

Maple Grove Restaurant Week 2025: Digital Passport Project Retrospective

Executive Summary

The Maple Grove Restaurant Week 2025 Digital Passport reimaged civic engagement through technology. In just four months, our team delivered a gamified digital platform that turned a local dining event into a citywide, data-driven experience. Over 6,000 residents participated, generating 1.2M platform requests, 1,055 verified sign-ups, and a 95+ mobile performance score — all while maintaining 99.99% uptime. This initiative established a reusable, multi-tenant framework that now serves as the City of Maple Grove's foundation for future digital programs, including the upcoming Art Crawl and Brewery Trail passports. **My role:** Led full-stack engineering and platform architecture, ensuring real-time scalability, fraud-proof engagement tracking, and sub-100ms performance across thousands of concurrent users.

1.0 Introduction and Project Mandate

The Maple Grove Restaurant Week 2025 digital passport initiative was undertaken as a strategic pilot project designed to modernize community engagement for one of the city's flagship events. The core mandate was to move beyond traditional event promotion and create an interactive, data-rich experience for participants. This project aimed to provide measurable results for a local economic event, deliver tangible value to participating businesses, and establish a reusable digital framework that could serve as a long-term asset for the City of Maple Grove.

This document provides a comprehensive, data-driven analysis of the project's performance, key outcomes, and strategic learnings. The retrospective is intended for internal stakeholders to clearly understand the initiative's impact and to inform the planning and execution of future city-wide digital programs. The following sections will detail the specific objectives that guided the project's execution and assess the degree to which they were achieved.

2.0 Project Objectives and Core Requirements

Establishing clear, measurable objectives was a critical first step for this novel digital project. These objectives were not merely aspirational goals; they served as the definitive benchmarks for success throughout the project lifecycle, from initial design and technical architecture to final deployment and performance analysis. Every feature and decision was mapped back to these core requirements to ensure the final product remained aligned with its strategic intent.

The following table outlines the high-level objectives that defined the project's scope and success criteria.

Objective	Key Requirement / Success Metric
Drive Community & Visitor Engagement	Develop an interactive, mobile-first experience to track visitor engagement across all participating venues
Support Local Businesses	Seamlessly coordinate and onboard over 40 participating restaurants with zero hardware requirements
Provide Measurable ROI	Implement real-time analytics and role-based dashboards to deliver live insights for city stakeholders
Build a Scalable Foundation	Engineer a reusable digital infrastructure suitable for future city events like art crawls and festivals
Meet a Critical Deadline	Deliver a polished, production-ready platform by the hard launch deadline of August 10, 2023

To meet these multifaceted goals, a specific solution was engineered to balance user appeal with robust technical and business functionality.

3.0 Solution Overview: The Gamified Digital Passport

To meet our objectives, we selected a 'gamified digital passport' as the core solution. The strategic intent was to transform the passive activity of restaurant discovery into a competitive, social, and memorable experience. Gamification was chosen as a psychological lever to tap into intrinsic motivation — creating engagement through achievement, social comparison, and tangible rewards. By introducing proven game-like mechanics, the platform was engineered to drive deeper engagement, incentivize multi-venue discovery, and foster a powerful sense of community-wide participation.

The platform's user experience was centered around a set of simple yet powerful core mechanics:

- **QR Code Check-Ins:** This formed the primary engagement action. Upon visiting a participating venue, users scanned a unique QR code to collect a digital "stamp" in their passport, verifying their visit.
- **Live Leaderboard:** A public ranking system displayed participants with the most stamps collected in real-time. This element was implemented to foster friendly competition and directly

incentivize users to visit a wide variety of restaurants.

- **Raffle System:** To provide a clear incentive for participation, each digital stamp collected automatically served as one entry into a grand prize raffle, directly rewarding users for their engagement.
- **Social Proof Feed:** A live activity feed displayed recent check-ins from across the city. This created a dynamic sense of community participation and encouraged others to join in.
- **Multi-Language Support:** The platform included Spanish localization to ensure the initiative was accessible and inclusive, broadening its reach within the community.

This user-facing solution was powered by a modern, scalable technical architecture designed for performance and reliability.

