DRURY UNIVERSITY — THE MIRROR PROJECT

Team:
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Mentors and Client:
Dr. Sigman & Dr. Branton, Mr. Booker, The Drury Mirror

Abstract

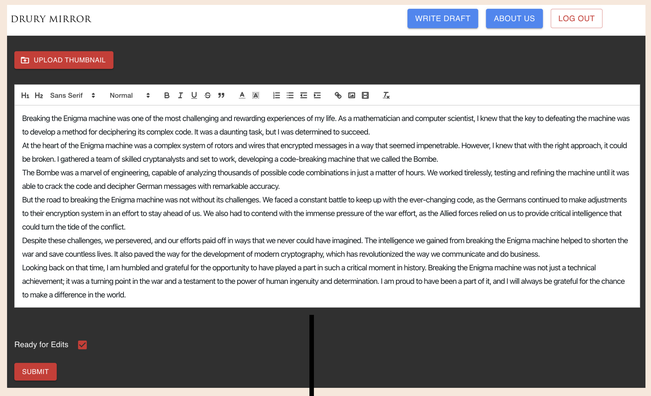
Problem:
The Drury Mirror currently struggles with the writing, editing, and publishing articles in one place.
Solution:
Provide a mobile application and a web portal for the journalistic process.

- The mobile application allows users to read and search for all published articles from the Drury Mirror.
- The web portal allows the Drury Mirror staff to easily write, edit and publish articles to the mobile application.
- Staff profiles: writer, copy editor, editor-in-chief, and advisor, each with varying roles.

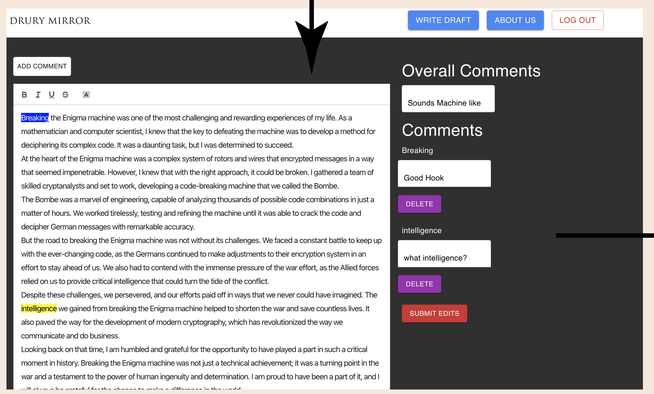
The web portal is built using the Next.js a server-side rendering framework that enables fast and responsive user interfaces. It also makes use of MySQL to retrieve and manage data such as user accounts and articles. This allows the Drury Mirror to store and archive all past, present and future articles and users. For the mobile application, Next.js was used with Capacitor to create a cross-platform application that works seamlessly on both iOS and Android devices.

