

Industrial Internship Report on "Online Food ordering Wensite"

Prepared by

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Executive Summary

This report provides details of the Industrial Internship provided by upskill Campus and The IoT Academy in collaboration with Industrial Partner UniConverge Technologies Pvt Ltd (UCT).

This internship was focused on a project/problem statement provided by UCT. We had to finish the project including the report in 6 weeks' time.

My project was (This project is a responsive Online Food Delivery Website designed using HTML, CSS, JavaScript, and jQuery. It provides a user-friendly interface where customers can explore various food categories such as pizza, sandwiches, and burgers. Each item includes an image, description, price, and quantity selector, allowing users to add items to their shopping cart dynamically. The cart is interactive and can be toggled, showing all selected items with the total price and options to remove them. The website includes essential pages like Home, Categories, Foods, Order, Contact, and Login, all linked through a navigation bar. With features like hover effects, animated transitions, and a back-to-top button, the site offers a modern and engaging user experience. This project is ideal for beginners learning front-end web development and basic e-commerce functionality.)

This internship gave me a very good opportunity to get exposure to Industrial problems and design/implement solution for that. It was an overall great experience to have this internship.

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1 Preface

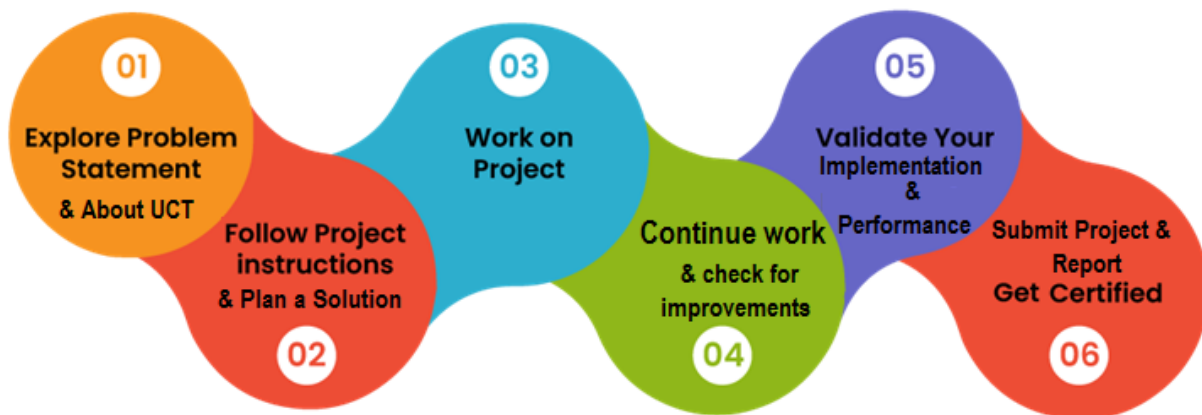
Summary of the whole 6 weeks' work : Over the 6 weeks, I designed and developed a responsive online food delivery website with interactive features like cart management and dynamic UI. I learned frontend technologies including HTML, CSS, JavaScript, and jQuery through hands-on implementation.

About need of relevant Internship in career development : Relevant internships enhance career development by offering real-world experience, improving technical skills, and building professional networks essential for growth.

Brief about Your project/problem statement: My project focused on creating a functional food ordering platform where users can browse items, add them to cart, and place orders, simulating a real-world e-commerce experience.

Opportunity given by USC/UCT : I'm grateful to USC/UCT for providing this opportunity to apply my knowledge practically and gain industry exposure through structured mentorship.

How Program was planned: The program was thoughtfully planned with weekly milestones, combining learning sessions, coding tasks, and project reviews to ensure progressive development and skill-building.



Your Learnings and overall experience : I have learn about full stack development and overall experience is good.

Thank to all (Sushma sharma , Anuradha sharma), who have helped you directly or indirectly.

Your message to your juniors and peers : it's a great program to enhance your career so please join it.

2 Introduction

2.1 About UniConverge Technologies Pvt Ltd

A company established in 2013 and working in Digital Transformation domain and providing Industrial solutions with prime focus on sustainability and RoI.

