

## Terms of Reference (ToR)

### Software Developer – Collections Management and Access

#### **Background**

Established in 2016, [Southeast Asia Museum Services \(SEAMS\)](#) has extensive experience delivering a range of creative and innovative projects for clients in the cultural sector. Currently, SEAMS is delivering the Indonesian Museums Documentation Project (2025-2026) supported by the U.S. Ambassadors Fund for Cultural Preservation (AFCP). This project involves the development and implementation of documentation systems across 12 museums in Jakarta.

#### **Key Responsibilities**

SEAMS is seeking a **Software Developer** to design and prototype two interconnected systems: a Collections Management System (CMS) for museum staff and a public-facing search platform. The role involves research, technical development, and integration of AI features to support cataloguing, access, and interoperability of cultural data.

The Software Developer – Collections Management and Access will be responsible for the following:

- Work collaboratively with the project team to understand the project and user requirements and transfer this into user-centered software solutions.
- Research the leading collection management systems (CMS) such as CollectiveAccess, CollectionSpace, ehive, Victorian Collections etc. to identify the key software features.
- Develop software prototypes for collections management systems (CMS) that complies to international museum data management standards.
- Develop a Digital Asset Management systems (DAMs) that can work as part of the CMS and public search software.
- Research the leading public facing search application (Google Arts and Culture, Smithsonian, Rijksmuseum etc) to understand the key software features (including use of AI)
- Develop prototypes innovative public facing search applications that can be used access objects in the collection.
- Collaborate closely with the UX Designer and stakeholders to ensure a smooth user experience and functional design for the CMS and public search prototypes.
- Integrate AI-powered features to support cataloguing, data interoperability, search, and other system functions
- Support with developing strategies for the integration of the developed software into the Government of Jakarta's existing information technology frameworks.
- Perform system testing on the prototype systems to ensure reliability and performance and support with troubleshooting.
- Submit the complete and well-documented source code (including system architecture, API references, database schema, and deployment instructions) for the prototype Collections Management System (CMS) and public search software.
- Collaborate closely with the UX Designer to ensure accurate and functional implementation of UX design in the prototypes.
- Develop the terms of reference for the design of the full CMS and search application based on the development and testing of the prototypes.
- Based on the prototype and project needs, develop a technical Terms of Reference (ToR) to guide the procurement of a software development provider to develop the full systems. this should include system requirements, technical specifications, scalability considerations etc.

## **Deliverables**

- **CMS Comparative Research Report** – Analysis of leading Collection Management Systems (e.g., CollectiveAccess, CollectionSpace, eHive, Victorian Collections) identifying key features and best practices.
- **CMS Prototype** – Functional prototype of a Collections Management System designed in compliance with international museum data management standards, integrated with Digital Asset Management capabilities.
- **DAMs Integration** – A Digital Asset Management System integrated with the CMS and capable of linking with the public-facing search platform.
- **Public Search Prototype** – Functional prototype of an innovative public-facing search application enabling access to collection objects with AI-powered search and interpretation features.
- **AI Feature Implementation** – Integrated AI tools within prototypes to support cataloguing, data interoperability, search functions, and other system enhancements.
- **Integration Strategy Document** – Strategy and recommendations for integrating the developed software into the Government of Jakarta's existing IT frameworks.
- **System Testing & Performance Report** – Results and documentation of prototype testing, including reliability, performance, and troubleshooting actions taken.
- **Complete Source Code Package** – Delivery of fully documented source code for CMS and public search prototypes, including:
  - System architecture diagrams
  - API references
  - Database schema
  - Deployment instructions
- **UX-Integrated Prototype** – Final prototypes reflecting collaboration with the UX Designer, ensuring accurate and functional implementation of UX designs.
- **Prototype-Based CMS & Search System ToR** – Comprehensive technical Terms of Reference for the development of the full CMS and public search application, informed by prototype performance and testing.

## **Duration and Working Conditions**

- Period: Six months with the possibility of extension.
- Full-time position (5 days per week).
- Working Arrangement: Remote, with optional in-person meetings in Jakarta/Yogyakarta.

## **Remuneration**

- The Software Developer will receive a competitive fixed monthly remuneration inclusive of all applicable taxes and BPJS.

## **Required Skills and Experience**

- Knowledge of museums data standards and requirements
- Knowledge of Open Software and Open GLAM principles
- Interest in cultural heritage collection, galleries and museum
- Prior experience developing museum collection or database systems
- Knowledge of leading collections management software such as CollectiveAccess, CollectionSpace, ehive etc

## **Application**

- Please email your CV and a one page cover letter to [admin@seams.id](mailto:admin@seams.id) by **Thursday the 28<sup>th</sup> of August 2025**. Kindly include the role name 'Software Developer' in the email subject heading.