

# Multi-tenant Order Management Platform for Restaurants

## Cloud Application Development (PaaS)

A digital, contactless restaurant order placement and payments application provided as Platform as a Service (PaaS) to restaurant owners reducing their man-power costs and enabling swift order processing and delivery.



**PROTECTED**

Client: **Protected by NDA**

Country: **Germany**

Industry: **Hospitality Services**

### Overview

A consulting and technology company delivering intelligent and innovative business models and applications across diverse industry sectors. Based at Bolzano, Italy, the client provides customized software and business intelligence solutions helping their customers become agile in their businesses and supporting their growth. The client leverages cutting-edge cloud platforms and services to develop and technology solutions to its customers.

### Challenges

The client envisaged building a secure, automated order management platform for restaurants that reduces physical engagement with their patrons, increases agility of their order processing and delivery to the table, and integrates the platform and the restaurant's POS in real time. The major challenges in this solution were

- Seamless integration of the cloud platform with any on-premise POS system used by a restaurant. The platform must be compatible with all the different POS make, models and variants.
- Every order placed through the application should be unique avoiding any duplication.
- Conceptualize a digital menu that is intuitive and can be used by users of any age group, gender and cultural background.
- The platform should restrict users placing their orders outside the restaurant's delivery limits.
- Real time data synchronization between PaaS and the Smart Watch application that will be used by restaurant waiters.

### Quicks Insights



#### Challenges

- End-to-end order management system automation
- Reducing manpower engagement
- Enabling contactless restaurant order taking and payments
- Real time data synchronization between multiple POS systems, OS platforms, and Smart Watch



#### Solution

- Microsoft Azure Cloud based multi-tenant platform
- Centralized Order Management System
- Tight integration of on-premise POS systems with the Cloud platform using custom-built middleware components
- QR Code based digital menu



#### Results

- Maximum scalability, availability, and performance
- Reduced TCO
- Contactless order placement and processing
- Real-time data insights

## Solution

DEV IT's technology and domain experts understood the entire transformation process and pain areas of restaurant owners. Furthermore, DEV IT brainstormed with the client team and suggested them with concept cloud-based, multi-tenant PaaS application that integrates with most popular POS systems in Europe along with other functionalities.

**“Unified and automated order management ecosystem that helps restaurants to manage customers more efficiently. The PaaS delivered by DEV IT has seen a high adoption rate with more than 150 restaurants enrolled in the first 3 months of the launch, 1000+ user database, and over 500,000 orders placed.”**

- A modern ecosystem for cloud-based order management platform developed leveraging Microsoft Azure Cloud and native components.
- To make the platform more agile and swift our cloud experts designed a unified middleware using Microsoft .NET technologies that provides true integration and real-time information flow between the Cloud application and the POS systems.
- Developed a centralized order management system to focus on uniqueness between taking orders and assigning them to respective waiters and integrate with their smart-watch applications for each order placed by the patrons in the restaurant.
- To enable contactless order placement, we designed a QR code-based digital menu with rich UI dashboard.
- Developed functionalities for restaurant owner using which they can update their menus digitally based on different offers for different day-of-the-week schedules.
- To enhance security, implemented a secure fingerprint-based authentication to authorize order assignments and data insights available only to restaurant owners.

- Implemented multi-language within the application allowing users from different language groups to use this application easily.
- Integrated third-party APIs to implement geo-fencing functionality leveraging Google Geo location API ensuring order acceptance only within pre-set restaurant location boundaries.

## Outcomes

### 1. Cloud-First Initiative

- Reduces infrastructure management cost and increased scalability which makes the overall ordering process highly efficient.
- Restaurant owners can now easily manage their inventory and plan resources as the PaaS provides exceptional data insights and analytics

### 2. Contactless Order Placement & Processing

- The table menu accessed through the patron's mobile phones and QR code enables a true contactless order placement and payments.

### 3. Automated order management system

- Reduced need for manpower for waiting at the restaurant tables for taking orders
- Increasing the overall restaurant efficiency, shorter time durations to process and deliver the order to the right table

## Technologies

Microsoft Azure Elastic Cloud, Angular, PHP on Laravel Framework, MySQL RDS, Apple WatchOS, Apple Pay, Azure Storage, Azure Active Directory, Microsoft.NET C#

## About DEV IT

DEV IT is public listed (NSE-DEVIT) organization based at Ahmedabad, India. For more than 2 decades, the organization has evolved into a multi-faceted unit with 1200+ strong, skilled workforce providing cutting-edge software and infrastructure solutions in Cloud, Data and Automation domain. DEV IT provides services to government departments, public sector organizations across several states in India as well as 100s of clients worldwide from diverse industry sectors: healthcare, travel and hospitality, manufacturing, professional services, retail, transportation and logistics and more.

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