Flavors Of India: A Web Platform For Regional Food Cuisines

[1]Dr. D. Shanthi, [2]A. Vaishnavi, [3]B. Haripriya, [4]B. Madhushalini, [5]B. Anjali

[1] Professor, HOD, CSE(AI&ML),

[2,3,4,5]B. Tech 2nd year Student, CSE (AI&ML),

[1,2,3,4,5]Vignan's Institute of Management and Technology for Women, Hyderabad, India.

[1]drshanthicse@gmail.com, , [2] Akavaishu1@gmail.com, [3]bairuharipriya@gmail.com,

[4]billamadhushalini26@gmail.com, [5] bairianjali19@gmail.com

ABSTRACT

India is a land of diverse cultures and culinary traditions. Each region possesses unique recipes and cooking techniques handed down through generations However , this rich food heritage is inadequately represented in digital spaces. This research introduces Flavors of India, a web-based platform developed to archive, explore, and promote regional cuisines of India. Using interactive UI elements such as a dynamic Indian map, the application allows users to explore dishes specific to each state and discover associated restaurants. In addition to safeguarding culinary skills and recipes, the project also provides invaluable insights into regional culture and promotes nutritional education, safeguarding this knowledge for younger generations. While existing platforms like cook pad have touched such concepts, they have only done so to the tune of about 30% of the possible. Our project seeks to take this further, reaching nearly 80% of the scope with compressive and immersive experience for user real time information.

***Keywords:** HTML, CSS, JavaScript, AI Interactive Tools, Front-end Development, Dynamic Content, Popup Integration, Map Integration, CSS Animations, HTML5.*

1-INTRODUCTION:

India's profound cultural collages find a vivid expression in its diverse cuisine, where each of its 28 states and 8 union territories presents a unique culinary narrative shaped by geography, history, and tradition. This rich heritage, however, faces a digital void in the accessibility of authentic regional recipes, leading to a concern that globalization, while offering international flavours, might inadvertently overshadow and diminish traditional, localized dishes in daily life. Addressing this critical gap, "Flavors of India" emerges as a timely web platform dedicated to the preservation, promotion, and popularization of India's varied regional cuisines, employing modern web technologies to create an engaging and educational experience for both culinary purists and contemporary food lovers alike.

II. RELATED WORK:

The "Flavors of India" project emerges in response to the limitations found in current culinary platforms that inadequately represent regional Indian cuisines. Several existing platforms such as Cookpad, Tasty, Sanjeev Kapoor's Website, and Swaadsutra have been reviewed to assess the landscape of digital culinary solutions.

[1]. Cookpad has established itself as a worldwide recipe-sharing platform where users upload their recipes for others to see and it has featured a tremendous collection of recipes. However, it lacks strong cultural or geographical ties to traditional Indian food and offers limited representation of regional dishes.

[2]. Sanjeev Kapoor's portal offers curated Indian recipes from a professional chef, yet its focus remains largely on mainstream, well-known items. It lacks a state-wise exploration model and provides minimal nutritional or historical context.

[3]. Swaadsutra aims to preserve traditional Indian recipes and connect them to cultural narratives. While it contributes to the preservation of culinary heritage, it offers a limited database and a less interactive experience for users.

[4]. Tasty, known for visually engaging, quick video recipes, caters primarily to global audiences with little emphasis on traditional Indian culinary depth or authenticity. Its content is trend-focused and often neglects the origins or cultural significance of dishes.

● These platforms share common drawbacks:
● Lack of regional categorization (no state-wise exploration).
● Absence of cultural and historical context behind dishes.
● Neglect of health and nutritional information.
● Limited interactivity, with no tools like dynamic maps or geographic cues.
● No promotion of culinary tourism, such as recommending restaurants for authentic food experiences.

III. PROPOSED SYSTEM:

Overview of the Proposed System

IV. IMPLEMENTATION DETAILS:

Modular Architecture:

Our project, "Flavors of India", is a web-based system that aims to promote and conserve Indian regional cuisines digitally. At its core, the system presents an interactive map of India that allows users to explore different states and their associated famous dishes. Each state on the map functions as a clickable interface element that, when hovered over or selected, displays a popup showing the state's signature cuisine. Upon clicking, the user is redirected to a detailed page containing rich information about the dish, including ingredients, preparation methods, cultural relevance, nutritional benefits, and famous restaurants serving the dish.

