TERMS OF REFERENCE
CONSULTANT / INDIVIDUAL CONTRACTOR

Section: Emergencies WCARO                                  Date: 14/09/2020
Title: Business Intelligence Developer                      Duty station: WCARO Office
Reporting to: Resilience Program Coordinator                Contract type: SSA- Consultant
Duration: 6 Months                                           Start date: 01/09/2020

Section          Content

Objectives

The UNICEF Western and Central Africa Regional Office (WCARO) is coordinating a regional resilience programme in Sahel, implemented by UNICEF offices in Mali, Mauritania and Niger, in close collaboration with another UN agency (World Food Programme), over four years (2019-2023). The programme is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) for an initial budget. The programme will generate numerous quantitative and qualitative data throughout the four year of implementation (21 different studies planned for 2020-2021 only) and it is therefore important to develop high-quality tools to support data visualization.

The primary objective for the assignment is to produce for the account of the UNICEF Western and Central Africa Regional Office (WCARO) an interactive dashboard focused on the various indicators of the Building Resilience in the Sahel Programme, by February 2021.

The specific objectives of the assignment include:

- The analysis of the various data models, sources and the overall modelling of the information architecture as to ensure data quality;
- The definition of the schema of the relational database management systems (DBMSs) including rationalization with regards to the adopted information architecture;
- The development of the database and various automated queries for retrieving, processing and updating the data (CRUD);
- The production of analytics reports template through the reporting tool (Descriptive statistics) for reporting;
- The development through the reporting tool of the various dashboards, reports and apps in Power BI;
- The facilitation of the communication around the dashboard with the development of comprehensive, easy to understand guide;
- Training and capacity building intended towards a core team of UNICEF staff (M&E and Programme management profiles) to support the continuous updating and maintenance of tools after the end of this assignment.
Background

UNICEF WCARO is seeking a solution oriented and experienced Business Intelligence (BI) developer to join the Emergencies Section and support a Power BI initiative. The Power BI developer consultant will receive technical supervision from the UNICEF WCARO ICT/T4D team in order to create reports and dashboards for Organizational use and ensure the underlying data models are governed and promote a single source of truth for reporting. This role will also stay updated on all upcoming features and capabilities of Power BI to make sure UNICEF is maximizing the potential of the tool. Additionally, this role will collaborate with the Regional Office team to review, test, and release reports and dashboards for Organizational and Institutional use. The Business Intelligence Developer will also be expected to produce end-user documentation and training materials.

Scope of work

1. Design and develop intuitive and visually appealing reports, apps and dashboards using Microsoft Power BI.
2. Participate in requirements gathering and illustration of designs using wireframes.
3. Create, review and analyse complex, integrated data models and information from various sources.
5. Collaborate and facilitate communication between programme teams and the ICT team.
7. Manages the Power BI environment, Enhancements and support of Power BI applications. Performs hands on developer activities as needed, need SQL development experience SSIS, SSAS, SSRS.

Deliverables and Schedules

Interactive management dashboard for data visualization of results, as per agreed upon requirements by the end of the assignment. The product should be accompanied with all the relevant documentation (See reporting requirements).

The payments will be made bimonthly, subject to the submission of:

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Amount</th>
<th>Month</th>
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<tbody>
<tr>
<td>Initial assessment report detailing the methodology, work plan, strategy and tools to be used (Month 1); User Interface Design Drafts, and progress report (Month 2);</td>
<td>40%</td>
<td>October 2020</td>
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<tr>
<td>Progress report (Month 3); Progress report (Month 4); First Prototype of Dashboard (Month 4)</td>
<td>35%</td>
<td>December 2021</td>
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<tr>
<td>Progress report (Month 5); Progress report (Month 6)</td>
<td>25%</td>
<td>February 2021</td>
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| **Final version of Dashboard along with apps, source code and any other solutions produced during the development of the different products (Month 6);**  
| **Training materials - user and admin guide, and training presentations (Month 6);**  
| **BI governance plan including RACI matrix, assumptions and dependencies (Month 6).** |

**Timing**
Timeframes are negotiable depending upon initial assessment, design and planning. Expected start date is September 1st, 2020.

**Reporting Requirements**
All reports should include dates and details for the reviewing person or body, according to the different deadlines and schedule agreed upon with the supervisor.

**Profile Requirements**

**Education:**
- Master’s Degree in computer science, Statistics, Information Technology or related field. A Bachelor degree with 2 years’ experience may be accepted in lieu of a Master.
- Microsoft Azure Power BI Certification preferred.

**Experience:**
- 5 years of significant software development experience, designing, developing and supporting intuitive reports, dashboards, and graphs using Azure Power BI Service, Power BI Desktop, Azure Analysis Services, DAX Query Language, SSAS, Visual Studio, SSDT and Excel Pivot.
- Experience gathering requirements, interfacing with stakeholders, and supporting large Business Intelligence / Data Warehouse applications.
- Experience and thorough understanding of Tabular, Multidimensional, Security Models, Dimensional Structures, Hierarchies, and Big Data / Business Intelligence / Data Warehouse best practices and standards.
- Experience leading meetings, and the creation of presentations, status reports, specifications document, and technical design documents.
- Strong analytical skills and experience with the SDLC methodologies such as Waterfall and Agile.
- Self-motivated, proactive, detail-oriented, and can work independently as well as in a team environment.

**Language:**
Fluent in English and French is required

**NB:** kindly fill in your profile correctly when applying on the UNICEF website. A misinformed profile will not be considered.

**Administrative Issues**
The consultant will work under the overall supervision of the Resilience Programme Coordinator, within the Emergencies Section, WCARO.

The consultant will also receive direct technical guidance and functional supervision from the Regional Business Analyst who will be responsible for the general coordination and scheduling and in close collaboration with the T4D specialist.
Weekly meetings will be held between the consultant and its supervisors to discuss progress and adjustments.

The consultant will be provided with a desk office, UNICEF email address and will be using UNICEF provided ICT equipment. The regular office hours will apply to the consultant.

The payments will be made bi-monthly subject to the submission of the monthly progress reports and key deliverables as summarized in the above table.

Payment will only be made for work done satisfactorily and accepted by UNICEF