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Requirements

* The program shall be operable on at least the Windows platform
* The system shall have the capability to save training goals and courses, and open / run the training simulator.
* The system shall have a log in / log out system
* The system shall provide an interactive GUI for the log-in page, and all 4 different employee types.
* The user, if a training administrator, shall be able to enter lesson goals, plans, and view the scores of the trainees in their class.
* The user shall have a personalized log-in name and password.
* The system shall save all user information corresponding to: name, employment type, phone number, test scores (if applicable), address, hours logged on the simulator, etc.
* The system shall provide a randomized, interactive lesson to the user (if they are a trainee) corresponding to the lesson planned out by the administrator.
* The user, if a trainee, shall be able to take an evaluation based on the lesson plan set up by the administrator.
* The user, if a trainee, shall be able to view the number of hours they have logged on each lesson, total, and view a report outlining how they have performed at each ‘goal’.
* The user, if a manager, shall be able to view training reports generated by the system for each trainee.
* The system shall be able to gather data based on simulation tests and generate a report breaking down a trainee’s performance.
* The user, if a government auditor, shall be able to view a system-generated report displaying how many hours each trainee has logged.
* The system shall be able to generate a report for the auditor that gives a total number hours logged on the simulator.
* The system shall be able to time the amount of time a trainee has spent specifically on simulators.
* The user shall be able to log into a personalized GUI based on their employment type and shall be able to log out bringing them back to the log in / home page.
* The system upon first opening shall have a general log in name and password set to manager employment level in order to add more users and employees. (ie. A “master” log-in)
* The user, if designated a manager, shall be able to add more employees and generate usernames / passwords respective to the employee.
* The system shall log the user out automatically upon closing of the program.
* The system shall lock a user out upon failing 5 times to type in the correct username and corresponding password, this lock out will last for a minimum of 2.5 minutes.
* The user shall be able to change their password, requiring the old password and then inputting new password.

Use Case

The User requests to log in using log-in name and password on the home page GUI. The system checks the log-in database for their case-sensitive log-in and password. If the system does not find matching information, it denies the User’s request to log in and asks for another attempt. If the User has failed to log in after five attempts, the system shall prevent logging in on that computer for the next 2-3 minutes or a manual override. If system login succeeds, assigns employee value (manager, trainee administrator, trainee, and auditor), and shows a customized screen associated with their employee value. If the wrong employee screen is brought up by the system to the user, there shall be an option for the user to change their type to the employment level, requiring a manager-user override using their log-in and password. The user shall be able to change their password, requiring their old password and the desired password. If the password fails to change then the user shall be able to re-attempt changing the password. If the password change continues to fail then a manager user shall be able to manually change the user’s password. Every user shall be able to log out. If the log out attempt fails, then the user shall be able to close the program in order to forcibly log out of the program.

If the user has the auditor value, a personalized GUI corresponding to the auditor employee type. The user, if an auditor, shall be able to interact with the system in order to generate a general report that gives each trainee’s name and the amount of hours they have logged practicing on the simulator. If the report is generated incorrectly or does not open, the user shall be able to close the report and re-generate the report. The user shall be able to log-out through interacting with the system and it should bring them back to the home page. If the system does not log-out correctly then the user shall be able to close the program and forcibly log out.

If the user has the manager value, a personalized GUI corresponding to the manager employee type. The user, if a manager, shall be able to interact with the system in order to view the training reports of each trainee and the breakdowns of their performance on each goal / lesson. If the training report fails to open or generate incorrect data upon user interaction, the user shall be able to close the report and re-generate a new one. The user shall also be able to input new user information and create a corresponding username and password, the data will not be accepted without a minimum of a name (first and last), username and password. The user shall be able to manually override failed password changes and incorrect employee type designations.

If the user has the training administrator value, a personalized GUI shall be generated corresponding to the administrator’s capabilities on the system. If the GUI fails to open, the user shall be able to attempt to log in again in order to rectify the issue. The user, if an administrator, shall be able to view trainee quiz / evaluation report for everyone in their class, generated by the system. If the report fails to generate or generates incorrectly due to the system, the user shall be able to close the report and attempt to re-generate a new report. The user shall be able to manually enter new lesson goals and lesson plans, these will apply to the trainee’s coursework. If the user enters incorrect or unclear information, the system will allow the user to edit / correct any errors.

If the user has the trainee value, a personalized GUI shall be generated corresponding to the trainee’s capabilities on the system. If the GUI fails to appear, the user shall be able to attempt to re-login. The user shall be able to view previous evaluation scores and a breakdown of those performances plus the amount of hours they have spent training and on which goals. If this report is generated incorrectly or fails to open, the user shall be able to request a re-generated report from the system. The user shall be able to open any lesson and corresponding simulation(s) generated by the system and the administrator, thusly continuing the practice. If the lesson and simulation fail to open, the user shall be able to request the lesson to open once again through interacting with the system.