Design and build of a web interface to support the New Museum project

Date of issue: 23/01/2020

Deadline for responding: 04/02/2020

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1 Introduction

This brief is for the design and build of a web interface to support the selection of content for the Museum of London's New Museum at West Smithfield.

The Museum of London has embarked on an epic journey to create a new museum. This is a once-in-a-generation opportunity to reconceive what a museum for London can be. Housed in astounding but currently dilapidated market buildings in West Smithfield, the new museum will stand in the heart of one of the city's most historic and creative localities.

The New Museum project requires the development of a whole new set of museum displays and the move of in excess of 450,000 objects currently stored at the London Wall site. In order to support content workflow for this project, we require a web interface that allows us to:

- Share lists of objects planned for inclusion in the new displays with both internal teams and external third parties
- Report on and track the progress of a range of tasks that will prepare objects for move and for display.

2 Target audience

The web interface will be used by:

- Internal stakeholders
- Third parties working on the project eg exhibition designers.

3 Scope

This brief is for the design and build of a web interface and associated back-end functionality to support the querying and extraction of data from Mimsy XG.

It does not include any development or changes to existing systems such as Mimsy XG, our collections management system.

4 Requirements for the web interface

Requirements for the web interface are divided below into three broad areas – general requirements, requirements needed to support sharing lists of objects planned for new displays, and requirements for reporting on and tracking progress of tasks. These are indicative of the functionality required, and other requirements may be developed in collaboration with the appointed contractor perhaps via a scoping workshop.

4.1 General requirements for the web interface

I. The interface must provide an authentication method and only be accessible via a username / password. Users must be able to reset passwords via email.

II. The ability to assign roles and permissions to users in order to limit access to specific parts of the web interface. For example restricting access to only static object lists for external third parties, or allowing only certain users to raise issues / add comments.

III. Technology used to build the interface must provide adequate protection against attack methods, for example XSS, CSRF, SQL injection and clickjacking.

IV. The web interface must not be publicly accessible, but must be accessible via selected external third party offices. The web interface can be made accessible on all Museum of London networks. This would be subject to further scoping and definition in collaboration with the museum ICT department.

4.2 Sharing lists of objects planned for new displays

The Museum of London uses Mimsy XG as its primary collections management system. Mimsy XG consists of a Java client application, with data residing in an Oracle 12.2 database; this database contains data relating to all objects planned for inclusion in the new displays. We require a method of sharing lists of these objects with both internal teams, and external third parties. In order to facilitate the sharing of object lists the web interface must provide the following functionality:

I. Display live lists of objects selected for inclusion in the new displays, from data held in the Mimsy XG database. This is so that internal teams are able to view details of objects selected without requiring the use of Mimsy XG.

II. Issue static lists of objects selected for inclusion in each of the new displays, based on data held in the Mimsy XG database. This is so the museum can issue version controlled lists to external third parties such as designers. Data for static lists must be held within a separate database (MySQL or similar) and not within the Mimsy XG database. Lists must be viewable in draft before being issued to external third parties, and a record of list statuses (and who issued each list / when) must also be captured.

III. Allow internal teams and external third parties to raise issues in relation to individual objects on static lists. Once an issue has been raised, internal teams and external third parties must be able to add comments to the issue in order to facilitate discussion. It should also be possible to track issues by resolution status and priority.

IV. Record changes to data (updates and deletions) outside of Mimsy XG such as for issues raised and comments.

V. Download live and static object list data within the interface, in CSV, XLS/XLSX and PDF format.

VI. Query Mimsy XG's audit log table for all updates and deletions, and show changes between specific periods alongside live and static list data.

VII. Display Live and static lists in data-table format, with the ability to sort and filter data.

VIII. Transform data such as location information based on conditional operators. Some data held in Mimsy XG is sensitive and requires transformation, for example the locations of objects.

IX. Display images referenced in Mimsy XG for each object contained within both live and static object lists. Object images are stored on a networked server, and are linked to objects via the Mimsy XG database. It should be possible to view a thumbnail image for each object within lists, with a link to a gallery of all images held for any given object. Images must be downloadable within the browser via a link.

4.3 Reporting on and tracking progress of tasks

The Museum of London utilises a range of modules in Mimsy XG to manage and record activities such as object movement, conservation, photography requests and exhibition content selection. Various stakeholders across the museum need to be able to track the progress of tasks relating to the preparation of collections for the move to West Smithfield. The web interface must provide the following functionality to support this:

I. Display live statistics and reports based on data held in the Mimsy XG Oracle database.

II. Provide top-level and sub-dashboards for distinct task 'pipelines' such as conservation, photography, content selection for galleries, and object movement.

