

The users will be performing tasks either in a classroom setting or while planning a lesson. They may also be helping a student or group of students with a specific problem/misconception. This means that searching for analogies to address a specific misconception will need to be fast and easy.

Nominal uses:

- Creating an analogy
- Searching for analogies
- Deleting analogies

Error use cases:

- Attempting to create an analogy without filling in all necessary fields
- Attempting to create an analogy without the proper credentials (no account)

Scenario 1: Creating an analogy

Instructors teaching a class on computer science concepts receive feedback from their students about their understanding of a topic. Students tell the instructor how they understand the concept and if the students have a misconception of a topic, the instructor can use this information to create an analogy in order to better the understanding of the students.

The instructor visits the navigation page where they are given options to create, search, or compare analogies. After seeing these options, the instructor selects the option to create an analogy. The new analogy button will present a form to input the following information:

- The misconception
- Desired knowledge
- Source Domain and Target Domain information each contain:
 - Domain
 - Precondition
 - Required action
 - Postcondition
 - Constraints

Upon filling out the fields, the instructor will be given the option to make the analogy. Once created, the instructor can present it to the class or the students can access the site and search for the analogy to help clarify their misconceptions.

Scenario 2: Searching for analogies

Instructors or students looking for analogies will input the desired “fields” into a search bar based on misconceptions of concepts they may have. Once that input is pushed through, the system will reference the database containing analogies similar to the search field, and return the results that are similar to the query in some way. This query is further organized by how frequently an analogy is used, and how well it is rated.

Scenario 3: Deleting analogies

An administrator is browsing the app and they find an analogy that is either incorrect or inappropriate and they decide to remove it. The admin selects the analogy they want to delete so they can see more information about it. They then click the delete button and a confirmation dialog appears. After confirming that they are sure, the analogy is removed from the database and the app.

Error Scenarios

Scenario 4: Attempting to create an analogy without filling in all necessary fields

An instructor or a TA navigates to the create page and enters some, but not all the fields in the form and clicks the submit button. Because there is missing information from the form, the website will prompt the user with an error message that there are missing fields. The prompt will notify which fields are missing and ask the user to please complete the form. The user will close the prompt and return back to the form, retaining previously entered fields. The user will enter the missing fields and then click the submit button again. If the form is complete, then the system will accept the values, otherwise, the system will prompt the user with another error message. The error messages will keep popping up when the user clicks the submit button and the form is incomplete.

Scenario 5: Attempting to create an analogy without the proper credentials (no account):

Someone tries to create an analogy but they do not have an account created on the website. They access the create analogy page using the URL. When this is attempted, the website should not allow the user to create an analogy and be prompted to create an account. After creating an account, the user would be able to create analogies using the normal means.