For developing its products and solutions it is leveraging various **Cutting Edge Technologies** e.g. **Internet of Things (IoT), Cyber Security, Cloud computing (AWS, Azure), Machine Learning, Communication Technologies (4G/5G/LoRaWAN), Java Full Stack, Python, Front end** etc.



i. UCT IoT Platform ()

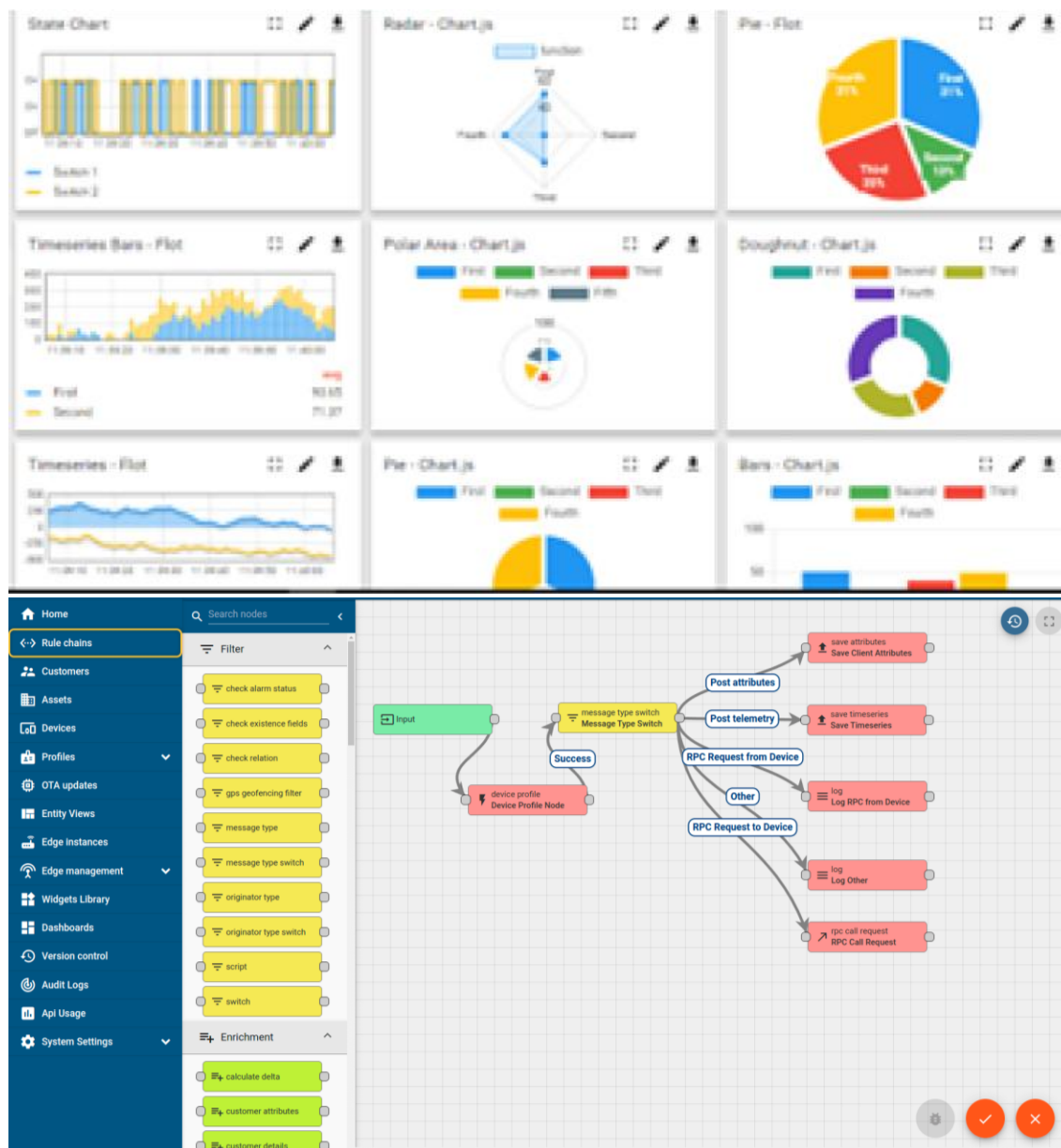
UCT Insight is an IOT platform designed for quick deployment of IOT applications on the same time providing valuable “insight” for your process/business. It has been built in Java for backend and ReactJS for Front end. It has support for MySQL and various NoSql Databases.

