# VIETNAM GENERAL CONFEDERATION OF LABOUR TON DUC THANG UNIVERSITY FACULTY OF INFORMATION TECHNOLOGY



#### MANAGEMENT OF INFORMATION SYSTEMS

## FINAL PROJECT

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Class: **20H50204** 

Course: 24

**HO CHI MINH CITY, 2023** 

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### **THANK YOU**

Thank you, Ms. Ho Thi Thanh Tuyen, for being very enthusiastic in guiding and instructing me in forming knowledge for this essay. She always tries to make everything simpler and easier for me to absorb. Once again, thank you very much madam.

#### PROJECT COMPLETED AT TON DUC THANG UNIVERSITY

I hereby declare that this is my/our own project and is guided by Dr. Ho Thi Thanh Tuyen. The research contents and results in this topic are honest and have not been published in any form before. The data in the tables for analysis, comments and evaluation are collected by the author himself from different sources, clearly stated in the reference section.

In addition, the project also uses a number of comments, assessments as well as data of other authors, other agencies and organizations, with citations and source annotations.

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Ho Chi Minh City, Month 11 Date 23 Year 2023

Author

(Sign and write your full name)

Vũ Lê Tấn Phát Lê Gia Minh Nguyễn Lê Đức Tài Trần Huỳnh Duy Hải

# TEACHER'S CONFIRMATION AND ASSESSMENT SECTION

The confirmation part of the instructor		
	Ho Chi Minh City, Month 11 Date 23 Year 2023 (Sign and write your full name)	
The evaluation part of the	teacher marks the test	

Ho Chi Minh City, Month 11 date 23 year 2023 (Sign and write your full name)

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## **TASK 1: About Highland Coffee**

#### 1.1 Objectives and mission

#### • Objectives:

- To be a leading coffee chain in terms of quality, customer experience, and innovation.
- To be expand the number of outlets domestically and internationally.
- To promote sustainable an ethical sourcing of coffee beans.

#### • Mission Statement:

- Highlands Coffee is committed to delivering exceptional coffee experiences, fostering community connections, and driving sustainability in every cup.

#### 1.2 Industry and history.

#### • Industry:

- Coffee Shop and Café Industry, focusing on high-quality coffee and customer experience.
- **\( \text{Key Industry Trends:} \)**
- Increasing demand for specialty coffee
- Growth in sustainable and ethical sourcing practices.
- Rising popularity of café culture.

#### • History:

- Highlands Coffee is a Vietnamese Coffee Shop chain and producer established in Hanoi by Vietnamese American David Thai in 1998. The company's initial registration marked the first time an Overseas Vietnamese person was able to register a private company of any kind in Vietnam. Highlands Coffee started with producing packaged coffee to be

sold through supermarkets, hotels, restaurants, and cafes. It was four years later, in 2002, that the first Highlands Coffee shop was established, across from Notre-Dame Cathedral in Ho Chi Minh City. By 2009, the company operated 80 coffee shops in six cities and provinces across Vietnam.

#### 1.3 Size and organization chart.

#### Size:

- Over 200 outlets across the country and a few international locations. Approximately 2,000 employees.

#### **Organization Chart:**

- CEO, followed by departments like Operations, Marketing Finance, HR, and Supply Chain.

#### 1.4 Business area/function.

#### Main Business Areas:

Coffee and Beverage Sales: Core business area focused on serving a variety of coffee drinks and snacks.

Customer Experience: Ensuring a welcoming and comfortable environment for customers.

Sustainability an Sourcing: Focused on ethically sourcing high-quality coffee beans and promoting environmental sustainability.

#### Function Alignment:

Sales efforts align with the objective to provide high-quality coffee and expand market presence.

Customer Experience aligns with building a loyal customer base and enhancing the brand's reputation.

Sustainability and Sourcing efforts reflect the commitment to ethical practices and environmental responsibility.

#### Business Function Diagram:

A flowchart depicting the connection between Sales, Customers Experience, and Sustainability initiatives.

#### TASK 2: Analyze Your Existing Information System

## **2.1** Analyzing the Industry Structure and Target Market Share of Highlands Coffee

#### 2.1.1 Industry Structure

Porter's Five Forces Analysis:

#### **Threat of New Entrants:**

Barriers to Entry: The coffee shop market has relatively low barriers to entry, allowing new players to enter the market easily, especially in urban areas.

