**QR Code Management Platform – Requirements and Input Specification**

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**Date:** July 11, 2025

## 1. Overview

This document outlines the functional requirements and input specifications for a QR Code Management Platform. The system enables users to generate, manage, and analyze various types of QR codes that link to different services including URLs, business cards, social media, apps, events, files, and more.

## 2. Platform Requirements

### 2.1 User Features

* User registration and authentication (JWT or OAuth2)
* Dashboard for managing QR codes
* Option to create static or dynamic QR codes
* Upload or input content per QR code type
* Ability to edit destination for dynamic codes
* Analytics dashboard with scan insights (location, time, device, etc.)
* Download QR codes in PNG, SVG, PDF
* Tagging, grouping, and organizing QR codes
* QR code expiration and deactivation features

### 2.2 Admin Features

* Manage users and QR codes
* Approve/delete content
* Analytics monitoring and reporting
* API management keys and quotas

### 2.3 System Features

* REST API access
* QR scanning redirect handler
* Secure and optimized redirection (dynamic QR)
* Short URL generation for dynamic QR
* File upload support (PDFs, images)
* Optional white-label support (custom domains)

## 3. QR Code Services and Inputs

| QR Code Type | Expected Inputs |
| --- | --- |
| Website | URL (e.g., https://yourwebsite.com) |
| Search | Search engine (Google, Bing, YouTube)Search query |
| Dynamic QR Code | Title (internal label)Redirect URL (updatable) |
| Virtual Card | Full Name, Phone Number, Email, Website, Company, Job Title, Address, Photo |
| PDF | PDF file upload or external file URL |
| Social Media | Platform (Facebook, TikTok, etc.)Profile URL or Handle |
| Instagram | Instagram handle or full profile link |
| Images | Image file(s) upload or gallery URL |
| App | App Store URL(s)Optional deep link |
| Business Page | Business Name, Tagline, Contact Info, Logo, Description, Website, Social Links |
| Event | Event Name, Date & Time, Location, Description, RSVP link (optional) |
| 2D Barcode | Custom data (text, ID, binary, etc.) |
| Feedback | Feedback form URL or survey linkThank-you message (optional) |
| Rating | Rating form URLScale (stars, emojis, or NPS) |
| Email | Recipient Email, Subject, Body |
| Text | Plain text content |
| WiFi | SSID, Password, Encryption Type (WPA/WEP/None) |
| SMS | Phone Number, Message text |

## 4. Optional Shared Fields

* QR Code Title or Label (for dashboard organization)
* Expiration Date or Time
* Enable Analytics (boolean)
* QR Design Customization (color, logo, shape)

## 5. Summary

This specification defines the inputs and structure for a robust, multi-purpose QR code platform that supports a wide range of digital interactions. It ensures flexibility, scalability, and analytic tracking essential for modern use cases.