Ethics Dashboard (1): Final Report

Description

This is a dashboard where students can learn about various ethical philosophies from case studies while maintaining an interactive experience which can be recorded by an admin. Students will have the opportunity to evaluate given case studies and contribute their critical analyses using the various ethical philosophies. Student feedback will be given back to the student in the form of comments and grades.

Participants are able to navigate to all pages of the dashboard. Interact with the different inputs that are implemented (textboxes, ranges, buttons, radio), the user inputs are able to be updated and viewed by the user as they are stored in the database. Instructors are able to view all student answers in order to provide feedback which the student is able to download in the form of a csv file along with their responses. Participants are also able to create an account and sign in with that account, the account is stored in a database. Participants testing the site should also be able to sign in as an admin and navigate to the instructor view in order to view answers from specific students based on the student ID that is searched.

User Groups

User groups are defined into 2 categories: Student or Professor/TA.

Students will be able to go through the dashboard and answer modules. Their answers will be recorded into the dashboard database

Example Scenario:

- Student navigates to website
- Student does not have an account currently so they navigate to the create account link
- Student creates an account and is redirected to the login page
- Student logs in and is presented with the homepage of the dashboard
    - Here the student will be able to interact with the dashboard and go through the modules
- Student answers are stored into the database as they go through the modules
- If the student wishes they can download a report of grades and feedback given by the Professor/TA

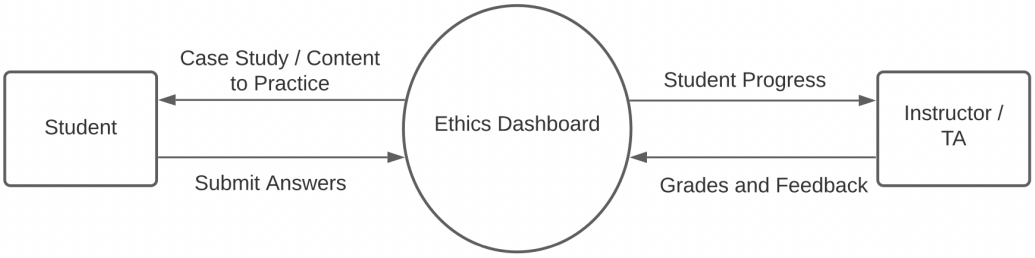
Professor/TA will be able to go through the dashboard and interact with it the same way a student can. Additionally, the Professor/TA will be able to view student answers and sort them by student ID.

Example Scenario:

- Professor/TA navigates to website
- Using a special login the Professor/TA is able to login and have access to ‘instructor view’
- Professor/TA can also interact with the dashboard same way a student could
- On the ‘instructor view’ page the Professor/TA can view student responses and sort them by student ID

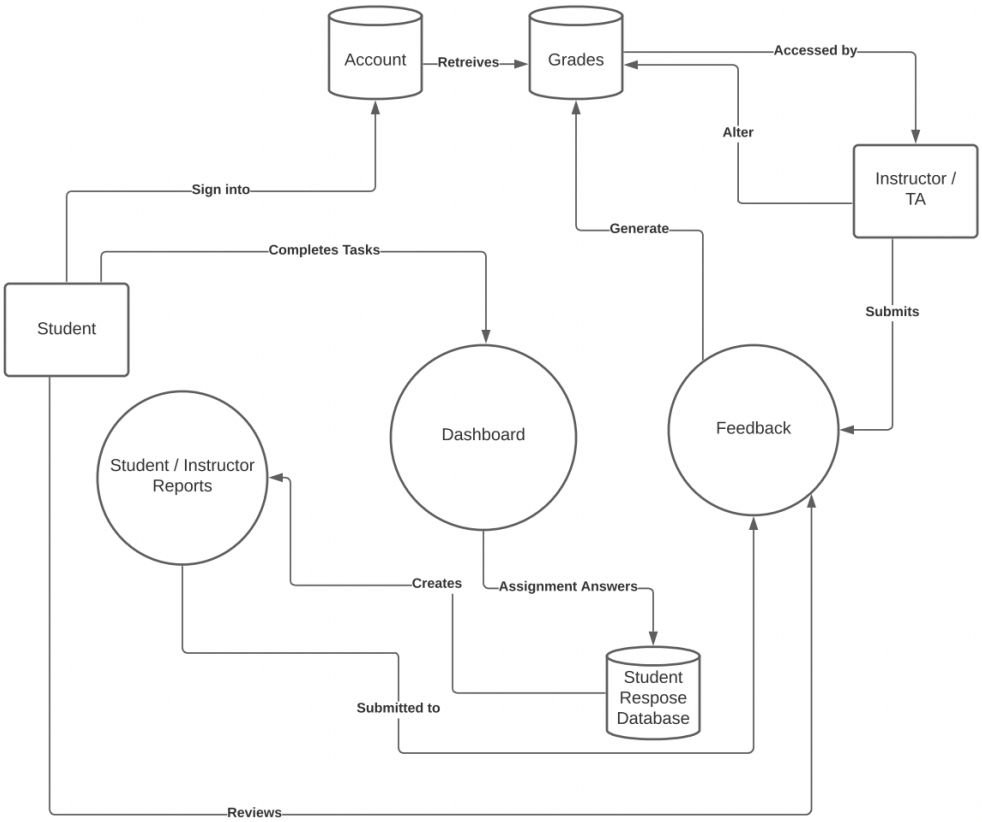
Data Flow Diagrams

DFD: Level 0



This level 0 data flow diagram shows the three largest components of the system as a whole. Starting with students, they will be able to receive case studies and content to practice on from the process, Ethics Dashboard, which is also the general system. The students will also be able to submit their answers to the case studies and practice questions to the Ethics Dashboard system. The third component is the course instructor(s) and TA(s). They will be able to view student progress through the Ethics Dashboard. They will also be able to comment and give feedback on the students’ work through the Ethics Dashboard.

