

Exploring India's Culture And Heritage Festival Food Of India

¹Mr. SP. Jayanna, ²Balineni Balakrishna, ³Annam Sushma, ⁴Kasa Sathwika, ⁵D. Manasa, ⁶Kakarla Sowmya

- ^{1,2} Assistant Professor, Dept. of CSE(AI&ML), ^{3,4,5,6} B. Tech 2nd year Student, CSE (AI&ML) ^{1,2,3,4,5,6} Vignan's Institute of Management and Technology for Women, Hyderabad, India
- ¹ spjayanna@gmail.com, ² balinenibalakrishna@gmail.com, ³ ssushmareddy06@gmail.com,
- ⁴ kasasathwika@gmail.com, ⁵ dovurimanasareddy11@gmail.com, ⁶ kakarlasowmya@gmail.com

ABSTRACT:

There is a vast amount of cultural diversity present in India, represented through a vast range of festivals that encompass their own unique traditional foods, which indicate profound cultural, religious, and seasonal meaning. However, much of this culinary heritage is undocumented or dispersed across informal platforms. This project, titled "Exploring India's Culture & Heritage: Festival Food of India," seeks to digitally preserve and present these traditions through an interactive web platform. The platform showcases a vibrant, clickable map of India where users can explore festival foods by state. Each state entry provides details about a major festival and its signature dish, including cultural relevance, ingredients, preparation methods, and multimedia content like images and recipe videos. A relational database supports dynamic content fetching, ensuring a smooth user experience.

In a way to promote community involvement, members of the public are able to upload their own recipes, stories, and videos of festival foods, which are authenticated and published. The platform uses modern web technologies and responsive design to offer an accessible, educational, and immersive experience. Above all, the project hopes to celebrate cultural awareness and to conserve the rich heritage of India's festival food, while doing so in a fun and deposit on a way that is digitally accessible.

Keywords:

Festival Food, Interactive Map, Web Application, Culture, Heritage, Recipes, Multimedia, State-wise Information, Traditional Cuisine

1-INTRODUCTION:

India is a land of vibrant traditions, colourful festivals, and an incredible variety of foods. Each region of the country has its own way of celebrating festivals, and food plays a central role in celebrations. Whether it's Pongal in Tamil Nadu, Baisakhi in Punjab, or Onam in Kerala, every festival comes with special dishes that are deeply rooted in local customs, beliefs, and history. These dishes are not just meals—they carry stories passed down through generations, represent the spirit of the people, and strengthen family and community bonds.

Festival foods in India are an integral part of the culture and culinary identity of the country. Unsurprisingly, research on festival foods has typically focused on regional and cultural specificity, while also taking for granted that much of the knowledge regarding festival foods is passed between members in families and not always documented. At present, there is not a single source that helps to inform one (a particularly youth) about important foods from a cultural and recipe perspective. At this moment in time, traditional knowledge is at risk of being lost in this world of technology and social media, if it is not maintained and readily available to youth in whatever format



they prefer to consume it in. This project seeks to resolve that gap by providing a digital space that presents the festival foods of India with an emphasis on aesthetics and engagement. The website contains an interactive map of India. Users may move over a region on the map and then access the major festivals foods for that state and provide their cultural context. Along with written content, the platform includes recipe videos, images, and user-submitted stories to bring these traditions to life. By combining technology with tradition, this project aims to make learning about India's culture both fun and meaningful, while preserving the country's culinary heritage for future eras.

2-RELATED WORK:

Over the years, researchers and developers have made several efforts to document and promote Indian festivals and traditional foods. Most research and platforms right now have a singular focus on either recipes or cultural practices and do not allow for the entire model to be integrated and interactive, representing both.

Recipe Websites and Blogs:

Popular food websites such as Tarladalal.com, Hebbar's Kitchen, and Sanjeev Kapoor's Khana Khazana provide a large collection of Indian recipes, including many festival dishes. The focus of these platforms has most to do with writing recipes and writing ingredients and therefore are less informative in documenting the real culinary and cultural work since the historical and cultural context of foods is ignored, for example, when a dish is made during a festival or how it interlocks with culturally autonomous ways of food preparation in regions.

