| **dlsu_logo.gif** | **Picture 1** |
| --- | --- |

**DE LA SALLE UNIVERSITY**

**COLLEGE OF ENGINEERING**

**SY 2023-2024, TERM 2**

**SOFTWARE DESIGN LABORATORY**

**(LBYCPD2)**

**LABORATORY # 2**

**PROJECT PRESENTATION**

**NAME:**  **GOCHUICO, DAVID ZACHARY**

**ONG, AIDAN MATTHEW**

**DIMAPILIS, DAVID BRIAN**

**STUDENT ID NUMBER: 12204137**

**12215228**

**12212504**

**STUDENT EMAIL ADD: david\_gochuico@dlsu.edu.ph**

**aidan\_ong@dlsu.edu.ph**

**david\_dimapilis@dlsu.edu.ph**

**STUDENT CONTACT NO: 09228182857**

**09391812517**

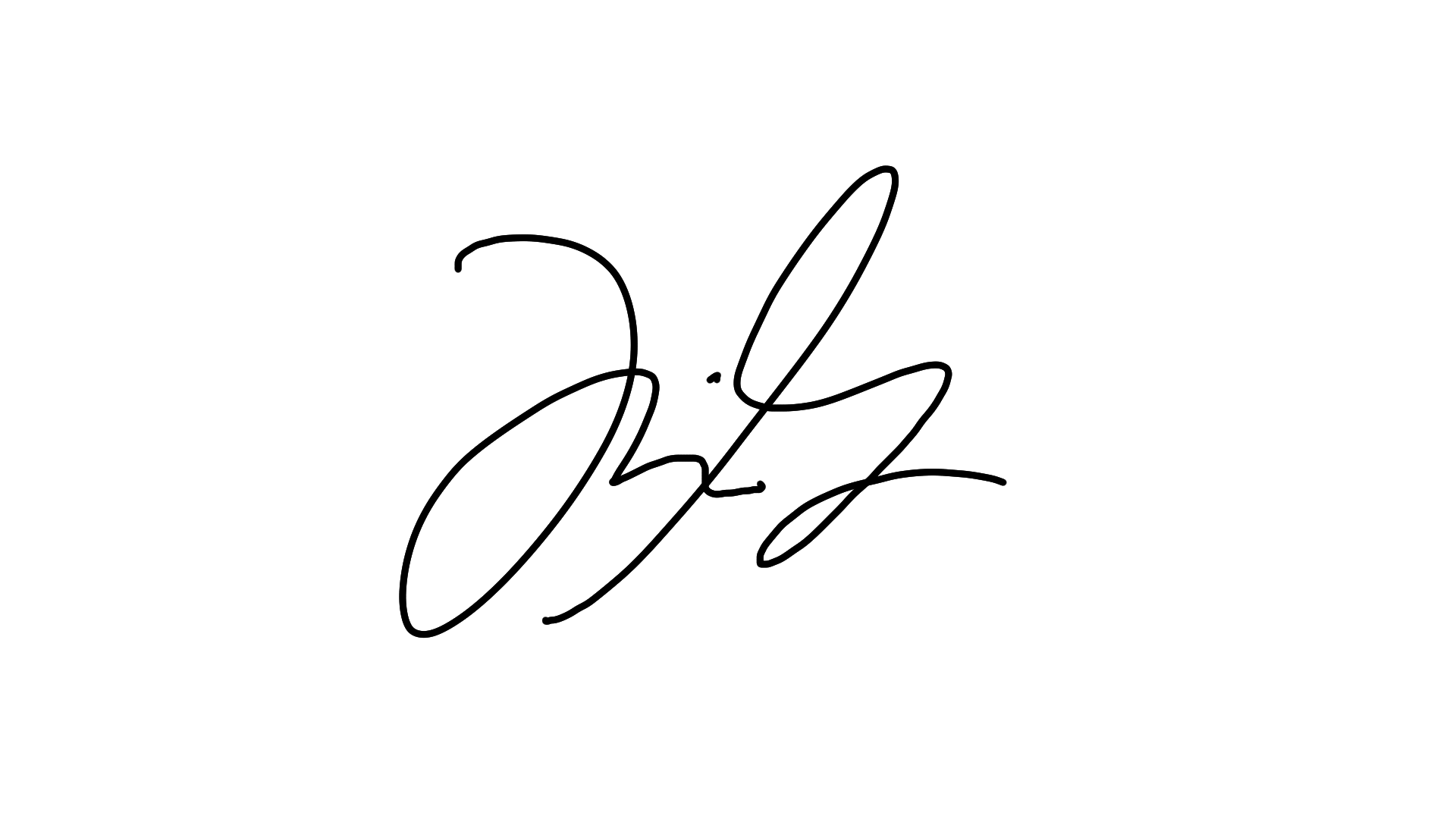
**09159734477**

**COURSE CODE: LBYCPD2**

**SECTION:** **EQ1**

**SCHEDULE: SATURDAY (7:30-10:30)**

**INSTRUCTOR: Engr. Bernard G. Yasay**

**STUDENT SIGNATURE: **

**DATE SUBMITTED: 02, February 2024**

1. **EXERCISES**
2. Find small, medium enterprise company, community, or a public school where you can help identify problems and implement the solutions.
3. Under the Discussion/Analysis of the Laboratory Template provide the following outline.
   1. Project Title
   2. Introduction
   3. Statement of the problem
   4. Objective of the Study
   5. Scope and Delimitation
4. Create a PowerPoint presentation with the same outline of No.2 and present it next meeting. Please take note that both Laboratory Template (docx file) and PowerPoint (pptx file) are need to submit online at the Animo Space.
5. **Discussion/Analysis about the laboratory activity**
6. Project Title

