Digital Signage coding task

The focus in this coding task is to find out how the functionalities are implemented and why the design decisions are made.

It is not necessary to implement all the features and the system doesn't have to be perfect. The code quality matters the most.

The technologies you use have to be React and TypeScript. You are allowed to use existing build configurations, boilerplates, libraries and mockups to speed up the development to implement the core features defined in this document.

The maximum time for this assignment is 6 hours.

Requirements

You are required to build a simple Digital Signage system that consists of
- (A) Digital Signage Player
- (B) Management UI
- (C) Backend API

A) Digital Signage player (React)

Player should be able to play the content such as images and videos in the correct order that is defined in the Management UI's playlist.

The digital signage player can have different number of content from 0 to n. Player will loop the content. After reaching the last defined content the player will start again from the first defined content.

Required features
- Support playing images. The Digital Signage player plays each image for 7 seconds.

Optional features
- Support playing videos such as MP4. The video will play only the duration of the video, and will continue to the next content after the video has reached the end.

B) Management UI (React)

Management UI works as an interface that is used to manage playlist content.

Required features
- User can create a playlist and give name to it

- User can add media content such as images and videos to the playlist. (note: it is not required to implement any file uploading logic to some storage. It is enough to use media URLs that are already hosted somewhere)

Optional features
- Remove content from playlist
- Reorder playlist content

You are free to use React component libraries such as Material-UI, Bootstrap or any other that you find useful. Also it is recommended to use https://github.com/facebook/create-react-app , so you don't have to write your own build configurations.

C) Backend API

You are free to use any backend technology and database you wish to use to implement the required backend features for A) and B) but you should use TypeScript as code language.

Documentation and files

1. You can use Bitbucket, GitHub or just provide us the files of your implementation in zip folder.
2. You must provide full instructions (commands) how to run the application in your chosen platform.

Additional questions related to the task:

1. How did you implement the content looping for the Digital Signage player? What challenges did you face?
2. Why did you choose the actual UI design you implemented?
3. If you support playing video content, how do you know when to play the next content after the video has reached the end?
4. What backend technologies did you use and why? What advantages do your chosen technologies have? What possible disadvantages do they have?