

Computer Programmer WASH Project (Consultant)

Akros – Lusaka, Zambia



Background

Akros is a cutting edge organization that establishes data-driven systems that improve the health and wellbeing of disadvantaged communities. We pride ourselves in our ground-level knowledge of the health systems where we work, and our ability to provide novel, lasting solutions implemented in developing regions.

Akros is seeking a short term contractual computer programmer to perform customization for various information systems and to build capacity of the Informatics team. The programmer will be responsible for working with the informatics team and program managers to ensure customizations are appropriate and fit the needs of the end-users of the systems. Customizations include, but are not limited to, DHIS2 database optimization, creating SQL scripts, developing indicators (from raw data elements) which cannot be calculated directly from the DHIS2 graphic user interface (GUI), and modifying or recreating the automated HTML reports. Initial duties will focus on improving usability of the Water, Sanitation, and Hygiene (WASH) community-level management information system (MIS), supported by UNICEF and the Ministry of Local Government and Housing, which currently receives monthly data on latrine maintenance from over 30,000 Zambian villages.

Roles and Responsibilities

- Liaise with informatics team and project managers to determine specific requirements for information system customizations
- Build complex indicators which can be derived directly by using DHIS2 GUI from using existing data elements in DHIS2-based information systems
- Develop SQL codes within the DHIS2 instance to display necessary indicators as required by implementers, donors, partners on user-specific reports
- Training, modify or recreate **HTML** reports to reflect regularly reported data pulled from the DHIS2 information system as per requirements of program managers
- Development of technical guides or instruction manuals for customizations to ensure sustainability
- Technical support, including debugging and testing
- Training on how to design Web portal that pulls information directly from DHIS2
- Training on i-report module

Specific Deliverables

- Develop a custom water access indicator for the WASH MIS, that shall be visualized in a map, visualization in relation to water point, indicators for functioning, non-functioning water points and % of functioning / non-functioning wp.
- Create a custom indicator for recalculating “harvest” (net new latrines) based on time bound data elements in WASH MIS. The indicators bases on First ever entered data element on Latrine pit, and currently entered Latrine pit for a respective organization unit

- Create a custom indicator to measure the running number of villages that lose open defecation free status in WASH MIS. Also the overall slippage, when villages decrease in number of latrines / household ratio
- Add custom DHIS2 indicators to existing HTML report
- Develop Sanmark indicators (which depends on custom indicators)
- Training on HTML report and i-report module

Education and Skills

- At least a Degree in Computer Science, Information Technology, or other related focus.
- At least 2-5 years computer programming experience, should include development of custom HTML reports from API outputs, data extraction through SQL scripting, and execution of tasks with higher-order and object-oriented languages (e.g. Python, Javascript, Java, PHP, Ruby).
- Experience in: R, SQL, HTML report tables
- Remarkable background working on DHIS2 database structure and Java Runtime Environments
- Familiarity with DHIS2 program design implementation and training in developing countries
- Familiarity with i-report, Open Data Kit, Tableau and Frontline SMS is added advantage

Level of Effort

This contract is valid for maximum of one month (20 full working days). Extension contingent upon program needs. This work can be done remotely, but for the capacity building and training the Consultant must travel to Lusaka.

*This scope will change as necessary to suit the needs of the Akros team

Application Instructions

Applications are due no later than **Monday 26 June 2017**. Candidates will be interviewed on a rolling basis and are encouraged to apply early. To apply, please submit a cover letter and detailed curriculum vitae (CV) with references to careers@akros.com with "**Computer Programmer**" as the email's subject line.