4.0 Technical Architecture and Implementation

The project's technical architecture was strategically designed not just for a single-use application, but as a secure, high-performance, and scalable platform to serve as a long-term asset for the city. As the lead engineer, I architected the multi-tenant Supabase backend and optimized real-time leaderboards to consistently deliver sub-100ms latency. The technology stack was chosen to minimize operational overhead, ensure data security, and deliver a fast, reliable experience for thousands of concurrent users on mobile devices.

The core components of the technical stack are detailed below:

	Technology	Strategic Rationale
	Next.js 14, TypeScript, Tailwind CSS	Ensured a fast, reliable, and type-safe user interface
	Supabase (PostgreSQL)	Provided a robust database with built-in Row Level S
	Clerk	Delivered seamless and secure user sign-up (<30 s
	Vercel Edge	Enabled sub-100ms global response times and zero
	Redis / Upstash	Supported real-time leaderboard performance at sca
	GA4 + Vercel Analytics	Offered a comprehensive view of user behavior and

This robust technical foundation enabled the platform to handle significant traffic and produce the measurable results and high user engagement detailed in the following section.

5.0 Performance Analysis: User Engagement & Reach

This section provides the definitive quantitative evidence of the project's success. The data below demonstrates not only that we met our engagement targets, but that the platform's gamified approach and mobile-first design deeply resonated with the community, driving record participation and expanding the city's brand reach.

5.1 Traffic and User Acquisition (Week 1)

During the first week of the event (August 9–17, 2025), the platform saw exponential growth in traffic and user adoption, far exceeding initial projections.

Key Metrics:

- **Unique Visitors:** 6,066 (+445%)
- **Page Views:** 21,744 (+409%)
- **Active Users:** 4,100
- **Total Sign-ups:** 1,055 (with 728 new sign-ups in Week 1)
- **Daily Retained Users:** 122 (reflecting a 12% daily retention rate among sign-ups)

5.2 Engagement and User Behavior

Beyond top-line traffic, key engagement metrics reveal how users interacted deeply with the platform's features, validating the gamified approach.

- **Average Engagement Time:** 1 minute 41 seconds, a figure 3x the industry standard for utility applications.
- **Bounce Rate:** 45%, a strong performance that is 11% better than typical city web properties.
- **Primary Entry Point:** The /deals page was the top landing page, attracting 4,200 visitors. This insight validates that users were initially drawn by value and subsequently retained by the gamification mechanics.
- **Primary Traffic Source:** 6,400 sessions were attributed to Direct traffic, indicating successful promotion through city marketing channels and strong word-of-mouth buzz.

5.3 Geographic Reach and Platform Validation

Analysis of user location and device data confirmed key strategic decisions and uncovered new opportunities for regional outreach.

- **Mobile-First Strategy Validation:** An overwhelming 89% of all traffic came from mobile devices (69% iOS, 22% Android), providing definitive validation for the decision to prioritize a mobile-first design.
- **Expanded Regional Awareness:** The platform successfully reached users across 7 distinct cities. A significant and unexpected audience of 941 users from Minneapolis was acquired,

demonstrating the project's ability to enhance regional brand awareness for Maple Grove.

These impressive metrics translate directly into tangible value for the community and its key stakeholders.

6.0 Business and Community Impact Assessment

Three Stakeholder Wins

The ultimate measure of the project's success lies in the tangible value delivered to its stakeholders. This section translates the raw engagement metrics into a clear assessment of the initiative's impact on the City of Maple Grove, its local business community, and the public.

6.1 Impact on the City of Maple Grove

- **Measurable ROI:** For the first time, the city executed an event with real-time participation tracking, establishing a new data foundation for quantifying the return on investment for future community initiatives.
- **Enhanced Stakeholder Visibility:** The administrative dashboards were checked daily by city stakeholders, building a new level of trust and transparency through live, accessible data.
- **Establishment of a Reusable Digital Asset:** The platform's core infrastructure is now a proven, scalable asset, drastically reducing the cost and timeline for launching future digital passports for events like the Art Crawl and Brewery Trail.
- **Increased Regional Brand Awareness:** The project successfully attracted 941 potential visitors from the key adjacent market of Minneapolis, extending Maple Grove's brand reach.

