Quantum Leap Enterprises Project

Prepared for:
Quantum Leap Enterprises

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Executive Summary

This project by Quantum Leap Enterprises focuses on developing a natural, feel-good energy drink targeted toward women paired with a digital wellness web platform and app. The energy drink is formulated to enhance energy, mental clarity, hormone balance, immune strength, and gut health, catering to women aged 25-55. The web platform and mobile app deliver community engagement and educational resources to support this product, transforming the drink into a complete lifestyle solution.

Key requirements focus on user engagement, data privacy, and security, with all digital interactions built to comply with GDPR standards. The project's emphasis on local sourcing, job creation, and community partnerships aligns with Quantum Leap's mission of positive social impact. This initiative not only targets improved well-being for users but also strengthens connections within the community, positioning Quantum Leap Enterprises as a leader in health-conscious innovation.

Introduction

Quantum Leap Enterprises is launching a natural energy drink tailored to women's health needs, supported by a digital platform to enhance the overall user experience. The drink is specifically formulated to address common wellness goals among women, including improved energy levels, mental focus, hormone balance, immunity, and gut health.

The web platform and mobile app play a crucial role, offering personalised health tracking, feedback collection, and a community forum where users can share experiences and support each other. This holistic approach aims to create a product that is more than just a drink; it is a lifestyle brand designed to empower women on their health journey.

This document outlines the functional and non-functional requirements of the project, along with key legal, ethical, social, and professional considerations, laying the groundwork for a responsible, impactful, and sustainable health solution.

Functional and Non-Functional Requirements

Functional Requirements

1. ## Must-Have Requirements
   - Product Information and Educational Content: The web platform must provide detailed product information, including benefits and ingredients. Additionally, educational content, such as articles and videos, must be easily accessible to users, enhancing user understanding of the product and its benefits.
   - User Authentication and Secure Login: To safeguard user data, the mobile app must implement secure user authentication and login mechanisms. This feature ensures that personal information is accessible only to the intended user.
   - Feedback Collection: Gathering user feedback is a core function for understanding customer experience. The app must offer a user-friendly feedback mechanism, enabling users to share their thoughts and opinions on the energy drink.
   - Health Tracking Features: The app must use health tracking tools to enable users to monitor key wellness metrics such as energy levels, mental focus, hormone balance and gut health. These features play a key role in empowering users on their health journey and fulfilling the promised benefits of the drink.
   - Community Forum: The app must incorporate a secure community forum where users can share their experiences, tips, and success stories. This forum fosters community building and mutual support, aligning with the brand's mission of creating a connected community.

2. ## Should-Have Requirements
   - Gamification Elements: Incorporating gamification elements within the app, such as rewards for tracking consistency, achievement badges, and health milestones, can significantly improve user engagement.
   - Data Encryption: Sensitive data, such as health data, collected on the app should be encrypted to ensure data privacy and security.
   - Push Notifications: Push notifications serve as gentle reminders for users to engage with the app and log their health metrics. Notifications should be customisable so users can manage their preferences and avoid notification fatigue.
   - Diary Feature: A diary feature should be included in the app to allow users to log daily thoughts, observations, and experiences related to their health journey. This personal space can serve as a reflective tool, helping users track patterns and progress over time.

- App Download Link: The web platform should include a clear, accessible download link for the app. This link should redirect users to the appropriate app store based on the device being used to access the website.

3. Could-Have Requirements
- Social Media Sharing: Social media integration with the app could allow users to share their achievements on platforms such as Instagram or Facebook. This feature can boost brand visibility and create a sense of community.
- Interactive Educational Content: Interactive content on both the app and web platform, such as quizzes, could provide a dynamic learning experience, making health education more engaging and accessible.
- AI Chatbot for Queries: An AI-driven chatbot could be used on both the app and web platform, which could answer common questions about health and wellness. This feature could enhance user engagement by providing immediate assistance.
- Company Purchase Option: The web platform should provide an option for companies to place bulk orders or inquire about purchasing the product for resale or distribution. This feature could include a dedicated "Business Inquiries" section or form to facilitate corporate purchases.

4. Won't-Have (For Now)
- Integration with Wearables: Integrating the app with wearable devices like fitness trackers or smartwatches is not a priority for the initial phase. While this feature could enhance data collection, it will be revisited in future updates.
- Multilingual Support: Initially, the web platform and app won't support multiple languages and will focus solely on English for the UK market. This may be considered as part of international expansion.
- Offline Mode: Given the data collection and interactive features, the app will not support offline usage at this stage.

