



Gameday men's health API

(Customer data labs management API Development)

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1. Introduction

- **Project Title:** Gameday men's health API
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2. Project Overview

- **Purpose:** Develop a Customer Management API to streamline data exchange between the CRM system and third-party applications.
- **Scope:** The API will provide functionalities for creating, reading, updating, and deleting customer records, as well as querying customer data.

3. Objectives

- Provide a cost-effective and scalable API.
- Ensure high performance and security.
- Create easy-to-understand documentation for seamless integration.

4. Technical Specifications

- **API Design**
 - **Architecture:** RESTful API
 - **Data Format:** JSON
- **Database Development**

- **Database: Firestore**
 - Firestore is a NoSQL document database that scales automatically.
 - Data will be stored in collections and documents, ensuring flexible and hierarchical data structures.
 - Real-time data synchronization and offline support.
 - **Reference:** [Firestore Documentation](#)
- **Endpoints**
 - /customers (GET, POST)
 - /customers/{id} (GET, PUT, DELETE)
 - /customers/search (GET) - Query customers based on criteria.
- **Authentication and Authorization**
 - Firebase Authentication for user management, supporting email/password login, social login, and more.
 - **Reference:** [Firebase Authentication Documentation](#)
- **Hosting**
 - **Firebase Hosting:** Provides fast and secure web hosting for the API.
 - CDN-backed hosting ensures low-latency and high-availability.
 - Automatic SSL provisioning for secure connections.
 - **Reference:** [Firebase Hosting Documentation](#)
- **Rate Limiting and Throttling**
 - Managed through Firebase Functions.
 - **Reference:** [Firebase Functions Documentation](#)
- **Error Handling**
 - Standardized error responses with HTTP status codes.
- **Versioning**
 - URI versioning (e.g., /v1/customers).
- **Quota Limits**
 - Firestore free tier limits: 50,000 reads, 20,000 writes, and 20,000 deletes per day.
 - Firebase Hosting free tier: 1 GB storage and 10 GB monthly data transfer.
 - **Reference:** [Firebase Pricing](#)

5. Implementation Plan

- **Project Phases and Time Estimates**
 - **Phase 1: Requirements Gathering and Analysis (1 week)**
 - Conduct initial meetings to define requirements.
 - **Cost:** \$1,500
 - **Phase 2: Design (1 week)**
 - Create API design and architecture.
 - Prepare documentation.
 - **Cost:** \$2,000
 - **Phase 3: Development (4 weeks)**
 - Develop API endpoints and implement functionalities.

- Set up Firestore database.
 - Configure Firebase Hosting.
 - Perform testing.
 - Cost: \$9,000
- **Phase 4: Deployment (1 week)**
 - Deploy the API using Firebase.
 - Ensure performance optimization.
 - Cost: \$2,000
- **Phase 5: Post-Deployment Support (1 month)**
 - Provide support and gather feedback.
 - Cost: \$500

6. Timeline

Phase	Time Estimate	Start Date	End Date	Cost
Requirements Gathering	1 week	August 1, 2024	August 7, 2024	\$1,500
Design	1 week	August 8, 2024	August 14, 2024	\$2,000
Development	4 weeks	August 15, 2024	September 11, 2024	\$9,000
Deployment	1 week	September 12, 2024	September 18, 2024	\$2,000
Post-Deployment Support	1 month	September 19, 2024	October 18, 2024	\$500

7. Resources Required

- **Tools and Technologies:** Firebase (No-cost Spark Plan), React, HTML5, CSS3, JavaScript

8. Budget

- **Phase-wise Costs:**
 - Requirements Gathering: \$1,500
 - Design: \$2,000
 - Development: \$9,000
 - Deployment: \$2,000
 - Post-Deployment Support: \$500
- **Total Estimated Budget:** \$15,000

9. Payment Terms

- **Total Cost:** \$15,000
- **Downpayment Discount:** A 10% discount is offered for a downpayment of 50% of the total cost.
 - **Discounted Total:** \$13,500 (if \$7,500 is paid upfront)

10. Risks and Mitigation

- **Technical Challenges:** Addressed through regular code reviews and use of Firebase.
- **Timeline Delays:** Managed by following a structured timeline with clear milestones.

Benefits of Using Firebase

- **Scalability:** Firestore automatically scales to handle large amounts of data and high traffic.
- **Security:** Built-in security rules and authentication mechanisms to protect user data.
- **Real-time Data:** Firestore provides real-time data synchronization across all clients.
- **Offline Support:** Firestore supports offline data persistence.
- **Analytics:** Integrated with Google Analytics for detailed insights into API usage and performance.
- **Hosting:** Firebase Hosting offers fast and secure web hosting with automatic SSL.
- **Cost-effective:** Firebase's No-cost Spark Plan provides essential services at no cost for startups.

Conclusion

- Developing the Customer Management API is crucial for enhancing CRM system capabilities and improving overall business efficiency.
- Ready to proceed and collaborate to ensure successful implementation.