Assignment Webapps

General description

Develop an application using Angular for the frontend and Firebase for backend and hosting.

1.1 Frontend in Angular

Provide an angular frontend based on stand-alone components.
The webapp must be deployed and tested.

1.1.1 Authentication

- authentication service
- possibility to log in, log out and register
- Make the registration form reactive with at least 1 self-written synchronous and 1 self-written asynchronous validator. Provide clear messages and/or visual hints when fields are not filled in correctly.
- make use of the firebase SDK to establish authentication

1.1.2 lazy loading

- create at least 1 lazy loaded routing config that represents a complete feature in your application
- create at least 1 lazy loaded component. This can be inside the lazy loaded feature or can be completely separated from this lazy loaded feature

1.1.3 general requirements

- datastorage service and/or backend service item.services.ts en bedrag.service.ts
- routes:
    - at least 3 different routes of which 1 must have at least 1 child route
    - catch incorrectly entered routes
- routing guards:
    - at least 2 different canActivate guards
    - at least 1 canDeactivate guard
- at least 1 custom made directive
- at least 1 pipe to filter or sort half na kijken verlede jaar gemaakt (short-description)
- at least 1 subject
- at least 3 access levels:
    - not logged in => restricted access (login/registration)
    - logged in => use of the app for normal user

    - admin => more options

1.1.4 testing

- for at least 1 component, make a unit testing plan as complete as possible (document) with both negative and positive tests
- out of the testing plan, write at least 3 positive and 2 negative unit tests for that component(s)

je moet een doc maken met alle tests maar je moet er maar 5 ni de spec zetten voor testing.

1.1.5 deployment

- deploy the app via Firebase using the aot principle

1.2 Firebase (db, authentication, storage and hosting)

1.2.1 Database and database access

Use the Firebase Firestore database to store your data. Use the Firebase SDK for this.

Create rules to protect the data in your DB in such a way that an admin user and a normal user cannot access all data in the same way

1.2.2 Authentication

Make use of the Firebase authentication possibilities via the Firebase SDK.

Use authentication via email and password.

1.2.3 Storage

Use Firebase Storage to store documents, figures, ... from your app.

1.2.4 Hosting

Use Firebase hosting to host your app

1.3 Documentation

- readme file containing the Firebase url and the administrator credentials
- testing plan for the component of choice
- test result of the self-written unit tests
- full code of the app (without the node modules)
- make sure the firestorage rules and the firebase rules are included in your codebase

Deadline and practical arrangements

This assignment counts for **100%** of your lab exam. You will present your app shortly after the November holiday. At that time, there will also be questions asked to check your insight into the subject as well. This **explanation** will also be **graded.**

All **apps** must be submitted via **Canvas**. You have to do this before **01/11/2024** at 23:59! Late submissions will result in less points!
The name of your entry is: “**lastname_firstname.zip**”

Good luck!