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SECTION 3: TERMS OF REFERENCE (TOR)

ETHIOPIA

GENERAL INFORMATION

Services/Work Description: International Firm Level Consultancy for the Provision of front-end frameworks training in **JavaScript Frameworks React JS and Angular 2+**

Project/Program Title: DPG Phase VI: Development Partners Group support to Development plans in Ethiopia

Duty Station: [Abroad where the consulting firm/trainers are located](#)

Type of the Contract: [International Consultancy Firm](#)

Duration: [Fifteen \(15\) days](#)

Expected Start Date: [Immediately after the contract is awarded](#)

I. BACKGROUND / RATIONALE

Aid Management Platform (AMP) is an e-government tool that has the objective of strengthening the transparency of aid management process and improving government ownership, harmonization, and alignment of development activities. AMP provides a virtual workspace where governments and development partners can share development cooperation information – from planning through implementation – and analyze this information by donor, sector, status, region, and other attributes.

AMP is developed by Development Gateway with the assistance of the Development Assistance Group (DAG) and the Government of Ethiopia. Ethiopia has been using AMP since 2006 and is the first testing country. The Ministry of Finance (MoF) has declared AMP as an official government system for capturing information and reporting on aid activities. Until the end of EFY 2013, AMP has captured 1788 projects/programs which are at different stages from on-going to closing and development partners disbursed US\$ 50.9 billion for the projects /programs. Currently, more than 20 countries are implementing AMP in four continents: Africa, Asia, Europe, and America.

39 Bilateral and multilateral development partners that have development cooperation in Ethiopia are registered in AMP and AMP is rolled out for 24 of whom and these development partners enter and update disbursement information by themselves. AMP has eleven modules and the modules are developed using multiple state-of-the-art frameworks and technologies in Java. Since the inception to this date, development gateway has been providing all the necessary feature development on and support services for technical issues to the database. All the cost, associated with AMP feature development and support service to be paid for Development Gateway, has been fully covered by DAG.

Currently, the government of Ethiopia has an ambition of taking over AMP management from Development Gateway and to materialize this, MoF has signed exit strategy contract agreement with Development Gateway and in parallel, it has organized a dedicated team who will take over AMP management from DG. The organized team has eight (8) members who are software developers and database administrators and two of whom are recruited by the United Nations Development Programme (UNDP).

As per the signed agreement, Development Gateway is working to capacitate the team by transferring the necessary knowledge through exercises which helps to explore the system, however, while working the team has found it critical to get JAVA frontend frameworks training to internalize the system easily.

AMP is based on Java 8, Java frontend frameworks, and is deployed using Apache Tomcat 7. It uses the open-source Apache HTTP web server and relies on the PostgreSQL database. It also uses Spring Security Framework for Authentication and Authorization; struts form and actions; Apache Wicket component oriented, server-side, Java web application framework; Bootstrap, React JavaScript for forms and GUI components.

At the end of the training, MOF expects the trainees' knowledge on **Front-end Frameworks and Technologies** such as **React JS and Angular 2+** to be advanced and use it to work smoothly on AMP feature development.

II. OBJECTIVES OF THE SERVICE / WORK

The objective of this training is to get the required skills to use **JavaScript Frameworks React JS and Angular 2+** in the implementation of medium to large-sized application programs that illustrate professionally acceptable coding and performance standards.

III. SCOPE OF THE SERVICE / WORK

The training mainly focuses on **JavaScript Frameworks React JS and Angular 2+** courses using a demo project as preferred by the trainers.