Government Cultural Portals:

similar to Incredible India (managed by the Ministry of Tourism) give general information about Indian festivals, culture, and tourist destinations. Although they list food items associated with festivals, they do not present recipes or instructions on how to prepare food. These websites are not interactive or personalized, which can restrict the involvement users have with the material, particularly for younger users.

Video and Social Media Platforms:

Platforms like YouTube and Instagram host thousands of food and festival videos shared by creators, food vloggers, and travelers. While these platforms provide rich visual content, the information is scattered, unstructured, and varies in quality. Users have to manually search for relevant videos, and there's no centralized or verified source that brings together cultural context, recipes, and stories in a single location.

Academic Studies and Cultural Research:

There are some scholarly articles and ethnographies that have discussed the meaning of food during Indian festivals in cultural or anthropological terms. For instance, researchers have examined how food habit implies community identity, social values, and religious symbolism. They are typically limited to areas or communities and not easily available to the general reader. They are also not amenable to practical or interactive learning in large groups.

Research Gap

Although there is more than enough good content out there—written text, video, or scholarly research—there isn't a single website that brings together the cultural stories, festival background, archive recipes, and interactive visual devices to offer the user information in an understandable and interactive way.



Our Contribution: This project develops an interactive, state-wise website that demonstrates the cultural relevance of Indian festival foods through traditional recipes, images, and audio. It encourages user contributions for community engagement and offers a visually rich, immersive experience. Unlike text-heavy or recipe-only sites, it combines cultural learning with interactive exploration via an India map, promoting both heritage awareness and digital participation.

3-PROPOSED SYSTEM:

The proposed system is a web-based interactive platform designed to educate users about India's diverse cultural heritage by showcasing festival foods from each state. The core idea is to merge cultural storytelling with modern web technology to make learning about traditional Indian cuisines both engaging and informative.

At the center of the platform is an interactive map of India. When users hover over or click on a specific state, a pop-up or sidebar appears, displaying curated information about that state's prominent festival and its associated traditional dish. This includes the name of the festival, the name of the food, its religious or cultural context, ingredients, cooking technique, and related multimedia, i.e., pictures and recipe videos.

This system fills the gap between static recipe platforms and cultural documentation, providing users with a dynamic, visual, and educational experience.

The proposed platform offers an engaging and educational experience cantered around India's rich culinary and cultural heritage. At its core is an interactive India map, either SVG or image-based, where each state is hover-sensitive or clickable. When a user hovers over a state, a tooltip or sidebar

appears with brief festival food information, while clicking redirects to a detailed, state-specific page. Each state showcases one prominent festival and a signature dish, accompanied by comprehensive details such as the festival's name, traditional food, cultural or religious significance, ingredients, preparation method, and a related video or image. This information is fetched dynamically from a well-organized relational database through backend logic.

The platform encourages community engagement through user-contributed content. Users can submit family recipes, personal cooking stories, and festival-related cooking videos. For quality and authenticity purposes, all submissions are approved and reviewed by admins prior to publication. Every state page integrates multimedia elements such as high-resolution images of the dishes and embedded videos demonstrating cooking processes or cultural moments from the festivals, enhancing both user engagement and learning.

Recipe pages are carefully crafted, providing detailed written instructions, cultural background, estimated cooking and preparation times, and regional cooking tips or substitutions. These pages utilize alternating layouts to improve readability and maintain visual interest. Additionally, the entire platform is built using Bootstrap to ensure full responsiveness and accessibility, providing an optimized experience across desktops, tablets, and mobile devices.

B. System Architecture:

The system is a layered architecture to ensure smoothness in operation, maintainability, and usability-friendly experience. At the front end, users interact with a visually engaging web page built with HTML, CSS, and JavaScript. The main feature is an interactive map of India—when users hover over or



click on a state, it displays information about local festivals and traditional foods.

These user requests are handled by the backend, developed using the Django framework. It processes the input, applies business logic, and fetches the relevant data. To quicken response times, the system employs a memory cache that holds frequently accessed data. If the data is not in the cache, it retrieves it from the main database.

The database holds all content securely, e.g., festival details, recipes, culture descriptions, and multimedia links. Optional components like a load balancer can be added to manage high traffic, and future enhancements may include virtual reality features and online shopping for ingredients. Overall, the architecture facilitates an interactive, informative, and scalable website that brings users together with India's culinary cultural heritage.

