



# PJ Advanced Web Technology Interoperable PWA for Media Playback

**Project Weekly Call III – 4.02.2020**

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- 1. Project Milestone**
- 2. Functional Requirement**
  - ❖ Technology Components
  - ❖ Application Architecture
- 3. Non Functional Requirement**
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# Project Milestone

Project Tracker:

[https://jazz.net/jts/dashboards/18508/tab\\_2](https://jazz.net/jts/dashboards/18508/tab_2)

## PJ AWT - Timeline

### Interoperable PWA for Media Playback

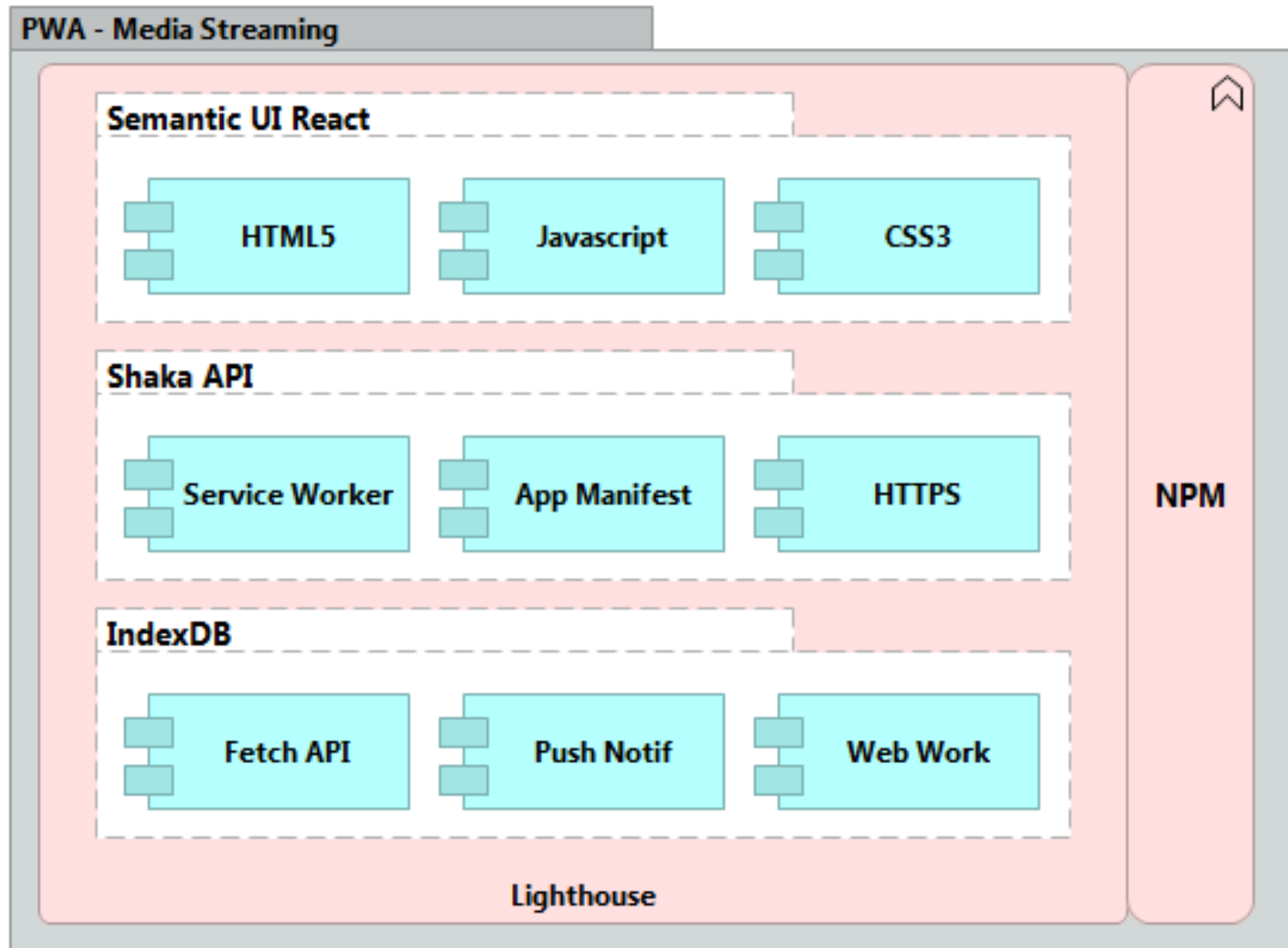
Activity	Project Length																									
	Oct-19				Nov-19				Dec-19				Jan-20				Feb-20				Mar-20				Apr	
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2
PWC - Project Weekly Call																										
Requirement																										
Development - Sprint 1																										
UI/UX																										
Integration																										
SIT																										
Development - Sprint 2																										
UI/UX Hybrid (Web & Mobile)																										
Shaka Advanced Integration																										
UAT																										
Product Documentation																										
Go Live																										