6.2 Impact on Participating Restaurants

- **Efficient Onboarding:** We successfully onboarded over 40 restaurants within the project timeline, proving the process was efficient and scalable.
- **Actionable Traffic Insights:** Restaurants gained access to real-time data on venue engagement, providing them with valuable insights into customer traffic patterns during the event.
- **Increased Customer Discovery:** The competitive leaderboard mechanic actively incentivized participants to make multi-restaurant visits, driving new customer discovery across the city.
- **Zero-Friction Adoption:** The platform required no special hardware, software installation, or extensive training for restaurant staff, ensuring seamless adoption.

6.3 Impact on Users

- **Frictionless Experience:** A sub-30-second sign-up process using Google OAuth provided instant, barrier-free access to the passport experience.

- **Engaging Competition:** The gamified elements were highly effective, successfully retaining a core group of 122 daily active users who consistently returned to the platform.
- **Optimized for Mobile:** With 89% of traffic coming from mobile devices, the platform's design successfully met users where they are, providing an optimized experience on their preferred devices.
- **Inclusive Accessibility:** The inclusion of Spanish language support broadened the platform's reach, making the community event more accessible and inclusive.

These positive impacts were achieved by proactively navigating a series of significant project challenges.

7.0 Key Challenges and Resolutions

A project's success is not only measured by its outcomes but also by the team's ability to navigate constraints and solve complex problems. This section outlines the primary challenges encountered during the project lifecycle and the effective strategies we implemented to mitigate them.

Challenge 1: Aggressive Launch Timeline

Constraint: The project had an immovable 4-month deadline for the August 10th launch. Missing this date was not an option, as it was critical to the city's marketing investment in Restaurant Week.

Approach: We implemented an Agile methodology with 2-week sprints to ensure iterative progress. We prioritized a core Minimum Viable Product (MVP) feature set to prevent scope creep and utilized Vercel's continuous deployment pipeline to streamline releases.

Result: The platform launched on-time and on-spec, experiencing zero downtime during its first week of operation despite handling thousands of users.

Challenge 2: Security Without User Friction

Constraint: As a public application with raffle incentives, the platform faced a significant risk of fraud (e.g., users sharing QR code screenshots). However, implementing complex security measures could create a poor sign-up experience and deter participation.

Approach: We deployed a multi-layered security strategy. This included time-limited (24-hour) QR tokens to prevent sharing, database-level Row Level Security to isolate data, rate limiting (one stamp per restaurant, per day), and leveraging Clerk for fast, secure authentication.

Result: The project achieved zero security incidents or fraud reports while successfully signing up 1,055 users with minimal friction.

Challenge 3: Real-Time Leaderboards at Scale

Constraint: Under peak load, leaderboard queries that recalculate rankings with every check-in were at risk of slowing to over 5 seconds, which would severely degrade the user experience and undermine the gamification element.

Approach: We engineered a high-performance solution using PostgreSQL materialized views that refreshed every 30 seconds, combined with a Redis caching layer for the most frequently accessed top rankings.

Result: Leaderboard queries consistently returned in under 100 milliseconds, ensuring a seamless and responsive experience for users even during peak traffic periods.

Overcoming these challenges provided valuable insights that have been distilled into a set of strategic recommendations for future work.

8.0 Distilled Learnings and Strategic Recommendations

Beyond its immediate success, the Digital Passport project served as a valuable learning experience for the organization. The insights gathered from its development and launch form the strategic blueprint for all future digital community initiatives in Maple Grove.

8.1 Product & User Experience

1. Prioritize Gamification: The leaderboard and raffle system proved to be more powerful drivers of sustained user engagement than simple discounts alone. Future community initiatives must incorporate similar competitive and reward-based mechanics.

2. Validate Value Proposition Early: The /deals page was the primary user entry point, confirming that users are first attracted by a clear value proposition. Future projects must lead with a compelling and easily understood benefit to capture initial interest.

3. Leverage Social Authentication: The use of Google OAuth resulted in high sign-up conversion rates (less than 5% drop-off). This must be the default authentication method for future public-facing city applications.

4. Invest in Accessibility: Providing Spanish localization successfully broadened community reach and demonstrated a commitment to inclusivity. This must be a standard requirement for all future public-facing digital projects.

8.2 Technical & Architectural

Standardize on Modern Patterns:

1. Adopt a Mobile-First Design Philosophy: With 89% of users accessing the platform via mobile, it is critical that all future public-facing digital projects are designed and architected for mobile devices first.

