Infosys Springboard Virtual Internship 6.0 Completion Report

Team Details :
Batch Number:9

Start date:27/11/25

Names:1.Aditi 2.Hanshitha Reddy 3.Harshini 4.varshini chintha

Internship Duration: 8 Weeks

1. Project Title

Intelligent Recipe Generator

2. Project Objective

The objective of this project is to design and develop an AI-based intelligent recipe generator that identifies ingredients from images or text input and recommends suitable recipes with step-by-step cooking instructions.

3. Project description in detail

The Intelligent Recipe Generator integrates Computer Vision, Machine Learning, Deep Learning, and Natural Language Processing. Ingredient recognition is achieved using CNN-based models and OCR. A recommendation engine suggests recipes based on ingredient matching, and NLP models generate clear cooking instructions, making it a real-world smart cooking assistant..

4. Timeline Overview

Week	Activities Planned	Activities Completed
Week 1	Project setup, requirement analysis, and planning	Project requirements finalized, tools and environment set up
Week 2	Learning image processing concepts and CNN basics	Studied CNN models and image preprocessing techniques
Week 3	Ingredient recognition implementation	Implemented CNN-based ingredient detection from images
Week 4	OCR integration and backend API development	OCR added for text-based ingredients and backend APIs created
Week 5	Database design and recipe data collection	Recipe database created and populated with datasets
Week 6	Recipe recommendation system development	Implemented recommendation logic based on ingredients
Week 7		User interface designed and

	UI development and system integration	integrated with backend
Week 8	Testing, optimization, and deployment	Testing, optimization, and deployment

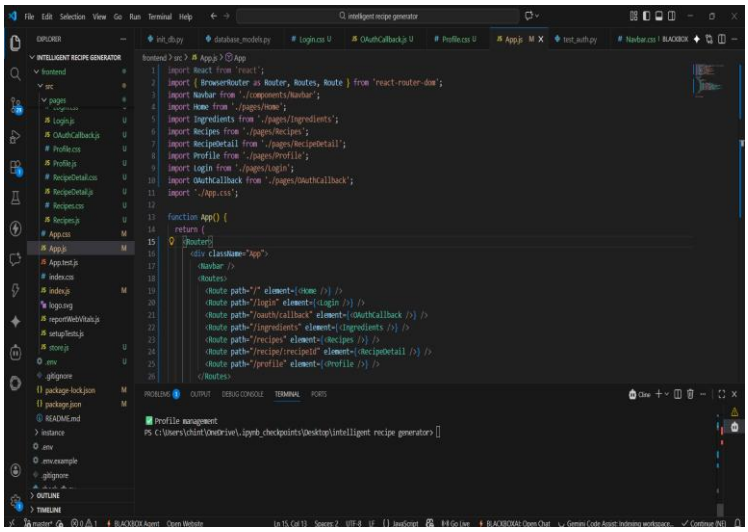
5a. Key Milestones

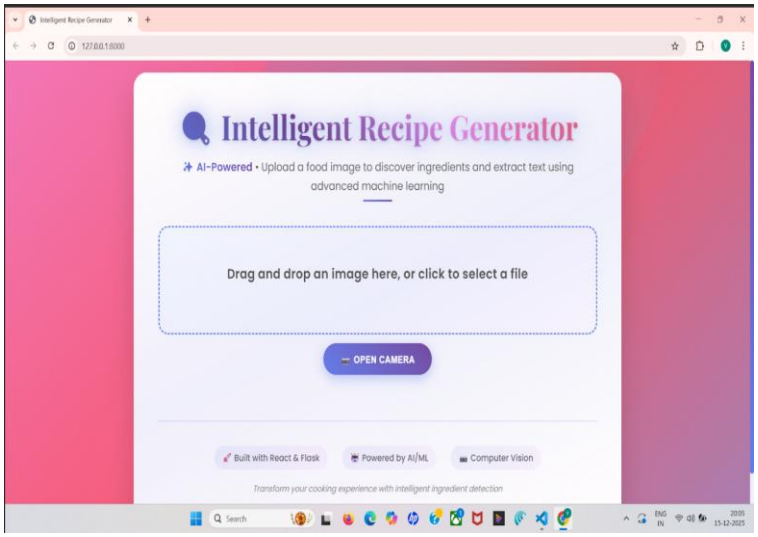
Milestone	Description	Date Achieved
Project Kickoff	Project idea finalized and development plan created	27/11/25
Prototype/First Draft	Initial prototype for ingredient detection and recipe output	29/11/25
Mid-Term Review	Review of OCR, database, and recommendation modules	11/12/25
Final Submission	Complete system with UI, backend, and recommendation engine	24/12/25
Presentation	Project demonstration and explanation to evaluators	16/1/26

