

PROJECT REPORT

CS257

ARTICLE SEARCH ENGINE DATABASE MANAGEMENT SYSTEM

Submitted by :

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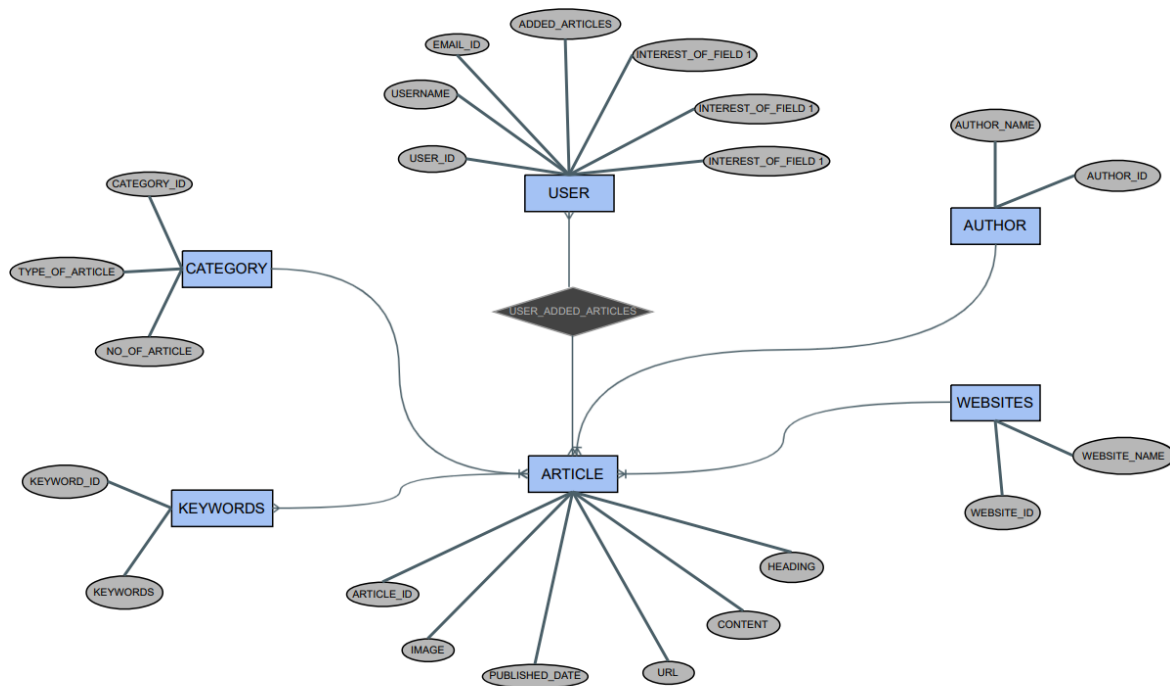
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Overview

Article Search Engine is a search engine that enables users to find articles from various websites. It will reduce the efforts that are required for searching articles online.

- **Article database management system:** The various articles can be stored in the article search engine.
- **Category:** The user can search based on the various categories that are present. This application will contain articles related to various fields like finance, education, healthcare, fashion, etc.
- **User Database Management:** The user who has logged in will only be able to add the articles of their interest. The user will also have the authority to delete the articles added by them.
- **Search Engine:** Articles with keywords can be searched using the search engine. The engine allows users to specify a search keyword and receive a list of articles that match the term. It will direct the user to the website which contains articles related to the keyword you have searched.
- **Webpage:** Users can visit the home page and view category-wise articles. After searching with a specific keyword various articles will be displayed on the web page according to their views. Users will also be able to see suggestions from different categories.

ER Diagram



Entity Sets

1. Articles:

- i. Article id (**Primary Key**)
- ii. Heading
- iii. URL
- iv. Image URL
- v. Content
- vi. Published Date

2. User

- i. User Id (**Primary Key**)
- ii. Username
- iii. User Email Id
- iv. Interest of field 1
- v. Interest of field 2
- vi. Interest of field 3

3. Keywords

- i. Keyword ID (**Primary Key**)
- ii. Keyword

4. Category:

- i. Category ID (**Primary Key**)
- ii. Types of category
- iii. No. of articles

6. Author

- i. Author ID (**Primary Key**)
- ii. Author's Name

7. Websites

- i. Website ID (**Primary Key**)
- ii. Website Name

Constraints added:

- User has to be logged in to add the article.

