Project: Homework Assigner

Description:

A website for a school, through which it's teachers can assign homework for a group of students. From the site, students will be able to get the homework description, can ask further questions, and can submit the completed work through the portal.

Features:

1. Create/Delete account:
   a. While setting up the app, there should be administrator user who has the permission to create new users.
   b. Multiple administrators are possible.
   c. All the other users will be provided a user name and a default password, which they can change in future.
   d. Admin can delete a specific user.
2. Login.
   a. Users can login
3. Logout.

All the below features will be available after logging in.

4. Change Password
   a. To change the password
5. Edit account
6. For Teachers:
   a. Can add new homework, for a grade and subject.
   b. Students should be notified about the new homework.
   c. View all the homework assigned, irrespective of grades. i.e. Homework of multiple grades will be displayed, if the teacher is authorized.
   d. Lists are displayed in the order new to old.
   e. Can filter the list by grade.
   f. If teacher is handling multiple subjects, filtering per subjects also available.
   g. Will be able to view the details of the homework by selecting an item from list displayed.
   h. Teacher should be able to edit the posted assignment.
   i. Teacher should be able to add new comments / reply to comments on the comment section.
   j. Can edit the posted comment, if there is no reply to the existing one.

k. Teacher can view the submitted homework, for each homework.

7. For Students:

    a. Can view the list of homework he is assigned as per his grade.

    b. Homework for other grades will not be visible to him.

    c. Filter by subject is available.

    d. Student cannot edit the original homework posted by Teacher

    e. He will be able to add new comments or to reply to an existing comment.

    f. Can edit the posted comment, if there is no reply to the existing one.

    g. Can submit the completed work through the portal.

Routes:

Homepage:

1. '/', School Home Page – GET

Login/Logout:

1. '/login'

    a. GET – to render the login form

    b. POST – to submit the login request

2. '/logout'

    a. POST – to submit the logout request and to delete the cookies

Teachers:

1. '/all-homework'

    a. GET – to get the list of all assignments created by this user, irrespective of grades. (Planning to use a cookie to store the information about the user whether it's a teacher or a student. Trying to avoid the frequent query to database to check whether a user is student or teacher.)

2. '/homework/:grade'

    a. GET – to filter the homework list by selected grade.

3. '/homework/new'

    a. GET – to render the form to create new homework

    b. POST – to submit the new homework.

4. '/homework/:id/edit'

    a. GET – to render the form to edit an already posted homework

    b. PUT – to submit the edited data

5. '/homework/:id/delete'

    a. DELETE – to delete an already posted homework

Students:

1. '/all-homework'
   a. GET – will be redirected to the page '/homework/:grade', to list all the homework assigned to grade where student is a member of.
2. 'homework/:id/submit'
   a. GET – to render the form to submit the completed work
   b. POST – to submit the data

Both Teachers and Users can do:

1. '/homework/:grade/:subject'
   a. GET – to view all the homework for that subject
2. '/homework/:id'
   a. GET – to view an existing homework
3. 'homework/:id/newComment'
   a. POST – to add new comments for a homework
4. 'homework/:id/comment/:id/edit'
   a. PUT – to edit the comment already posted by the user
5. 'homework/:id/comment/:id/delete'
   a. DELETE – to delete the comment

Site-Map:

https://lucid.app/lucidchart/invitations/accept/e3241a14-c006-4272-905a-d1ee3b830bb5

ERD:
https://lucid.app/lucidchart/invitations/accept/e3241a14-c006-4272-905a-d1ee3b830bb5