IV. EXPECTED OUTPUTS / DELIVERABLES

- a. Training materials/documents for **JavaScript Frameworks React JS and Angular (2+)** (.doc, .pdf, .ppt, etc...)
- b. Training Completion Certificates for the trainees
- c. At the end of the training the team (expected results of getting this training):
 - Will be able to design front-end layouts of user interface
 - Will understand how the user interface is rendered and understand different elements of frontend technologies
 - Will gain in-depth knowledge of **JavaScript Frameworks React JS and Angular 2+**

V. METHODOLOGY / APPROACH OF THE SERVICE (WORK)

- a. The training venue should be packed as all-in-one place that provides services and resources such as training hall where trainees and instructors meet (with HD projector or big-inch TV), fast reliable Internet connection (wireless and wired with backup), whiteboard when necessary, and other relevant services as needed for eight (8) trainees for a period of fifteen (15) days including Sunday and strong operational considerations for COVID-19 management throughout the training period.
- b. The training should be both lectures and lab sessions (face-to-face); training materials need to be given in advance. The lab section with reliable internet connection should be open for the trainees every day before and after the training session whenever necessary.
- c. For the courses we attached the course outline document as **Annex I** and the training should be comprehensive hands-on exercises (with practical examples as demo) and familiarization.

d. COSTS TO BE BORNE BY THE CONTRACTOR

The Contractor will be responsible for all costs and/or responsibility related to:

- a. *Trainers/Training Facilitators fees and other related costs;*
- b. *Issue accredited Certificate;*
- c. *Training Modules, reference materials and documentation in relation to the training;*
- d. *Availing venue and lab for the training;*
- e. *Avail Internet high bandwidth connection;*
- f. *Stationery (notebooks, Flip charts, and other training aids);*
- g. *Bottled water, tea, and coffee with snacks (twice per day) during the training;*

e .COSTS TO BE BORNE BY UNDP/MoF

UNDP/MoF will provide the following:

- a. *Per-diem (DSA) for the trainees during their stay at a designated place;*
- b. *Arrange and facilitate trainees national round air trip and insurance coverage while traveling;*

VI. LOCATION, DURATION AND TIMEFRAME OF THE WORK /DELIVERABLES/OUTPUT

The duration of the contract period is expected to be **fifteen days (15): effectively 13 days** from Monday to Saturday for the **JavaScript Frameworks React JS and Angular 2+** courses training and two (2) Sundays the time when for trainees can do exercises in the lab.

No.	List of Deliverables	Duration (approx.)
1	Training module soft copy (the original one)	Upon start date
2	JavaScript Frameworks React JS	6 days
3	JavaScript Frameworks Angular 2+	7 days
4	Lab Exercise	2 days
Total Days		15 days

VII. INSTITUTIONAL ARRANGEMENT / REPORTING RELATIONSHIPS

The contractor will work under the guidance of UNDP's counterpart at the Ministry of Finance (MoF) of Ethiopia and in close cooperation with the Capacity Development/Technical Officer, UNDP/MoF – for substantive aspects of the assignment, and under the direct supervision of UNDP Project Manager-for administrative aspects. The contractor will report to the MoF-appointed representative and UNDP Project Manager. Organizational and technical backstopping will be provided by MoF Ethiopia

VIII. PAYMENT MILESTONES AND AUTHORITY

Prospective Service Provider will indicate the cost of services for each deliverable in US dollars when applying for this consultancy. The Proposer will be paid only after the UNDP/MoF Approving Authority confirms the successful completion of each deliverable as stipulated hereunder. In accordance with UNDP rules, the lump-sum contract amount to be offered should consider the professional fee inclusive of out- of-pocket expenses, and other ancillary costs.

A winning Proposer shall then be paid the lump-sum contract amount upon certification of the completed tasks satisfactorily, as per the following payment schedule:

A winning Proposer shall then be paid the lump sum contract amount upon certification of the completed tasks satisfactorily, as per the following payment schedule:

Installment of Payment/ Period	Deliverables or Documents to be Delivered	Approval should be obtained from:	Percentage of Payment
1 st Installment	Upon successful delivery of JavaScript Frameworks React JS	UNDP Project Manager / MoF	45%
2 nd Installment	Upon successful delivery of JavaScript Frameworks Angular 2+	UNDP Project Manager / MoF	55%

IX. MINIMUM ORGANIZATION AND CONSULTANCY TASK FORCE REQUIREMENTS

9.1 Minimum Organization Requirements

The prospective Bidder/Consulting Firm is expected to meet the following minimum requirements:

