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Data Structures (CS 341-01)

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Design Process and Decisions

When we started the design process we knew that we wanted the user to be able to decide initially if they were an admin or not. To do this we decided on having a pop up that would allow the user to do so while allowing them to switch from one another and keeping the session in the background. From there we worked on the PurpleBoxUserInterface and started out by using JList to print the data, but found that JTable would make it easier for the user to select a movie object and execute the selected process. From there the design process was simple because all that was left would be creating buttons for the processes as well as handling the exceptions. For almost all of our data structures we decided to use an ArrayList because it would allow us to look at all the movie objects as well as dynamically adding or removing movies. When considering different algorithms to use we focused on the simplicity of the code, efficiency, and the factor that an actual physical PurpleBox would only be able to fit a finite set of movies; speed wouldn’t be a major concern due to the finite movies so we used O(n) for most of our traversing through data.