EECS 448 Group 2 - Project 3

Design Pattern

Our UML diagrams show that state is a crucial design pattern used for our prototype. We want to have multiple questionnaires of different types (different methods of determining results), and we want numerous questions of different styles to be eventually displayed by the same template. Hence, homepage information, quiz, and result must have a state of being modified to represent different types of quizzes and questions. Chain of responsibility and mediators are other design patterns for our prototype. The home page of our site will call scripts to run whichever quiz is selected, and when a quiz is completed, it calls upon a script to display results. This allows us to think about our pages sequentially and use each step in the sequence to serve as a mediator that doesn't have to communicate with the previous page after being called. For our final product, we also plan to use strategies as a design pattern to allow us to define different algorithms for different types of quizzes. The state of our objects/pages will allow us to have other visual representations and styling for different types of quizzes. Still, we also need a flexible way to determine results for quizzes with various inputs and methods of determining results. These design patterns together should help make the automation aspect of the project great for reproducibility and ease of use in the future, which was one of our goals with this project.