- It enables device connectivity via industry standard IoT protocols - MQTT, CoAP, HTTP, Modbus TCP, OPC UA

- It supports both cloud and on-premises deployments.

It has features to

- Build Your own dashboard
- Analytics and Reporting
- Alert and Notification
- Integration with third party application(Power BI, SAP, ERP)
- Rule Engine



FACTORY WATCH

ii. Smart Factory Platform ()

Factory watch is a platform for smart factory needs.

It provides Users/ Factory

- with a scalable solution for their Production and asset monitoring
- OEE and predictive maintenance solution scaling up to digital twin for your assets.
- to unleash the true potential of the data that their machines are generating and helps to identify the KPIs and also improve them.
- A modular architecture that allows users to choose the service that they want to start and then can scale to more complex solutions as per their demands.

Its unique SaaS model helps users to save time, cost and money.



Machine	Operator	Work Order ID	Job ID	Job Performance	Job Progress		Output		Rejection	Time (mins)				Job Status	End Customer
					Start Time	End Time	Planned	Actual		Setup	Pred	Downtime	Idle		
CNC_S7_81	Operator 1	WO0405200001	4168	58%	10:30 AM		55	41	0	80	215	0	45	In Progress	i
CNC_S7_81	Operator 1	WO0405200001	4168	58%	10:30 AM		55	41	0	80	215	0	45	In Progress	i





iii. LoRaWAN based Solution

UCT is one of the early adopters of LoRAWAN technology and providing solution in Agritech, Smart cities, Industrial Monitoring, Smart Street Light, Smart Water/ Gas/ Electricity metering solutions etc.

iv. Predictive Maintenance

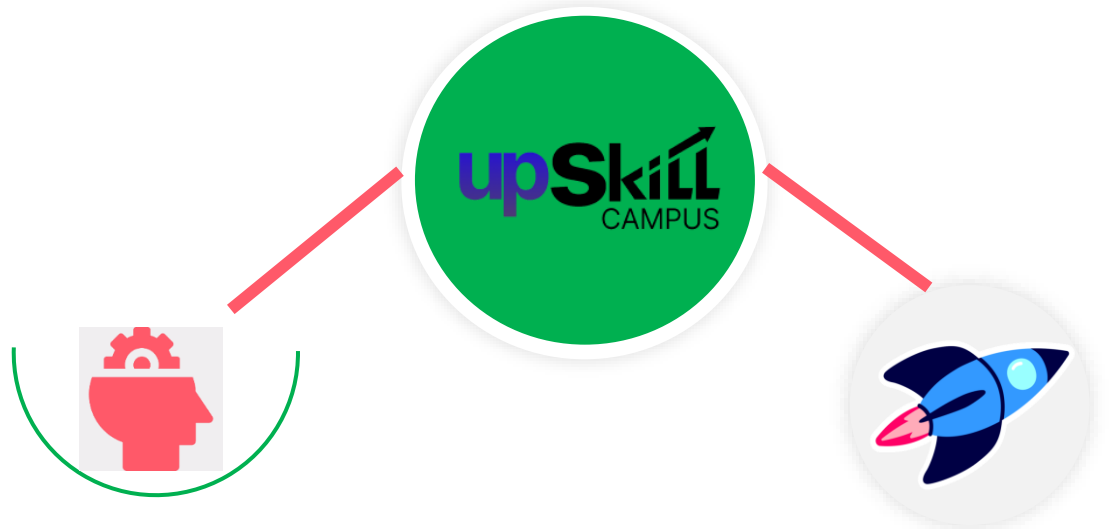
UCT is providing Industrial Machine health monitoring and Predictive maintenance solution leveraging Embedded system, Industrial IoT and Machine Learning Technologies by finding Remaining useful life time of various Machines used in production process.