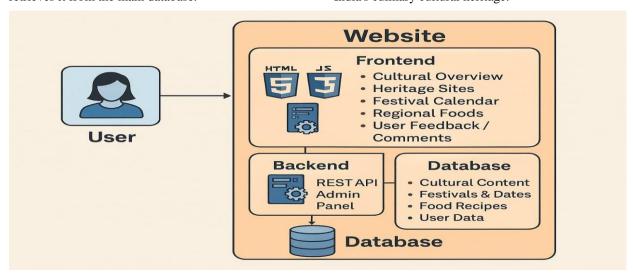


Fig. 1: System architecture

4-IMPLEMENTATION DETAILS:

The site was constructed using HTML5, CSS3, JavaScript, and Bootstrap for an interactive and responsive front-end experience. The homepage features a hoverable India map that displays festival food details when a user interacts with a state. Each state also has a dedicated page with the festival name, traditional food, cultural significance, ingredients, and recipe steps, along with images or videos. The backend was built using Django, which handles data retrieval and user submissions. A relational database stores all content, and caching is used to improve performance. Users may also add their own recipes, which are reviewed by admins prior to publishing. The platform was tested using

XAMPP for functionality, responsiveness, and smooth performance across devices.

Algorithm:

Step 1: Begin Process

Step 2: User Registration / Guest Access

Step 3: Display Home Page with Navigation Options

Step 4: Select State from Map or List

Step 5: Load Festival Information and Traditional Food Details

Step 6: Display Significance, Recipe, and Cultural Facts

Step 7: Option to View Images or Watch Preparation Video

Step 8: User Feedback / Bookmark Option

Step 9: Return to Main Menu or Exit

END



5-EXPERIMENTAL RESULT AND ANALYSIS:

The web application thus built was extensively tested for user experience, responsiveness, and functionality on various devices and platforms.



Fig. 2: Example of the interactive map



Fig. 3: Example of the interactive map with hover functionality.

Volume 10, Issue 6, June-2025, http://ijmec.com/, ISSN: 2456-4265

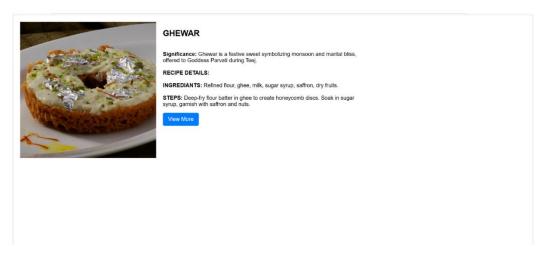


Fig. 4: State-specific page showing the layout with alternating image and description.



Fig. 5: State-specific page showing the preparation video of the recipe.

6-CONCLUSION

This web-based application has successfully developed a user-friendly interface by which the Indian cultural heritage is made accessible in a vibrant diversity of festival foods. An interactive map and multimedia-rich state pages make it convenient for users to access information on traditional foods, their cultural context, ingredients, and cooking methods. Not only was the system instructional, but it also engaged the users by putting

out user-created content and recipe videos, thus making it not only customized but also educational. The project is successful in its mission of digitally preserving and showcasing India's culinary heritage in an accessible, contemporary form. It enables users, particularly younger generations, to connect with cultural heritage through food while learning about various regional customs Overall, this initiative contributes meaningfully to cultural education, digital preservation, and heritage



awareness through the lens of traditional Indian festival cuisine.

REFERENCES

- 1. https://www.incredibleindia.org
- 2. https://www.archanaskitchen.com
- **3.** https://www.tarladalal.com
- 4. D Shanthi, N Swapna, Ajmeera Kiran and A Anoosha, "Ensemble Approach Of GPACOTPSOAnd SNN For Predicting Software Reliability", International Journal Of Engineering Systems Modelling And Simulation, 2022.
- 5. 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.
- 6. 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://metallmater-eng.com/index.php/home/article/view/1669.
- 7. 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-matereng.com/index.php/home/article/view/1663
- 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.

