# Marathon Management System

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## Problem Definition

Organizing marathons involves complex tasks such as participant registration, event scheduling, route management, and real-time tracking. Current manual or semi-automated methods often lead to errors, inefficiencies, and poor user experience. This results in delayed registrations, mismanagement of participant data, and lack of proper event analytics. A dedicated software solution is required to automate and streamline marathon event management.

## Problem Background

The increasing popularity of marathons has made traditional event management techniques inadequate. Manual handling of participant information, payment collection, and event logistics leads to bottlenecks. Event organizers struggle to provide real-time updates, accurate results, and seamless participant experiences. Without an integrated management platform, event quality suffers, affecting both organizers and participants.

## Problem Scope

Included:

* - Online participant registration and payment
* - Event scheduling and route management
* - Real-time participant tracking
* - Results management and leaderboard
* - Communication via email/SMS notifications
* - Analytics dashboard for event insights

Excluded:

* - Physical event logistics
* - Medical services during the marathon
* - Sponsorship management

## Current or Potential Impact

|  |  |  |
| --- | --- | --- |
| Area of Impact | Description of Impact | Quantitative or Qualitative Metrics |
| Financial | Reduced cost of manual operations | Cost savings (%) |
| Operational Efficiency | Faster registration and event management | Time saved (hrs) |
| User Satisfaction | Better participant and organizer experience | Positive feedback ratings |
| Scalability | Ability to handle larger events seamlessly | Number of participants supported |

## Affected Stakeholders

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Role | Power | Interest | Contact Information |
| Event Organizers | Manage marathon events | High | High | — |
| Participants | Register and take part in marathons | Medium | High | — |
| Sponsors | Provide financial support | Medium | Medium | — |
| Volunteers | Assist in event operations | Low | Medium | — |
| IT Support Team | Maintain the platform | Medium | High | — |

## Problem Timeframe

With the increasing frequency of marathons globally, the problem has become more urgent. Inefficient management tools are leading to reduced participant satisfaction and organizational issues.

## Problem Location

This problem affects marathon organizers, participants, and event sponsors across all regions hosting marathon events.

## Gap Analysis

|  |  |  |
| --- | --- | --- |
| Current State | Desired State | Required Actions |
| Manual registration process | Automated online registration | Develop online registration module |
| Delayed communication | Real-time notifications | Integrate email/SMS notification system |
| Lack of event analytics | Comprehensive analytics dashboard | Implement event reporting features |

## Root Cause of the Problem

* - Inefficient manual processes
* - Lack of centralized event management system
* - Difficulty in real-time participant tracking
* - Limited communication tools for organizers

## Supporting Data, Evidence and Attachments

• Feedback from past marathon organizers  
• Data on registration errors in manual systems  
• Reports on participant dissatisfaction due to mismanagement  
• Market research on event management software usage