Go Live date  
28.02.2020

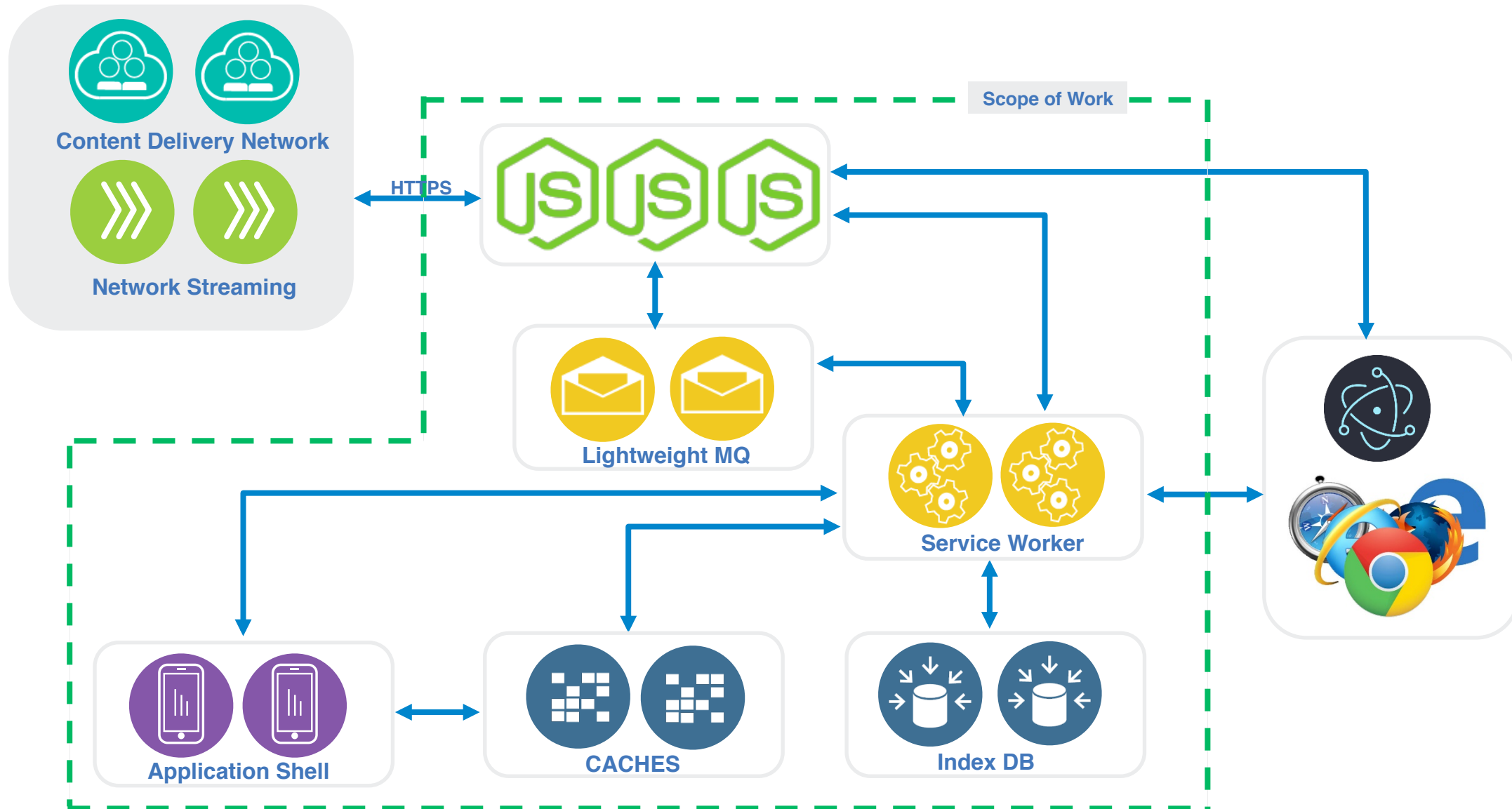
Schedule PWC and  
Current Execution Stage