Non-Functional Requirements

1. Must-Have Requirements
- Security and Data Privacy: The app and web platform must adhere to GDPR and the DPA. Secure data handling, storage and access to controls are critical, given the personal data involved.
- Scalability: Both the web platform and app must be scalable to accommodate growth in the user base. This scalability should apply to both the backend infrastructure and the user interface, ensuring smooth operation as more users join.
- Performance: The web platform and app should be responsive, with minimal latency during interactions. Fast response times are particularly important for features such as health tracking, feedback submission, and AI insights.

- Reliability: The system should be designed to minimise downtown and have robust recovery protocols in place. Maintaining high availability is essential to avoid disrupting the user experience.
- Maintainability: The app and web platform should be developed with a modular design, allowing individual components to be updated or modified independently.

2. Should-Have Requirements
- Accessibility: The platform should meet accessibility standards, ensuring usability for users with disabilities. This includes features like screen reader compatibility.
- User-Friendly Interface: The interface should be intuitive, aesthetically pleasing, and designed with the target demographic in mind, ensuring ease of use for all users.
- Cross-Platform Compatibility: The app should work seamlessly across both iOS and Android devices. The web platform should support all major browsers to maximise accessibility.

3. Could-Have Requirements
- Multilingual Interface: As the product expands to international markets, offering multilingual support could enhance accessibility for non-English-speaking users.
- Dark Mode: Offering a dark mode on both the web platform and the app could appeal to users who prefer it, adding another layer of personalisation.

LESP: Legal, Ethical, Social and Professional Issues

Legal Issues

Given the personal health data collected, the project must comply with GDPR and the Data Protection Act to ensure user privacy and data security. This includes clear data handling policies, user consent, and enabling users to control their data, such as accessing or deleting it. Compliance with food safety and health regulations is also essential.

Ethical Issues

The use of AI-driven insights in health tracking raises ethical concerns about privacy and data transparency. Users should be informed on how their data is used, and the AI algorithms must prioritise accuracy and honesty. Health claims made in marketing and product descriptions should be scientifically validated to avoid misleading users.

Social Issues

The project has the potential to positively impact local communities by creating job opportunities and fostering collaborations with local suppliers in Scotland. However, the brand has a responsibility to promote health and realistic wellness standards. Engaging users through feedback loops and community forums encourages a supportive, health-conscious environment.

Professional Issues

Maintaining high standards in data management and customer engagement is essential to building brand credibility. Partnering with reputable health professionals and ensuring accurate health information reinforces professionalism. Transparency in all brand communications and interactions with users is critical for establishing trust.

Conclusion and Future Work

In conclusion, this project for Quantum Leap Enterprises combines a natural energy drink with a robust digital wellness platform to provide a comprehensive health solution for women. By addressing unique wellness needs, this initiative supports users in achieving their health goals while fostering a supportive community. The functional and non-functional requirements outlined in this document ensure the project meets its objectives, prioritising user engagement, data security, and scalability for long-term impact.

Future work will focus on expanding the platform's features, such as integrating wearable device compatibility and introducing multilingual support to serve a broader, international audience. Additional AI enhancements and community features can further personalise the user experience. As the brand grows, Quantum Leap Enterprises aims to strengthen its role as a leader in health-conscious innovation, empowering more women globally to take control of their well-being.

Appendix

GitHub Repo Link:
https://github.com/xXWooperFan69Xx/Real-World-Project-Drink

Ethics Form:
This document is included in the GitHub main branch, saved as Ethics Form
https://github.com/xXWooperFan69Xx/Real-World-Project-Drink/blob/main/Ethics%20Form.pdf

Data Protection Impact Assessment:
This document is included in the GitHub main branch, saved as Data Protection Impact Assessment
https://github.com/xXWooperFan69Xx/Real-World-Project-Drink/blob/main/Data%20Protection%20Impact%20Assessment.pdf

Meeting Minutes:
A table containing our team's meeting minutes with Aladin from Quantum Leap Enterprises is below.

Date	Minutes Completed	Description
01/10/2024	30 minutes	In-person initial meeting with client
09/10/2024	Approximately 45 minutes	Zoom meeting with client
11/10/2024	Approximately 45 minutes	Zoom meeting with client
16/10/2024	Approximately 45 minutes	Zoom meeting with client
18/10/2024	Approximately 45 minutes	Zoom meeting with client
29/10/2024	30 minutes	In-person catchup meeting with client
Total Minutes	Approximately 240 minutes (4 hours)	

References: