Workshop: Finding Objects, then classes, then model

Evidence

Problem

We need to implement an automated system that allows the immediate registration of orders and their delivery to customers' tables. Our solution is a "virtual ordering" application designed to simplify and streamline the a la carte ordering process at "Agachaditos de la Javi". This system will not only reduce operating costs but also improve customer service efficiency, allowing for faster and more effective service in the restaurant.

Overview

The program to be developed will improve customer service by significantly reducing waiting times and queues to place orders. Customers will have the convenience of placing their orders directly from their tables, allowing them to easily modify combo options and specify their preferred payment method. In addition, the application will allow customers to rate their experience at the "Agachaditos de la Ajavi" restaurant, which will provide the improvement and growth of the establishment day by day, since customer comments make the business work better for its customers. excellent development.

Background

Our program will be in charge of showing the client the entire menu available in the restaurant: dishes, side dishes, salads, drinks, combos and promotions. In addition to the prices of each of these, in case a dish is not available the program will indicate to the user that it is out of stock. The user will be able to create the menu to his/her liking, once the menu is created the program will indicate to the user the total cost, it will show us the payment options, these will be cash or transfer, in case the payment is in cash the program will give us a code which we will have to present at the checkout and cancel. If we choose the second option which is transfer, the program will also give us a unique order code which will have to be presented at the checkout, in addition a text will be displayed with the bank details of the restaurant so that the user can make the transfer, the user will have to present at the checkout the receipt number to validate the payment. On the other hand, the program will send the order details and cost to the restaurant, this information can be seen when the user presents the code and cancels the order. At the end of the consumption, the user will have an option to rate the restaurant and leave a comment.

An automated ordering system in a restaurant functions as an essential tool to elevate the customer experience and streamline the establishment's operations. In this system, each order represents a "transaction" that begins when a customer selects an item from the menu. The system instantly records the order-comprising details like quantity, item, and unit price-allowing the kitchen to start preparation without delay and keeping the service staff informed of the expected delivery times.

Every order is identified by a unique code that links it to a specific table (similar to how symbols identify stocks in financial markets)... For instance, if Table 1 orders a burger and a beverage, the system registers this information under a unique identifier for Table 1 — enabling real-time tracking. Each transaction includes vital information: the quantity of items, the price per item, the chosen payment method, and a feedback option for customers to rate the service quality.

When a customer places an order, the system logs the number of items, the price of each, and any transaction fee (which may cover processing costs)... Upon delivering the order to the table, the system also records the date and time of delivery, as well as the total amount due — the "sale price" — that the customer must pay. At the end of the meal, customers can choose their preferred payment method-card, cash, or other options-and may also provide a rating for the service received.

Like tracking purchase-sale histories in financial portfolios, the restaurant's ordering system maintains a complete history of transactions for each table; this feature allows management to assess service efficiency by monitoring delivery times, average spending per table, and customer satisfaction based on ratings. The system can calculate the total cost of each order (including transaction fees) and analyze the transaction history to gain insights into customer preferences, demand for specific menu items, and satisfaction trends.

Menu	Costs
Guata pequeña	1,50

Guata mediana	2,00
Guata extragrande	2,50
Papas con cuero	2,00
Seco de chivo	2,50
Seco de chancho	2,50
Seco de costilla	2,50
Seco de pollo	2,50
Mixto seco de pollo y guata	3,50
Mixto seco de costilla y guata	3,50
Mixto papas con cuero y guata	3,50
Mixto seco de chivo y guata	3,50
Mixto seco de chancho y guata	3,50
Mixto seco de pollo y papas con cuero	3,50
Mixto seco de chancho y papas con cuero	3,50
Mixto seco de costilla y papas con cuero	3,50
Mixto seco de chivo y papas con cuero	3,50
Mixto con doble carne; pollo,chivo,chancho,costilla	4,50

Banderas	6,75
Tarrinas o loncheras	0,25
Gaseosas	0,50

A structured restaurant menu— as a pricing table— integrates seamlessly with this automated ordering system, providing customers with a clear, organized list of available items and their respective prices. This setup allows for immediate adjustments to prices, availability updates, and the addition of special promotions; ensuring that the menu always reflects current offerings in real time.

By streamlining the ordering process, this virtual ordering application not only manages transactions efficiently but also facilitates service feedback. With a structured approach to recording and analyzing orders, the system empowers the restaurant to refine its menu, enhance service timing, and personalize the dining experience to align with customer expectations.