

BUSINESS CASE
CHUBBY GOURMET'S E-COMMERCE WEB APPLICATION

HIGHTABLE

**PROJECT DOCUMENTATION SUBMITTED TO THE FACULTY OF THE
SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGIES**

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**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
PROJECT MANAGEMENT
PROJMAN**

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1. EXECUTIVE SUMMARY

This section will give an overview of what issue the project is trying to solve, the anticipated outcomes to expect, recommendations on who to approach and solve the issue, and justifications as to why the project should be implemented for the client.

After the global pandemic struck COVID-19 and social distance was enforced strictly across the country, businesses were forced to come up with new ways of being able to serve their customers. Whether it be by implementing an online e-commerce system, implementing a non-contact delivery system, etc. Either way, these kinds of solutions will always be a struggle to gain an edge for local micro-to-small enterprises such as Chubby Gourmet. Chubby Gourmet (established in 2020) is a micro-enterprise that focuses on offering their food products via delivery and is stationed within the village of Laguna Bel Air 1, Sta. Rosa Laguna.

1.1. Issue

HighTable was fortunate enough to meet with the business owner, Priscilla Mariano, to assess and discuss the problems surrounding her business. The main issue that was discovered was her current system, which is manually doing tasks such as order taking, which she needs to manually note down via pen and paper through getting her customer's order via Facebook Messenger. Another problem found in their current system was the inventory management of her ingredients, food containers, etc. The last problem Miss Mariano stated was that she had to constantly keep answering individual frequently asked questions from her customers, since her Facebook page does not have a Frequently Asked Questions portion.

Overall, all of these tasks take up most of her time before even cooking the orders from her customers which causes a concern for her in the long run of her business. She wishes to find a more efficient way of handling orders, transactions, inventory management, and answering queries all in one platform.

1.2. Anticipated Outcomes

With the issues stated above, HighTable wishes to establish the following anticipated outcomes of the solution:

- a.) Improve process problems found within Chubby Gourmet by implementing an E-commerce web application.

b.) Continuously improving and adjusting the project to the project sponsor's needs with little-to-no issue

c.) Gain project sponsor satisfaction with little-to-no corrections needed

These anticipated outcomes will be guided by the project sponsor's constant feedback and thorough communication within all related parties.

1.3. Recommendation

With the issues stated above, HighTable recommends implementing an e-commerce web application to help Chubby Gourmet. Upon entering the web application, the user will be able to see and use the following features:

- Product Management (Admin Side)
- Order Management (Admin Side)
- Inventory Management (Admin Side)
- Generation of Reports (Admin Side)
- Print Reports (Customer Side)
- Customer Account Creation (Customer Side)
- Shopping Cart (Customer Side)
- Checkout (Customer Side)
- Payment (Customer Side)
- Delivery Schedule (Customer Side)
- Order Tracking (Customer and Admin Side)
- Catering Schedule (Customer Side)

With these features suggested, the web application will be able to achieve the anticipated outcomes that the group has established and may even continue to improve further if needed.

1.4. Justification

The reason as to why this solution will be applicable for Chubby Gourmet is because in today's standards, the world has adapted to using online commerce more and has become a new normal in the current market. By implementing this e-commerce web application, this allows Chubby Gourmet to establish their brand and services online for the public and allows HighTable to exercise their skills in developing a project that will meet the needs of the project sponsor through technical skills such as web development.

2. BUSINESS CASE ANALYSIS TEAM

Table 1 shows the team of professionals who will work on creating the plan and their roles on the plan:

Designation	Name
Project Sponsor:	Ms. Priscilla Mariano
Project Adviser:	Ms. Jo Anne de la Cuesta <i>MIM Executive Director</i>
Project Manager:	Gia Artajos <i>Project Manager, Quality Assurance Tester</i>
Team Members:	Marcus Flores <i>Scrum Master, Document Specialist</i> Rysal Rosel <i>Backend Developer</i> Lester Salazar <i>Product Designer, Frontend Developer</i>

3. PROBLEM DEFINITION

3.1. Problem Statement

Chubby Gourmet is a one-woman food business located in Laguna, Philippines, which faces several difficulties in managing its operations. The business owner struggles to handle customer inquiries, accept orders, and track inventory due to limited resources and staff. Specifically, the business owner has trouble organizing orders received via Facebook Messenger, keeping track of inventory, and answering the same set of customer questions repeatedly, leading to a time-consuming and inefficient process. To address these challenges, the business needs an improved system that can streamline operations, provide a better customer experience, and allow the owner to focus on delivering quality food to customers.