DFD: Level 1



The level 1 data flow diagram shows a total of three processes and three databases. The students will be able to sign into their accounts on the Ethics Dashboard system (peer testing #1), which will also be linked to the Grades database (peer testing #2). The students will also be able to complete tasks on their dashboards (peer testing #1). Their assignment answers will then be stored in the student response database which will be used to create the student/instructor reports page (peer testing #1). The student / instructor reports will then be submitted to the feedback process which students will be able to view and instructors / TAs will be able to submit their feedback and comments on the students' work to this process (peer testing #2). Instructors and TAs will also have access to the Grades database and they will be able to alter the database as well (peer testing #2). Lastly, the feedback process will generate a grade for the students' work and will insert it into the Grades database (peer testing #2).

Functional Requirements

Milestone 1: Peer Testing #1 - Basic Functionalities (Student side)

- Basic skeleton of the website(HTML) and the linked pages should be set up. This means each ethical theory tab (Utilitarianism, Deontology, Virtue Ethics, and Care Ethics) should be linked to the navigation of the main Dashboard page.
- Basic styling using CSS should be set up and consistent through all pages
- Account login pages are connected to a sample database
- Users are able to input and submit forms (assignments)

Milestone 2: Peer Testing #2 - Advanced Functionalities (Admin side)

- Instructors and TAs have access to their own portals
- Admins can add feedback to the student assignment submissions
- Admins have access to altering and accessing student grades through the grades database
- Students can view feedback from Instructors on the My Progress page

Milestone 3: Final Product

- Testing of all features that work together and have been implemented
- Entire system is functioning as it should and includes all functional and non-functional requirements
- Databases are working and are manageable for the future and maintenance

Tech Stack

Frontend

The team choices of tech stack were based on technology we are familiar with, popularity of tech, documentation and support, and whether or not the server host requires the use of a specific tech or doesn't even support the use of another. Our client is very flexible with the technology we use so the frontend language design of choice is HTML, CSS and jquery. Our reasoning is that it's fairly easy to develop while still supporting many of the features that the client requested. CSS and jQuery are easy to implement into HTML and do not require a lot of documentation or prior knowledge. Maintainability and updates are easy to document and implement due to the simple nature of HTML and its support of stylesheets, client-side and server-side scripts.

We have also implemented the use of Bulma, a css framework. We use Bulma because it is fairly easy to use and can be easily implemented for global and local styling.

Backend

In our backend we used PHP which is a low level web framework based. It is simple and

intuitive, a basic for anyone who will be maintaining the project after it is finished.

Database

We used mysql and sql to integrate and manipulate the database into the dashboard. The reasoning behind this is because it is fairly simple to understand and there is tons of documentation and support for troubles

Software Implementation Status

- Test Report
    - All pages have been implemented
    - Both instructor and student view have been added and tested
    - Connect local hosting to server hosting using what the client gave us, phpmyadmin
    - Able to store and retrieve database items through the server

- Unimplemented Requirements
    - N/A

- Partially Completed Requirements
    - Add a way to integrate student feedback in the instructor page

Known Bugs

- Care Ethics Page does not load
- No way of adding student grade/comment unless through phpmyadmin
- When typing password it is not protected
- Not really a bug bit unable to add multiple instructors unless through phpmyadmin

Project Takeover Guide

Access the Project:

To access the site navigate to https://lowe-walker.org/ on your browser of choice. Click the link that says “Ethics Dashboard 1”. At this point you can either create a new account or to access an existing account with both student and admin views use the following login:

Student ID: 12345678
Password: 12345678.

Installations:

No installations are required in order for the client to run and access this project.

For Maintenance:

Things you should be familiar with before starting the project:

Fundamental understanding of HTML

Fundamental understanding of Jquery

Fundamental understanding of PHP

You will have access to the project repo and documentation on github and is generally a good place to start when trying to understand the workflow and code (the repo link to this project can be found under "Links"). The database is hosted on cPanel provided by the client.

The following will need to be managed through maintenance for the site:

- Admins need to be manually inputted into the database
- Database will need to be updated based on class case studies
- Databases may need to be wiped and reset depending on when new case studies are introduced

Remaining Features:

The only feature that was unable to be fully implemented for this project is allowing the instructor or admin to insert feedback and a grade for the student answers.

Links

Link to github repository: https://github.com/aCupOfHotJava/Ethics_Dashboard_1

Link to the site: https://lowe-walker.org/ or https://lowe-walker.org/temp_group_1/Project/html/login.php