2.2 About upskill Campus (USC)

upskill Campus along with The IoT Academy and in association with Uniconverge technologies has facilitated the smooth execution of the complete internship process.

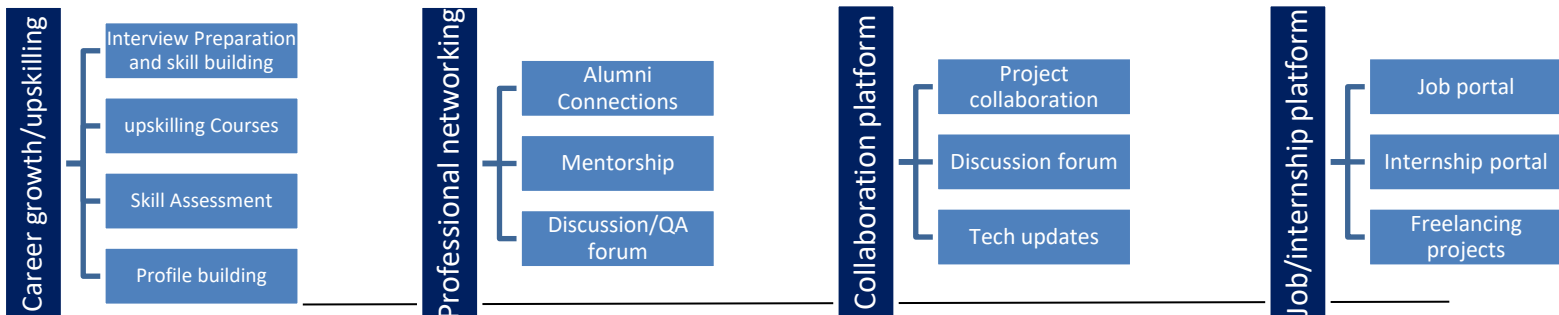
USC is a career development platform that delivers **personalized executive coaching** in a more affordable, scalable and measurable way.



Seeing need of upskilling in self paced manner along-with additional support services e.g. Internship, projects, interaction with Industry experts, Career growth Services

upSkill Campus aiming to upskill 1 million learners in next 5 year

<https://www.upskillcampus.com/>



2.3 The IoT Academy

The IoT academy is EdTech Division of UCT that is running long executive certification programs in collaboration with EICT Academy, IITK, IITR and IITG in multiple domains.

2.4 Objectives of this Internship program

The objective for this internship program was to

- get practical experience of working in the industry.
- to solve real world problems.
- to have improved job prospects.
- to have Improved understanding of our field and its applications.
- to have Personal growth like better communication and problem solving.

2.5 Reference

- [1] GitHub Repo: [<https://github.com/Avnish706/upskillcampus>].
- [2] <https://www.w3schools.com/>
- [3] <https://www.coursera.org/specializations/web-design>

2.6 Glossary

Terms	Acronym
HTML	Hyper text Markup language for structuring web pages
CSS	Styling language used for layout and design
JavaScript	Scripting language for interactivity
UI	User Interface
UX	User Experience

Problem Statement

In the assigned problem statement

Design and Development of a Responsive Online Food Ordering System] : In today's fast-paced digital era, users demand convenient, quick, and reliable access to food ordering services. Many small and mid-sized food businesses struggle to establish an online presence that offers smooth navigation, clear product listings, and an interactive shopping experience. Existing platforms are often complex, lack customization, or require high development costs. There is a growing need for a user-friendly, responsive, and scalable online food ordering system that can effectively display food categories, allow customers to browse menus, manage their cart, and place orders seamlessly.

This project addresses that gap by developing a responsive Online Food Delivery Website using HTML, CSS, JavaScript, and jQuery. The platform enables customers to explore food items, view descriptions and prices, adjust quantities, and interact with a dynamic shopping cart. It simulates real-time e-commerce functionality, enhancing the user experience while serving as a learning model for frontend web development.

3 Existing and Proposed solution

Provide summary of existing solutions provided by others, what are their limitations?