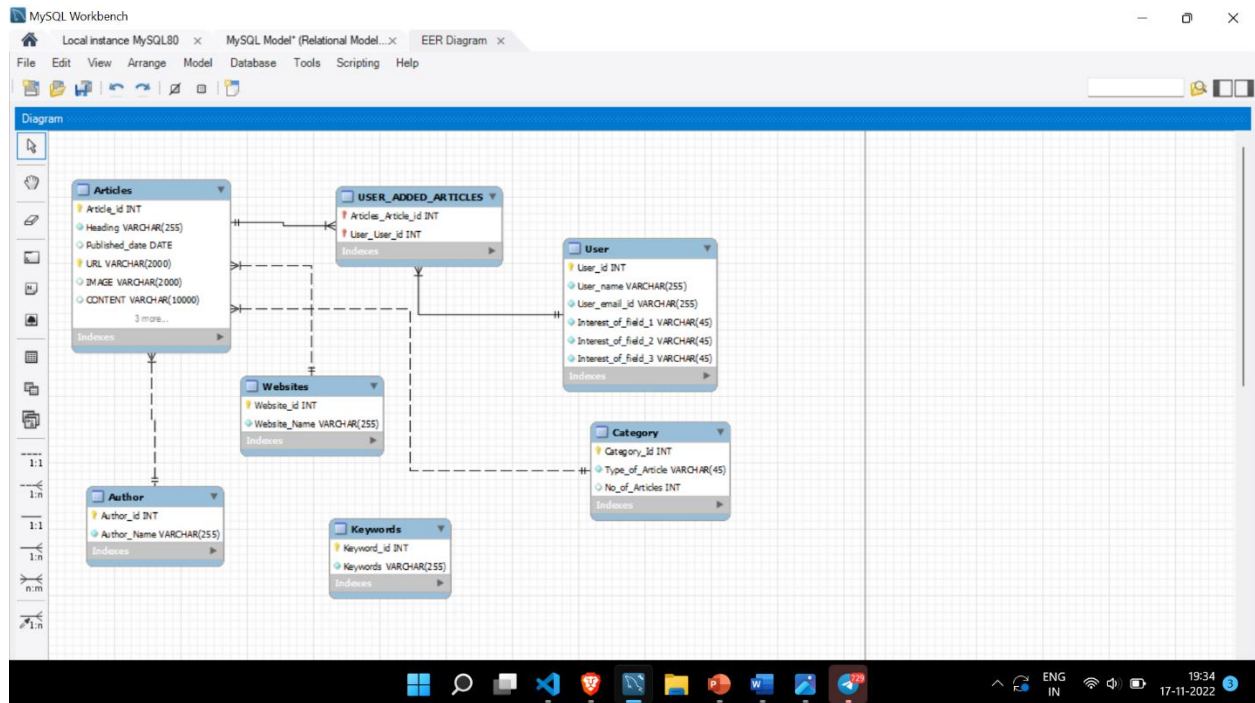
Foreign Key Constraints:

- FOREIGN KEY (CATEGORY_ID) REFERENCES CATEGORY(CATEGORY_ID),
- FOREIGN KEY (WEBSITE_ID) REFERENCES WEBSITES(WEBSITE_ID),
- FOREIGN KEY (AUTHOR_ID) REFERENCES AUTHOR(AUTHOR_ID),
- FOREIGN KEY (USER_ID) REFERENCES USERS(USER_ID) ON DELETE CASCADE,
- FOREIGN KEY (ARTICLE_ID) REFERENCES ARTICLES(ARTICLE_ID) ON DELETE CASCADE

Database:

- We have added almost 100+ articles in our database, 10 articles per category.
- We have added almost 600+ keywords to increase the search efficiency.

RELATIONAL SCHEMA



Tech Stack

- **Frontend**

1. HTML CSS
2. BOOTSTRAP
3. REACT JS

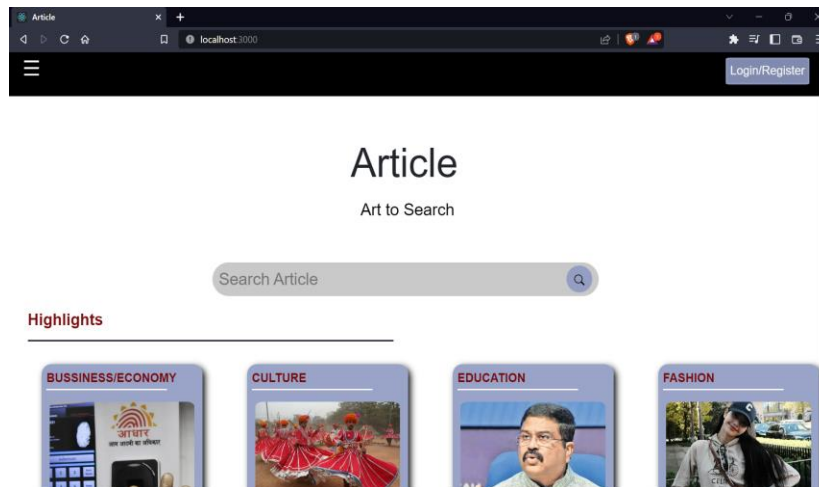
- **Backend**

1. Node Js
2. MySql
3. Express

Features

- 1.Homepage
- 2.Register
- 3.Login
- 4.Profile Page
- 5.Search Keyword
- 6.Search Page
- 7.Category
- 8.Add Article