3.2. Organizational Impact

The proposed e-commerce web application will bring a significant impact to the business processes of Chubby Gourmet. The new system will allow the business owner to handle customer inquiries and orders more efficiently and effectively, which will lead to a more streamlined process. Additionally, the online platform will allow customers to place their orders more conveniently and receive faster service. This will lead to an enhanced customer experience and increased customer satisfaction. With an automated system, Chubby Gourmet can focus on serving quality food and growing the business, rather than spending a significant amount of time on administrative tasks.

3.3. Technology Migration

The proposed e-commerce web application for Chubby Gourmet will be developed using PHP and SQL technology. The web application will be hosted on Hostinger, a reliable and secure web hosting server. The data migration process will ensure that all relevant data is carried over to the new system. The new system will undergo extensive testing to ensure its reliability, efficiency, and security. Technical requirements and potential obstacles will be addressed during the development process to ensure a successful implementation. Chubby Gourmet's admin will receive instructions from developers to use the new system effectively and to take full advantage of its features, leading to a more streamlined and efficient process.

4. PROJECT OVERVIEW

This section will discuss high-level information about Chubby Gourmet's e-commerce Web Application including its description, goals and objectives, performance criteria, assumptions, constraints, and milestones. This section will also provide all project-specific information that will help in the contribution of the project.

4.1. Project Description

HighTable intends to implement an e-commerce web application in Chubby Gourmet's current system. The web application would have the usual e-commerce functionalities, all the while adding a mobile app version for the mobile users to gain access to.

The project will be managed/executed using the agile methodology because the group sees this method as an effective method to accomplish tasks efficiently. HighTable has been using this method to accomplish previous tasks for the past three terms and will continue to use it throughout the duration of the production of the project.

The general purpose as to why this project is being conducted is because not only is HighTable accomplishing this for their pre-requisite deliverable for BSIT, but they see it as a need to help micro-to-small enterprises like Chubby Gourmet to excel in the field they work in.

4.2. Goals and Objectives

HighTable intends to accomplish this project as effectively as possible and to help improve the current system Chubby Gourmet is using. These are the following specific objectives that the group must accomplish:

- Organize customer orders faster by 80%, which contains details such as personal information, orders, and transaction details.
- Digitize 100% of the inventory management allowing an easier way of tracking (add, update, delete) current inventory.
- Display answers to common queries from customers with two (2) to three (3) clicks, so that Chubby Gourmet could spend less time answering questions every day.

4.3. Project Performance

The group will gauge the project's performance by reviewing and evaluating the following documents filled out upon testing by both the developers and the client:

- Test Case

Under this document is where the developers of the group test each of the features developed and used a "PASS" or "FAIL" status on each of the features, noting down all possible scenarios to stress test the feature.

- Web Performance Objectives

Written by Cassone et. Al, in the document entitled "Web Performance Testing and Measurement: a complete approach", they were able to come up with three main objectives with sub-objectives that can be followed when evaluating the performance of a web application.

- End-User Objectives
 - To find average response time of pages and transactions, slowest and fastest pages;
 - To make sure main pages (e.g. landing page) can be downloaded within acceptable time
 - To find out maximum number of concurrent users, sessions and transactions that the application is able to support still providing a high level of service and without the system crashing
 - To characterize more frequent user paths, the most used starting and exiting page;
 - To identify main reasons of site abandonment
- System Objectives
 - To correlate system resource utilization with load;
 - To find out possible actual hardware bottlenecks and prevent new ones (capacity planning);
 - To tune all the web application components to support as much load as possible using actual hardware;
 - To find out how the application works when overloaded;
- Management Objectives
 - To provide an objective measure of the usage of the site (e.g. the amount of electronics carts and number of items that were sold)

- To provide a “business view” of the previous data (Comparing with the business’ previous system)

The group will gauge the project’s performance by reviewing and evaluating the following documents and objectives filled out upon testing by both the developers and the stakeholders.