- The legally registered international entity in its respective country;
- Service providers must have at least three (3) years of institutional experience in delivering training in **JavaScript Frameworks React JS and Angular 2+** training prior to this bid opening;

- Proven substantial experience in demand-driven and tailor-made curriculum development, training, facilitation, and participative approaches, particularly in designing and providing training courses to subject matter experts;
- It shall demonstrate its capabilities, understanding of the TOR, and methodology;
- Bidder must have a recognized Training Center for the specified training;
- Bidder needs to provide an accredited certificate for **JavaScript Frameworks React JS and Angular 2+** to the trainees upon completion of each training;

9.2 Lead Trainer Academic Qualification:

Minimum Trainers Qualification

- A Master's degree in Computer Science, Software Engineering or related fields with 2 years of relevant work experience.
- A Bachelor's Degree in Computer Science, Software Engineering or related fields with 4 years of relevant work experience may be accepted in lieu of the education requirements indicated above.
- Certifications in related areas

Work Experience/Exposure:

- A minimum of 2 years of relevant work experience.
- The proposed key trainer must have 4 years of work experience in IT industry, Minimum of 2 years engaged in delivering training on spring framework and Java frontend frameworks to corporate clients internationally.
- The trainer should have a minimum of 2 years' experience on JAVA web application Projects based on React JavaScript, Angular and related areas.

Competencies

- Needs to cover topics and technologies listed in the outline with real-time examples projects for giving practical knowledge;
- Solid presentation and teaching abilities;
- Adapts the training program to trainees needs;
- Strong communication skills;
- Excellent command of both written and spoken English is essential.

9.3 Backup Trainer Academic Qualification:

- The same as Lead Trainer

Work Experience/Exposure:

- The same as Lead Trainer

Competencies:

- The same as Lead Trainer

Note: As a trainer the Backup Trainer can be used only when needed.

9.4 Training Coordinator

Responsibilities:

- Providing detailed implementation and work plan timeline table(s) including key personnel engagements, respective delivery dates for exam vouchers, and training days pattern for all training phases.
- Providing pre-training questionnaire distribution to participants to gather and identify individual requirements for the training and then select appropriate training methods or activities.
- Providing evaluation and assessment mechanisms in different phases after completion of each phase by gathering feedback from trainees and trainers as input for the next phase to make sure training quality is not compromised.

Academic Qualification:

- A Bachelor's Degree in Education, Training, or related field with 3 years of professional work experience.

Work Experience/Exposure:

- A minimum of 2 years of provable work experience.

Competencies:

- Ability to complete a full training cycle (assess needs, plan, develop, coordinate, monitor and evaluate).
- Proactive and responsive with strong communication skills to communicate effectively with management and other responsible personnel.
- Strong understanding of goals and standards for the service to be delivered.
- Excellent interpersonal skills and work well in a collaborative virtual environment

X. CRITERIA FOR SELECTING THE BEST OFFER

Upon the advertisement of the Procurement Notice, qualified Consultancy Firm is expected to submit both the Technical and Financial Proposals. Accordingly; the firm will be evaluated based on Cumulative Analysis as per the following conditions:

- Responsive/compliant/acceptable as per the Instruction to Bidders (ITB) of the Standard Bid Document (SBD), and
- Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation. In this regard, the respective weight of the proposals are:
 - a. Technical Criteria weight is 70%
 - b. Financial Criteria weight is 30%

XI. RECOMMENDED PRESENTATION OF TECHNICAL PROPOSAL

For purposes of generating proposals whose contents are uniformly presented and to facilitate their comparative review, a Service Provider advised to use a proposed Table of Contents. Hence, your Technical Proposal document must have at least the preferred content as outlined in the respective RFP Proposal Submission Form.

XII. CONFIDENTIALITY AND PROPRIETARY INTERESTS

The consultants shall not either during the term or after termination of the assignment, disclose any proprietary or confidential information related to the consultancy or the Government without prior written consent. Proprietary interests on all materials and documents prepared by the consultants under the assignment shall become and remain properties of UNDP. This assignment will be administrated by the United Nations Development Programme (UNDP), and all relevant UNDP rules, policies and procedures will apply.

