

News Application Documentation

Remarks and explanations:

- 1- The Newsapi is limited in a lot of ways. Firstly, it only sends a maximum of 100 results for developer accounts. Secondly, it does allow pagination but it is not customizable, I had to send the number of each page manually from the front end in a request. Thirdly, it is restricted to 20 results per page and it is not editable. Finally, some images are not sent with the API calls, and some news sources are blocked.
- 2- I took this task as a chance to learn React Redux and used it to validate the user logged in status, so this is my first time dealing with Redux. Hopefully it will please you. I had an issue where refreshing the app makes the state disappear and you have to login again.
- 3- Instead of redirecting after registration, you will have to login after successful registration.
- 4- User authentication is done by JWT between the server and the frontend. The JWT is stored in the local storage.
- 5- My knowledge in securing the client side is limited, it seems like there is no golden rule for storing the JWT. According to some articles and stack overflow posts, no matter where we store the JWT in the frontend it is always vulnerable.
- 6- I have used helmet package in the server, which helps to protect the application from some well-known web vulnerabilities by setting HTTP headers appropriately.
- 7- The JWT is also stored in the database after a login and removed after logout.
- 8- The status of the user logging in and out is stored in redux store, depending on the two actions the state changes accordingly.
- 9- The User will only see the welcome page if he is not logged in. The welcome page has two forms registration and login, where you can switch between them by clicking the two buttons.
- 10- After successfully logging in the user is redirected to the home page, on the first log in the user will have no sources, so nothing is displayed, and a link is provided along with a navbar to redirect and subscribe to news sources.
- 11- The sources page allows the user to subscribe and unsubscribe from a source and then saves these sources in the database. The sources render accordingly if the user is subscribed or not to a specific source.
- 12- After subscribing to sources, going to the home page will display a Carousel displaying the current page results along with a list of cards of all the results. Clicking the next page button changes the list and goes to the top of the webpage and vice versa for the previous button. However, it is only limited to five pages because of the API limitation of only 100 results and 20 result per page.
- 13- The user can logout at any time through the Navbar icon.
- 14- I do not really know how to measure the perfect performance of the application, but I would say it is working decently.

APIs

POST	/login	Enables user to login and grants a JWT
POST	/user	Registers a user and save his information in MongoDB
POST	/source/subscribe	subscribe to a specific source
POST	/source/unsubscribe	unsubscribe from a specific source
POST	/logout	Enables user to logout and removes the JWT
GET	/source/allsources	Get all news sources from Newsapi
GET	/getnews/:pageNo	Get news by page, the api returns 20 results by default and paginates with a number from the request

- All the APIs require a JWT in the request header except for login, registration, logout.
- There is a middleware that checks if the JWT is valid or not in order to process the requests.