



DEPARTMENT OF COMPUTING

VACANCY ANNOUNCEMENT

HISP UNIMA, a research and outreach project of the University of Malawi, operates as an integral part of the global HISP network and the HISP Africa Consortium, focusing on advancing digital health transformation through key efforts such as software development, institutional strengthening, digital infrastructure enhancement, human capacity building, and research for sustainable Health Information Systems (HIS). Supported by funding from the Beginnings Fund Initiative, HISP UNIMA is actively collaborating with the Ministry of Health's Digital Health Division (DHD) to co-develop the Maternal and Newborn Health (MNH) components of the MaHIS for secondary and tertiary levels. This work also intends to facilitate interoperability with select critical national systems and the Health Management Information System (HMIS). Further to this, HISP UNIMA is supporting work to facilitate tracking of various investments under the Beginning Fund Initiative in Malawi. To bolster the efforts, the HISP UNIMA project is seeking to hire consultants for the following positions:

1.BUSINESS SYSTEMS ANALYST AND PROJECT MANAGEMENT CONSULTANT (CONTRACT—FLEXIBLE TIME-BASED POSITION)

The incumbent for this position will engage in gathering business requirements, translating them into technical specifications, and overseeing the implementation of solutions. Key responsibilities include project management, stakeholder communication, data analysis, system configuration, and ensuring the final product meets business objectives within budget and timeline.

Location: Lilongwe

Key responsibilities

- **Business Analysis:**

- Gather, analyze, and document user requirements and business processes.
- Collaborate with stakeholders to understand business goals and translate them into actionable requirements.
- Identify opportunities for process improvement and automation.
- Facilitate staff training and mentorship
- Create and maintain documentation, including user stories and process maps.
- **Implementation and Project Management:**
 - Lead and manage solution development and implementation projects from start to finish.
 - Develop and manage project plans, timelines, and resources.
 - Oversee the configuration, deployment, and quality assurance of systems.
 - Serve as a primary point of contact for project-related issues and updates, as may be assigned.
 - Troubleshoot problems that arise during implementation.
- **Communication and Stakeholder Management:**
 - Act as a liaison between technical teams and business stakeholders.
 - Communicate project status, risks, and requirements clearly and effectively.
 - Influence and persuade stakeholders to support project goals.
 - Provide training and support to users of new systems

Qualifications and skills

- **Education:** At least a master's degree in computer science, information systems, information technology, business, or a related field.
- **Experience:** Proven experience as a business analyst and/or project manager within the MaHIS ecosystem.
- **Analytical Skills:** Strong analytical, problem-solving, and critical thinking skills to interpret complex needs and find solutions.
- **Technical Proficiency:** Experience with project management software and an understanding of software development methodologies
- **Communication:** Exceptional verbal and written communication, with the ability to present to various audiences.
- **Methodologies:** Familiarity with business process modeling, data analysis, and workflow design.
- **Implementation Management:** Experience with Planning and Leading patient system digital transformation efforts
- **Soft Skills:**
 - Strong organizational skills, attention to detail, and the ability to manage multiple tasks simultaneously.
 - Ability to work independently under minimal supervision, especially in a 50% contract environment.
- **Leadership:**

- Strong ability to prioritize competing tasks and manage tight deadlines.
- Demonstrated leadership in cross-functional teams and multicultural environments.

2. BUSINESS AND QUALITY ASSURANCE CONSULTANT (CONTRACT - FLEXIBLE TIME-BASED POSITION)

The Business and Quality Assurance Specialist will play a critical role in ensuring the quality, reliability, and user-centeredness of digital health solutions being developed and implemented by HISP UNIMA. This position bridges business analysis, quality assurance, release management, and stakeholder engagement to ensure that system requirements are properly captured, validated, and tested throughout the development lifecycle. The consultant will work closely with technical teams, healthcare providers, and Ministry of Health stakeholders to deliver quality health information systems that meet user needs and regulatory standards.

Location: Lilongwe

Key Responsibilities

- **Business Analysis and Requirements Management**
 - Identify opportunities for process improvement and automation within maternal and newborn health workflows.
 - Participate in requirements review sessions with stakeholders to ensure alignment and consensus.
- **Quality Assurance and Testing**
 - Design, develop, and execute comprehensive test plans, test cases, and test scripts for integrated systems.
 - Perform functional, integration, regression, and user acceptance testing (UAT) to ensure system quality.
 - Identify, document, and track software defects, working closely with development teams to ensure timely resolution.
 - Validate data integrity, system interoperability, and compliance with national and international health information standards
 - Establish and maintain quality assurance standards, methodologies, and best practices.

- Monitor and report on quality metrics, testing progress, and defect trends.
- **Release Management**
 - Develop and maintain comprehensive release plans in coordination with development teams and project managers, including timelines, scope, and deployment strategies.
 - Prepare, review, and maintain release notes documenting new features, enhancements, bug fixes, known issues, and system changes for each release.
 - Ensure all stakeholders are adequately informed about upcoming releases, their impact, and any required actions
 - Conduct release readiness assessments to verify that all quality gates have been met before deployment.
 - Maintain a release calendar and communicate schedule changes promptly to all relevant parties.
 - Manage version control documentation and maintain a comprehensive history of system releases.
- **Implementation Support and Training**
 - Participate in system implementation activities
 - Facilitate user acceptance testing sessions with end-users.
 - Support development and validation of training materials, user guides, and SOPs; conduct training sessions and provide mentorship to healthcare staff.
 - Provide ongoing post-implementation support and gather user feedback for system improvements.

