

Newspaper But Worse: A Newspaper Management System

The Newspaper But Worse application is a functional, minimalist approach to newspaper (and other written content) management systems. Built using Spring Boot and MySQL and containerized using Docker for easy deployment, Newspaper But Worse includes many features, including three levels of user accounts, and tools to manage articles, users, and comments.

Technical Documentation

Security Setup

Newspaper But Worse uses Spring Security with JWT Cookies to manage access to the site. Each page is set within a security configuration to allow only certain types of users to have access, with any non-authorized access attempts sending the user to a login page.

Build Instructions

As a Spring application, Newspaper But Worse can be run using the Spring Boot jar file. To run in this way build the project with maven, then find the jar in the target folder.

Docker Build Instructions:

Change into the Newspaper-but-worse directory. Run the following commands:

```
mvn clean install
```

```
docker-compose up --build
```

Debug Build Instructions:

```
mvnDebug spring-boot:run  
-Dagentlib:jdwp=transport=dt_socket,server=y,suspend=n,address=8000
```

Then, run the project in debug mode with your favorite Java IDE.

Deployment Instructions

To deploy to a production server, use the docker build instructions on the server of your choosing. The docker compose file may need to be edited to meet the needs of your production server.

Support Guide

First run will need connection to the internet in order to download the required files, including openjdk-11.

The docker compose file will automatically open port 8080 in order to access the webpage and port 3306 to access the database. If MySQL is already running locally on the machine, then port 3306 will not be available for docker to access the database. In this case, the local instance of MySQL should be stopped.

Disclaimer: The application uses MySQL by default, but the docker compose file is set up in order to allow for an alternative database in the case you have a machine which uses an unsupported CPU architecture. As of December 2021, MySQL does not support ARM architecture, this includes all Apple Silicon Mac computers. In order to support these machines without breaking compatibility, add an “.env” file to the root folder of the project and inside it you can include the alternative database. the following line is for MariaDB with a confirmed working version on both ARM & Intel architecture, include this inside the “.env” file :

```
DOCKER_MYSQL_IMAGE=mariadb:10.6.4-focal
```

Rest API Documentation

To Access Swagger documentation, make sure that you are logged in as a READER, AUTHOR, or ADMIN and then go to the following URL:

http://{URL_ADDR}/swagger-ui/index.html?configUrl=/v3/api-docs/swagger-config#/

Where URL_ADDR is the address ip of the host machine, this can include localhost:8080 if that is where it is being run, or any ip with the specified port based on your port forwarding settings.

Bugs & Solutions

Bug: Accessing the add article page while inside the add article page will redirect the user to an error screen

Solution: Return to the main page and access the add article page from anywhere else.

Bug: Leaving the access field blank when on the add article page will send the user directly to the error page.

Solution: Returning to the add article page and making sure to completely fill out fields will result in a successful article addition.

User Documentation

When first opening the site you will arrive on the home page which shows a list of articles that any user can read through as well as view comments on said articles. Simply press the button underneath the article and you will be directed to that article's page.

If you decide you'd like to be able to share your thoughts on articles, you can choose to register as a new user using the "register" button on the navbar at the top of the page. After filling out your information, assuming there weren't any problems, you will have been saved into the database and can now use the login button found on the navbar. After putting your username and password into the fields on the login page and clicking "submit" you will be directed back to the home page, now with the ability to use the navbar's drop-down menu.

On top of now being able to use the contextual drop-down menu on the navbar, as a "Reader" user you will be able to submit comments on any article pages you visit while logged in.

If you are an "Author" user, from the home page you will now see a button at the top of the article list which prompts you to add a new article. The article form page that you visit, either from the home page or from the drop-down menu, will allow you to fill out the necessary information to be able to create your own article. Articles you write will be visible to all users, as well as registered users being able to leave comments for you to see when you return to the article's page.

"Author" users have the ability to create a new article, the exact same as from the home page's button, as well as having access to the article list page. The article list page will show a list to the user of all the article's that user has written for easy tracking down of past articles.

"Admin" users have the ability, through the contextual drop-down menu, to access a list of every user account as well as being able to edit them through the user list page. When viewing the user list page, simply click on the name of the user and you will be brought to a page showing that user's available information. On the user page for that specific user, as an admin you will have the ability to press the "Edit" button which takes you to a user edit page allowing you to fill out fields to change the info saved for that user after hitting the "Submit" button.

Continuing "Admin" user capabilities, from either the drop-down menu or from the user list page (button "Add User +") an admin can access the register page for new other users. This register page functions similarly to the registration page any other user can access, however from this

page an admin can give roles and permissions to the new user account. After filling out the account information and selecting which role(s) is desired and clicking the “Submit” button, anyone with knowledge of the information in that account will be able to use the account made for them by the admin.