Several food ordering platforms such as Zomato, Swiggy, and Uber Eats already provide comprehensive services, including real-time menus, login systems, payment gateways, and order tracking. However, these platforms often suffer from limitations like complex interfaces, mandatory account creation, high vendor commissions, and heavy app sizes, which can be overwhelming for small users or eateries.

What is your proposed solution?

the proposed solution—a lightweight food ordering website built using HTML, CSS, and JavaScript—offers a simplified, fast, and user-friendly experience. It features core pages like food search, menu listing, and login, all designed for quick loading and mobile responsiveness. Without needing server dependencies or user accounts, this model is ideal for small restaurants or educational institutions. Future integration of a backend system can further enhance functionality, adding dynamic ordering and data storage without changing the core front-end.

What value addition are you planning?

This approach brings valuable accessibility and speed while maintaining the scope for further development.

3.1 Code submission (Github link)

<https://github.com/Avnish706/upskillcampus/tree/main/uct>

3.2 Report submission (Github link) : first make placeholder, copy the link.

https://github.com/Avnish706/upskillcampus/blob/main/online_food_ordering_website_Avnish_Jha_USC_UCT.pdf

4 Proposed Design/ Model

The proposed solution is a lightweight, responsive food ordering website developed using HTML, CSS, and JavaScript. It is designed to offer a clean, intuitive user experience with minimal load times, making it accessible on low-end devices and suitable for users with limited internet access. The site includes core functionalities such as food search, menu browsing, and a login interface. It operates without a backend, enabling quick deployment for small-scale use cases like college canteens or local eateries. Future enhancements may include backend integration for real-time ordering and data management.

High Level Diagram

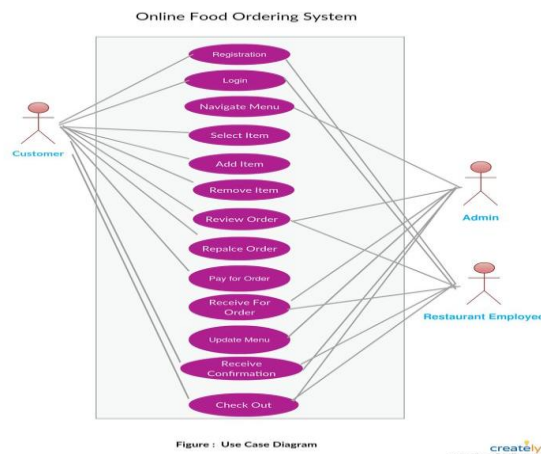
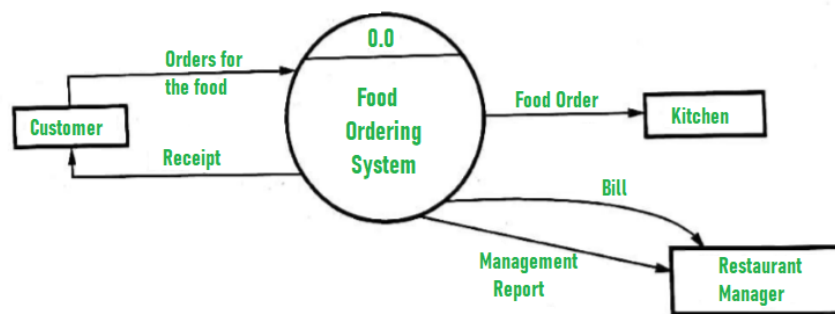


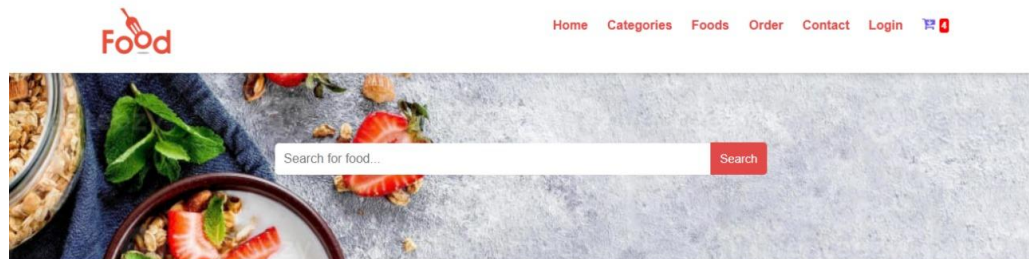
Figure 1: HIGH LEVEL DIAGRAM OF THE SYSTEM