Qualifications and skills

- **Education:** Bachelor's degree with a major in computer science or information systems
- **Experience:**
 - Minimum 5 years as a business analyst and/or quality assurance specialist, preferably within health information systems.
 - Documented experience working with DHIS2 and facilitating DHIS2 QA process at the national and international levels
 - Demonstrated experience in documentation, test planning, and execution.

- Experience with release management, including planning, coordination, and documentation.
- Experience working with healthcare providers and understanding clinical workflows is advantageous.
- **Technical Proficiency:**
 - Proficiency in quality assurance tools and methodologies (manual and automated testing).
 - Experience with test management and defect tracking tools (JIRA, TestRail, or similar).
 - Familiarity with release management tools and version control systems (Git, GitLab, Jenkins).
 - Understanding of SDLC and development methodologies
 - Knowledge of health information standards and interoperability frameworks (HL7, FHIR, OpenHIE) is a plus.
- **Soft Skills:**
 - Exceptional verbal and written communication skills in English; proficiency in Chichewa is an advantage.
 - Strong organizational skills with ability to manage multiple priorities and deadlines simultaneously.
 - Ability to coordinate complex activities across multiple teams and stakeholders.
 - Familiarity with business process modeling, quality assurance frameworks, and release management best practices.
- **Other Required Skills and Abilities**
 - Working knowledge of digital health systems in Malawi.
 - Familiarity with Malawi's digital health infrastructure and systems.
 - Proven success collaborating within diverse, multidisciplinary teams.

3. SOFTWARE DEVELOPER (CONTRACT - FULL-TIME POSITION)

We are seeking a skilled software developer to join our team focused on advancing digital health solutions in Malawi. The ideal candidate will contribute to the development, maintenance, and enhancement of the MaHIS, ensuring seamless integration with DHIS2 (District Health Information Software 2). This role involves applying practical knowledge of the MaHIS and

DHIS2 technology stacks to build robust, scalable applications that support public health data management, reporting, and analytics. The incumbent will build tests to ensure specification completeness, document code, and also provide support for running projects.

Location: Lilongwe

Essential duties and responsibilities include:

- Work with the business analyst team to create the overall design for the software applications
- Design, develop, and deploy new features and modules for the MaHIS platform using its core technology stack, including backend services, APIs, and user interfaces.
- Integrate MaHIS with DHIS2 for real-time data synchronization, reporting, and interoperability, ensuring compliance with health data standards (e.g., HL7 FHIR, where applicable).
- Troubleshoot, debug, and optimize existing MaHIS and DHIS2-integrated applications to enhance performance, security, and usability.
- Conduct code reviews, unit testing, and documentation to maintain code quality and facilitate team collaboration.
- Collaborate with cross-functional teams to gather requirements, prototype solutions, and support user training on developed features.
- Monitor system performance, implement updates, and contribute to disaster recovery and backup strategies for health data systems.
- Stay updated on emerging technologies in health informatics and propose innovations to improve MaHIS and DHIS2 workflows.
- Adhere to and contribute towards the improvement of the set standard operating procedures
- Document and maintain system documentation
- Participate in meetings as required
- Guide clients and users based on their specific needs.

Required Qualifications and Key Competencies:

- Bachelor's with a major in Computer Science
- At least 3 years of progressive work experience in software design and development

- Documented experience in developing FHIR-compliant software solutions development
- Knowledge of health information standards and interoperability frameworks (HL7, FHIR, OpenHIE) is a plus.
- Strong understanding of DHIS2 system configuration, data management, and analysis.
- Proficient in Ruby on Rails for backend and frontend development, with experience in React.js, Vue.js, or AngularJS, along with familiarity with JavaScript testing libraries (Mocha, Chai) and databases such as PostgreSQL, MySQL, CouchDB, Elasticsearch, and MongoDB.
- Experience with DevOps technologies such as Docker (Deployment), Jenkins/Circle CI (Continuous Integration), RabbitMQ (Messaging), and Nginx (Load Balancing) will be an added advantage
- Skilled in building and automating ETL data pipelines using Airbyte and Data Build Tool (dbt) for efficient transformation of FHIR resources.
- Experienced in integrating the HAPI FHIR Server with DHIS2 to enable seamless health data exchange and interoperability.
- Proficient in working within Linux/Unix environments

Soft Skills:

- Ability to multitask, work independently, be mature, and work under time pressure
- Ability to collaborate within diverse, multidisciplinary teams.
- Exceptionally organized, detail-oriented, and dependable

Application process:

Applications indicating the position applied for, including a detailed CV, copies of certificates, and names of three traceable referees, should be submitted not later than **1st December 2025** to the address below:

**The Registrar
University of Malawi
P.O. Box 280
Zomba
Malawi**

**Or
E-mail: vacancies@unima.ac.mw**