Brand Identity: However, establishing a brand as strong as Highlands Coffee requires significant investment, making it challenging for new entrants to gain a significant market share quickly.

#### **Bargaining Power of Suppliers:**

Quality of Coffee Beans: The quality of coffee beans is a critical factor in this industry. Suppliers of high-quality beans hold significant power.

Sourcing Relationships: Highlands Coffee's focus on sustainable and ethical sourcing might limit their supplier options, potentially increasing supplier power.

#### **Bargaining Power of Buyers:**

Customer Preferences: With a wide range of choices, customers have high bargaining power. Their preferences can shift towards price, quality, or convenience.

Brand Loyalty: Highlands Coffee's strategy of broadening its target market helps in reducing buyer power by building brand loyalty across different customer segments.

#### **Threat of Substitute Products:**

Availability of Alternatives: The threat of substitutes is high in this industry. Consumers can easily switch to other beverages or home-brewing options.

Differentiation: Highlands Coffee counters this threat by offering a unique experience and product variety that differentiates it from simple home-brewed coffee or other beverage choices.

#### **Competitive Rivalry:**

Market Saturation: The coffee shop market is highly saturated, especially in urban areas, leading to intense competitive rivalry.

Differentiation and Expansion: Highlands Coffee's competitive strategy involves differentiation through quality and expansion of its outlet network to maintain its market share.

#### 2.1.2 Target Market

Target Market Share Strategy

**Data-Driven Expansion:** Using market data, Highlands Coffee has targeted expansion in areas with less market saturation and high potential customer base.

**Diversification:** Diversifying their product offerings to cater to a broader range of tastes and preferences helps capture a larger market share.

**Digital Engagement:** Leveraging digital platforms for marketing and customer engagement also aids in expanding their reach, especially among younger, tech-savvy consumers.

## 2.2 Competitive strategy and the development of Highlands from the present to the next 10 years

#### 2.2.1 Present Strategy

#### **Initial Focus Strategy:**

Focus Strategy: Initially, Highlands Coffee employed a Focus strategy, targeting a specific customer segment - urban professionals and coffee enthusiasts who sought a premium coffee experience.

Key Elements: This strategy involved offering high-quality, specialty coffee, a unique café ambiance, and a premium customer service experience.

This is the strategy that Highlands wants to use. But if we compare it to another business that uses a focus strategy like Phuc Long, it can't be compared.

⇒ In recent years, they have used **Cost Leadership** as their main strategy.

Highlands Coffee's current competitive strategy employs Cost Leadership, leveraging tactics like vouchers and digital banking partnerships to appeal to a broader market. Looking ahead, the company is poised to balance Cost Leadership with elements of a Focus strategy, creating a unique competitive edge.

#### **Advantages:**

Market Competitiveness: In a price-sensitive market, being a cost leader provides a strong competitive advantage.

Broad Market Appeal: Lower prices attract a diverse customer base, expanding market reach.

Resilience to Market Fluctuations: This strategy offers resilience against economic downturns, as customers seek more affordable options.

#### **Disadvantages:**

Profit Margin Pressure: Maintaining low prices can exert pressure on profit margins.

Risk of Quality Perception: There's a potential risk that customers might perceive lower prices as indicative of lower quality.

Competitive Imitation: Competitors might emulate the cost leadership strategy, leading to intensified price competition.

#### **Relationship with Industry Structure:**

In the highly competitive coffee industry, cost leadership allows Highlands Coffee to stand out in a saturated market. It aligns with the need to capture a significant market share in an environment where price and value are key determinants of consumer choice.

#### 2.2.2 10 Years after Strategy

Projected Strategy for the Next 10 Years: A Blend of Cost Leadership and Focus:

Highlands Coffee is likely to evolve its strategy to a blend of Cost Leadership and Focus. This hybrid strategy will aim to maintain competitive pricing while also concentrating on specific market segments that value unique experiences and specialized offerings.

#### Wider Market Appeal:

Combining cost leadership with focused offerings allows Highlands Coffee to appeal to both price-sensitive customers and niche markets that value specialty products or experiences.