XIII. ANNEXES TO THE TOR

Please refer **Annex I** attached hereto for your further reference on the proposed training outline

PROPOSED STANDARD TECHNICAL PROPOSAL EVALUATION CRITERIA

Herewith please find the **Standard Technical Proposal Evaluation Criteria** along with respective allocated weight template for Requester's subsequent review. As per the relevance of the proposed criteria it can either:

- a. Redistributed the allocated weight;
- b. Delete specific criteria if you find it irrelevant or less relevant; or
- c. Replace with new criteria along with corresponding allocated weight

Summary of Technical Proposal Evaluation Forms		Score Weight	Points Obtainable
1	Expertise of Firm / Organization	30%	300
2	Proposed Methodology, Approach and Implementation Plan	40%	400
3	Management Structure and Key Personnel	30%	300
TOTAL		100%	1000

Technical Proposal Evaluation (FORM I)		
Expertise of the Firm / Organization		Points Obtainable
1.1	Brief description of the organization, including the year and country of incorporation, and types of activities undertaken	50
1.2	A general organizational capability which is likely to affect implementation: management structure, financial stability, and project financing capacity, project management controls, standards of the lab	75
1.3	The relevance of specialized knowledge and experience in similar engagements over the past three (3) years	65
1.4	Training delivery quality assurance procedures and/or system to be applied	50
1.5	Relevance of: <ul style="list-style-type: none"> - Specialized Knowledge - Experience on Similar Programme / Projects - Organization's commitment to sustainability 	60
SUB TOTAL		300
Technical Proposal Evaluation (FORM II)		
Proposed Methodology, Approach and Implementation Plan		
2.1	Understanding of the requirement: Have the important aspects of the task been addressed in sufficient detail? Are the different components of the project adequately weighted relative to one another?	120
2.2	Description of the Offeror's approach and methodology for meeting or exceeding the requirements of the Terms of Reference (ToR)	120
2.3	Description of available performance monitoring and evaluation mechanisms and tools; how they shall be adopted and used for a specific requirement	80
2.4	Assessment of the implementation plan proposed including whether the activities are properly sequenced and if these are logical and realistic	80
SUB TOTAL		400
Technical Proposal Evaluation (FORM III)		
Management Structure and Key Personnel		
3.1	JavaScript Frameworks React JS and Angular 2+; Lead Trainer: The extent to which the proposed Key Personnel satisfy the list of minimum academic, work experience and competencies requirements indicated on the respective Terms of Reference (ToR).	140
SUB TOTAL		140
3.2	JavaScript Frameworks React JS and Angular 2+; Backup Trainer: The extent to which the proposed Key Personnel satisfy the list of minimum academic, work experience and competencies requirements indicated on the respective Terms of Reference (ToR).	120
SUB TOTAL		120
3.3	Training Coordinator: The extent to which the proposed Key Personnel satisfy the list of minimum academic, work experience and competencies requirements indicated on of the respective Terms of Reference (ToR). The maximum points are allocated as follows: <p>3.3.1 The extent to which proposed Training Coordinator meets minimum educational qualification requirements (20 Points)</p> <p>3.3.2 The extent to which proposed Training Coordinator engaged in provision of related services and meets work experience (20 points)</p>	40
SUB TOTAL		40
Aggregate		1000

Annex I

ReactJS Outline

1. React Introduction
 - 1.1. React Version
 - 1.2. React Installation
 - 1.3. create-react-app
 - 1.4. React Features
 - 1.5. Pros & Cons
 - 1.6. ReactJS vs AngularJS
 - 1.7. ReactJS vs ReactNative
 - 1.8. React vs Vue
2. React Features
 - 2.1. React JSX
 - 2.2. React Components
 - 2.3. React State
 - 2.4. React Props
 - 2.5. React Props Validation
 - 2.6. React State vs Props
 - 2.7. React Constructor
 - 2.8. React Component API
 - 2.9. Component Life Cycle
 - 2.10. React Forms
 - 2.11. Controlled vs Uncontrolled
 - 2.12. React Events
 - 2.13. Conditional Rendering
 - 2.14. React Lists
 - 2.15. React Keys
 - 2.16. React Refs
 - 2.17. React Fragments
 - 2.18. React Router
 - 2.19. React CSS
 - 2.20. React Animation
 - 2.21. React Bootstrap
 - 2.22. React Map
 - 2.23. React Table
 - 2.24. Higher-Order Components