This system is developed using modern web technologies: HTML, CSS, JavaScript for the front end, or Node.js for the backend. It is supported by a MySQL database that stores recipe details, images, health facts, and restaurant data. The architecture ensures scalability, responsiveness, and a visually engaging user experience across all devices.

Key Functional Components
● Interactive India Map
● Built using SVG/HTML with JavaScript-based interactivity.
● Users can hover over a state to view a cuisine preview and click to navigate to the detailed recipe page.
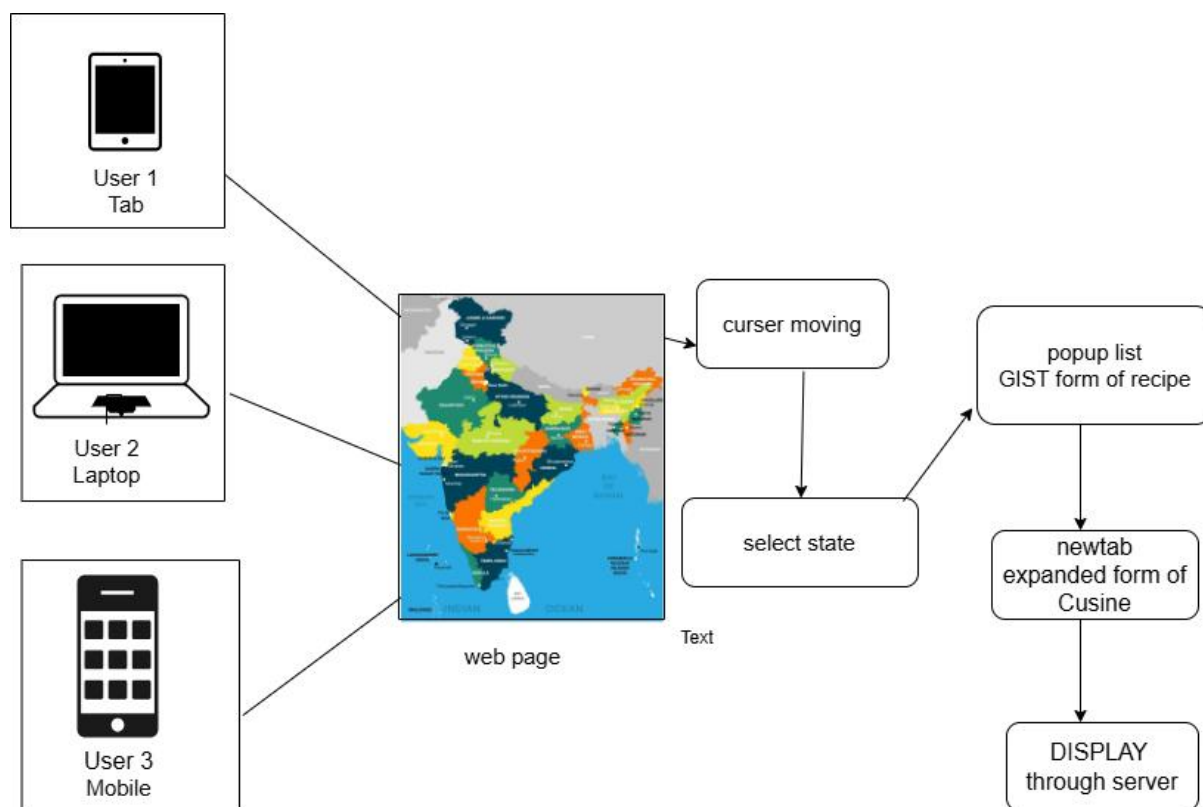● Cuisine Information page

Fig. 1. System Architecture of flavors of india

A. User Module

Function: Enables users to interact with a clickable India map.

Features:

- Hover effect displays a popup with state cuisine.
- Click leads to a detailed page with:
- Dish name and origin
- Ingredients and preparation
- Health benefits and calories
- Restaurant suggestions

B. Admin Module

Function: Content management system (CMS).

Features:

- Add/edit/delete recipes and restaurants
- Update nutritional information
- Secured with basic authentication

V. ALGORITHM

Interactive Culinary Discovery via State-wise Map Interface

Objective:

To enable users across devices (tablet, laptop, mobile) to interact with a web-based India map and retrieve regional food recipes through popups and detailed views.

Step 1: Initialize Web Platform

1. Open the web application server.
2. Load the homepage with:
   India map (SVG/Image Map)

Step 2: Device Access and Interaction

- If the user is on **Mobile/Tablet/Laptop**, render responsive UI accordingly using CSS media queries.
- Show interactive map on webpage.