#### Flexibility and Adaptability:

By not relying solely on either cost leadership or a focus approach, Highlands Coffee can remain agile and adaptable to market changes and varying consumer preferences.

#### **Enhanced Customer Loyalty:**

Through focused elements, particularly in customer experience and specialty offerings, Highlands Coffee can cultivate deeper brand loyalty among specific customer segments.

#### **Increased Revenue Opportunities:**

The Focus strategy elements can tap into higher-margin niches, complementing the broader revenue generated from the cost leadership approach.

#### 2.3 Main Activities in Highlands Coffee's Value Chain

#### 2.3.1 Inbound Logistics

#### Description:

Sourcing of Coffee Beans and Supplies: The quality of coffee served at Highlands Coffee starts with the sourcing of high-quality, sustainable coffee beans and other essential supplies like milk, sugar, and bakery items.

#### Importance:

This stage is critical for ensuring product quality and consistency across all outlets. Ethical and sustainable sourcing practices also reinforce the brand's commitment to environmental responsibility.

#### 2.3.2 Marketing and Sales

#### Description:

Brand Promotion and Sales Activities: Marketing activities, such as advertising campaigns, social media marketing, and loyalty programs, play a vital role in attracting and retaining customers.

#### Importance:

Strong marketing and sales efforts are essential for building brand awareness and attracting new customers. Engaging existing customers through loyalty programs and promotions is crucial for long-term revenue growth.

#### **2.3.3** *Service*

#### Description:

Customer Service and Experience: Providing a high-quality customer experience, from the ambiance of the outlets to the professionalism of the staff, is a key aspect of Highlands Coffee's operations.

#### Importance:

Exceptional service leads to customer satisfaction and loyalty, which are essential for the brand's reputation and word-of-mouth marketing. Consistently excellent service across all outlets fosters a strong, loyal customer base.

## 2.4 Analysis of Highlands Coffee's Information System: The Five Key Components

#### 2.4.1 Hardware

#### Description:

Point of Sale (POS) Systems: Essential for order management and sales transactions in each outlet.

Computers and Servers: Used for administrative tasks, inventory management, and as central hubs for data storage and processing.

Mobile Devices: Tablets and smartphones for mobile ordering and payment processing.

#### Importance:

These hardware components are integral to daily operations, facilitating transactions, data processing, and communication across the organization.

#### **2.4.2** *Software*

#### Description:

POS Software: Manages sales transactions, integrates with inventory systems, and helps in customer data collection.

Inventory Management Software: Tracks stock levels, orders, and deliveries, ensuring efficient supply chain management.

Customer Relationship Management (CRM) Software: Used to manage customer interactions, loyalty programs, and marketing campaigns.

#### Importance:

Software systems streamline operations, enhance customer engagement, and provide valuable insights through data analytics.

#### 2.4.3 *People*

#### Description:

IT Team: Responsible for managing and maintaining the IT infrastructure.

Staff Training: Employees are trained to use various software and hardware effectively, crucial for efficient service delivery.

Management: Utilizes data and systems for decision-making and strategy formulation.

#### Importance:

People are at the heart of the information system, ensuring that technology is used effectively to achieve business goals.

#### 2.4.4 Processes

#### Description:

Order Processing: From taking orders to payment processing, the system streamlines the customer service process.

Data Analysis: Processes for analyzing sales, inventory, and customer data to inform business decisions.

Customer Feedback Collection: Automated systems for gathering and processing customer feedback.

#### Importance:

Well-defined processes ensure efficiency, accuracy, and consistency in operations, enhancing the overall effectiveness of the information system.

#### 2.4.5 Data

#### Description:

Sales Data: Information on sales transactions, customer preferences, and buying patterns.

Inventory Data: Data on stock levels, supply chain logistics, and product demand.

Customer Data: Information collected from CRM systems, including customer preferences, feedback, and loyalty program details.

#### Importance:

Data is a critical asset that drives strategic decisions, marketing initiatives, and operational improvements.

