BUSINESS CASE
CHUBBY GOURMET'S E-COMMERCE WEB APPLICATION

HIGHTABLE

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

ASIA PACIFIC COLLEGE

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
SYSTEMS ANALYSIS AND DETAILED DESIGN FOR IT
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 client's needs with little-to-no issue

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

These anticipated outcomes will be guided by the client's constant feedback, the group's advisor, and thorough communication within the group.

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 (Customer 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 the 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 client 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** *MIM Executive Director*
Project Manager:	**Gia Artajos**
Team Members:	**Marcus Flores** *Scrum Master* **Rysal Rose** *Product Developer* **Lester Salazar** *Product Designer*

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 client (Ms. Priscilla Mariano) will agree to continue giving her honest feedback, suggestions, and concerns that pertain to the development of the system.

3.) All stakeholders 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 the subject course Project Management (PROJAMAN) and any additional subject courses that are required for the development of the project.

2.) HighTable will not be involved in any monetary transactions whatsoever in the development of the project, excluding funds needed in hosting the web application when the project is ready for release.

4.6. Major Project Milestones

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

Milestone 1 | MNTSDEV Deliverables (Date 2021)	- The group has identified a client, project advisor, and client problem - The group has accomplished the necessary research and problem statements to propose solution - The group has successfully passed the first half of documentation of the proposed system.
Milestone 2 | MYSADD1 (Date 2022)	- The group has accomplished the necessary diagrams for the proposed solution's processes - The group has accomplished the second half of documentation - The group finishes drafting the front-end layout of the web application.

Milestone 3 | MCSPROJ (Date 2023)	- The group developed the following features in the web application:
	  o Login and Register
	  o Admin Dashboard
	  o Category and Product Dashboard (Admin side)
	  o Menu, cart, checkout page of the store
	  o Orders page (Admin side)
	  o Payment creation
	  o Inventory page
	  o Home page
	  o Report page
	- The group finishes developing the front-end and backend of the web application.

Milestone 4 | PROJMAN (June 2023)	- Finish further documentation of the project
Milestone 5 | SOFTDEV (July 2023)	- Complete the full testing from the stakeholders to receive feedback for further improvement

	- Complete all necessary documentation for stakeholders

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.

Benefits:
The Chubby Gourmet e-commerce web application could offer several benefits to the client once fully implemented, including:
- The client can potentially increase their sales revenue by reaching a wider audience, which is estimated to be x0.5 of the current sales allowing them to better showcase their products and services, and providing an easier purchasing experience for customers;
- With an integrated e-commerce platform, the client can streamline their operations, reducing their overall operating costs by consolidating their marketing, sales, and payment processing functions onto a single platform;
- With a more user-friendly and seamless e-commerce platform, customers are more likely to become repeat customers, leading to better overall customer experience; and

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- By utilizing an e-commerce platform, the client can expand their reach beyond their physical store location, tapping into new geographic markets and demographic segments that were previously untapped.

Costs:

The Chubby Gourmet e-commerce web application project has the following costs associated with it:

- Hosting for the Chubby Gourmet e-commerce web application project is estimated to cost ₱99.00.
- The cost of the domain for the project is estimated at ₱908.00.
- The internet fee, which includes the cost of high-speed internet access required for the project's development and implementation, is expected to amount to ₱20,388.00.
- The other expenses for the Chubby Gourmet e-commerce web application project amount to ₱92,085.00 per year, covering electricity, ingredients, water, gas, and other operational costs necessary for the successful and efficient running of the e-commerce platform.

The total cost of the project is ₱113,453.00 per year.

It is important to note that the costs associated with development and maintenance are excluded from the analysis as the project is being undertaken for academic purposes and not for commercial gain. Additionally, contingency costs are also not included as they are part of the development process.

Cost-Benefit Ratio:

	Current System	Proposed System
Benefit	240,000	360,000
Cost	112,473	113,453
Estimated Savings	127,527	246,547

The cost difference between the current system and the proposed project is not significant since the existing devices and operational expenses can be used for the new system. However, the potential benefits of the project, such as increased reach and sales revenue, are expected to be significant due to the expanded customer base and improved user experience offered by the project.

The cost-benefit analysis indicates that pursuing the Chubby Gourmet e-commerce web application project is worth pursuing for the business. While there will be initial costs

associated with hosting, domain, internet and electricity fees, as well as operational expenses, the potential benefits of the project such as increased sales revenue, and improved customer experience and retention, are expected to outweigh the initial investment in the long run.

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