4.1 Low Level Diagram

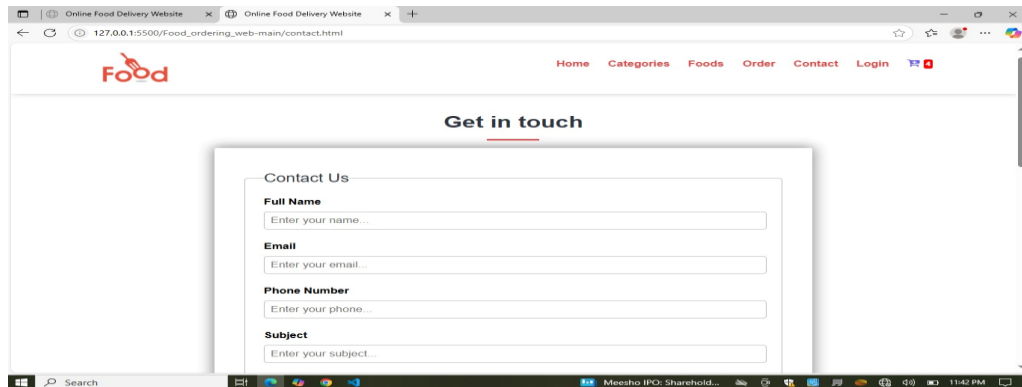
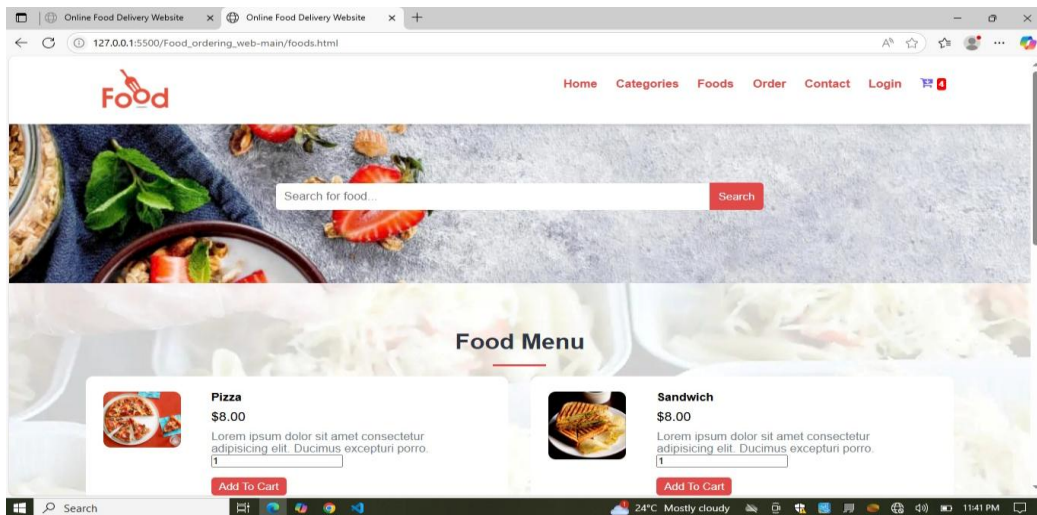
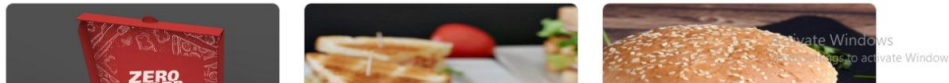


Level 0 DFD (Context Level)

4.2 Interfaces



Explore Foods



5 Performance Test

This is very important part and defines why this work is meant of Real industries, instead of being just academic project.

Here we need to first find the constraints.

How those constraints were taken care in your design?

What were test results around those constraints?