#### TASK 3 Organizational issues

## 3.1 The existing problems of the old system and the expected goals of the new system.

#### 3.1.1 The existing problems of the old system

#### • Operational Complexity:

Managing two strategic approaches simultaneously can lead to increased complexity in operations, supply chain management, and marketing efforts.

#### Risk of Brand Dilution:

There is a risk that the brand's identity may become diluted or inconsistent if the balance between cost leadership and focused offerings is not carefully managed.

#### • Potential Internal Conflicts:

Aligning corporate culture, employee training, and operational processes with a dual strategy might present internal alignment challenges.

#### • Customer reviews:

Unfamiliar with the services and drink names, the process is sometimes slow, leading to customers waiting for a long time

#### • Staff problems:

Difficult to synchronize and manage training quality, Highlands' training content cannot be standardized and synchronized between branches.

#### • Increased Resource Allocation:

Implementing and maintaining a Focus strategy alongside cost leadership may require additional resources, particularly in areas like R&D, marketing, and customer service.

#### Balancing Price Perception and Quality:

Maintaining the perception of quality in the cost leadership segment while justifying premium pricing in the focus segment can be challenging.

#### 3.1.2 The expected goals

#### • Reduce operational complexity:

Appropriate division of human resources to reduce operational and supply chain complexity

## Manage and synchronize training quality and employee capacity through system:

Upgrade the system to manage each employee's learning process as well as update new knowledge and formulas to send to all branches nationwide. For example, based on demand from Highlands, built an LMS management system to help managers easily use and access at any time.

#### • Scalability and Flexibility:

It seeks to be scalable, adaptable to changing business needs, and flexible enough to accommodate future growth.

#### • Enhanced Integration:

Foster seamless integration between different departments and systems to improve overall organizational efficiency.

#### 3.2 Analysis of Problem Components/Structures:

#### 3.2.1 Process:

- Order processing: Problems with the order processing process, slow responses, or inadequate problem resolution, can impact customer satisfaction and retention.
- Data Analysis: If the data within the system is inaccurate or incomplete,
   Processes that analyze sales, inventory, and customer data make false business decisions.

#### 3.2.2 Hardware:

- Mobile Devices: Need to train a course for employees to use. If customers
  do not know how to use it, it will take more time and human resources to
  support.
- **Devices Quality:** If the equipment does not ensure quality, it can affect the system's ability to sell and develop.

#### 3.2.3 Software:

- Customer Relationship Management (CRM) Software: If an error occurs, it will lead to loss of customer information and incorrect information processing.
- **Software version:** Always update to the latest version promptly to avoid incompatible and outdated software.

#### 3.2.4 *People:*

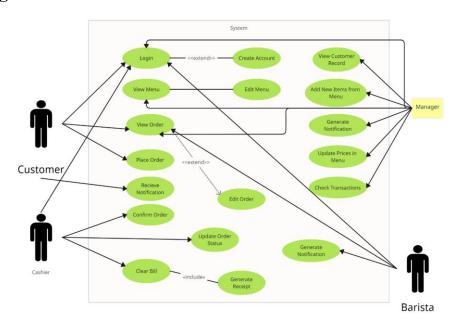
- **Staff Training:** Staff between branches have not been trained consistently.
- IT Team: If not guaranteed, it can lead to failure of the entire company system

# TASK 4: Proposal for a New Management Information System for Coffee Highlands Shop Chain:

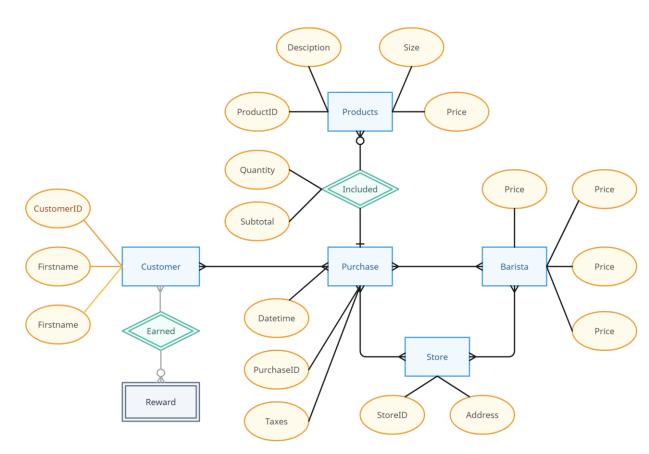
#### **4.1 System Structure:**

- The new system will include modules for inventory management, sales reporting, customer relationship management, and employee scheduling.
- Data will be centralized and stored in a scalable database, accessible through a web-based interface for regional and store managers.