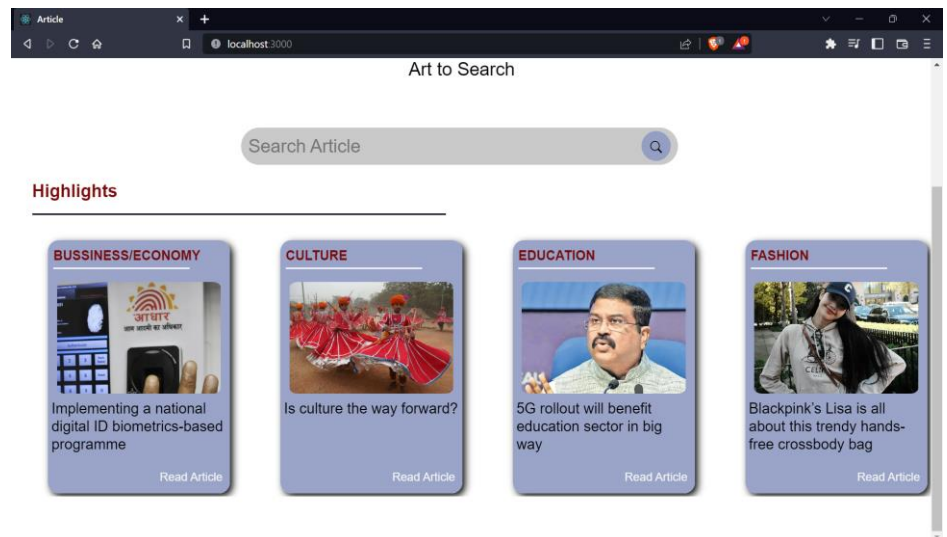
Homepage

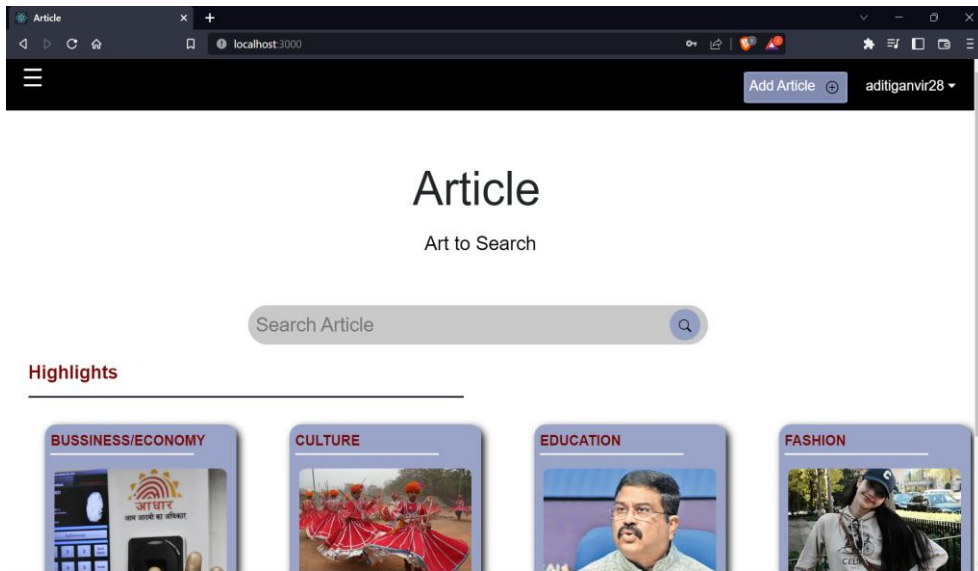


Home Page contains a Search Bar where you can search articles with respect to any keyword you want.

Latest articles related to different categories are displayed in the highlights.

