

Evaluation task for:

Front-end Developer/Designer

Catalyst IT Australia

Expert Open Source Solutions

Version 1.1

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Commercial in Confidence



catalyst 
open source technologists

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Revision History			
Modified by	Date	Version	Change
Arjen Lentz	2020-10-05	1.0	Initial version (KC,MD,RS,AL)
Richard Spring	2020-11-10	1.1	Minor wording changes

1. Catalyst Repository Browser

Catalyst IT currently has over 300 repositories under the umbrella of the Catalyst organisation on GitHub (<https://github.com/catalyst>).

Your task is to create a web-based repository browser so that a user can take a look at some of the great work that Catalyst has been doing. You are to design and implement a small front-end application utilising GitHub's public REST API that will showcase the Catalyst organisation and these repositories.

1.1 Application Requirements

The application must:

1. Present details of the Catalyst organisation available on GitHub, which include but are not limited to:
 - a) Name
 - b) Description
 - c) Location
 - d) Total number of repositories
 - e) Blog URL
 - f) GitHub URL
2. Present a list of all Catalyst repositories available on GitHub and their details, which include but are not limited to:
 - a) Name
 - b) Description
 - c) GitHub URL
 - d) Whether it is a fork
 - e) Star Count
 - f) Watchers Count
 - g) License (if there is one)
 - h) Language
 - i) Top 5 Contributors
3. Allow users to filter the repository list to show repositories that are:

- a) Forked
 - b) Not forked
4. Allow users to sort the repository list in either ascending or descending order according to the following:
 - a) Created time
 - b) Updated time
 - c) Full name
 5. Be able to handle a large number of repositories
 6. Utilise responsive web design
 7. Meet WCAG 2.1 Level AA guidelines for accessibility (<https://www.w3.org/WAI/WCAG21/quickref/>)

1.2 Deliverables

1. Provide two design mockups (mobile and desktop) of the page layout using your preferred graphics application(s). Wireframes are also acceptable but less preferred.
2. Provide the source code for the application.

1.3 GitHub API Endpoints

- <https://docs.github.com/en/free-pro-team@latest/rest/reference/orgs#get-an-organization>
- <https://api.github.com/orgs/catalyst>
- <https://docs.github.com/en/free-pro-team@latest/rest/reference/repos#list-organization-repositories>
- <https://api.github.com/orgs/catalyst/repos>
- <https://docs.github.com/en/free-pro-team@latest/rest/reference/repos#list-repository-contributors>
- https://api.github.com/repos/catalyst/<repository_name>/contributors

1.4 Target Browsers

The application should look and behave properly on the latest versions of:

- Firefox
- Chrome/Chromium
- Safari

- Edge

And naturally mobile/tablet as well as on a laptop/desktop environment.

In your response submission, please specify clearly for which browsers/versions you have designed (and tested) your application.

1.5 Frameworks and Third-party Libraries

Your application may make use of third-party frameworks and libraries, for example:

- jQuery
- LESS or SASS
- React or AngularJS
- Icon sets, e.g. FontAwesome

1.6 Graphics Tools

Catalyst IT Australia uses Ubuntu GNU/Linux everywhere, and open source tools whenever possible. Inkscape, Krita and the GNU Image Manipulation Program (GIMP) are all mature and capable applications and are used by many professionals.

We do appreciate that you may be more familiar with (or just prefer) for instance Adobe Photoshop. You are free to choose and use your favourite graphics tools, and inside Catalyst we make allowances for this including acquisition of appropriate licences and maintaining suitable (virtual) environments.

1.7 Demonstrating Your Skills

Your application should demonstrate your ability to:

- use a graphic application to mock up prototype designs for mobile and desktop;
- use JavaScript to provide a dynamic user interface, and to integrate with a RESTful API;
- develop an aesthetically pleasing and user-friendly interface;
- produce responsive CSS compatible with the latest major browsers;
- produce HTML markup that complies with best practices; and
- comply with relevant guidelines and standards (specifically in this case, WCAG 2.1 Level AA guidelines for accessibility).

1.8 Source Control

The code for the test is to be managed using “Git” as the Version Control System, with the repository made available online at one of GitHub (github.com), Bitbucket (bitbucket.org) etc. This will be how your submission is to be delivered to Catalyst at completion of your task.

- A repository with only one commit is not acceptable. Showing the development process is just as important as the task itself.
- README.md, and user documentation, are not optional.

1.9 Questions

The aim of this task is to test both your development and design skills as well as simulate a real world project task. Guidance can be sought regarding the requirements and deliverables of this task, or to elicit early feedback in the delivery cycle.

However, questions on “how to do it” won't be accepted.

1.10 Evaluation

Your task submission, and the communication around it, will be evaluated as part of the overall application process. We will look at the deliverable itself, but also how you work, and how you communicate.

Applicants will receive some feedback on their submission, to assist with learning and further improvement. You may follow up on our feedback if you have a question, however arguing about matters is never a winner.

A candidate with an incomplete submission, or no submission, will not be considered for an interview.