4.4. Project Assumptions

Listed below are the main assumptions for the project:

- 1.) HighTable will be focusing on continuing the development and improvement of Chubby Gourmet’s E-Commerce Web Application until the release of the system.
- 2.) The project sponsor (Ms. Priscilla Mariano) will agree to continue giving her honest feedback, suggestions, and concerns that pertain to the development of the system.
- 3.) All individuals involved in the project will address all needed changes and improvements when necessary and will be accomplished by HighTable if applicable.

4.5. Project Constraints

Listed below are the following constraints of the production of the project:

- 1.) HighTable will only be working within the designated timespan of January 3, 2023, to October 25, 2023.
- 2.) HighTable will only work within the allocated budget and development resources planned for the project.
- 3.) Throughout the development of the project, the project sponsor and the development team will only interact through the agreed online meeting services and will only physically meet once all pre-requisites have been met and the project progression is at the closeout phase.

4.6. Major Project Milestones

Listed below are the milestones that HighTable has and should be able to accomplish:

Milestone 1 Initiation (February 2, 2023)	<ul style="list-style-type: none"> - The team has identified a project sponsor, its members, and the problem to resolve - The team has accomplished creating the Business Case and Project Charter document - The team has obtained Project Approval
Milestone 2 Planning (June 2023)	<ul style="list-style-type: none"> - The team has accomplished creating the following documents: <ul style="list-style-type: none"> ○ Scope Management Plan ○ Schedule Management Plan ○ Cost Management Plan ○ Risk Management Plan ○ Quality Management Plan ○ Procurement Management Plan ○ Human Resource Plan ○ Change Management Plan ○ Communication Management Plan ○ Implementation Plan - The team has finished planning and designing the system's architecture - The Product Designer has finished creating the wireframes and user interface design.
Milestone 3 Execution (September 20, 2023)	<ul style="list-style-type: none"> - The team was able to set up the development environment for working on the project.

	<ul style="list-style-type: none">- The Front-end developer has accomplished all front-end components of the system.- The Back-end developer has accomplished back-end components of the system.- The developers have integrated both front and backend components to the system.- The developers and the Project Manager have finished conducting the first unit testing on the system with the QA tester.
Milestone 4 Monitoring (October 4, 2023)	<ul style="list-style-type: none">- Project Manager and Document Specialist has finished monitoring project progress and milestones.- Project Manager and Document Specialist has finished tracking resource utilization.- Project Manager and Document Specialist has finished monitoring risks and issue resolution.- The team has finished system testing and quality assurance for the project.- The team has finished Gathering and analyze user feedback from the Project Sponsor.

Milestone 5 Closeout (October 25, 2023)	<ul style="list-style-type: none"> - The team has accomplished finalizing and delivering all project documentation - The team has obtained formal acceptance from the project sponsor. - The team has accomplished archiving all necessary project files - All handover project deliverables have been received by the project sponsor - The team has accomplished the post-implementation review - The Project Manager and the Project Sponsor held the Close Out meeting.
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5. STRATEGIC ALIGNMENT

The implementation of the e-commerce web application for Chubby aligns with the business goals, including:

- Improved operational efficiency: The automated system will streamline the order taking, inventory management, and customer inquiries processes, reducing the time and effort required to manage these tasks manually. This will result in improved operational efficiency and productivity for the business.
- Enhanced customer experience: The online platform will provide customers with a convenient and user-friendly way to place orders, track their orders, and receive updates on delivery schedules. This will lead to an enhanced customer experience and increased customer satisfaction.

- Increased sales and revenue: The online presence and ease of ordering through the web application can attract more customers, resulting in increased sales and revenue for Chubby Gourmet.

6. COST BENEFIT ANALYSIS

This section of the paper presents a cost-benefit analysis for the Chubby Gourmet e-commerce web application project. The purpose of this analysis is to evaluate the financial feasibility of the project, considering both the costs and the expected benefits of the proposed system. The results of the analysis will help to determine whether the project is a worthwhile investment for the client.