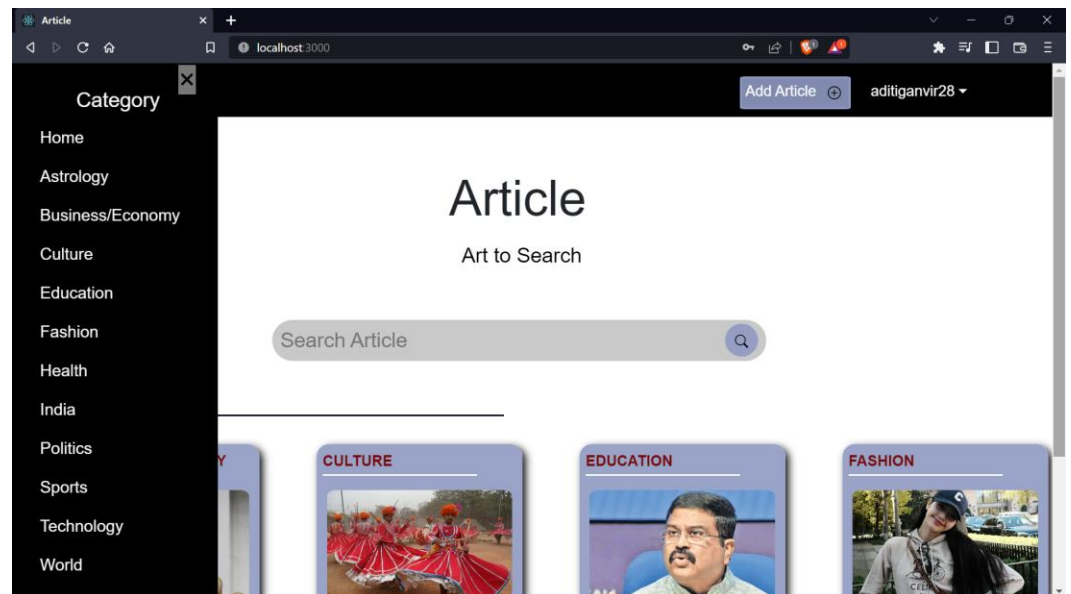
It has a login/register button which will direct you to login/register form if you are not logged in, else it will show options like profile and logout.



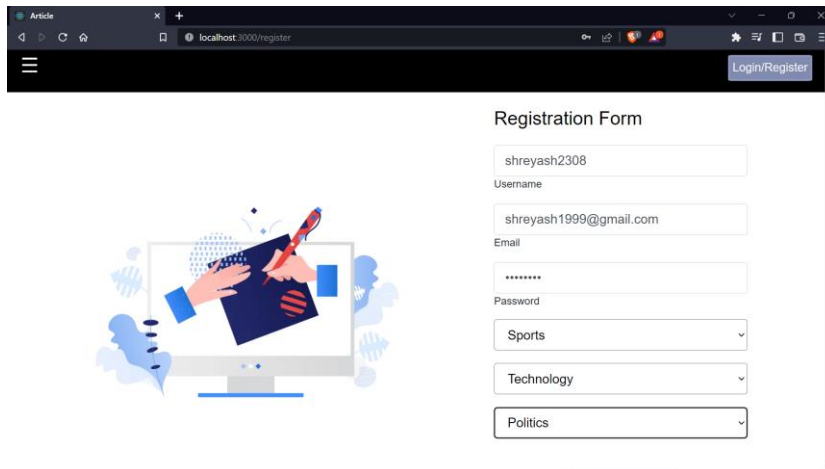


Add article option will be available only after login.

In menu users can find all the categories you want to read about.



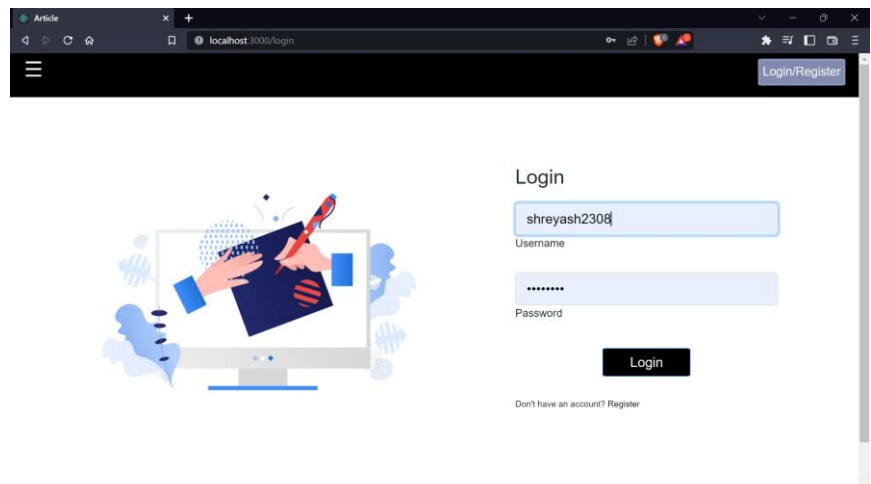
Registration Page



A screenshot of a web browser showing the registration page. The browser's address bar displays 'localhost:3000/register'. The page features a 'Registration Form' with the following fields: 'Username' (containing 'shreyash2308'), 'Email' (containing 'shreyash1999@gmail.com'), 'Password' (masked with dots), and three dropdown menus for 'Sports', 'Technology', and 'Politics'. To the left of the form is an illustration of a hand pointing at a computer screen. A 'Login/Register' button is located in the top right corner of the page.

