP Name	PPs Verification			Availability at the time of visit			Verified as Active PP			Mode of Verification		No. of Verifications
		HO	RO	PMO	HO	RO	PMO	HO	RO	PMO	Physical	Telephonic	

PMO Wise PPs Monitoring Report (Output Report)

Starting Month: Ending Month:

Region: PMO: FPR:

This report is required within DMS only.

PMO	No. of PPs Verified	Received Training	% of PPs who Received Training	IEC Material Received	% of PPs who Received IEC Material	No. of PPs Signed Receipts	% of PPs who Signed Receipts
LHR							
CHK							
FSD							
MZG							
Punjab	Sum of above 4 Program Management Offices (PMOs) = Punjab Region						
PSH							
HRP							
MRD							
KHT							
KP	Sum of above 4 Program Management Offices (PMOs) = KP Region						
AJK							
GB							
ISL							
Federal	Sum of above 3 Program Management Offices (PMOs) = Federal Region						
KHI							
BDN							
Sindh	Sum of above 2 Program Management Offices (PMOs) = Sindh Region						
QTA							
TRB							
Balochistan	Sum of above 2 Program Management Offices (PMOs) = Balochistan Region						
FPAP	Sum of above 5 Regional Offices (ROs) = Overall FPAP						

Assets Distribution Report (Output Report)

Starting Month: Ending Month:

Region: PMO: FPR: PP:

This report is required within mobile app and DMS.

PP Name	Region	PMO	Assets Distributed	Date

FPR's Stock Management (Input Form)

Commodity	Received from FPAP	Received from Other
IUCD		
Depo		
Sayana Press		
Norigest		
Implant		
Condom		
Oral Pills		

Output Report for FPRs' Stock Management (Output Report)

Starting Month: Ending Month:

Region: PMO: FPR: PP:

This report is required within mobile app and DMS.

Commodity	Opening Balance	Received from FPAP	Total Available	Issued to PPs	Wastage	Returned to FPAP	Closing Balance
IUCD							
Depo							
Sayana Press							
Norigest							
Implant							
Condom							
Oral Pills							
EC Pills							

Commodities Distributed by FPR (Monthly Trend) (Output Report)

End Month: Region: PMO: FPR:

This report is required within mobile app and DMS.

Commodities	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
IUCD												
Depo												
Sayana Press												
Norigest												
Implant												
Condom												
Oral Pills												
EC Pills												