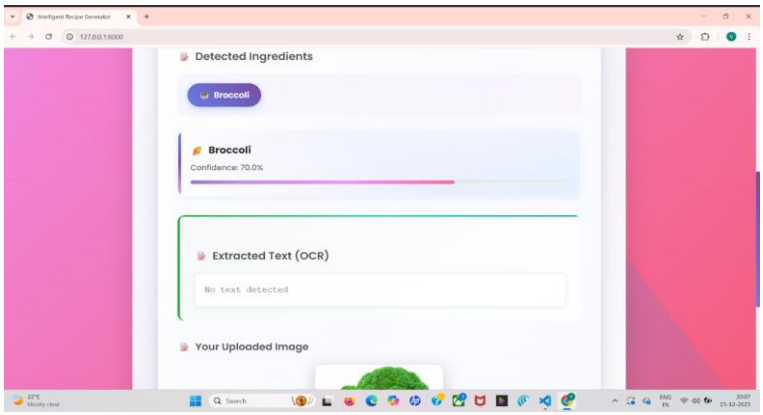
5b. Project execution details

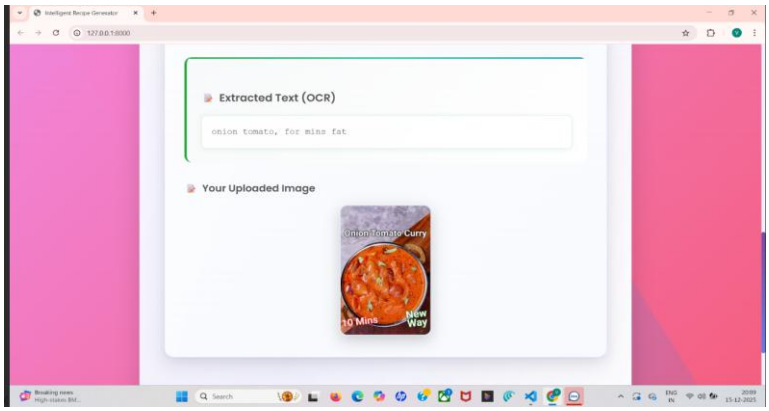
The project was done step by step, starting with understanding the problem and planning the system. The system was designed in small parts and the required tools were set up. Image processing and text reading techniques were used to find ingredients from user input. Each part of the system was tested and then connected carefully. Finally, the full project was tested and completed successfully.

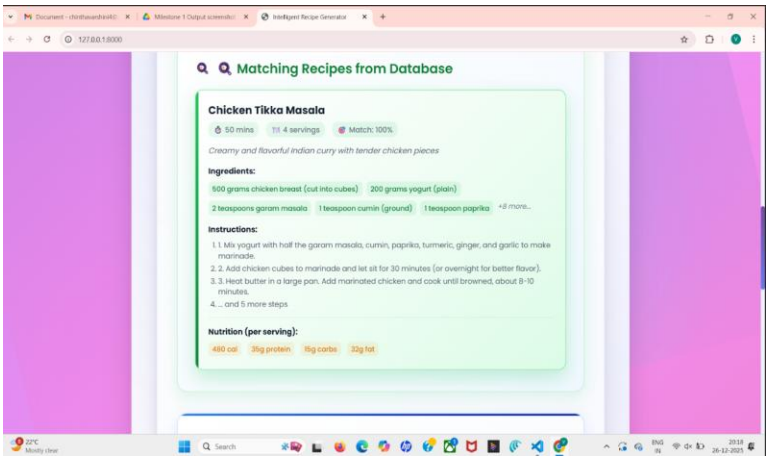
6. Snapshots / Screenshots

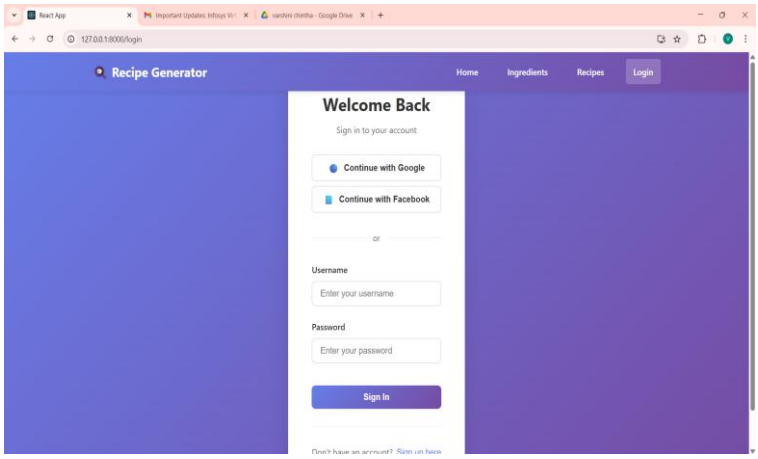












7. Challenges Faced

Challenges included accurate ingredient detection and OCR noise handling. These were addressed through preprocessing and optimization techniques

8. Learnings & Skills Acquired

Skills gained include Python, ML, DL, NLP, API development, database handling, and deployment.

9. Testimonials from team

The project enhanced teamwork, technical skills, and confidence.

10. Conclusion

This project successfully demonstrates the application of AI in solving real-world problems.

11. Acknowledgements

We thank Infosys Springboard and mentors for their guidance and support.