For registration users have to enter username, email id and password. Users have to enter 3 categories of their interest. After registration page, user will be directed to login page

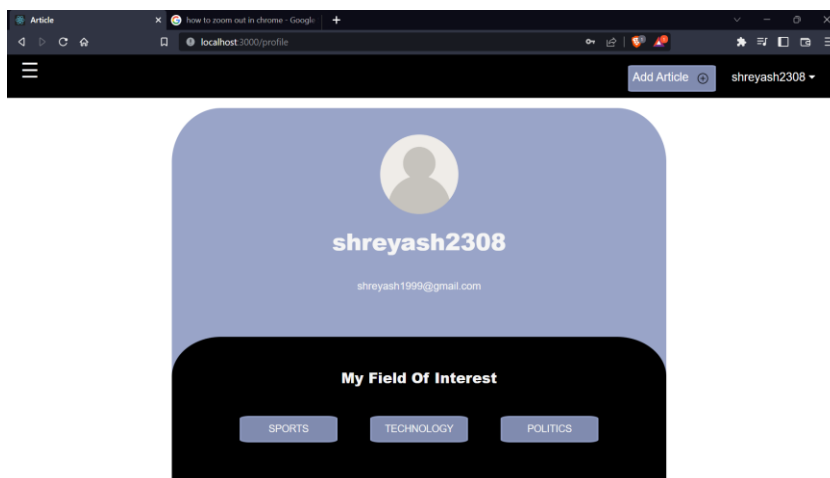
Login Page



A screenshot of a web browser showing the login page. The browser's address bar displays 'localhost:3000/login'. The page features a 'Login' form with 'Username' (containing 'shreyash2308') and 'Password' (masked with dots) fields. Below the password field is a 'Login' button. At the bottom, there is a link that says 'Don't have an account? Register'. To the left of the form is an illustration of a hand pointing at a computer screen. A 'Login/Register' button is located in the top right corner of the page.

After logging in, the user will be directed to the profile page.

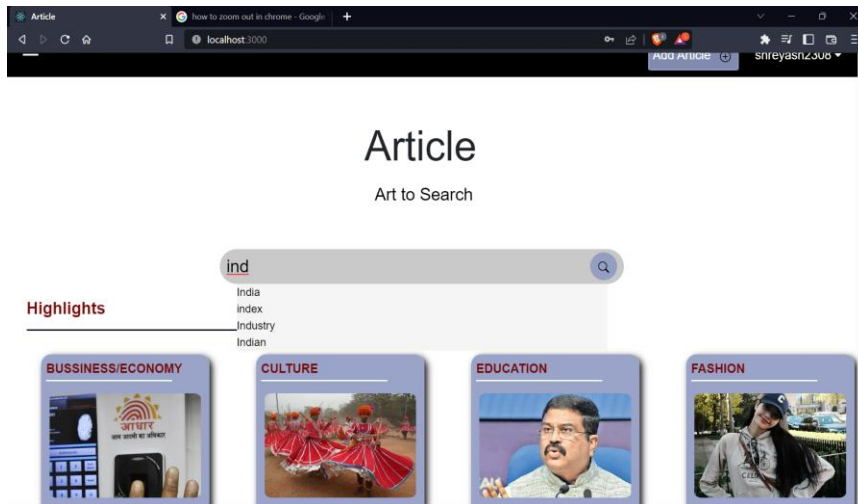
Profile Page



A screenshot of a web browser showing the user's profile page. The browser's address bar displays 'localhost:3000/profile'. The page shows a user profile for 'shreyash2308' with the email 'shreyash1999@gmail.com'. Below the profile information is a section titled 'My Field Of Interest' with three buttons: 'SPORTS', 'TECHNOLOGY', and 'POLITICS'. In the top right corner, there is an 'Add Article' button and the username 'shreyash2308' with a dropdown arrow. A hamburger menu icon is in the top left corner.

Profile page displays users interest of field and articles added by user.