PWC  
DEV  
PRD

# Technology Components - recap



# PWA Architecture - recap



01	Browser	<ul style="list-style-type: none"><li>❖ MS Edge</li><li>❖ MS IE</li><li>❖ Google Chrome</li><li>❖ Mozilla Firefox</li><li>❖ Opera Browser</li></ul> <ul style="list-style-type: none"><li>❖ Mobile Device</li><li>❖ Electron Browser</li></ul>
02	Web Storage	<ul style="list-style-type: none"><li>❖ IndexedDB</li><li>❖ Local storage</li><li>❖ Data cache</li></ul>
03	Network Bandwidth and Security	<ul style="list-style-type: none"><li>❖ Device-agnostic : mobile / desktop</li><li>❖ Network-agnostic: offline / online</li></ul>

## Metadata

- ❖ Corrupt content metadata which will impact the UX behaviour (e.g.: Missing Subtitle)

## Web Push

- ❖ Browser push work with server dependency
- ❖ Requires full browser to be running to receive messages.

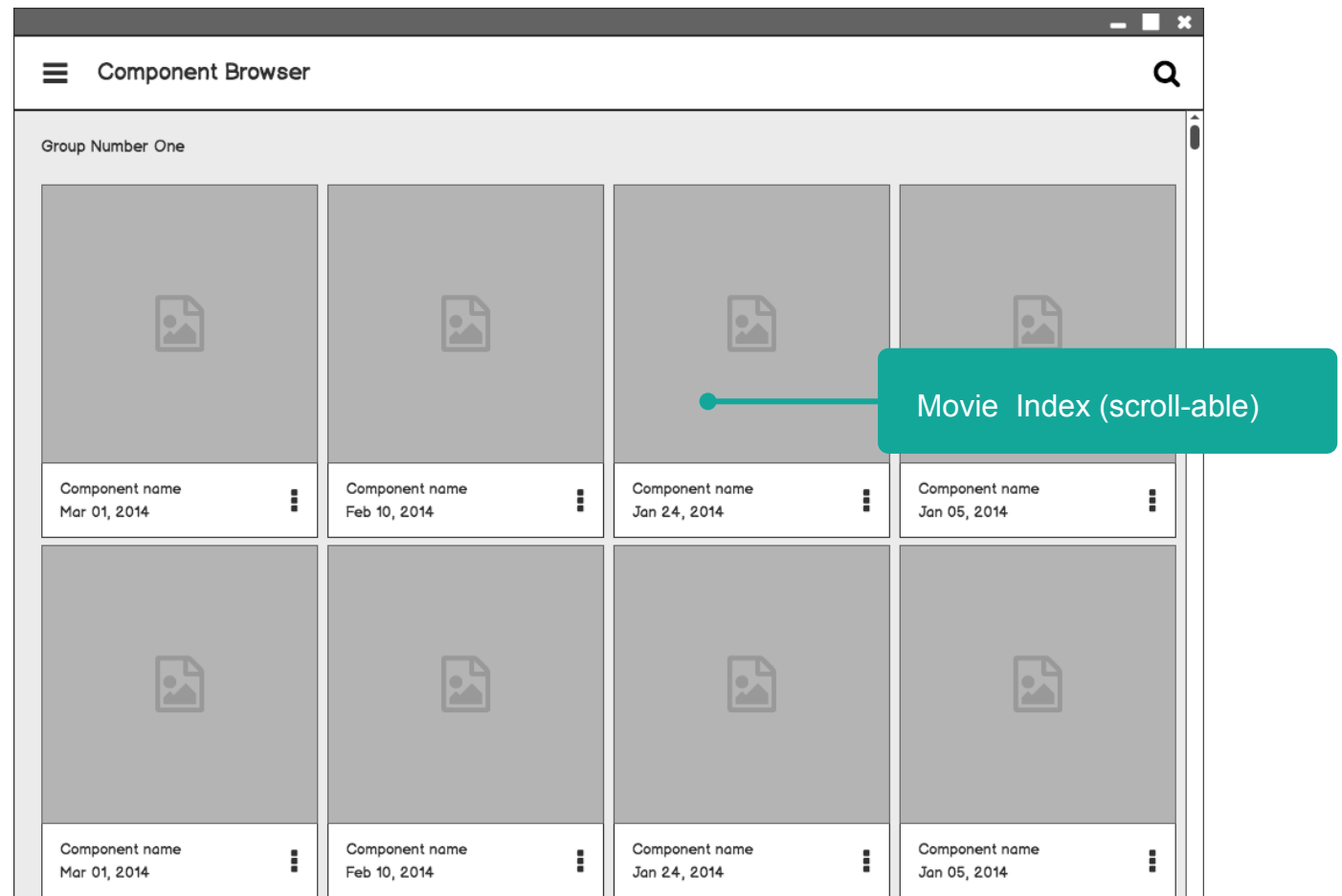
## Performance

- ❖ Fine-tuning the performance
- ❖ Storage requirement: partial support in IE 10 & 11 and Edge does not support IndexedDB inside blob web workers.

# Wireframe (Electron)

## Screenshot wireframe for our project

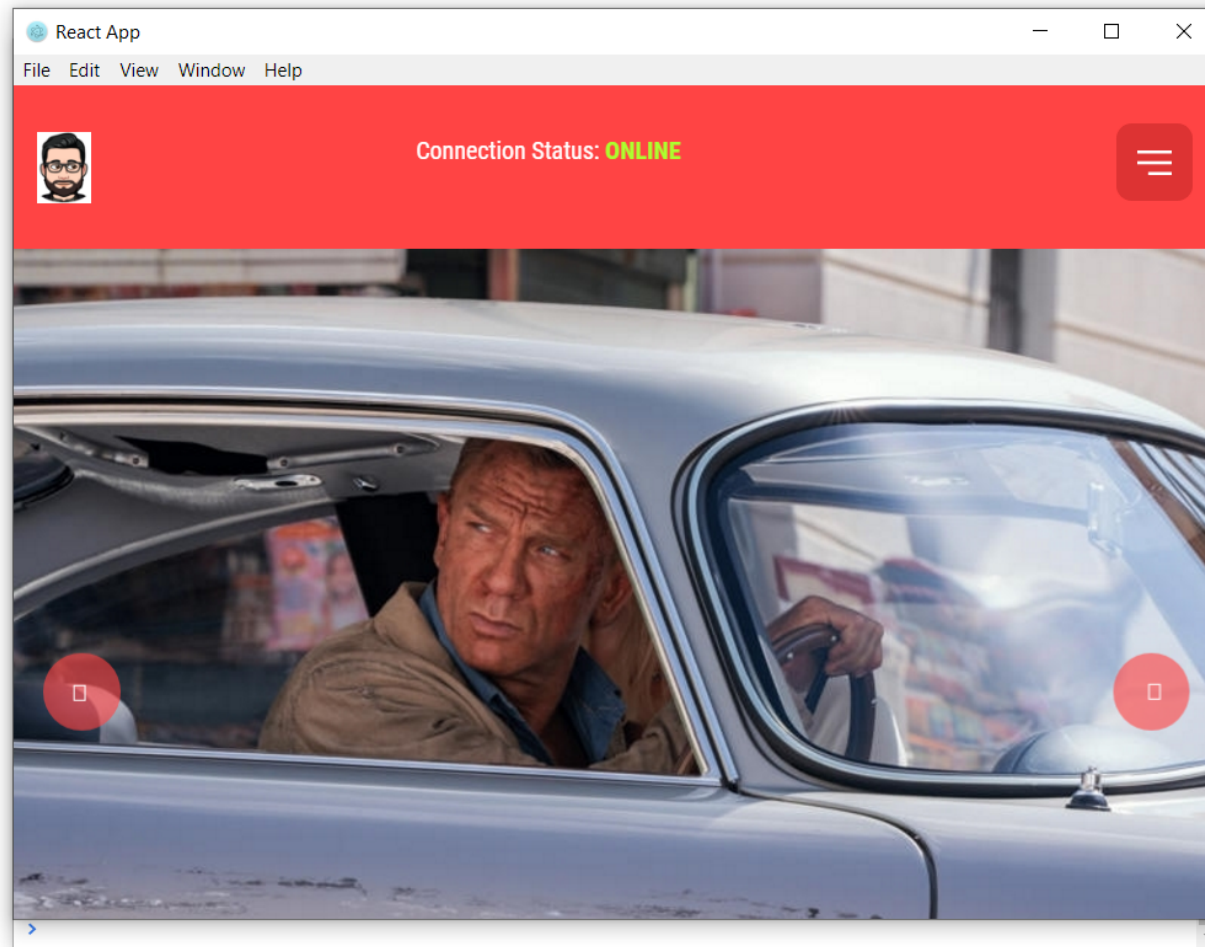
1. Homepage with hamburger menu
2. Movie Playlist (online)
3. Downloaded Page (offline)
4. About us