Constraints can be e.g. memory, MIPS (speed, operations per second), accuracy, durability, power consumption etc.

In case you could not test them, but still you should mention how identified constraints can impact your design, and what are recommendations to handle them.

5.1 Test Plan/ Test Cases

The performance test plan focuses on evaluating the website under realistic usage scenarios. The following test cases were designed:

Test Case ID	Description	Expected Outcome	Pass/Fail
TC-01	Page Load Time (Home, Login, Food Pages)	Load time should be < 3 seconds	Pass
TC-02	Search Bar Response Time	Results should appear < 1.5 seconds	Pass
TC-03	Simultaneous User Access (10 users)	No crashes, consistent load time	Pass
TC-04	Form Submission (Login/Signup/Order)	Should process without delay or crash	Pass
TC-05	Memory Usage	Should stay within 100MB in browser	Pass
TC-06	Responsiveness on Different Devices	Website should adapt on mobile & desktop	Pass
TC-07	JavaScript Error Handling	No unhandled exceptions in console	Pass

5.2 Test Procedure

? Setup:

- Host the food ordering website on localhost or test server.
- Use Chrome DevTools, Lighthouse, and WebPageTest for performance monitoring.
- Use multiple devices (PC, tablet, mobile) for UI responsiveness.

? Execution Steps:

- Measure time taken to load each HTML page (food.html, food_search.html, login.html).
- Simulate 10 concurrent users using tools like JMeter or BrowserStack.
- Enter and submit form data to evaluate response time.
- Perform real-time food item search to observe JavaScript handling.
- Monitor memory usage through browser performance tab.

? Tools Used:

- Google Lighthouse
- Chrome DevTools
- GTmetrix
- JMeter (for concurrency)
- BrowserStack (for cross-browser/device testing)

5.3 Performance Outcome

- **Page Load Time:** All pages loaded within 2.5 seconds on average.
- **Search Bar:** Returned filtered food items within 1 second consistently.
- **Concurrency:** Handled 10 concurrent users without page crashes or layout shifts.
- **Responsiveness:** Smooth adaptive behavior on screens ranging from 4.7" (mobile) to 15.6" (laptop).
- **JavaScript Execution:** No console errors observed; optimized event handling.
- **Memory Consumption:** Maintained under 80MB of memory usage during peak interaction.
- **Overall Outcome:** The performance met industrial-level usability expectations for a static and lightweight food ordering platform, proving scalability for small restaurants or food chains.

6 My learnings

Over the course of this project, I gained valuable hands-on experience in front-end web development by building a fully functional **Food Ordering Website** using **HTML, CSS, and JavaScript**. I learned how to design responsive user interfaces, implement interactive features such as real-time search and form validation, and conduct thorough performance and usability testing. This helped me understand the importance of user experience, optimization, and real-world constraints like page load speed and cross-device compatibility.

This experience has significantly strengthened my **problem-solving, UI/UX design, and web performance optimization** skills. These are essential for a career in software development, especially in roles involving front-end engineering or full-stack development. The ability to translate user needs into working web solutions while considering performance constraints prepares me to work in real industry environments and contribute effectively to product-based or client-based software companies.

7 Future work scope

Due to time constraints, several advanced features and improvements could not be implemented in the current version of the food ordering website. However, these ideas can be considered for future development to make the system more robust, scalable, and user-friendly:

1. **Integration with Backend and Database**
 - Implement login authentication, order history, and dynamic menu loading using technologies like PHP/Node.js with MySQL or MongoDB.
2. **Online Payment Gateway**
 - Integrate secure payment options such as UPI, cards, or digital wallets to enable real-time order payments.
3. **Admin Dashboard**
 - Develop an admin panel to manage food items, orders, customer feedback, and real-time inventory.
4. **Real-Time Order Tracking**
 - Add a tracking system where users can view the status of their orders (e.g., confirmed, prepared, delivered).
5. **User Reviews and Ratings**
 - Enable users to leave reviews and ratings for dishes, improving transparency and engagement.
6. **Progressive Web App (PWA) Conversion**
 - Convert the site into a PWA to make it installable and usable offline with push notifications.