Step 3:

1. Monitor cursor movement

2. On hover (or tap on mobile), detect the region/state under the pointer.

Step 4: show popup with dish & state name
Retrieve preview data for the state

Step 5: Handle State Selection (Click)

1. When user clicks/taps on a state or popup:
● Capture selected state ID.
● Query database or JSON file for full dish data.

Step 6: Open New Tab with Detailed Cuisine Page

1. Redirect to a **new tab** with the complete cuisine page:
● Ingredients
● Preparation steps

● Health facts and calorie info
● Restaurant recommendations

2. Display content by fetching from the backend/server.

Step 7: Serve Dynamic Content via Server

1. Server validates request and retrieves data.
2. Format and render HTML response with dish details.
3. Send response back to client for display.

Step 8: End Interaction

1. Allow users to return to the map page or explore more dishes.
2. Wait for the next interaction.

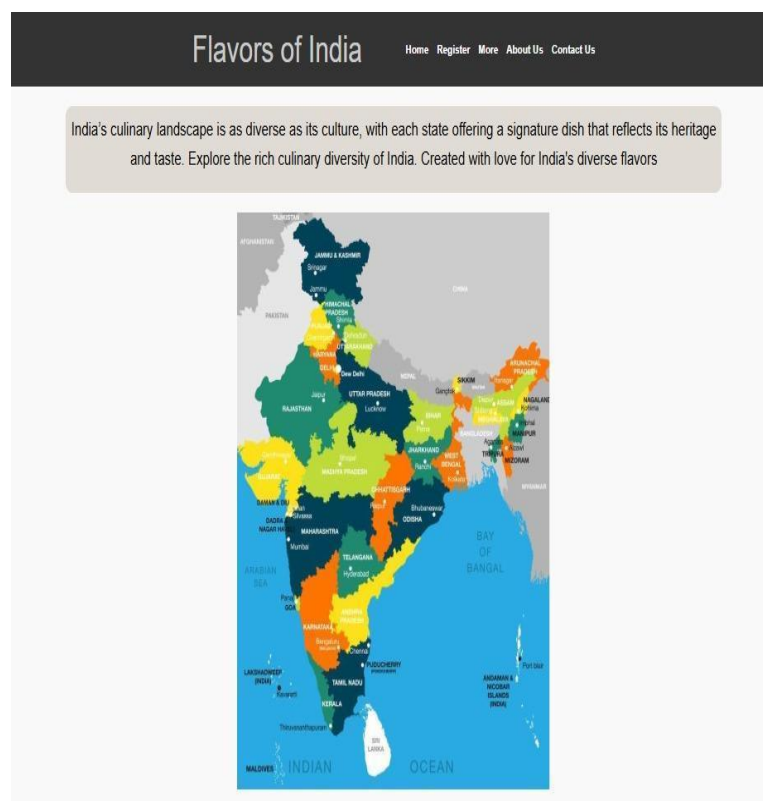## VI. RESULTS AND ANALYSIS:

Fig.2: Interactive India Map

The above figure shows the interactive India map which on moving a cursor onto and state you can see a popup which contains the cuisine name and state name.