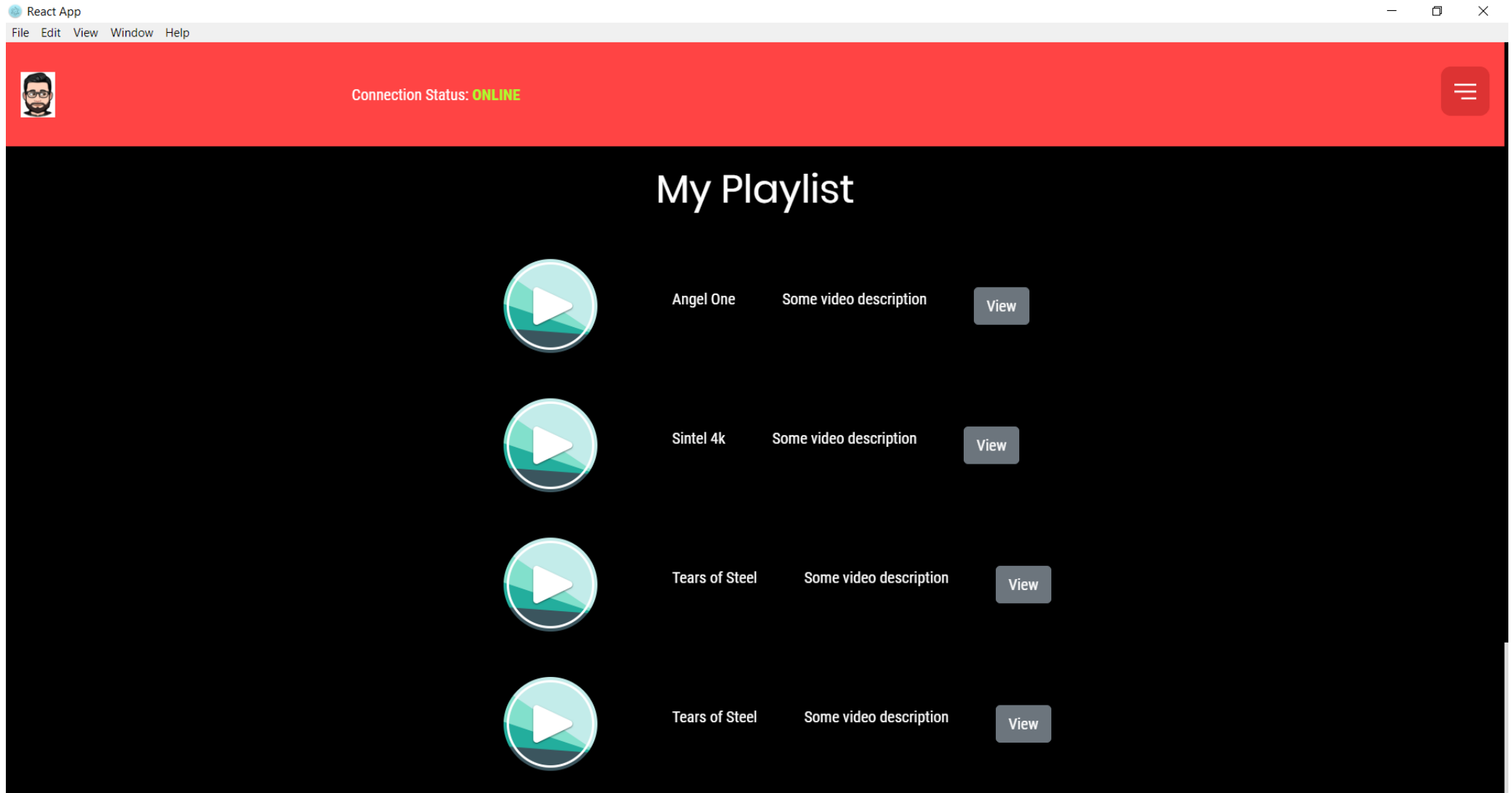


# Homepage with hamburger menu

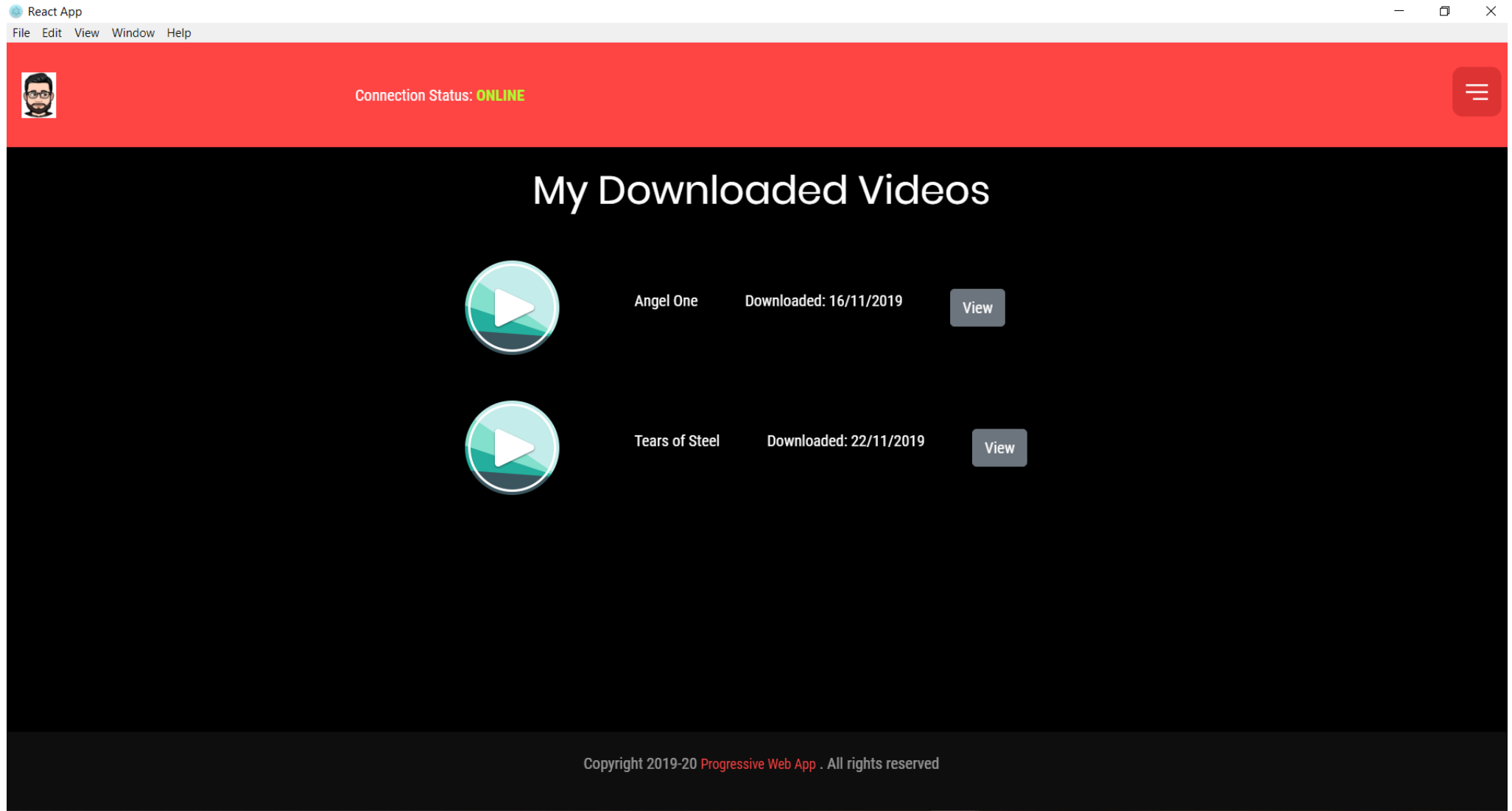
.. New Tab Study in Germany |... mit\_artificial\_intellig... CS 221: Artificial Int... What is Artificial Int... AMBI\_Nr\_6\_vom\_2...



