Competency Program Training System

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Overview

To build a system which will be used for Competency program; there should be three views which need to be built for Administrators, Trainers and Trainees. System need to have roles based access capabilities and roles will be defined by Administrators.

Below are three roles which are to be created:

- Competency Training Administrator
- Competency Trainer
- Competency Trainee

As an admin one should be able to create users and be able to assign roles to the user. System screens and functionality will be derived based on assigned roles.

Below are the generic features that are needed to be there for Trainer and Trainees

- Copy paste of contents needs to be restricted
- Screen shot capture needs to be restricted when system webpage is live

High level flow and how system will work

- First screen will have Cybage logo, User Name and Password input - typically like any other website
- Based on logged-in user, next view will be presented i.e. Admin, Trainer or Trainee

If Admin-user logs in here, this is what Admin should see

    - Collapsible view for creating the new user
        - Following fields need to be there i.e. Name, UserName , Password , Role.

        - Proper error handling need to be implemented i.e. if UserName already exists; proper error message need to be visible and user should be able to understand that.
- Grid view - which should have list of details about the user

S.No.	Name	UserName	Created Date	Is Active	Role

    - Above grid should have following features i.e. sorting on First Name, Sorting on Created Date, Sorting on Role.
    - Admin should be able to deactivate any user from this Grid only i.e. when Admin clicks on particular cell of user, he should be able to Activate/De-Activate the user. Same need to be implemented for changing the roles as well.
    - Only 5 user at a time, and >> need to be added in grid for seeing rest of the details
    - At top of grid total count should be visible
- **Team will get bonus points for adding search control on user Name in Grid**
    - **RestAPI should bring details when Search is called from he Grid**
- There is another Collapsible view which talks about creating the new training session and assigning trainer for that session
    - When Admin creates new session, all past sessions need to be de-activated and should not be visible to trainers or trainees
    - Grid views should be like the above, which have details about earlier training sessions with details about Trainers and Date.
        - Only 5 training session at a time, and >> need to be added in grid for seeing rest of the details
        - At top of grid total count should be visible
- When trainer ends the training session, it should be deactivated
    - Need to have track record of how many scenarios and which scenarios are worked during the session.
    - Report need to be available in drilldown for Admin to see about any session.
        - Like group score
        - What all scenarios are covered
    - Admin should be able to visit the session and new screen should open which contains all the details and new grid will open which highlights what all scenarios are covered during the session.
        - Admin should be able to see all the trainees and their reply by clicking on the button.
            - New screen should open which contains reply. Back button should be there and from left pan Admin should be able to go to main page from where they have started drill down.
- Audit logging

        - Each sessions audit logs are saved, and there need to be one collapsible view which shows grid about the audit logs by session.
        - When Admin clicks the session and it shows the complete audit logs by user and session and if there is any suspicious incident has happened.

If the logged-in user is Trainer - here is what Trainer should see

    - Collapsible view which will be used for entering the number of questions/scenarios
    - Add New Scenario button and when Trainer clicks on the same it should take input in "Rich Text Editor" this should allow all themes and capabilities of editor
    - Copy and paste is allowed here
    - Underneath this there should be a grid view, which shows how many scenarios are entered here. Comparison of entered text needs to be performed, so that if same scenario has been entered, then, Trainer should get an exception.
    - There should be a button which says - start the training; once Trainer clicks on the same, they need to be presented on Different screen.
    - Trainees will only be log in once trainer will start the training
    - This screen will have panel on the left side of the screen, which should have list of all the Scenarios.
    - Once Trainer Clicks - let's say, Scenario 1 - right pan should show details of Scenario 1.
    - There should be Stopwatch sign at the bottom of Pan and Grid view which talks about Number of Users participating in the training.
    - Once trainer enters time and Clicks start; this question will be visible on the trainees' screen.
    - Once the time completes, all groups need to be highlighted in Green
        - When Trainer clicks on group, new screen should open and Trainer should be able to see, what the user has written as a reply
        - There should be text box for entering points for particular questions
            - The trainer should be asked once again before submitting the scores on getting the confirmation, score will be saved.
        - Once that is saved, again, trainer will be re-directed to page where-in they were previously
            - This time Group button for which Trainer has given the numbers are grayed out.
    - For every question Admin will be giving Scores for trainees, so Grid will be there and number of trainees should be fetched from the training session which is created by Admin earlier.
    - Once trainer will give new scenarios/question underneath the same Score of all the teams need to be shown. Use Google bar chart for the same https://developers.google.com/chart/interactive/docs/gallery/barchart
        - RestApi for bringing in scores for chart
    - At any given point of time, current state need to be saved, even if system or page crashes, you will be at same location on logging in again.

- End training button need to be there at the bottom of page, when Trainer clicks end training, new screen should be loaded with Grid which clearly highlights whose score is the highest.
    - The trainer should be asked once again before ending the training and on getting the confirmation, system ends the Training

If user logged in is Trainee here is what Trainee should see

- At top Right of the Corner Score will be visible
- Along with the Question, Rich text editor for Answer should be there
- Stop watch will be visible at the bottom so that Trainee will be aware about how much time is left
- Input freezes once time passes, which is set by Trainer
- Score need to be updated when Trainer enters the scores
- Page will freeze when time is over and will only get refreshed when Trainer gives new question.
- When trainer clicks end training Trainee should be seeing screen with all scores and must highlight the highest Scorer.
    - Use Google bar chart for the same https://developers.google.com/chart/interactive/docs/gallery/barchart
    - RestApi for bringing in scores for chart

Audit Logging

Each and every activity over the system when Training session is active need to be recorded. Below scenarios need to be explicitly captured:

- Has any user tried to click print screen
- Has any user tried to do copy paste

Logging and Debugging

- Need to make sure, standard logging is implemented for the project, and all logs are available at centralized location
    - When logs will be pushed to centralized server, it should contain module name, File Name, Function Name and any other important information which will be required for debugging.
- log viewer need to be implemented which is going to read the log files and information, warning and error should be viewed with different color so that it will help in debugging

Guidelines / Technologies and other details

- Detailed Requirement understanding document should be available, which talks system flow and other areas of the system.
- Need design details, need not wait for review.
    - It should include how you are designing different views

        - Do not spend time in wireframes, use copy pen and attach screen shots of the screens which you are thinking for designing
    - How many RESTApi's are needed and what are their details
    - API documentation: how they need to be called and what will be response
        - JSON response need to be returned by API's
    - It should include Database schema with relationship
    - It should include what all controls you are using and why you have opted for the same
    - Class diagram and how entire system works
- Presentation need to be created for learning which you have during project
- For front end – AngularJS
- Database – Mysql
- For any operation with DB, need to be RESTApi's
    - RESTApi's are Java based
- Unit test cases for RESTApi's
- Google visualization charts for scores
- Need the deployment steps so that it can be run from different machine as well
- User Guide, how to use the system, need not be very detailed
    - Admin
    - Trainer
    - Trainee