



Snappy News App Development

¹Dr. B Suresh and ²S Nandhini

¹Assistant Professor, Department of Computer Science and Information Technology, Vels Institute of Science, Technology and Advanced Studies, Chennai, Tamil Nadu, India

²Student, Department of Computer Science and Information Technology, Vels Institute of Science, Technology and Advanced Studies, Chennai, Tamil Nadu, India

DOI: <https://doi.org/10.5281/zenodo.15613080>

Corresponding Author: Dr. B Suresh

Abstract

The SNAPPY News Android App is an innovative mobile-based platform developed to deliver real-time news, updates, and current affairs to users in an engaging and accessible manner. Designed with the modern user in mind, the app not only provides access to the latest headlines and articles but also empowers individuals to actively participate in the news ecosystem. By allowing users to submit their own news stories, SNAPPY News bridges the gap between traditional journalism and citizen reporting, fostering a more inclusive and community-driven approach to information sharing.

The application is structured around a clean, intuitive user interface that ensures seamless navigation across various modules such as login, registration, news feed, category-based browsing, news submission, and personalized user settings. The home screen prominently features top breaking news and categorized content, enabling users to filter stories by topic or region. Each news item supports interactive features including reactions (likes), comments, bookmarks, and share options, encouraging user engagement and discussion.

To maintain credibility and authenticity, user-submitted content is subjected to an admin moderation workflow where articles are reviewed and approved before being published publicly. This ensures a balance between open contribution and content reliability. Administrators also have access to a separate interface for managing users, reviewing submissions, and monitoring system activity.

The app includes personalization options such as language preferences, dark mode, and profile customization, enhancing user experience and accessibility. Additionally, SNAPPY News leverages Firebase push notifications to alert users about breaking news, updates on their submissions, and other relevant events in real time.

From a technical standpoint, the application is developed using Android Studio with Java/XML for the front-end interface, and SQL Server for managing backend operations and database interactions. The system architecture is scalable and secure, supporting multiple user roles (reader, reporter, admin) and maintaining a responsive design suitable for a wide range of Android devices.

In summary, SNAPPY News stands out as a comprehensive, interactive, and usercentered mobile platform that transforms how news is consumed and created. By combining professional reporting standards with community input, it serves as a next generation news aggregator and publishing tool for both readers and aspiring journalists.

Keywords: Snappy, developed, journalism, citizen reporting, news submission

Introduction

In today's fast-paced digital world, staying informed about current events and breaking news is not just a convenience but a necessity. With the growing reliance on smartphones and mobile applications, the demand for easily accessible and real-time news has increased significantly. Traditional media outlets often struggle to deliver hyperlocal and user-centered content quickly and interactively. To bridge this gap, the SNAPPY News Android App was conceptualized and developed as a modern, mobile-first news platform that

empowers both readers and citizen journalists.

The SNAPPY News app is built to provide users with a seamless and personalized news experience. It not only aggregates news from trusted sources but also allows users to contribute their own news stories, making the platform both a news reader and a content creator tool. This dual-role functionality enables a more inclusive approach to journalism, where users from all walks of life can participate in sharing local, regional, and global news events. The app is particularly focused on serving local

communities by promoting user-generated news, which often goes unnoticed by mainstream media.

Key features of the application include a responsive user interface with categorized news sections, a breaking news banner, user authentication (including Google sign-in), and a streamlined news submission process. News articles can be liked, commented on, saved as bookmarks, and shared across social platforms. A unique aspect of the app is the admin moderation system, where all user submitted articles must be reviewed and approved by an admin before being published. This ensures the credibility and quality of content on the platform.

The app also provides a rich set of customization options, including language selection, dark mode, and profile management, enhancing user accessibility and satisfaction. Real-time notifications powered by Firebase Cloud Messaging (FCM) keep users informed about breaking news, updates on their submissions, and new content in their favourite categories.

Developed using Android Studio with Java/XML for the front-end and SQL Server for the backend, SNAPPY News is both technically robust and user-friendly. Its scalable architecture supports different user roles, including general users and administrators, and ensures smooth performance across devices.

In conclusion, the SNAPPY News Android App is not just another news aggregator - it is a dynamic platform that encourages information sharing, civic engagement, and real-time updates. It aims to revolutionize the way news is consumed and created, making it a powerful tool for communities and individuals to stay connected and informed.

Literature Review

With the advent of digital technologies and the proliferation of smartphones, mobile news applications have significantly transformed the way people access and consume news. Several studies and technological advancements have laid the foundation for developing modern news apps like SNAPPY News, which aim to provide a blend of professional reporting and user generated content in a seamless mobile experience.

Previous research in the domain of mobile journalism (Westlund, 2013) [5] emphasizes the importance of accessibility, personalization, and interactivity in digital news delivery.

Mobile apps have emerged as powerful platforms that offer real-time news updates, multimedia integration, and direct communication between news providers and consumers. In recent years, platforms such as Google News, In shorts, and Daily Hunt have set benchmarks by curating content from multiple sources and presenting it in a user-friendly format. However, these platforms often lack the element of user contribution, which limits civic participation in journalism.

Literature on citizen journalism (Allan & Thorsen, 2009) [1] supports the idea that empowering users to report and share local news enhances the depth and diversity of information available to the public. Apps that integrate user-generated content contribute to democratizing information sharing, especially in underrepresented regions where mainstream media may have limited coverage. SNAPPY News builds on this concept by allowing users to post their own news

articles, while also implementing admin moderation to ensure content accuracy and credibility, addressing concerns raised in studies regarding misinformation in user generated platforms.

