root@hack2024:~/NLC^2 $ cat Project_Problem

Many institutions don't have an easy way to categorize or present their training resources. Currently, HPC-ED utilizes a command-line interface (CLI) to add training material to and query data from a database which is not at all user friendly or intuitive. Many people don't know how to use a CLI, so they don't get the opportunity to use the institution's training resources.

Furthermore, most people go to Google for their needs which isn't the best way to search. A given Google query might return thousands of results, making it hard to know which ones are worth looking at because the quality of sources vary.

:wq

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root@hack2024:~/NLC^2 $ cat HPC-ED_Gateway

Our Targeted Science Gateway is the HPC-ED Gateway. HPC-ED (High-Performance

Computing - Education) is a project to create and share metadata for HPC educational

materials, making it easier to discover, access, and publish these resources through a

federated catalog system.

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root@hack2024:~/NLC^2 $ cat Project_Goals

1. Create a user-friendly website template for institutions to store and query training resources that don't use a CLI

2. Connect a database to the website that stores the training resources and supports the CRUD operations

3. Allow a user to download a JSON file for a given training resource returned from a search query

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root@hack2024:~/NLC^2 $ cat Potential_Pitfalls_and_Bottlenecks

1. <u>Time</u>: only having a week to complete our desired goals can cause stress and anxiety

2. <u>Gold plating</u>: getting too distracted by the finer details at the beginning can prohibit

    us from getting important work done

3. <u>Test data</u>: getting enough data to test the corner and edge cases might be difficult

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root@hack2024:~/NLC^2 $ cat Project_Plan_Delivery

Deliverables

Github Lead: Nole Stites

Presentation Lead: Christian Johnson

Poster Lead: Lisha Ramon

Code Lead: Chandler Campbell

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root@hack2024:~/NLC^2 $ cat Project_Breakdown_Website

Website Pages:

- Home: Initial presentation, connects other pages via links

  ○ Guides how to utilize template

- Search: User will query the database. May have the option of applying filters for

  specific results.

- Admin: Accessed by persons with privileges to perform CRUD [Create Read Update

  Delete] operations on database material.

- About: Provides info about the vision of the mission to achieve

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root@hack2024:~/NLC^2 $ cat Project_Breakdown_Database

Database:

- Utilize Global Search API: Stores all data, set privileges on data visibility, as well as

  retrieve data through search queries.

- Rather than creating a DB, utilize a resource that provides one for us(HPC-ED API)

- (For group) Read up on Github's documentation for open community:

  ○   github.com/readthedocs/readthedocs.org

  ○   readthedocs.org

  ○   docs.globus.org/api/search/

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root@hack2024:~/NLC^2 $ cat Project_Breakdown_Backend_Code

Backend Code:

- Bridges between the database (DB) and frontend website

- User submits a search query to backend code -> Accesses DB via API

- DB returns query results to backend code -> Displays back on website via API return

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root@hack2024:~/NLC^2 $ cat Project_Ideas

- Relevant and meaningful search results

    ○ Generate summaries of data and order results in a meaningful priority

- Smart/predefined search features

    ○ Show results published from a user's institution or about their area of expertise

- Dynamically generated list of search filters

    ○ Create filter options based on the metadata in the database entries

- Google authentication to allow for admin users and standard users

    ○ Restrict admin actions like adding/removing database entries to specific users.

- Suggest resources to add to the database

    ○ AI resource suggestions based on a given text

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