# Movie page (online)



# Downloaded Page

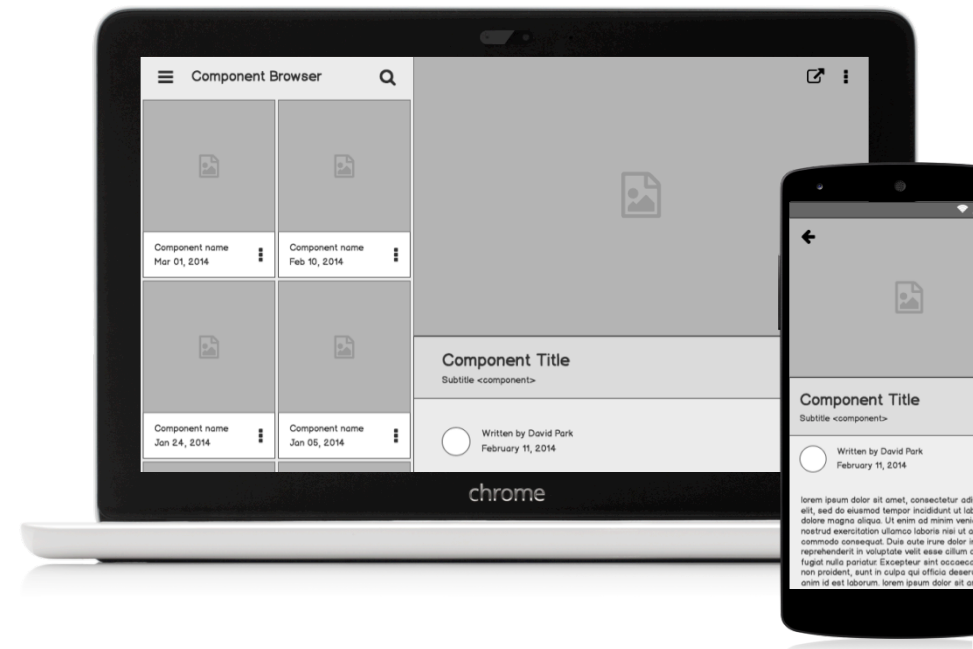


# Demo



❖ <http://127.0.0.1:9000/>

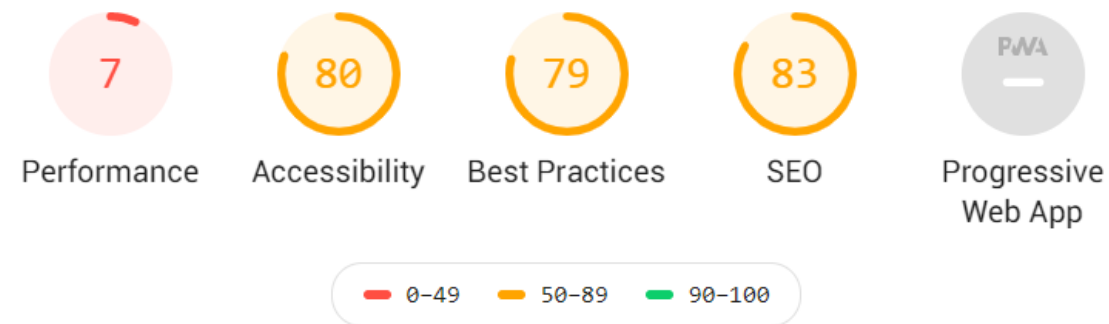
❖ <http://127.0.0.1:3000/>



# Next Iteration

- Application improvement
- Product documentation
- User acceptance test (UAT)

http://localhost:3000/



1. Google PWA  
<https://developers.google.com/web/ilt/pwa/introduction-to-progressive-web-app-architectures>
2. Biørn-Hansen, A., Majchrzak, T. A., & Grønli, T. M. (2017). Progressive web apps: The possible web-native unifier for mobile development. WEBIST 2017 - Proceedings of the 13th International Conference on Web Information Systems and Technologies, (Webist), 344–351. <https://doi.org/10.5220/0006353703440351>
3. Gove, Jenny, Heilmann Chris, Dutton Sam, Clark Sarah, Kurtuldu Mustafa, Warrender Ryan, Cassells Shane, Demidova Olga, A. C. (2018). Progressive Web Apps The Future of the Mobile Web.
4. Steiner, T. (2018). What is in a Web View. 789–796. <https://doi.org/10.1145/3184558.3188742>