Article Lifespan

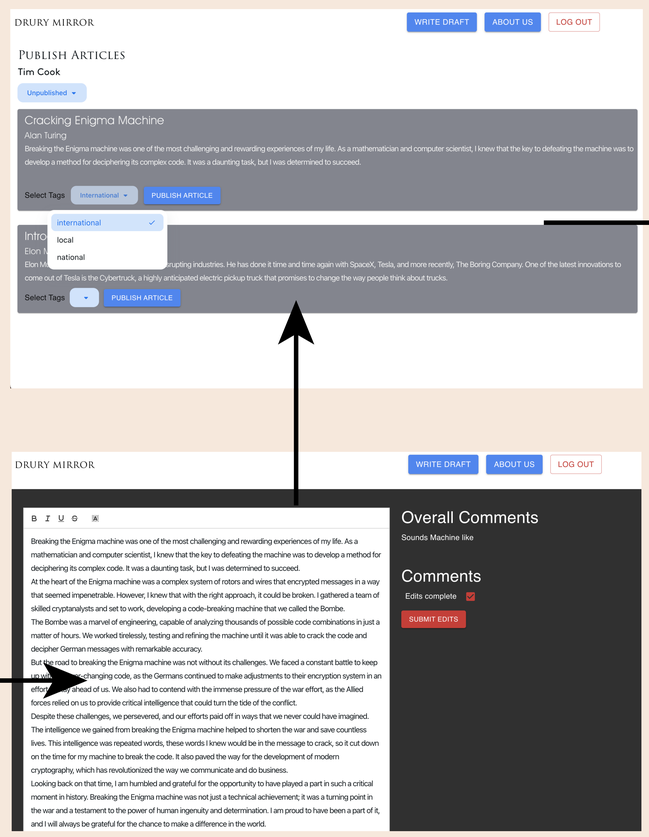
Step 1 - Writing



Step 2 - Editing

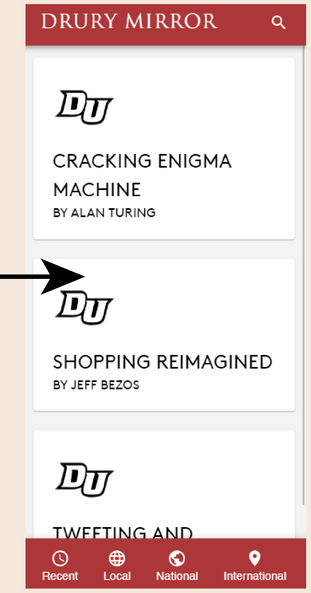


Step 3 - Commenting



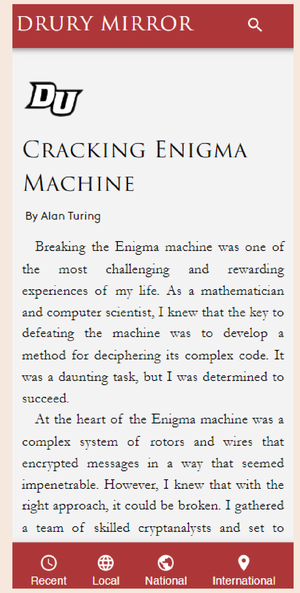
Step 4 - Publishing

The Mobile Application



Article Feed

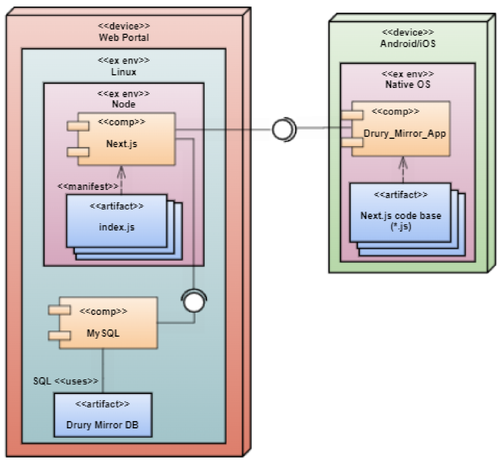
The article feed is sorted by default, it is set to be in chronological order, but users can change the filter via these tabs; most recent, local, national, and international news.



Article Page

Each article page is made via a slug, giving each article its own unique page for viewers to enjoy. The article above is written by a fictional Alan Turing generated by ChatGPT.

Architecture



Challenges, Issues & Bugs

Since The Mirror Project involves different platforms, there were many bug fixes that had to be made. In the beginning, the project was unorganized and inefficient. During the second part of the project, when everything was coming together, we took advantage of the Issues page on our Github Repository. Utilizing the Issues page our team was able to find, fix, and keep track of bugs throughout our system. Allowing us to better manage what had been fixed.

A major challenge that cost the team several weeks was not testing components of the portal with realistic data. For example, the comment editer functionality was tested with "Lorem Ipsum" text instead of real articles. This led to a major bug in the comment making system that we were not aware of until the functionality was tested with an article example. The bug was a set back for the team and we had to reevaluate how the system worked, instead of implementing further functionality.

Conclusion

Overall, The Mirror Project involved the development of a mobile application using Next.js and Capacitor, along with a web portal made in Next.js, was a challenging yet rewarding experience. The team had to navigate through the complexities of working collabo-ratively, managing different schedules, and coordinating tasks efficiently. The team also learned verison control and how important it to a project. For the future of The Mirror App we hope to have the Drury Mirror complete move to using the portal. We also hope to someday have the mobile application downloadable from the App Store and Google Play Store. Ultimately, The Mirror Project provided very valuable software engineering experience to each of us.

Project Wiki

developer ducs