- 2.25. React Code Splitting
- 2.26. React Context
- 2.27. React Hooks
- 2.28. React Flux Concept
- 2.29. React Flux Vs MVC
- 2.30. React Redux
- 2.31. React Redux Example
- 2.32. React Portals
- 2.33. React Error Boundaries

Angular Outline

- 1. Architectural overview
 - 1.1. Simplifying development of complex modern applications
 - 1.2. The organization of an Angular app
 - 1.3. Supporting multiple client devices
 - 1.4. Configuring an Angular development environment
 - 1.5. Bootstrapping your first Angular application
- 2. Getting started with TypeScript
 - 2.1. Transpiling TypeScript to JavaScript
 - 2.2. Building an app with TypeScript
 - 2.3. Constructing User Interface (UI) Components
- 3. Defining components
 - 3.1. Structure of a component
 - 3.2. Introducing the component hierarchy
 - 3.3. Declaring metadata with the @Component decorator
 - 3.4. Controlling HTML5 generation with Templates
 - 3.5. Displaying repeating data with *ngFor
 - 3.6. Conditional generation of DOM content
- 4. Debugging techniques and strategies
 - 4.1. Interpreting framework error messages
 - 4.2. Exploring the component hierarchy with Augury
- 5. Reducing code complexity with Dependency Injection (DI)
 - 5.1. Principles of DI
 - 5.2. Creating loosely coupled applications
 - 5.3. Configuring providers and declaring Injectables
 - 5.4. Satisfying dependencies with Provider metadata
 - 5.5. Testing Angular Components & Functionality

- 6. Structuring test strategies
 - 6.1. Unit testing vs. integration testing
 - 6.2. Working with mock Angular components
 - 6.3. Asynchronous testing with ES6 arrow functions
 - 6.4. Adding Interactivity to Your Applications
- 7. Coordinating Component interaction
 - 7.1. Passing data from parent to child with Input bindings
 - 7.2. Listening for property changes with ngOnChanges
 - 7.3. Binding a model to display with interpolation
- 8. Managing events
 - 8.1. Detecting and responding to user interaction
 - 8.2. Capturing browser events
 - 8.3. Emitting custom events to trigger behavior
 - 8.4. Navigation and Data Transformation
- 9. Creating modular applications
 - 9.1. Controlling application flow with the Component Router
 - 9.2. Dividing application functionality across multiple Component trees
 - 9.3. Parameterizing routes for dynamic navigation
- 10. Manipulating data with Pipes
 - 10.1. Formatting dates for display
 - 10.2. Chaining pipes to combine functionality
 - 10.3. Filtering data with custom Pipes
 - 10.4. Building Interactive Forms
- 11. Displaying and capturing data
 - 11.1. Developing forms with ngFormModel and FormBuilder
 - 11.2. Creating a form from a business object
 - 11.3. Two-way binding between input controls and data model
- 12. Validating form input
 - 12.1. Leveraging HTML5 and custom validation
 - 12.2. Providing user feedback from validators
 - 12.3. Managing Asynchronous Behavior
- 13. Keeping the App responsive
 - 13.1. Subscribing to Observables
 - 13.2. Converting stream data types with the Observable map function
 - 13.3. Optimizing change detection with immutability and onPush
- 14. Interacting with a REST Web service
 - 14.1. Retrieving data with the HTTP object

14.2. Sending data asynchronously with POST

14.3. Invoking different HTTP methods

14.4. Gracefully handling errors

15. Extending Angular Capabilities

15.1. Adding functionality to the DOM

15.2. Creating a custom styling directive

15.3. Performing animation