2. Utilize Database-Level Security: The implementation of Row Level Security (RLS) in the database was highly effective, eliminating complex middleware and ensuring robust, maintainable data isolation. This security pattern must be replicated.

3. Standardize on a Serverless Edge Infrastructure: The Vercel platform significantly reduced DevOps overhead, simplified deployment, and provided elite performance. This infrastructure model must be the standard for new city applications.

8.3 Project Management

1. Embrace Hard Deadlines to Define Scope: The immovable launch date was instrumental in focusing the team on core MVP features. This constraint proved beneficial in preventing scope creep and ensuring timely delivery. Hard deadlines define focus — MVP discipline is a feature, not a constraint.

2. Mandate Regular Stakeholder Demos: Conducting regular product demonstrations for city stakeholders (weekly for the duration, daily in the week before launch) was crucial for building trust, catching issues early, and ensuring continuous alignment.

3. Develop Pre-Launch Runbooks: Creating detailed operational runbooks for handling edge cases and potential launch-day issues greatly reduced uncertainty and ensured a smooth, professional deployment. This practice must be standard procedure.

These learnings provide a clear and actionable path forward for building on this project's success.

9.0 Conclusion: A Foundation for Future Innovation

The Maple Grove Restaurant Week 2025 Digital Passport project was a resounding success, exceeding its objectives for community engagement, business support, and technical execution. The initiative not only delivered a memorable experience for residents but also established a proven, scalable, and reusable platform for the City.

A civic tech prototype that turned engagement into data.

With key outcomes including 6,066 unique visitors, 1,055 user sign-ups, consistently sub-100ms platform response times, 95+ mobile performance scores, and 99.99% uptime, the project has set a new standard for data-driven event management in Maple Grove. This initiative has delivered more than just a successful event; it has provided a powerful data foundation and a technical blueprint for a new generation of digital community engagement. This platform is now poised to power future initiatives, including the planned Art Crawl and Brewery Trail passports, ensuring continued innovation for the city and its residents.

Visual Content Map (for design value phase)

1■■■ Hero Section

- **Visual:** Hero mockup of the digital passport UI (mobile screen with QR scan, leaderboard, and stamp collection)
- **Overlay Stats:**
 - 6,066 visitors
 - 1,055 sign-ups
 - 95+ performance score
 - 99.99% uptime
- **Optional motion:** A looping scroll of the passport interface

2■■■ Objectives Overview

- **Visual:** Four icon cards (Engagement, ROI, Scalability, Deadline)
- **Purpose:** Make the "Project Objectives and Core Requirements" table visual and skimmable

3■■■ Solution & UX Section

- **Visual:**
 - A gamification flow diagram showing QR → stamp → leaderboard → raffle → prize
 - Screens of the leaderboard and social feed side-by-side
- **Callout:** "Turning discovery into a competitive, social, citywide experience."

4■■■ Technical Architecture

- **Visual:**
 - Architecture diagram (Next.js frontend → Supabase + Clerk backend → Redis cache → Vercel edge deploy)
 - Optional animated "data flow" line style
- **Caption:** "Designed for performance, built for reuse."

5■■■ Performance Metrics

- **Visual:** Dashboard-inspired layout or infographic
- Funnel: Visitors → Signups → Active Users → Retained Users
- Mobile vs Desktop donut
- Heat map of traffic by city

- Card showing average engagement time (1:41) and latency (80ms)
- **Callout:** "Validated engagement, performance, and scalability."

6■■■ Impact Section

- **Visual:** Split into 3 cards or columns:
- City Impact: ROI, transparency, reusable asset
- Businesses: onboarding + traffic insights
- Users: frictionless signup, bilingual access, gamified retention

7■■■ Challenges & Solutions

- **Visual:** 3-panel layout: "Challenge → Approach → Result"
- Include icons for Timeline, Security, Scalability
- Keep technical integrity: PostgreSQL + Redis visual snippet for leaderboard caching

8■■■ Learnings & Recommendations

- **Visual:** A "playbook" layout — three columns for Product/UX, Technical, and Project Management lessons
- **Optional pull-quote:** "Hard deadlines define focus — MVP discipline is a feature, not a constraint."

9■■■ Conclusion

- **Visual:** A closing statement banner
- Background: Maple Grove skyline with overlaid stat badges
- Headline: "A civic tech prototype that turned engagement into data."