- D Shanthi, Smart Healthcare for Pregnant Women in Rural Areas, Medical Imaging and Health Informatics, Wiley Publishers, ch-17, pg.no:317-334, 2022, https://doi.org/10.1002/9781119819165.ch17
- 10. D.Shanthi, R. K. Mohanty and G. Narsimha, "Application of machine learning reliability data sets", Proc. 2nd Int. Conf. Intell. Comput. Control Syst. (ICICCS), pp. 1472-1474, 2018.
- 11. 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.
- **12.** 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.
- 13. Shanthi, D. (2023). Smart Water Bottle with Smart Technology. In the Handbook of Artificial Intelligence (pp. 204-219). Bentham Science Publishers.
- 14. 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.
- 15. Shanthi, D., Aryan, S. R., Harshitha, K., & Malgireddy, S. (2023, December). Smart Helmet. In the International Conference on Advances in Computational Intelligence (pp. 1-17). Cham: Springer Nature Switzerland.
- 16. Babu, Mr. Suryavamshi Sandeep, S.V. Suryanarayana, M. Sruthi, P. Bhagya Lakshmi, T. Sravanthi, and M. Spandana. 2025. "Enhancing Sentiment Analysis With Emotion And Sarcasm Detection: A Transformer-Based Approach".



- Metallurgical and Materials Engineering, May, 794-803. https://metall-matereng.com/index.php/home/article/view/1634.
- 17. Narmada, J., Dr.N.Divya, K. Sruthi, P. Harshitha, D. Suchitha, and D.Veera Reddy. 2025. "Ai-Powered Chacha Chaudhary Mascot For Ganga Conservation Awareness". Metallurgical and Materials Engineering, May, 761-66. https://metall-matereng.com/index.php/home/article/view/1631.
- 18. P. Shilpasri PS, C.Mounika C, Akella P, N.Shreya N, Nandini M, Yadav PK. Rescuenet: An Integrated Emergency Coordination And Alert System. J Neonatal Surg [Internet]. 2025May13 [cited 2025May17];14(23S):286-91. Available from: https://www.jneonatalsurg.com/index.php/jns/article/view/5738
- 19. Shanthi DS, G. Ashok GA, Vennela B, Reddy KH, P. Deekshitha PD, Nandini UBSB. Web-Based Video Analysis and Visualization of Magnetic Resonance Imaging Reports for Enhanced Patient Understanding. J Neonatal Surg [Internet]. 2025May13 [cited 2025May17];14(23S):280-5. Available from: https://www.jneonatalsurg.com/index.php/jns/article/view/5733
- 20. Shanthi, Dr. D., G. Ashok, Chitrika Biswal, Sangem Udharika, Sri Varshini, and Gopireddi Sindhu. 2025. "Ai-Driven Adaptive It Training: A Personalized Learning Framework For Enhanced Knowledge Retention And Engagement". Metallurgical and Materials Engineering, May, 136-45. https://metall-matereng.com/index.php/home/article/view/1567.
- 21. P. K. Bolisetty and Midhunchakkaravarthy, "Comparative Analysis of Software Reliability Prediction and Optimization using Machine Learning Algorithms," 2025 International Conference on Intelligent Systems and

- Computational Networks (ICISCN), Bidar, India, 2025, pp. 1-4, doi: 10.1109/ICISCN64258.2025.10934209.
- 22. Priyanka, Mrs. T. Dr.Preethi Jeevan, A. Sruthi, S. Laxmi Prasanna, B. Sahithi, and P. Jyothsna. 2025. "Domain Detector An Efficient Approach of Machine Learning For Detecting Malicious Websites". Metallurgical and Materials Engineering, May, 903-11.
- 23. Thejovathi, Dr. M., K. Jayasri, K. Munni, B. Pooja, B. Madhuri, and S. Meghana Priya. 2025. "Skinguard-Ai FOR Preliminary Diagnosis OF Dermatological Manifestations". Metallurgical and Materials Engineering, May, 912-16.
- 24. 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.
- **25.** D Shanthi, "Early stage breast cancer detection using ensemble approach of random forest classifier algorithm", Onkologia i Radioterapia 16 (4:1-6), 1-6, 2022.
- 26. D Shanthi, "The Effects of a Spiking Neural Network on Indian Classical Music", International Journal of Emerging Technologies and Innovative Research (www.jetir.org | UGC and issn Approved), ISSN:2349-5162, Vol.9, Issue 3, page no. ppa195-a201, March-2022