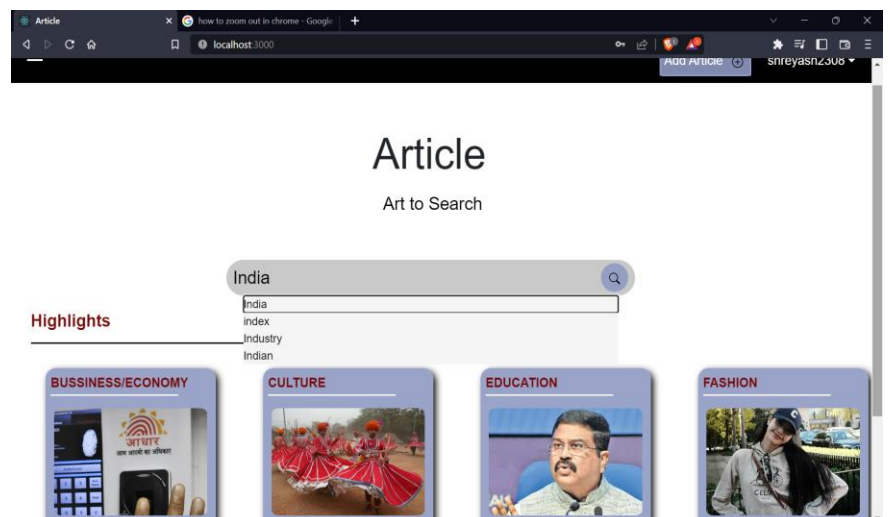
Search Keyword



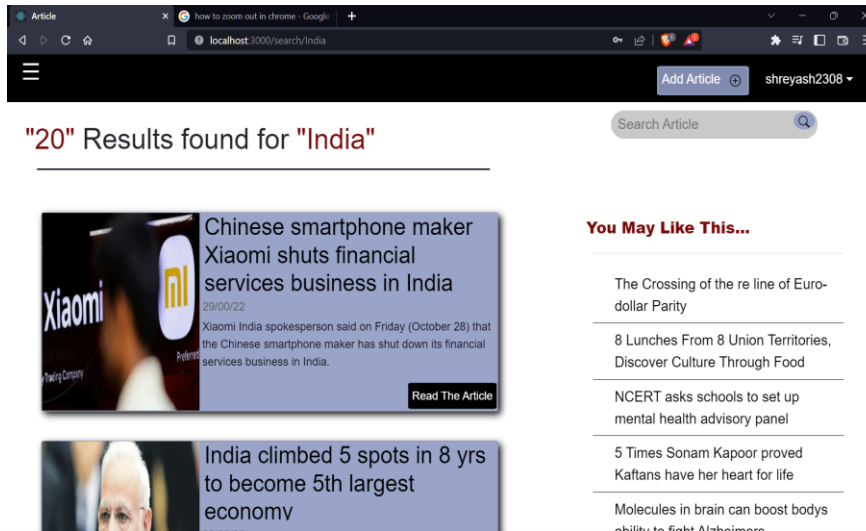
When the user will enter a query, various keywords related to that query will be displayed.

After clicking on anyone keyword, user will be directed to the search page where the results will be displayed.

Right now we have inserted 600 keywords in our database. So start searching the keyword and get the article you want to read!!!

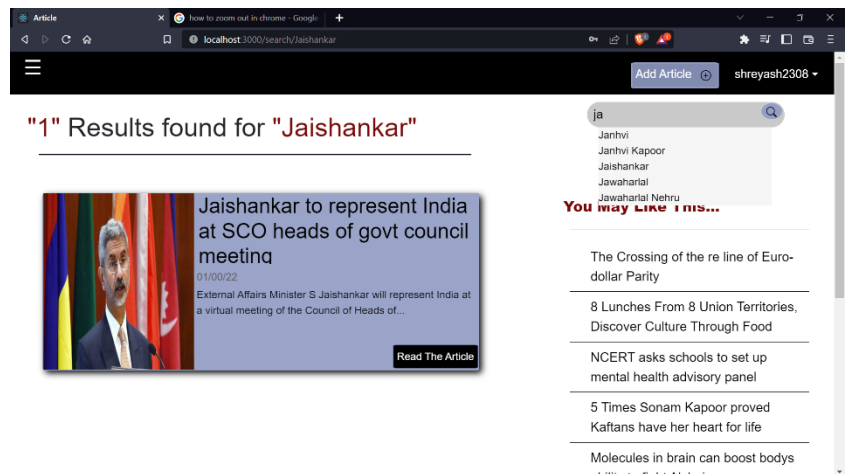


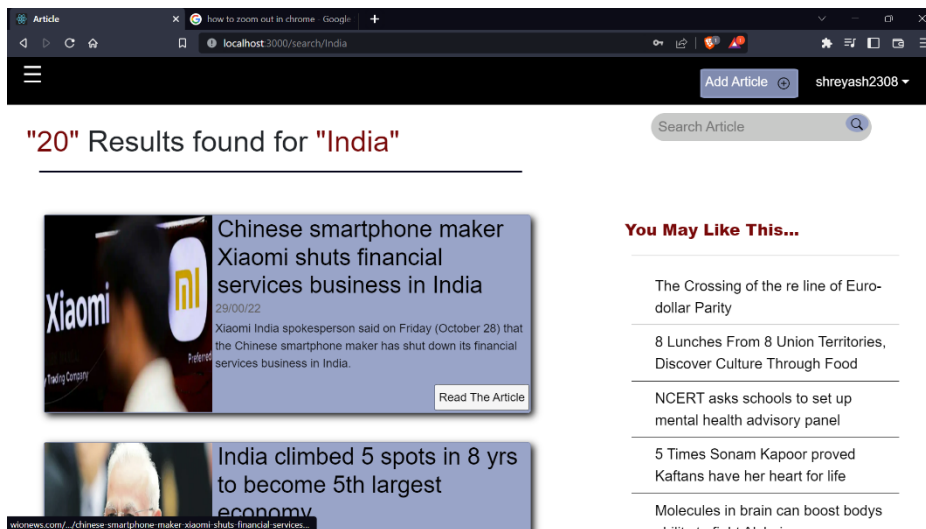
Search Page



It will show the users all the articles related to their keyword and also shows number of results found. Here users can see heading of article, image, date on which it published, some content of it and read more button