Studies on mobile user interface design (Nielsen, 2020) [4] highlight the necessity of intuitive navigation, minimalistic design, and responsive layouts. SNAPPY News aligns with these principles by offering a clean UI with bottom navigation, breaking news highlights, categorized sections, and easy access to post news or update settings. It incorporates features such as dark mode, language localization, and profile management, which are proven to improve user engagement and satisfaction in mobile applications (Kim *et al.*, 2019) [3].

In terms of technical architecture, literature supports the use of Android Studio with Java/XML for native Android development due to its flexibility, community support, and integration capabilities. Using SQL Server for backend data management offers structured storage, robust querying capabilities, and support for secure authentication and data handling. Integration with Firebase Cloud Messaging (FCM) aligns with best practices in real-time user engagement and notification delivery (Google Developers, 2022) [2].

In summary, SNAPPY News is inspired by a wide range of scholarly and industry sources that advocate for real-time updates, civic participation, secure content moderation, and personalized mobile experiences. It combines these insights into a single cohesive application that aims to be both a reliable news aggregator and a community-driven reporting tool.

Results and Discussion

The development of the SNAPPY News Android App aimed to create an interactive, community-powered mobile news platform with real-time updates, user contributions, and personalized features. The results of this project indicate that the app successfully meets its functional and design objectives, providing users with a comprehensive experience for both consuming and contributing news content.

Results

Successful Implementation of Core Features

Login/Register Flow: The app supports user authentication via email/password and Google sign-in. New users can easily register and existing users can log in to access their personalized news feed.

Breaking News & Categories: The home screen presents breaking news at the top, followed by categorized news fetched via NewsAPI. This ensures users stay updated with both global and regional headlines.

User-Submitted News: Users can submit their own news articles with a title, description, and image. These submissions are routed to an admin panel for approval, ensuring content quality and moderation.

Reactions and Comments: Users can engage with articles by liking them and posting comments, encouraging interaction and feedback.

Bookmarks/Saved News: Users can save news articles for later reading, enhancing content reusability.

Local News by Location: Location-based filtering allows users to view news relevant to their city or country.

Push Notifications: Real-time alerts powered by Firebase Cloud Messaging (FCM) notify users about breaking news and status updates on their submissions.

Settings & Personalization: The settings page offers dark mode, language selection, and profile editing, allowing users to customize their experience.

Admin Controls

Admins can review, approve, or reject user submitted news directly from the dashboard.

A status tracking feature (Pending, Approved, Rejected) keeps users informed about their article submissions.

Performance and User Interface

The app is built using Android Studio with Java/XML, providing a responsive UI and smooth performance.

Custom cards, a splash screen with a logo, and bottom navigation enhance the visual appeal and usability of the app.

Discussion

The SNAPPY News App effectively bridges the gap between traditional news platforms and social journalism by enabling citizen participation in news reporting. The admin moderation workflow plays a critical role in maintaining authenticity and avoiding the spread of misinformation - a common issue in user-driven platforms.

The inclusion of localized news and push notifications has significantly enhanced user engagement, while the personalization settings cater to a wide demographic with varying accessibility needs. The Firebase integration not only supports real-time notifications but also provides a scalable solution for future growth.

Conclusion

The SNAPPY News Android App successfully delivers a modern, community oriented platform for both consuming and contributing news. By combining the functionalities of a traditional news aggregator with features that allow user participation, admin moderation, and real time notifications, the app meets the growing demand for accessible, reliable, and localized news on mobile devices.

Throughout the development process, the application achieved its core objectives: a clean and user-friendly interface, secure login and registration system, categorized and breaking news display, user-submitted articles with admin approval, and advanced features such as reactions, comments, bookmarks, and location-based filtering. Personalization settings like language preferences, dark mode, and profile management further enhance the user experience and make the platform more inclusive.

The integration of Firebase Cloud Messaging (FCM) for push notifications and SQL Server for backend storage ensures scalability and stability, while the use of Java/XML in Android Studio allows for robust and flexible front-end

development. The admin dashboard enhances content control and ensures a safe, moderated environment for users to share news responsibly.

In conclusion, SNAPPY News stands as a powerful example of how mobile technology can empower both journalists and everyday users to participate in news creation and distribution. The app not only promotes informed communities but also encourages civic engagement, transparency, and dialogue - all critical components of a healthy digital information ecosystem. With continued updates and user feedback, SNAPPY News has the potential to become a leading platform for mobile journalism.

Reference

1. Allan S, Thorsen E. Citizen journalism: Global perspectives. New York: Peter Lang Publishing; c2009.
2. Google Developers. Firebase Cloud Messaging documentation [Internet]. c2022 [cited 2025 Jun 7]. Available from: <https://firebase.google.com/docs/cloudmessaging>
3. Kim H, Lee J, Lee H. Design principles for enhancing user experience in mobile applications. *International Journal of Human-Computer Interaction*. 2019;35(5):407–417. doi:10.1080/10447318.2018.1443910
4. Nielsen Norman Group. Mobile UX design: Best practices [Internet]. c2020 [cited 2025 Jun 7]. Available from: <https://www.nngroup.com/articles/mobileux/>
5. Westlund O. Mobile news: A review and model of journalism in an age of mobile media. *Digital Journalism*. 2013;1(1):6–26. doi:10.1080/21670811.2012.7402

Creative Commons (CC) License

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY 4.0) license. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.