Costs:

- Labor cost: PHP 1,388,000.00
- Hardware cost: PHP 206,656.00
- Software cost: PHP 18,400.00
- Miscellaneous costs: PHP 112,000.00
- Contingency cost: PHP 172,505.00

Benefits:

- **Increased Revenue:** By launching the Chubby Gourmet E-Commerce Web Application, the business can potentially increase its revenue by reaching a wider customer base and enabling online sales.
- **Market Expansion:** The online platform allows the business to target customers beyond its current geographical limitations, potentially expanding its market reach.
- **Cost Savings:** The implementation of the e-commerce platform can lead to cost savings by reducing expenses typically associated with utilities and staffing costs.
- **Improved Customer Experience:** The web application will provide customers with a convenient and user-friendly way to browse and purchase products, enhancing their overall shopping experience.

Cost Benefit Analysis

Particulars	Total (PHP)
Costs	
Manpower Cost	1,388,000.00
Hardware Cost	206,656.00
Software Cost	18,400.00
Miscellaneous Cost	112,000.00
Contingency Cost	172,505.00
Total Costs	1,897,561.00

Benefits	
Increased Revenue	972,000.00
Market Expansion	648,000.00
Cost Savings	600,000.00
Improved Customer Experience	200,000.00
Total Benefits	2,420,000.00

Cost-Benefit Ratio ≈ 1.28

The cost-benefit ratio of approximately 1.28 indicates that the total benefits outweigh the total costs. This suggests that the Chubby Gourmet E-Commerce Web Application project has the potential to be profitable and beneficial for the business.

Considering the ratio is greater than 1, it indicates a positive net benefit. In this case, for every unit of cost invested (1 PHP), there is an estimated return of approximately 1.28 PHP in profits. This implies that the project is expected to generate more benefits than the costs incurred.

The analysis shows that the project has the potential to generate increased revenue, market expansion, cost savings, and improved customer experience. These benefits contribute to the positive cost-benefit ratio, indicating a favorable outcome for implementing the e-commerce web application.

7. ALTERNATIVES ANALYSIS

This alternatives analysis aims to evaluate and compare the advantages and disadvantages of three options for the Chubby Gourmet business: doing nothing, using website builders, and hiring workers. The following sections present a detailed analysis of each option's pros and cons, including the reasons why they were not chosen as the proposed solution for the business.

Doing Nothing

Pros:

- Low-cost option as it uses the current system of using Facebook to promote, manage orders, and process payments.

Cons:

- Lacks the necessary features and functionalities to scale the business and meet customer demands.
- It relies heavily on Facebook's algorithms, which can change at any time, resulting in a loss of business.
- Limited control over the customer experience, which could lead to negative reviews and reduced customer retention.

Conclusion:

This option was not chosen because it does not address the client's needs and long-term objectives.

Website Builders

Pros:

- Offers pre-built templates and customizable features to create an e-commerce website.

Cons:

- May not meet the specific needs of the client's business.
- Requires technical expertise to customize and maintain the website.
- Has recurring costs such as monthly subscription fees, transaction fees, and add-ons.

Conclusion:

This option was not chosen because it may not provide the required functionalities, and the recurring costs may be higher than the proposed system's costs.

Hiring Workers

Pros:

- Provides the opportunity to hire competent personnel to manage the Facebook page and process orders.

Cons:

- Requires a significant amount of time and effort to find and train personnel.
- Incurs additional expenses such as salaries, benefits, and insurance.
- May not provide the scalability and flexibility required to meet customer demands.

Conclusion:

This option was not chosen because it may not provide a cost-effective and long-term solution to the client's problem.

8. APPROVALS

The project approval should come from the key stakeholder (the owner of the business)—**Ms. Priscilla Mariano**.

Bibliography

Cassone, G., Elia, G., Gotta, D., Mola, F., & Pinnola, A. (n.d.). *Web Performance Testing and Measurement: a complete approach*. Retrieved April 12, 2023, from https://www.agileconnection.com/sites/default/files/article/file/2012/XDD3579filelistfilename1_0.pdf