User will also be able to search from this page and get the results.



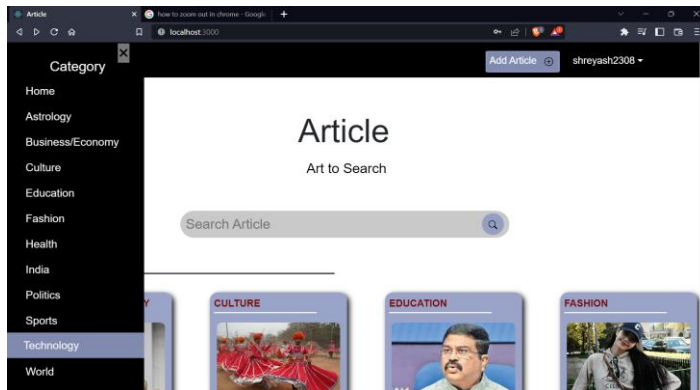


Suggested articles are displayed on the right side of the page from each category.

On clicking on read article button user will be directed to the website of that article.

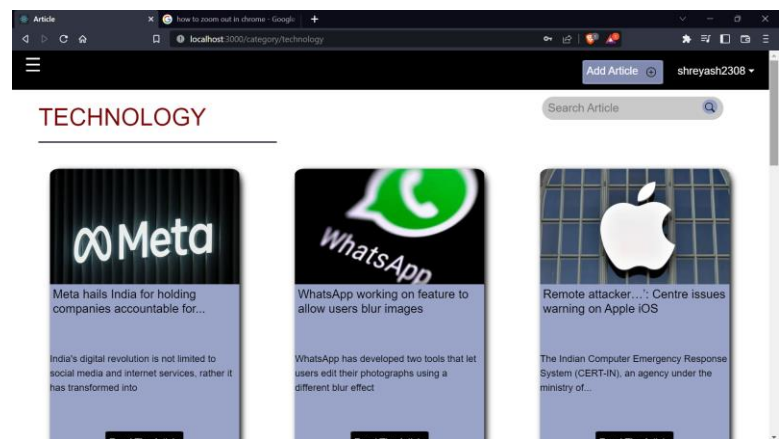


Category

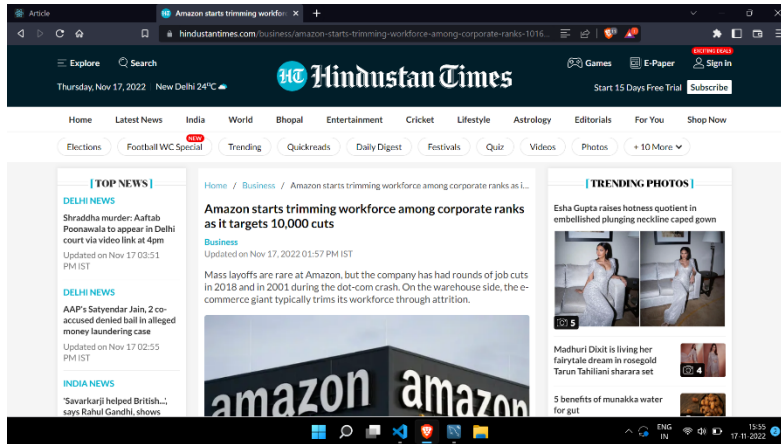


On clicking on menu on the navbar, user will be able to see various categories like astrology, education, etc.

On clicking on anyone of the category will direct the user to respective category page.

