

## 1. The initiation phase

STRENGTHS AND WEAKNESSES	<p><b>STRENGTHS:</b></p> <p>Our restaurant is a place where the communication of ideas flows freely, resilience is displayed in every dish, organization is the key to our success, and commitment to culinary excellence is unwavering</p> <p><b>WEAKNESSES:</b></p> <p>In our restaurant, we battle against pointlessness, lack of initiative, and procrastination, persistently striving to overcome these weaknesses and provide a dining experience that exceeds expectations</p>
PRIORITIZATION	<p><b>The billing process is inefficient in the accounting area</b></p>
INTEREST OF THE COMPANY	<p><b>8. Need to improve, complete, or enrich.</b></p> <p><b>The need to improve the restaurant's invoicing and table service, due to this record, is kept manually in a notebook and slows down the process.</b></p>

## JUSTIFICATION

### Technology at the service of restaurant efficiency and satisfaction

Tecnología al servicio de la eficiencia y satisfacción en restaurante

<https://www.revistalabarra.com/es/noticias/tecnologia-al-servicio-de-la-eficiencia-y-satisfaccion-en-restaurantes>

*This article relates because I comment that "Technology has allowed restaurants to automate many tasks previously performed manually, leading to greater operational efficiency."*

### Best restaurants POS systems in 2024

<https://edition.cnn.com/cnn-underscored/money/best-restaurant-pos-systems>

*A restaurant billing problem can arise from errors in invoices, difficulties tracking payments, problems with payment systems, or inconsistencies in records. Implementing a reliable POS system is key to solving and preventing these problems.*

### The best Accounting software for restaurants in 2024

<https://www.qsrmagazine.com/story/amplify-restaurant-returns-with-a-well-tuned-pos-system/>

*The article comments that "Optimizing point-of-sale systems to increase efficiency and operational speed is a cost-effective way for restaurants to respond to the demands of modern consumers."*

### Benefits of digitizing restaurants

Beneficios de digitalizar los restaurantes

<https://www.revistalabarra.com/es/noticias/ventajas-de-digitalizar-los-restaurantes>

*The following article comments that: "orders are recorded directly and without intermediaries, which considerably reduces the possibility of interpretation or transcription errors"*

### How more than 300 pubs have saved an average of 4,600 euros thanks to this new technology

Cómo más de 300 bares se han ahorrado 4.600 euros de media gracias a esta nueva tecnología

<https://sevilla.abc.es/contenidopromocionado/2024/03/15/software-para-restaurantes-bares-qamarero-como-mas-de-300-bares-se-han-ahorrado-4-600e-de-media-gracias-a-esta-nueva-tecnologia/>

*In the following article he talks about it: "Many bars and restaurants are already reaping the rewards of implementing Qamarero in their daily management. From small cafes to large restaurant chains".*

SCIENTIFIC DATA  
FOUNDATION

**This project aims to present a computer solution for the gastronomic sector, with the development of a prototype of an internal management system for restaurants, in web and mobile environments, in a way that improves, facilitates, and optimizes reservation and table ordering processes made by users and becomes a key and effective channel for communication between users and the restaurant.**

<https://repositoriocrai.ucompensar.edu.co/handle/compensar/2158>

**The article examines specific marketing strategies to optimize billing and order management in restaurants. It provides insights on improving billing process efficiency, as well as tactics to increase customer demand and loyalty**

<https://hospitalitas.com.mx/wp-content/uploads/2012/03/AC-85-MARKETING.pdf>

**They present a study on the design and implementation of a mobile ordering and billing management application for restaurants in Barranquilla. The article explores the development process and functionalities of the application, focusing on its role in improving order efficiency, billing, and customer experience.**

<http://publicaciones.unisimonbolivar.edu.co/rdigital/ojs/index.php/identific/article/view/1515>

**It analyzes the still unexplored market of technological innovation in ordering and billing in restaurants in Spain. The article explores how technological advancements can transform these crucial aspects of the restaurant industry**

<https://www.efeagro.com/noticia/la-innovacion-tecnologica-restaurantes-mercado-explotar-espana/>

**provides an overview of the best management systems for restaurants, with a focus on billing and orders. The article explores various software options designed specifically to enhance efficiency in order and billing management in gastronomic establishments. It serves as a helpful guide for restaurant owners looking to implement technological solutions to optimize these critical areas of their business**

<https://softwarepara.net/restaurantes/>

PROBLEM OF INVESTIGATION	The problem lies in inefficient billing systems, causing manual errors, lost invoices, poor accounting, and operational inefficiencies.
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## 2. The planning and execution phase

**Project title: “Cameriere: restaurant billing software”**

### **Project Description:**

This project aims to address the challenges posed by the current billing system of the Italian restaurant Giovanni. These systems help avoid manual errors, lost invoices, inaccurate accounts and operational inefficiencies. Through innovative technologies and strategic approaches, we aim to transform billing processes, ensuring smoother operations and greater financial stability for the organization.

### **general objective:**

Implement a simplified billing solution, improving accuracy to reduce errors and improve accounting practices, optimizing overall operational performance.

### **Scope:**

#### **Objective:**

Develop software that streamlines the billing process at Giovanni's restaurant.

#### **Key Features:**

Quick creation and modification of orders.  
Automatic generation of accurate invoices.  
Integration with payment systems.  
Basic inventory tracking.

#### **Deliverables:**

Fully developed and tested functional software.  
Basic user documentation.  
Minimal technical support during implementation.

#### **Constraints:**

Use of technologies compatible with existing systems at Giovanni's restaurant.  
Development timeframe limited to 9 month.  
Assigned budget: \$50,000.


**Project Manager and Team:**

**Project Manager:**



**Niyi Morera**

**Team:**

Juan Cajiao	Sergio Quiroga	Javier Arciniegas
		

## **Project Start, End, and Delivery Dates**

### **Requirements gathering - March 21 to April 21**

During this phase, the project team collects and documents the necessary information, needs, and objectives from stakeholders.

### **Analysis - April 22 to May 22**

In this stage, the gathered requirements are analyzed for feasibility, scope, and potential challenges. Solutions are proposed based on the analysis.

### **Design - May 23 to June 24**

Design phase involves creating a blueprint for the solution based on the analyzed requirements. This includes architectural, user interface, and database designs.

### **Implementation - June 25 to July 26**

The implementation phase is where the actual coding or development of the solution takes place based on the designed specifications.

### **Testing - July 27 to August 28**

During testing, the developed solution is thoroughly evaluated to ensure it meets the specified requirements and functions correctly.

### **Deployment - August 29 to October 1**

Deployment involves releasing the solution into the live environment or production environment for end-users to access and utilize.

### **Maintenance - October 2 to December 1**

Maintenance phase begins after deployment and involves ongoing support, updates, and enhancements to ensure the solution remains effective and efficient.

## **Specific goal**

- **Optimization of Billing Speed:** Implement an electronic billing system that reduces the time required to generate and deliver invoices to customers by 50% compared to manual processing.

- **Improvement in Order Accuracy:** Develop an intuitive interface for waiters to quickly and accurately register customer orders, aiming to reduce order input errors by at least 30%
- **Reduce Billing Errors:** Implement measures to significantly reduce manual errors in the billing process by 4% within six months following the implementation of the software.