Angular – Final Exam

AppStore

Introduction:

Main purpose of final exam is to summarize everything we learned in frontend Angular course. In this exam, we will cover HTML, CSS, Typescript and Angular, with a focus on Angular framework and implementation its features and concepts.

Prerequirement:

Design of the application isn't defined, so you can freely create your own design and you can refer to designs of similar web applications.

Application should include:

- HTML5 organization, use semantic tags
- CSS3
- Angular
    - o Routing
    - o Modules (App, Feature, Type..)
    - o Directives
    - o Components (Life Cycle methods, Content Projection..)
    - o Pipes (required to use at least once)
    - o Application architecture and structure
    - o Services
    - o Http (JSON server)
    - o Dependency Injection
    - o Observables
    - o RXJS (Subjects, operators..)
    - o Reactive Forms
    - o Guards
    - o Interceptors
    - o TypeScript (OOP..)
    - o *Material components should be used*
    - o * Other Angular features & design patters (extra points)

All functionalities of application should be working. If functionality giving error, that task will not be grade.

Make attention on:

1. *Read all requirements before start creating database.*
2. Update README.md file with instructions for start application and requirement
3. Access modifiers
4. Lazy loading modules
5. Order of class properties and methods
6. Remove all unused properties, variables, functions
7. Remove empty lifecycle methods
8. Removing all console.logs
9. https://angular.io/guide/styleguide
10. Naming convention (example: make sure that variable / property name is exactly pointing to its content)

11. Code should be written in English and all variables, folders, components, classes and functions should have proper names.
12. TypeScript should be used with all its power and everything should be typed.
13. Make sure that you DRY (Don't Repeat Yourself).

Pages:

- Home page
- Single game page
- Admin page
- Add game form page
- Edit game form page
- Login page

Requirement:

1. As a client, I want to have **home page** with navigation links: Home, Admin, Login, Logout.

   Acceptance Criteria:

   o *Navigation links should be dynamic and listed from an array*
   o *Admin – only display if user is admin*
   o *Login – only display if user is not logged in*
   o *Logout – only display if user is logged in*

2. As a client, I want to have **home page** where I can see all games. All games should have displayed with name (link to single game page), video (link to youtube video), description (just first 45 characters), creator (first name, space, last name), price (in dinars), and published date (dayname, month, year hour:minute).
   a. Price:
      i. If price is less then 1000 dinars, background of game should be green
      ii. If price is between 1000 and 5000 dinars, background of game should be lightblue
      iii. If price is more than 5000 dinars, background of game should be white

   Acceptance Criteria:

   o *Games should be listed from json server*
   o *Date in DB should be stored in standard ISO format „year-month-day hour:minute:second"*
   o *Video - Link to youtube video should be stored in db*
   o *Price – should be shown as „1.000 din", saved as number in db.*
   o *Use Directive for Price cheker*
   o *User dont need to be authenticated to see this page*

3. As a client, I want to be able to search games per name on **home page**. I want to have search box. When I type in search field and after 2.5 seconds of typing, I want to see only games which name contains search term.

   Acceptance Criteria:
   o *Games should be filtered on backend side (json server)*

4. As a client, I want to have **single game page**, where I can see full details. On this page, I can see name, video (link to youtube video), full description, creator (first name, space, last name), price (in dinars), published date (dayname, month, year hour:minute).

Acceptance Criteria:
   o *Game should be listed from json server*
   o *User dont need to be authenticated to see this page*

5. As a admin user, I want to have **admin page**. I should see table with games and button **'Create Game`**. Table should contain columns: RowIndex, Name, Creator, Video url, Date Created, **Edit** and **Delete**. In Edit column, each row should have edit icon which navigates user to Edit form. In Delete column, each row should have delete icon.

Acceptance Criteria:

   o *Games should be listed from json server*
   o *Only admin users can access this page and see its content*

6. As a admin user, when I click on **'Create Game`**, I should see page for create game. This page should contain title 'New Game' and form with following fields and requirements:
   a. Name – required, max 50 characters, must start with upper letter and cant contain special characters
   b. Video url – required, should be in standard URL format and be Youtube link (https://youtube.com/...)
   c. Description – required, textarea
   d. Price – required, number field
   e. Creator First Name – required, must start with upper letter, can have only charachers
   f. Creator Last Name – required, must start with upper letter, can have only charachers
   g. 'Create' button – disabled until all fields are properly filled

After fill form and click 'Create', game should be added in db (json server).

Acceptance Criteria:

   o *Form can be on separate page OR in modal*
   o *Date should be saved in DB in standard ISO format*
   o *Creator First name and Last name should be auto-populated with logged user First name and last name*
   o *Only admin users can access this page*

7. As a admin user, when I click on **'Edit'** , I should see page for edit game. This page should contain title 'Edit Game' and form with following fields and requirements:
   a. Same fields as for insert form (refer to 7).
   b. 'Update button' should be shown – disabled until all fields are properly filled

After fill form and click 'Update', game should be updated in db (json server).

Acceptance Criteria:
   o *Form fields should be filled with current game data*
   o *Get game from db (json server)*
   o *Only admin users can access this page*

8. As a admin user, when I click on **'Delete'**, it should remove game from json server and refresh table data (without reload page).

9. As a client, I want to be able to **login** in application. I want to have new page or modal with form fields:
   a. email – required, standard email format
   b. password – required, standard password format (by your choice)
   c. Login button

   These users should be added in db:

   a. Email: admin@orion.com , Password: admin, Role: admin, FullName: Admin
   b. Email: moderator@orion.com , Password: moderator, Role: moderator, FullName: Moderator
   c. + few by your choice

   Acceptance Criteria:

   o *Users which are not in our DB should not be able to login.*
   o *They should get message „Your email or password are incorrect."*
   o *If successfully login, user should be redirected to „Admin" page.*
   o *Send logged „userId" header in all HTTP requests (use Interceptor)*

   * EXTRA POINTS:

   o *Registration page*
   o *Usage of json-server-auth package, accessToken*

10. When user click „**Logout**", it should be logged out and redirected to Home (landing) page.

11. On any action of user, show message in top of page.

    Acceptance Criteria:

    o *Use RxJS Subjects*
    o *Example of message:*
       ▪ *Successfully created,*
       ▪ *Error on update..*