Fig. 3: Popup of a Particular state

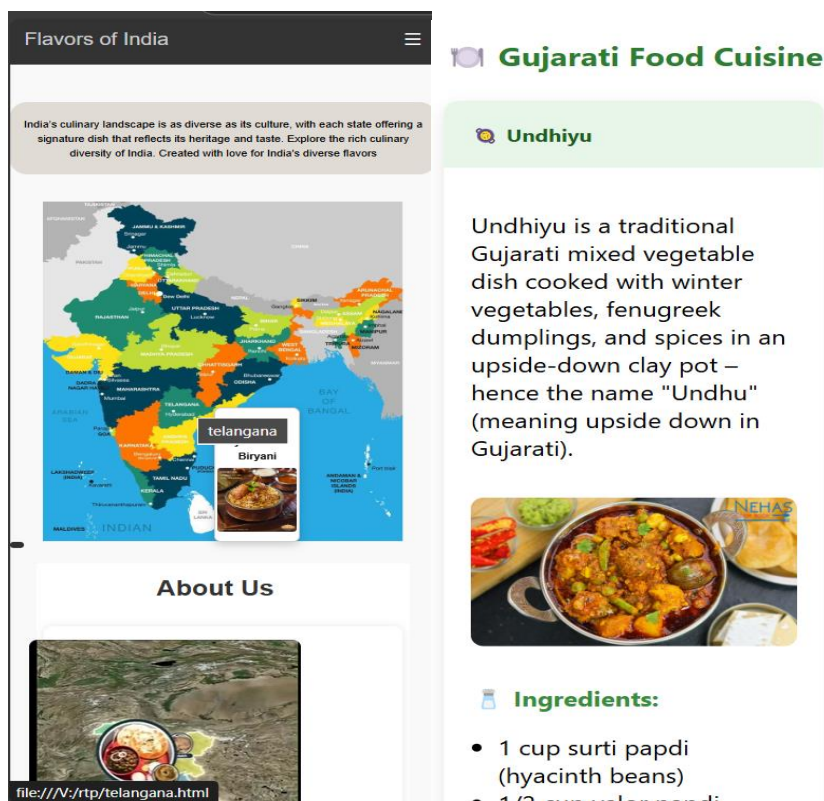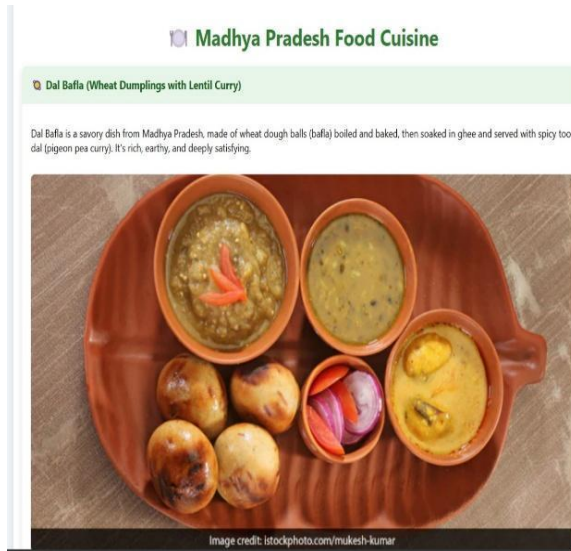

Fig.4: slight details of cuisine.

Fig.5: Gujarati cuisine

In the above image we can see that when we move the cursor on to the particular state you see a popup which contains a state regional cuisine and its name.

In fig.4: In the popup while clicking a state we see slight details about the cuisine & restaurant details.
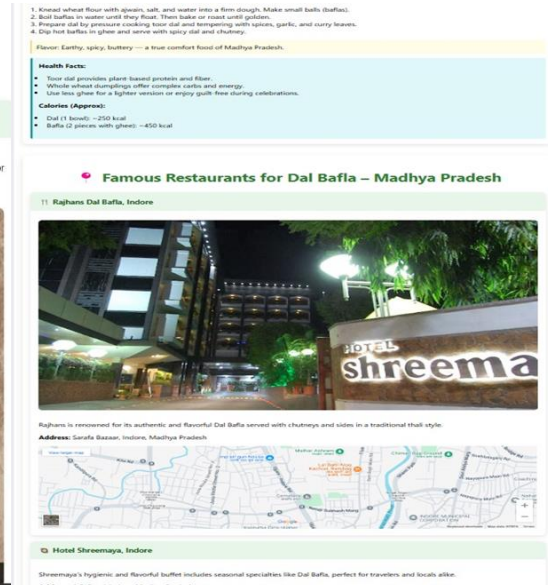

Fig. 6: In the above image it contains information of state cuisine & ingredients, calories, restaurant location.

VII. CONCLUSION

In conclusion, the "Flavors of India" web platform addresses the existing gap in readily accessible and regionally focused Indian cuisine recipes online. By providing a centralized database, incorporating user-generated content and discussions, and featuring an interactive map for intuitive exploration, this platform promotes the diversity, preservation, and accessibility of India's rich culinary heritage. The proposed system, utilizing a durable architecture and a user-friendly interface, offers significant advantages over existing platforms that often lack regional specificity, community interaction, and information on local restaurants. Ultimately, "Flavors of India" aims to be a valuable resource for food enthusiasts, researchers, and anyone interested in exploring the authentic and diverse flavors of India.

FUTURE SCOPE:

In the future, we plan to expand the number of traditional recipes featured from each Indian state. This includes adding various types of sweets, snacks, and unique regional cuisines to provide users with a comprehensive culinary experience. Additionally, we aim to include detailed cooking procedures for each recipe, helping users prepare these dishes step-by-step with ease and accuracy.