#### **4.2 General Use Case Diagram:**



## 4.3 General Use Case Diagram:



#### **4.4 Changed or Improved Processes:**

- The new system will streamline inventory tracking, automate reordering processes, and provide real-time sales data for each store.
- Employee scheduling will be optimized based on sales data, and CRM tools will enable targeted marketing and loyalty programs.

#### 4.5 Analysis and Evaluation:

- The proposed system supports the organization's competitive strategy by enhancing operational efficiency, improving customer experience, and enabling data-driven decision-making.
- The centralized data will allow for better strategic decision-making at both store and regional levels, leading to improved resource allocation, inventory management, and enhanced customer satisfaction.

This proposal supports the coffee shop chain's competitive strategy by leveraging technology to streamline operations, improve customer engagement, and enable data-driven decision-making.

Infrastructure upgrades would be required to implement the new MIS, along with extensive employee training to ensure effective adoption. The integration of real-time data and analytics will empower the coffee chain to make informed decisions, optimize supply chain management, and personalize customer interactions.

Furthermore, the improved inventory management will reduce stockouts, minimize waste, and enhance overall operational efficiency. This heightened efficiency will contribute to cost savings and could potentially be redirected toward enhancing product offerings or expanding the chain's reach.

With a centralized system and standardized processes across locations, the coffee shop chain can ensure consistent customer experiences and swiftly deploy successful strategies from one store to another. Additionally, the CRM tools will enable tailored marketing initiatives, nurturing customer loyalty and maximizing customer lifetime value.

In conclusion, the proposed MIS aligns with the organization's competitive strategy by facilitating data-driven decision-making, improving operational efficiency, and enhancing customer engagement. This modernization effort promises to fortify the coffee shop chain's market presence and competitiveness in the increasingly dynamic and technology-driven coffee industry.

Moreover, the new system will support the organization's competitive strategy by providing a foundation for future innovation. By capturing and analyzing customer data, the coffee shop chain can adapt quickly to shifting consumer preferences and market trends. This agility is crucial in an industry where customer tastes and preferences can change rapidly.

The system's ability to generate real-time sales data and performance metrics will enable the organization to make agile, data-informed decisions. It will also facilitate the identification of successful products, promotions, and operational strategies, allowing for swift replication across the chain.

Additionally, the enhanced employee scheduling and management features will lead to better workforce optimization, driving productivity and cost efficiencies. As a result, the organization can deploy skilled staff at peak times, ensuring top-notch customer service while managing labor costs effectively.

In this way, the proposed MIS acts as a strategic enabler, providing the tools and insights necessary for the coffee shop chain to maintain and strengthen its competitive edge in the market.

The new MIS will revolutionize the way the coffee shop chain operates, enabling it to stay ahead in a competitive industry. Its impact will be felt across various facets of the business, ranging from streamlined operations to enhanced customer experiences and informed decision-making.

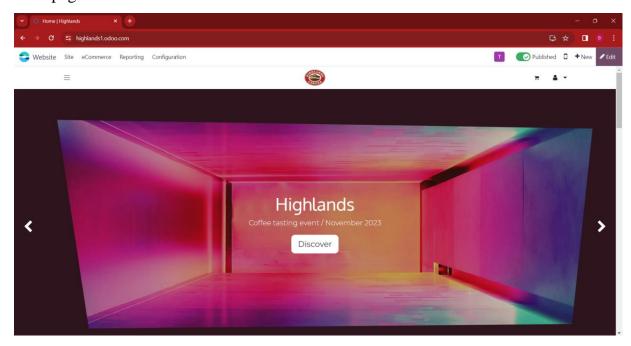
In summary, the proposed MIS addresses critical aspects for the coffee shop chain's competitive strategy:

- 1. Streamlining Operations: Through better inventory management, optimized employee scheduling, and centralized data, the system will bring operational efficiency to the forefront.
- 2. Enhanced Customer Experience: The incorporation of CRM tools and personalized marketing initiatives will foster deeper customer engagement and loyalty.
- 3. Data-Driven Decision-Making: Real-time sales data and analytics will empower the organization to make informed, agile decisions and swiftly adapt to market changes.