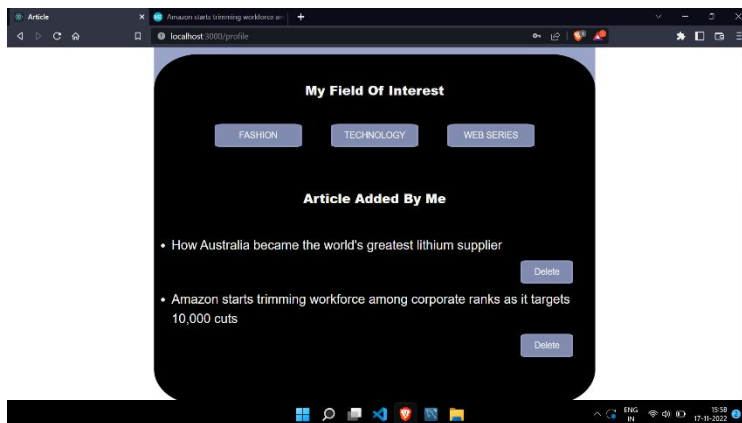


Add Article Form



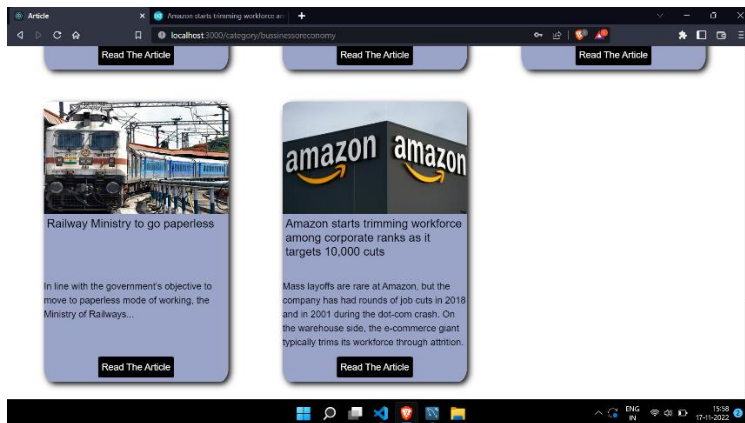
User can add article of their interest from any website. They just have to fill the required details.

If the website and the author name submitted by the user doesn't, exist in our database, it will get added to the website and author table in our database.

A screenshot of a web application's "Add Article" form. The form is titled "Article Information" and contains several input fields. The fields are filled with the following information: "Amazon starts trimming workforce", "https://www.hindustantimes.com/t", "BUSSINESS/ECONOMY", "17-11-2022", "https://images.hindustantimes.com", and "HINDUSTAN TIMES". There is a "Add Article" button and a dropdown menu showing "aditigavir28". The form is decorated with a colorful illustration of a globe, a paper plane, and a heart.

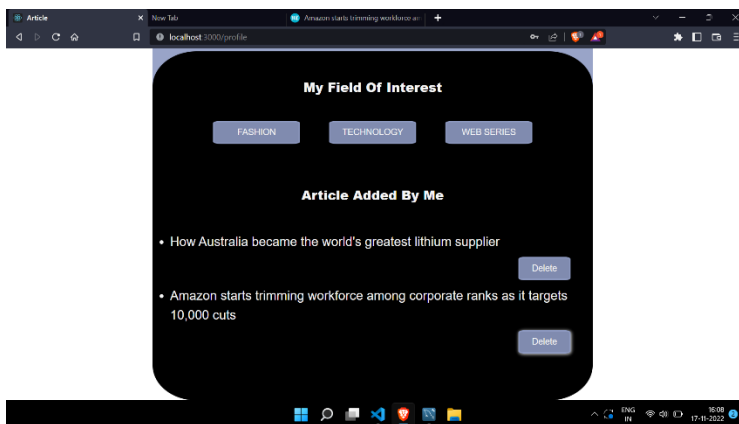
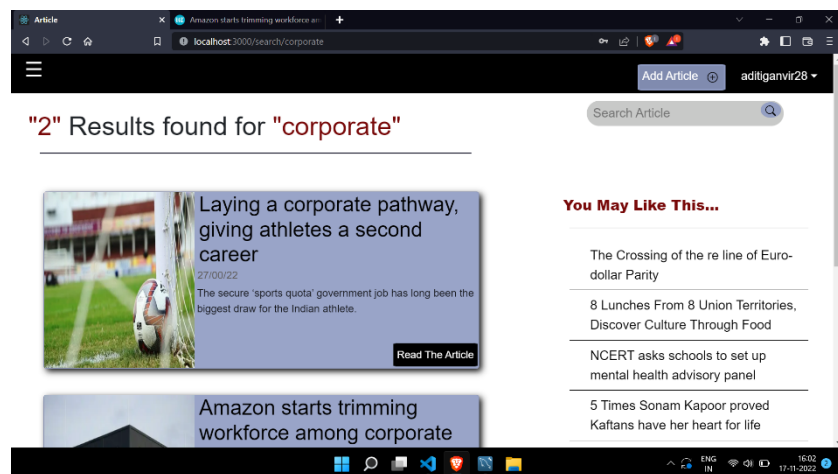
After submitting the form, article gets added in our database.

Article added by the user is displayed in their profile page.



Article added by the user being displayed on the respective category page.

Added article being displayed in the results after searching by a keyword.



User can also delete the article.

