

An open source calculation engine for DHIS2

Two-Sentence Overview

Hesabu allows health programs (M&E, PBF, LMIS and others) that use DHIS2 as a data management tool, to define and execute complex, chained computations (Excel-like) on their data and reload the results directly in DHIS2 to be used as any other data value. Since its inception - when it was set up as a pure PBF tool - until today, Bluesquare has been focused on turning Hesabu into a powerful open source tool to provide easy to manage computations on top of DHIS2 data.

Executive Summary

Bluesquare has been developing Hesabu, an advanced computing engine working on top of DHIS2 since 2015, with the goal of replacing custom software by an open source solution connected to a widely used open source data platform. This allows it to continue to leverage the DHIS2 data entry and reporting capabilities, while getting the additional computing power that was needed by many Health Financing projects. Over time, Hesabu's applications have grown and to date it has been used in over 15 countries for many different projects in different areas, from logistics to Monitoring and Evaluation.

The time is right to further improve its evolution as a shelf-ready, open source tool in support of the many programs where it is in use. We know that the need for its computation power is something of interest in the broader DHIS2 community, so the key benefit from a shelf readiness investment would be to make its installation and use by other parties much easier, and thus reinforce the tool's use and growth over time for more cases and program management.

Consortium Team

Bluesquare (prime)

Bluesquare is a company specializing in data systems and technologies in the health sector. We have gathered a unique blend of expertise in the fields of information technology, software development, data science and modeling and public health with a team 40-strong working from Belgium, the DRC, Senegal, Burundi, Zimbabwe, Senegal and the USA. We work in over 30 countries developing tools and data systems for program M&E, health financing and logistics. Our central focus is to support health program teams to develop and adopt innovative solutions that support improved performance of the health systems they serve.

Bluesquare brings a rich experience in digital health financing tools in support of Result Based Financing - we manage the data systems for several of the largest RBF programs in sub saharan Africa - including the DRC and Nigeria and are invested in openIMIS - another open source tool focused on health insurance.

Project Description

Background or problem statement:

Hesabu code is open source, using an MIT licence and hosted on GitHub <https://github.com/blsq/orbf2> in use in over 15 countries. From our perspective, this is the kind of software that would benefit from a shelf readiness investment program, by making its installation and use by other parties much easier. This would in turn benefit the Digital Square with the addition of a new open source software enhancing the capabilities of the whole environment.

Objectives:

There is a broad range of levels of independence in its roll-out by program. This project would aim to support its further development as an open source tool supporting public health programs.

We would request support for the following:

1. Support potential users with installing the tool:

- Minimize the time/complexity needed between someone finding Hesabu as their solution of choice and having it up & running and connected to their DHIS2.

Supporting this would require:

- It would need to function under docker (webapp + database),
- Options for easy deploy on standard platforms (AWS or others) and
- To improve the system administrator documentation.

2. Set-up Wizard

- Improve the "initial startup" application to help the users quickly set up an initial and functioning use case - ideally in a matter of minutes (for instance a Wizard or other support tool).

3. Documentation

- Invest in significant improvements to the documentation for "power users" both in the repository but also in the application itself when possible. This is a request we have specifically received from some of the global users of the tool.

Deliverables & Schedule:

1. Support potential users with installing the tool - Deliverables and Timing

- Dockerize deployment
- Documentation online for admin

2. Set-up Wizard - Deliverables and Timing

- Improve first time usage

3. Documentation - Deliverables and Timing

- Documentation online for super users

Risk Mitigation:

Some risks include ensuring the manuals meet user needs and requirements - so we would work in close collaboration with a small pool of program managers.

Digital Health Atlas

The following projects have been registered in the Digital Health Atlas:

Cameroon: <http://digitalhealthatlas.org/project/CM4ed06188>

Zimbabwe: <http://digitalhealthatlas.org/project/ZWba1310dc>

Sénégal: <http://digitalhealthatlas.org/project/SN7c8f44e2>