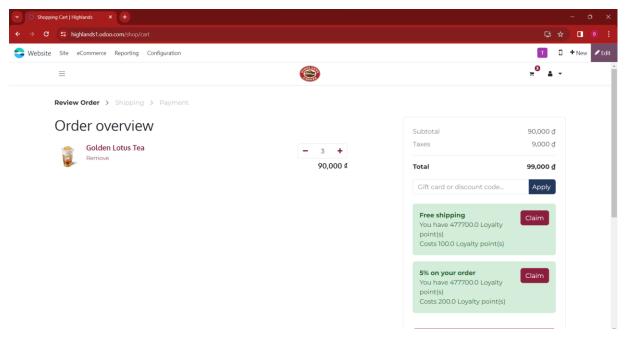
Overall, the proposed MIS provides a robust framework to support the coffee shop chain's competitive strategy, fostering agility, efficiency, and customer-centricity.

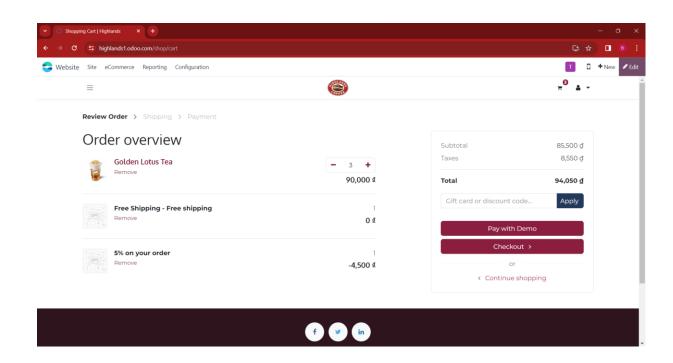
### **DEMO**

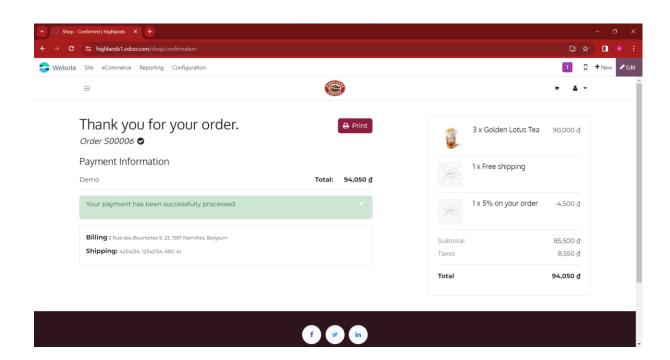
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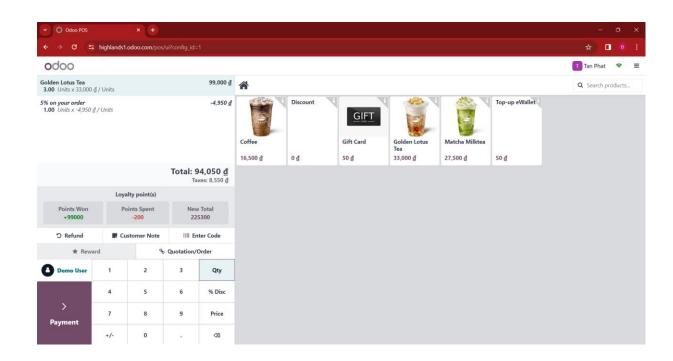


