



Statement of Work: New Features and Functionality for OpenELIS Global

Background

The International Training and Education Center for Health (I-TECH) is a center in the University of Washington's Department of Global Health. I-TECH has projects in more than 20 countries, and its worldwide staff work with local ministries of health, universities, non-governmental organizations, medical facilities, and other partners to support efficient, well-ordered health care systems that provide high quality care to all citizens.

OpenELIS is an open-source laboratory information system that supports the entire laboratory workflow, including the pre-analytical, analytical, and post-analytical phases. Meaning patient demographic data; laboratory order details; technical requirements and validations for the laboratory tests and analyses; and clinical and lab performance reports. It is used in the fight against HIV/AIDS in many settings.

Project Description

The International Training and Education Center for Health (I-TECH) seeks a highly-qualified software development team to develop one or several projects as detailed below. This work is to support OpenELIS Global 2.0, an open-source laboratory information system built on Java Spring and PostgreSQL. The targeted software release date is September 15, 2019. The projects must be developed and incorporated into the core OpenELIS application and the code checked into our GitHub repository by that date.

The firm/consultants will work with the DIGI Senior Digital Health Specialist based in Seattle as well as other technical staff located at I-TECH's HQ in Seattle at the University of Washington. It is expected the consultant will be able to communicate with the team remotely and collaborate with the team to meet overall project goals. Specific deliverables are outlined below.

Desired Qualifications

Different projects may require one or more of the following skillsets:

- Advanced knowledge of object oriented programming with Java
- Demonstrated experience with JSP
- Demonstrated experience with Spring and Hibernate
- Demonstrated experience with POSTGRES
- Demonstrated experience with Selenium
- Demonstrated experience with UI / UX design and development
- Demonstrated experience writing software developer documentation

- Excellent problem solving and debugging skills

Proposed Activities and Deliverables

Please indicate which of these activities you are applying for in your response:

Task 1: New Features in OpenELIS

- a. Add functionality to manage select lists in the test catalog (functional requirements: <https://www.pivotaltracker.com/story/show/96827194/comments/103299780>)
 - **Deliverable:** Completed feature as per design, tested and checked into I-TECH's GitHub repository.
- b. Non-Conformity section overhaul
 - **Deliverable:** Completed feature as per design, tested and checked into I-TECH's GitHub repository. (functional requirements: <https://drive.google.com/drive/folders/15GcHC1ZF1lgV1WL76ULsl4qqnAeMyZwZ?usp=sharing>)
- c. Move reports to a plug-in format
 - We use Jasper reports, and right now, they come packaged with the release, we would like them to be able to be dropped into a directory, and a GUI feature (see the sorting in the add test section) to manage which reports are displayed, and how they are displayed.
 - **Deliverable:** Design feature, get approval, Report plug in framework, with report Dynamic menu functionality and menu and report display management tested and checked into I-TECH's GitHub repository.

Task 2: Automated Web Browser test scripts

Selenium based automation of test scripts

Develop selenium-based browser automation based on our test scripts. We have a series of test scripts that we would like adapted to use selenium automation. The deliverable includes the automation itself and documentation checked into our read the docs site.

Existing test script:

https://drive.google.com/file/d/1DkuQMdzJYUlaiQ7O38sNuIVd2R09_H59/view?usp=sharing

Deliverable: Automated testing scripts developed, tested and checked into I-TECH's GitHub repository

Task 3: Update Developer Documentation

Work with our software developers to update the contents of our GitHub WIKI

<https://github.com/openelisglobal/openelisglobal-core/wiki> and move it to our new ReadTheDocs site (This uses the Sphinx markup language or Markdown), if possible in English and French. We would also like to have our SOPs moved to this new platform

Deliverable: Updated Developer documentation checked into I-TECH's GitHub repository

Task 4: Update the OpenELIS UX / UI

We want to modernize the look, feel and user experience of OpenELIS, and are looking for suggestions. We would like to have a customized UI, with an interactive dashboard and are interested in looking into microservices.

Deliverable: Create an approach, get approval for the approach, deliver the design document and style guide, and develop and check in the code to the I-TECH GitHub Repository.

Consultant or contractor must adhere to the following expectations while executing the work:

- All user interface features that are created will need to include translations in English and French.
- All source code must be developed on the I-TECH github organization
- All code developed must have appropriate tests as per the OpenELIS Guidelines (1 clean pass through the test script)
- All enhancements to the module must be documented on the relevant ReadTheDocs page
- Availability for weekly virtual meetings with the UW team in Cote d'Ivoire and Seattle.
- Developer(s) routinely create, monitor and resolve tickets in the development tracking system.
- Maintain regular communication with the UW team in Cote d'Ivoire and Seattle via remote phone calls, slack and email.

Application & Eligibility

Preference will be given to contractors (firms) due to the need for multiple skill-sets and short timeline. Individual consultants are also eligible to apply. The expected duration of the contract is from August 12, 2019 to September 15, 2019. Interested applicants should provide 1) a summary of relevant past performance, 2) a technical proposal detailing proposed activities, resources and timeline, and 3) a cost proposal to Casey liams-Hauser, Senior Digital Health Specialist – Digital Initiatives Group - International Training & Education Center for Health (I-TECH) (caseyi@uw.edu) by **Wednesday August 7th by 11:59pm Coordinated Universal Time/4:59pm Pacific Daylight Time**. At a minimum, the cost proposal should include the tasks for which you are applying, number of individuals proposed to complete the work, hourly rates, and total estimated hours to complete each task within the proposed 5-week timeframe. The estimated cost of all four (4) tasks should not exceed \$50,000. If you are applying for only one of the tasks, please adjust your cost estimate given this assumption of the total cost.