Starting a System for Start-Up Success

1. Introduction

XCE is a startup company by our client(s) Trent See, Aidan Ong, Linc Chan, Charles Chua. XCE aims to sell Chinese foods like frozen dimsum, chili oil and frozen premade foods online in Metro Manila. To aid with the operations of the business, we will create a POS system that tracks the sales, production, inventory and accounting. Our clients in XCE used to track their inventory and sales manually through Google Sheets. A point of sales system will help them streamline their business operations and allow for greater efficiency.

1. Statement of the problem

In a start-up, having an efficient and user-friendly website/system is very much often overlooked. This is due to the fact that many start-up companies rely on external means to track important information such as sales, production, inventory and the like. In addition to this, a number of start-ups have little to no experience with creating websites and often turn to using paid subscriptions for website creating and hosting servers. Putting into perspective, in order to have a website off of subscriptions, it may cost nearly $500 to $750/month, nearly PHP 25000 to PHP 41000/month in just hosting alone. These may result in an even larger initial investment on top of other expenses with no proper guarantee of an effective return. Creating a site for selling products off of presets and options given by these website hosting companies often do not have a large amount of support in regards to systems that track inventory, sales, and even accounting of said sales. Oftentimes, these created sites are meant as a means to advertise and promote products instead of functioning as both an advertisement and means to buy these products, as well as serving as a point of sale system. One last thing to add, should there be no digital system available, start-ups rely on manual encoding of various objects such as inventory and sales which may end up in minor human errors which can lead to some business losses. This adds to the fact as well that as technology progresses, companies (especially start-ups) must adapt to these growing changes in order to be profitable.

1. Objective of the Project

The objective of this project is mainly to introduce ourselves into the world of software development and design. We believe that it is a great opportunity to learn more about developing these types of software as it is a good means to see the industry that being a software engineer may lead to. This allows for early exposure and a good means to learn without having too much pressure on the programmer. It also provides a way to learn how to work with clients, learning how to incorporate their vision, plans, and concepts into something that will prove useful and beneficial to the business. These would include having an eye-catching design, and a functional user friendly system for both consumers and the company. One of the goals set is to make all of its core system work up to the client’s desired standard and usable through the usage of various coding languages in order to make it efficient while not sacrificing the system’s ease of use, as well as the visuals for its consumers. It is important to mention that it is also a focus to have proper and constant communication with the client in order to give them the best product that we are able to come up with. In general, the objective of this project is to be able to learn and experience what it is like to be a software engineer in the industry through practical experience. Learning how to operate and communicate with a client in order to make a software system that adheres to exactly what the company needs and wants, it goes without saying that it is of importance to make it as user friendly and functional as possible to both consumer and company staff. Additionally, we as a company aim to create a system that can help streamline business operations for the client by tracking sales, production, inventory, and accounting in an integrated manner. The system should be intuitive and easy to use for the clients, while providing them valuable business insights. We also want to gain experience working on a real-world project which involves collaborating with stakeholders, gathering requirements, designing solutions, as well as testing and refining the end product. Predominantly, this project will be a valuable hands-on learning opportunity for us.

1. Scope and Delimitation

The scope of this project encompasses the development of a custom point-of-sale (POS) system tailored to the needs of our client's food business. Specifically, we will build a POS platform to help streamline their operations and provide greater visibility and control across sales, inventory, production schedules, and finances.At its core, the system we aim to build will have a front-facing customer interface as well as a back-end dashboard for business operators. Key capabilities will include menu and inventory management, order taking, payment processing, tracking sales history and transactions, monitoring stock levels in real-time, managing food production tasks, as well as providing summaries of accounting information. The system will be designed responsively for use on both desktop and mobile devices, providing flexibility and accessibility. Additionally, customized user roles and permissions will be implemented to ensure employees only have access to relevant areas.While building a comprehensive system is the eventual goal, given project constraints around timeline and resources, we have deliberately scoped this initial version to focus exclusively on the most pressing pain points shared by the client. As such, while we will lay a scalable foundation for an integrated POS platform, only core functionalities around the sales process, inventory tracking and order management will be developed in this first version. More advanced analytics, third party integrations, procurement workflows, payroll modules etc. are better suited as future enhancements once the core system has been built out and validated.

By focusing efforts solely on high-value features tied directly to the client’s primary bottlenecks around reliance on manual processes, we can deliver maximum impact with an MVP (Minimum Viable Product) version of the POS system. Additional capabilities can be progressively rolled out after gauging user feedback and actual usage of this initial release. Concentrating on depth over breadth for the first iteration will allow us to provide genuine value to the client in replacing existing workflow pain points with a thoughtfully designed automated solution.