### Buy with loyalty card:

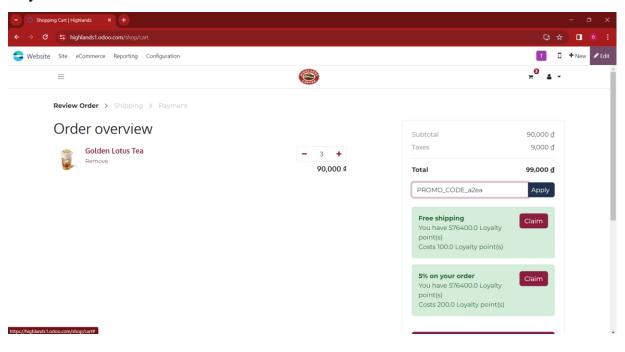


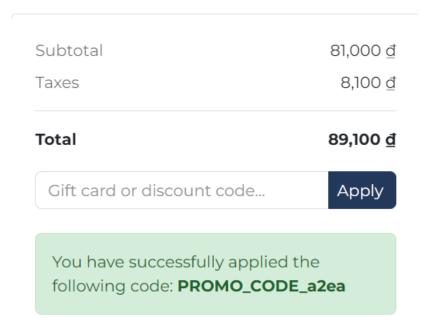


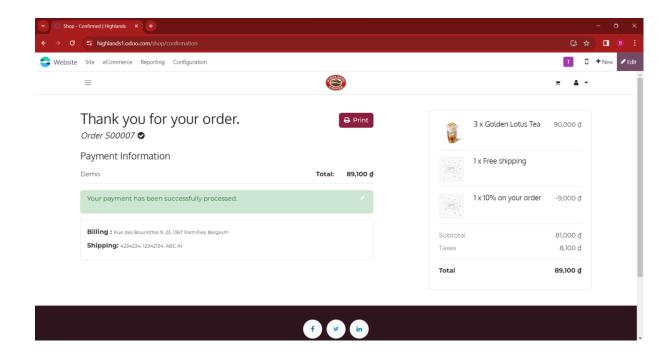


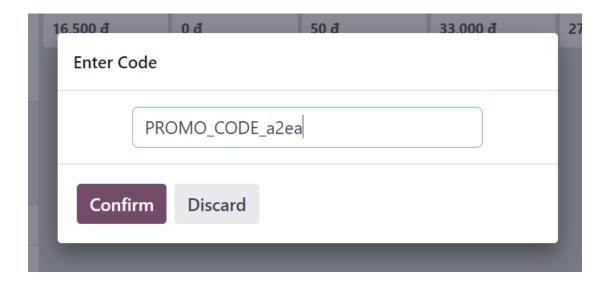


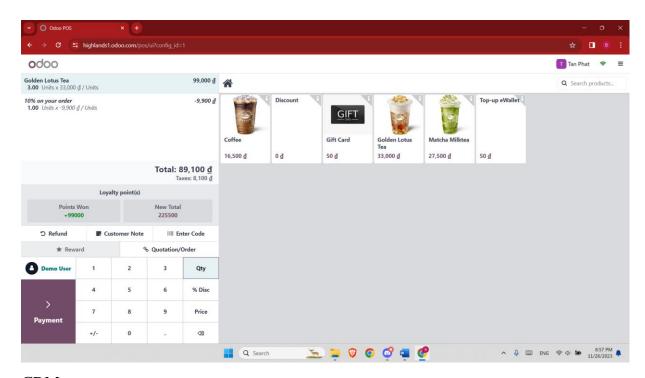
#### Buy with discount code:



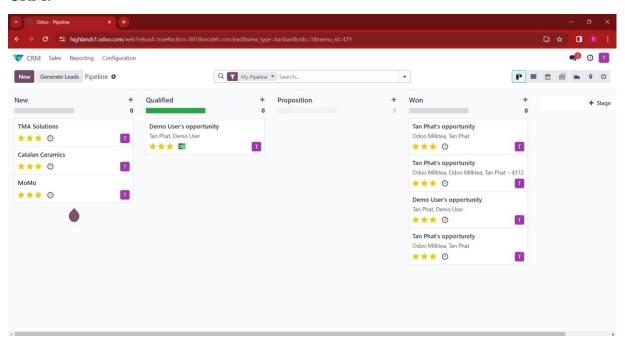








#### CRM:



#### **MEET MINUTE:**

+2h in Google Meet divide into 4 sessions

### **GROUP ROSTER:**

+ Lê Gia Minh: Task 1

+ Vũ Lê Tấn Phát: Task 2 + Demo

+ Trần Huỳnh Duy Hải: Task 3

+ Nguyễn Lê Đức Tài: Task 4

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