

CSE311L Project Proposal

Group-4



Name	ID
Muhammad Farhan Rafid	2321534042
Md. Sajjad Sarker Maruf	2232275642
Shafi Mahadi Nowrose	2121620643
ABDUL MUNTAKIM	2031357642

Project Proposal

Title: News Portal Management System

1. Introduction

The *News Portal Management System* is a database-driven desktop application designed to streamline digital news publication and management. It provides a structured environment where administrators, journalists, and readers can interact through article publishing, reviewing, commenting, and sharing. The system aims to imitate a real-world newsroom environment, ensuring efficient data handling, user-level access control, and smooth operation across all roles.

2. Objective

The primary objective of this project is to develop a functional, user-friendly Java-based application for managing news articles, journalists, and reader interactions. It focuses on enabling a simple, efficient, and secure way to handle large amounts of news content, ensuring proper workflow between journalists and administrators while maintaining data integrity through a connected MySQL database.

3. Scope of the Project

The system includes multiple levels of access and functionality:

- **Admin:**

- Manage news categories.
- Add, update, or remove journalist accounts.
- Approve, publish, or archive articles.
- View all reader interactions (comments, shares, reports).

- **Journalists:**

- Register and log in to their accounts.
- Create, edit, and submit articles under assigned categories.
- Track their article performance through views and feedback.

- View and manage the status of their articles (Draft, Published, Archived).

- **Readers:**

- Register and log in to the portal.
- Browse and read published articles.
- Comment on and share articles.
- Bookmark favorite articles for later reading.

4. Functional Description

1. Category Management:

The system maintains a categorized structure for articles (Politics, Technology, Sports, Entertainment, etc.) allowing better organization and navigation.

2. Article Management:

Journalists can create and edit articles, which are reviewed by the admin before being published. Admins can update, approve, or remove any content.

3. User Interaction:

Readers can comment, share, and bookmark articles. Their activities are stored for engagement analytics.

4. Database Connectivity:

The application uses **Java (JDBC)** to connect with **MySQL**. All CRUD (Create, Read, Update, Delete) operations are executed via SQL queries through Java's JDBC interface.

5. Database Design Overview

The system consists of **10 interrelated tables**, each serving a specific function:

Table Name	Purpose	Sample Data Entries (Text Format)
categories	Stores news categories	(1, "Politics"), (2, "Technology")
journalists	Holds journalist info	(1, "Rafiq Hasan", "rafig@portal.com")
readers	Stores registered readers	(1, "Abdullah Karim", "abdullah@gmail.com")
articles	Contains all news articles	(1, "Govt unveils new policy", category=1, status=Published)
comments	Tracks reader comments	(1, article_id=1, "Very informative!")
shares	Logs shared articles	(1, article_id=1, platform="Facebook")
bookmarks	Stores readers' saved articles	(1, reader_id=1, article_id=2)
feedback	Stores user feedback on portal or features	(1, reader_id=2, "Great UI design")
login_activity	Logs user login/logout timestamps	(1, user_id=1, role='reader', time_in, time_out)
reports	Allows users to report inappropriate content	(1, article_id=1, reader_id=3, "False information detected")

Example Data Insertions (Text Format):

- A *Politics* category is created under **categories**.
- Journalist *Rafiq Hasan* writes an article titled "*Government unveils new policy*" under *Politics*.
- Reader *Abdullah Karim* comments "*Very informative!*" and shares it on *Facebook*.
- Another reader bookmarks the same article for later reading.
- A user submits feedback saying "*Smooth and responsive interface*".

6. Tools and Technologies Used

Component	Technology / Tool
Frontend (GUI)	Java Swing / JavaFX
Backend Logic	Java (Object-Oriented Programming)
Database	MySQL (managed via XAMPP)
Connectivity	JDBC (Java Database Connectivity)
IDE / Editor	NetBeans / Eclipse
Testing Environment	Localhost (XAMPP)

7. Expected Outcomes

- A fully functional **desktop-based news management system** developed in Java with MySQL integration.
- A **role-based access control** ensuring secure and logical user operations.
- A **relational database** consisting of 10 well-defined tables covering every data aspect of the portal.
- A **complete content management workflow**, including publication, interaction, and moderation.
- A **professional, beginner-friendly project** ideal for academic evaluation and portfolio development.

8. Conclusion

The *News Portal Management System* is a comprehensive Java-based project that integrates **MySQL and JDBC** for data connectivity, **Java Swing** for interface design, and **object-oriented principles** for backend management. The system replicates real-world news portal operations, offering an educational yet professional-level experience in full-stack desktop application development. It fulfills all project requirements with proper scalability for future feature enhancements.