Title of the Project: Efficient ETD Submission Management System using Drupal and MySQL
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GitHub Repository: https://github.com/imyem7/etd_db

1.   Description:

Submitting Electronic Theses and Dissertations (ETDs) is a graduation requirement in many graduate schools. At Duquesne University, we have identified issues with the current process for managing ETD submission data. Specifically, the ETD coordinator faces challenges in tracking and updating ETD data locally. Although approved ETDs are published in the institutional repository and ProQuest Central, a local tracking database is still necessary to include basic information about students, committee members, school representatives, time stamps, and document information, including major metadata. This data management is particularly crucial in ensuring the safety of students' records, even in the event of institutional repository or ProQuest database corruption.

The ETD coordinator is responsible for tracking students' progress and reminding them and school representatives of major deadlines throughout the process. Additionally, the coordinator must track embargo dates and process embargo expired documents. Currently, data collection at Duquesne University involves the use of a PDF version of the approval form, and the ETD coordinator records data manually in a temporal Excel spreadsheet, following up with students who have submitted the approval form or finished the formatting review. Later, this data is entered again in the ETD status data file, which is also an Excel spreadsheet. However, the process is redundant, inefficient, and prone to errors.

To address these challenges, we propose building an efficient relational database to streamline the process of ETD submissions. Our solution will use MySQL to create a relational database, and we will implement an application using Drupal 8 or another CMS platform to create a RESTful API endpoint. In particular, our solution will also enable the ETD coordinator to have basic Create, Read, Update, and Delete (CRUD) database functions. With this approach, we aim to reduce the time spent entering the same data repeatedly, minimize errors, and improve overall efficiency. By creating a more efficient data management process, we will ensure that students' records are kept safe and secure.

2.   Usefulness/Meaningfulness:

This project will be beneficial and meaningful for Duquesne University and other institutions that face similar challenges in managing ETD submissions. By creating an efficient and streamlined process for tracking ETD submissions, we can significantly reduce the time and effort required by the ETD coordinator to manage the data. In addition, the risk of errors or data loss will be greatly reduced, and students' records will be kept safe and secure.

For example, by implementing a relational database, the ETD coordinator will be able to easily track students' progress and deadlines, ensuring that all necessary steps are completed on time. The database will also provide a centralized location for all ETD submission data, eliminating the need for the ETD coordinator to maintain multiple files and spreadsheets. Finally, the ability to set alerts for embargo expiration dates will ensure that these documents are processed on time, further improving the efficiency of the overall process.

3.   Technical Platform Description:

To implement this project, we will use a combination of MySQL and a CMS platform such as Drupal. MySQL will be used to create the relational database to store all ETD submission data, including student information, committee member information, school representative information, time stamps, and document metadata.

We will also use Drupal 8 to build the front end of the application, which will include the user interface that students, committee members, and school representatives will interact with. Drupal 8 supports the creation of web forms, simplifying the process of collecting and validating user data. Users will be able to query the ETD database, export their queried data as a spreadsheet and import data. Lastly, users will be able to identify and notify those individuals whose ETD needs assistance in the system by building a web-based dashboard using a RESTful API to provide users with an intuitive interface for managing their ETD submissions. The dashboard will provide real-time updates on submission status, allow users to receive notifications, and access additional resources related to the submission process.

To integrate Drupal 8 with other systems and applications, we will use Apache as the backend web server for our project. Apache is capable of serving both static and dynamic content, including PHP-based applications like Drupal.