REFERENCES:

[1]. https://cookpad.com/in/search/link

[2]. https://www.sanjeevkapoor.com/

[3]. https://swaadsutra.chefp.in/

[4]. https://swaadsutra.chefp.in/

[5]. https://www.mapsofindia.com/maps/india/indian-cuisine-map.html

[6]. D Shanthi, N Swapna, Ajmeera Kiran and A Anoosha, "Ensemble Approach Of ACOT PSO And SNN For Predicting Software Reliability",International Journal Of Engineering Systems Modelling and Simulation, 2022.

[7]. Thejovathi, M., K. Jayasri, K. Munni, B. Pooja, B. Madhuri, and S. Meghana Priya. "Skinguard-Ai FOR Preliminary Diagnosis OF Dermatological Manifestations." Metallurgical and Materials Engineering (2025): 912-916

[8]. Geetha, M. D..., Haritha, M., Pavani, B.., Srivalli, C.., Chervitha, P., & Ishrath, S. (2025). Eco Earn: E-Waste Facility Locator. Metallurgical and Materials Engineering, 767–773. Retrieved from https://metall-mater-eng.com/index.php/home/article/view/1632

[9]. Srilatha, M. A.., Rani, R. U.., Yadav, R.., Reddy, R.., Sathwika, L.., & Krishna, N. B... (2025). Learn Rights: A Gamified Ai-Powered Platform for Legal Literacy and Children's Rights Awareness in India. Metallurgical and Materials Engineering, 592–598. Retrieved from https://www.metall-mater-eng.com/index.php/home/article/view/1611

[10]. Jayanna, SP., S. Venkateswarlu, B. Ishwarya Bharathi, CH. Mahitha, P. Praharshitha, and K. Nikhitha. 2025. "Fake Social Media Profile Detection and Reporting". Metallurgical and Materials Engineering, May, 965-71. https://metall-mater-eng.com/index.php/home/article/view/1669.

[11]. D Shanthi, CH Sankeerthana and R Usha Rani, "Spiking Neural Networks for Predicting Software Reliability", ICICNIS 2020, January 2021, [online] Available:
https://ssrn.com/abstract=3769088.22.Shanthi, D. (2023).

[12]. Smart Water Bottle with Smart Technology. InHandbook of Artificial Intelligence (pp. 204-219). Bentham Science Publishers.

[13]. Priyanka, M. T. S.., Divya, D. N.., Sruthi, A.., Prasanna, S. L.., Sahithi, B.., & Jyothsna, P. (2025). Domain Detector - An Efficient Approach of Machine Learning for Detecting Malicious Websites. Metallurgical and Materials Engineering, 903–911. Retrieved from https://metall-mater-eng.com/index.php/home/article/view/1663

[14]. Reddy, M. V. S., Geetha, M. D.., Srivani, P.., Sandhya, P.., Sravanthi, D.., & Rani, S. A. (2025). Detection Of Offense and Generating Alerts Using Ai. Metallurgical and Materials Engineering, 1289–1299. Retrieved from https://metall-mater-eng.com/index.php/home/article/view/1706

[15]. Thejovathi, Murari, M. V. P. Chandra Sekhara Rao, E. J. Priyadharsini, Someshwar Siddi, B. Karthik, and Syed Hauider Abbas. "Optimizing Product Demand Forecasting with Hybrid Machine Learning and Time Series Models: A Comparative Analysis of XGBoost and SARIMA." EJ and Siddi, Someshwar and Karthik, B. and Abbas, Syed Hauider, Optimizing Product Demand Forecasting with Hybrid Machine Learning and Time Series Models: A Comparative Analysis of XGBoost and SARIMA (November 15, 2024) (2024).

[16]. D. Shanthi, "Ensemble Approach of ACOT and PSO for Predicting Software Reliability",2021 Sixth International Conference on Image Information Processing (ICIIP), pp. 202-207, 2021.

[17]. Thejovathi, MURARI., and M. C. Rao. "Evaluating the performance of xgboost and gradient boost models with feature extraction in fmcg demand forecasting: A feature-enriched comparative study." J. Theor. Appl. Inf. Technol 102 (2024): 4158-4163

[18]. D. Shanthi, P. Kuncha, M. S. M. Dhar, A. Jamshed, H. Pallathadka and A. L. K. J E, "The Blue Brain Technology using Machine Learning,"2021 6th International Conference on Communication and Electronics Systems (ICCES), Coimbatre, India, 2021, pp. 1370-1375, doi: 10.1109/ICCES51350.2021.9489075.