III. Show photography requests and objects linked to each request in data-table format.

IV. Insert a new photography request status into the Mimsy XG database from the web interface for each photography request subject to adequate security.

V. Assign a task to a user to be completed on a regular basis or one time (for example to review a report, or issue a static object list at regular intervals).

VI. Send scheduled emails to users to prompt them to complete a task and/or review a report on a regular basis.

VII. Show statistics in various chart formats and in data-table format.

VIII. Report on data captured by the web interface but held outside of Mimsy XG, such as issues and comments raised against a static list.

IX. All dashboards and reports must be configurable by the Documentation Manager, via an interface, SQL, or a similar query language.

5 Deliverables

I. All images and source files forming the structure of the web interface (CSS, HTML, JS etc.)

II. All source files to include relevant comments on function.

III. Documentation on design and how the web interface functions (eg details of API endpoints).

IV. Delivery of a prototype, first working version, and final completed version of the web interface as outlined below.

6 Design considerations

The design should consider the following:

I. The list interface must be user friendly and accessible via a wide range of web browsers. It must also be responsive to a wide range of screen sizes (desktop, tablet, mobile).

II. The Mimsy XG Oracle database is hosted on premise (on a Windows server 2016 VM), the solution must be able to connect to this database securely.

III. The solution may be implemented via an on-premise or cloud-based server (or a combination of both), subject to further discussions with the chosen contractor.

7 Accessibility standards

The site must meet the guiding principles and requirements of the technical standards and access guidelines as set out in the DDA & WAI. The site should comply with WCAG 2.0AA standards. Where contractors wish to deviate from the standard, which is possible in some areas, formal agreement must be sought in advance from the project team.

CSS and other code should validate and be written with relevant comments on function.

8 Information to be provided by the museum

The Documentation Manager will provide details of all table structures and fields from Mimsy XG, to be utilised in the interface.

9 Copyright

The web interface and all developed content (including all code, images and source files) are copyright of the Museum of London, with the exception of content where this does not apply such as open source software utilised. All images provided hold the copyright of their originating institution and will be credited accordingly.

10 Project management

10.1 Budget

Costs for carrying out this work must include any travel (for meetings) and any other project costs incurred. Staged payments can be made if agreed in advance, and must be tied to the completion of agreed milestones.

10.2 Testing and sign off

The interface will be tested as follows:

- Prototype to test concept/design will be reviewed internally by a number of internal stakeholders and feedback provided promptly
- First working version tested and feedback issued
- Final working version tested and approved as complete before being made live.

10.3 Timescales

Below are the timescales that the museum proposes. Depending on the approach taken, it may be possible to deliver aspects of this project over a longer period of time. Our priority is the delivery of functionality required for the sharing of lists of objects planned for the new displays.

Dates	Key milestone
04/02/2020 by 5.00pm	Deadline for response to brief
05/02/2020 by 5.00pm	Invitations issued to attend an interview on 6 or 7 February 2020.
Week commencing 10/02/2020	Contracts finalised and work begins on prototype web interface.
31/03/2020	Deadline for completion of web interface to support sharing of object lists. Final working version to support this functionality to be made live by this date.

08/05/2020	Approximate deadline for completion of web interface to support reporting on and tracking the progress of tasks. Final working version meeting all requirements to be made live by this date.
29/05/2020	Project close-down and all other deliverables met.

10.4 Existing and future contractor liaison

The development of the interface is a new package of work, which does not fall under the terms of any existing contract.

10.5 Terms and conditions

A standard services agreement will form the contract for this work (an example of this agreement is available upon request).

11 Requirements for response to this brief

When responding to this brief please provide details of how you would fulfil each of the requirements listed under section 5. In addition please provide the following:

- Examples of similar/relevant projects you've carried out previously
- Details of the technologies you would use to build the web interface (including any APIs or backend technologies to support functionality of the web interface)
- A high-level description of your approach and how the timescales outlined in this document can be met
- Any requirements you have with regards to development.
- A suggested set of timescales which respond to those proposed above by the museum
- A detailed breakdown of the costs of this piece of work, with proposed staged payments if applicable.

The deadline for responding is 4 February 2020.

12 Criteria for judging proposals

Responses will be assessed against the following criteria:

- the suitability of the approach outlined
- demonstrating an understanding of the brief
- ability to carry out the work within the proposed timescales
- positive references based on previous work

- value for money.

Shortlisted applicants will be invited to interview on:

- The suitability of the approach outlined
- demonstrating an understanding of the brief

13 Contact

The primary contact for the project is Luke Pomeroy, Documentation Manager (lpomeroy@museumoflondon.org.uk or 020 7814 5651).

Responses to this brief should be sent directly to Luke.