



ITP 314 – SYSTEMS INTEGRATION AND ARCHITECTURE

INDIVIDUAL PROJECT PROPOSAL

Name: Harlyn P. Nebreja

Year and Section: 3F3

Selected Content Management System: Square

I. Brief Description of the Organization

The organization consists of vendors located in Dao Waterlily Park, who specialize in crafting and selling handmade products from waterlily materials. These products, which include woven baskets, bags, home decor items, and other artisanal goods, showcase traditional craftsmanship and eco-friendly practices. The organization aims to promote sustainable living while providing livelihood opportunities for local artisans.

Business Owner: Local vendor cooperative in Dao Waterlily Park

Address: Dao Waterlily Park, Dao, Naujan Oriental Mindoro

Year Established: 2022

Services/Products: Handcrafted products made from waterlily, such as bags, home decor, accessories, and baskets

Current Promotion: Vendors primarily use social media platforms to promote their products. Platforms such as Facebook and Instagram are used to share product images, engage with customers, and showcase new collections.





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II. Current Business Processes

The current business processes in the organization are largely traditional, with a heavy reliance on face-to-face transactions and social media marketing. The steps involved include:

1. **Product Creation:** Local artisans create products by hand using waterlily materials.
2. **Product Display:** Products are physically displayed at vendor stalls in Dao Waterlily Park, where customers can browse and make purchases.
3. **Promotion:** Vendors promote their products on social media (Facebook, Instagram) by posting pictures, product descriptions, and engaging with potential customers.
4. **Sales and Payments:** Sales are mostly conducted in person, with cash payments being the most common. There is no formal online sales channel at present.
5. **Inventory Management:** Inventory is tracked manually by each vendor, with stock levels updated after sales.

Transaction Flow:

- A customer sees products on social media or visits the park.
- They browse the displayed items in the stall or inquire via social media.
- In the park, the sale is completed with cash; social media inquiries may lead to in-person visits to finalize the purchase.
- Inventory and sales are tracked manually.

III. Content Management System

The organization will adopt Square as its Content Management System (CMS) to help transition from traditional processes to a more modern e-commerce approach. Square is chosen because it integrates both e-commerce functionality and payment processing, which aligns well with the current needs of the vendors.

Justification:

- **Social Media Integration:** Square allows easy integration with social media platforms, enabling vendors to continue using their existing marketing channels while adding an online shopping experience for customers.
- **Inventory Management:** Automatic tracking of product stock as items are sold, both online and offline, simplifies manual tasks.
- **Payment Flexibility:** Square supports multiple payment options, including credit cards and mobile payments, helping the vendors expand beyond cash-only transactions.
- **Ease of Use:** Square's intuitive interface requires minimal training, allowing vendors to easily manage their online store and product listings.



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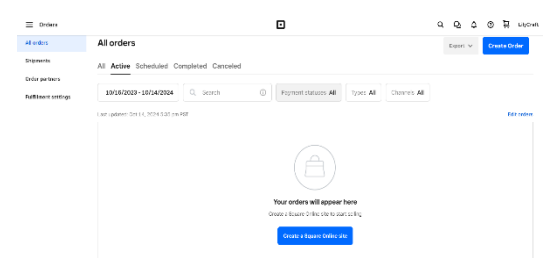
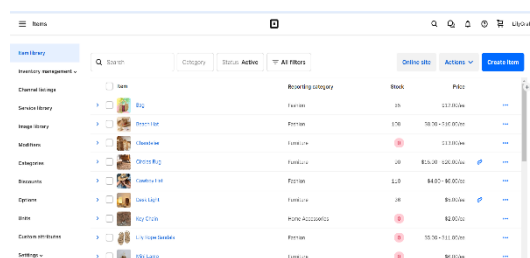
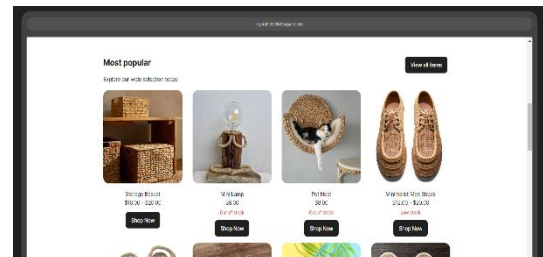
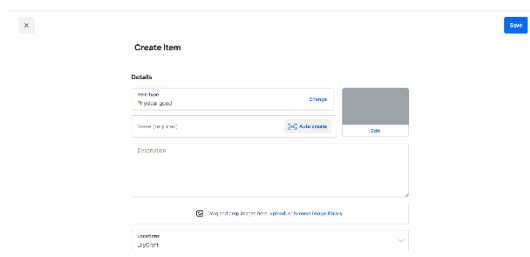
- **Mobile-Friendly:** Vendors can manage sales, products, and customers from mobile devices, enabling them to operate efficiently.

IV. Expected Output

The project will result in a full-featured e-commerce website named LilyCraft, designed specifically to help the vendors in Dao Waterlily Park sell their handcrafted waterlily products online. The expected output includes the following functionalities:

Features of the CMS:

- **Product Listing and Descriptions:** Vendors can upload images, descriptions, and prices for each waterlily product.
- **Online Purchase and Checkout:** Customers will be able to browse products, add items to their cart, and complete purchases using various payment methods.
- **Inventory Management:** Real-time updates to stock levels ensure that inventory is accurately tracked.
- **Social Media Integration:** LilyCraft will seamlessly link with vendors' existing social media accounts, enabling them to promote products while driving traffic to the e-commerce site.
- **Order Management:** Vendors will have a centralized system for processing and managing orders, including tracking shipments and communicating with customers.

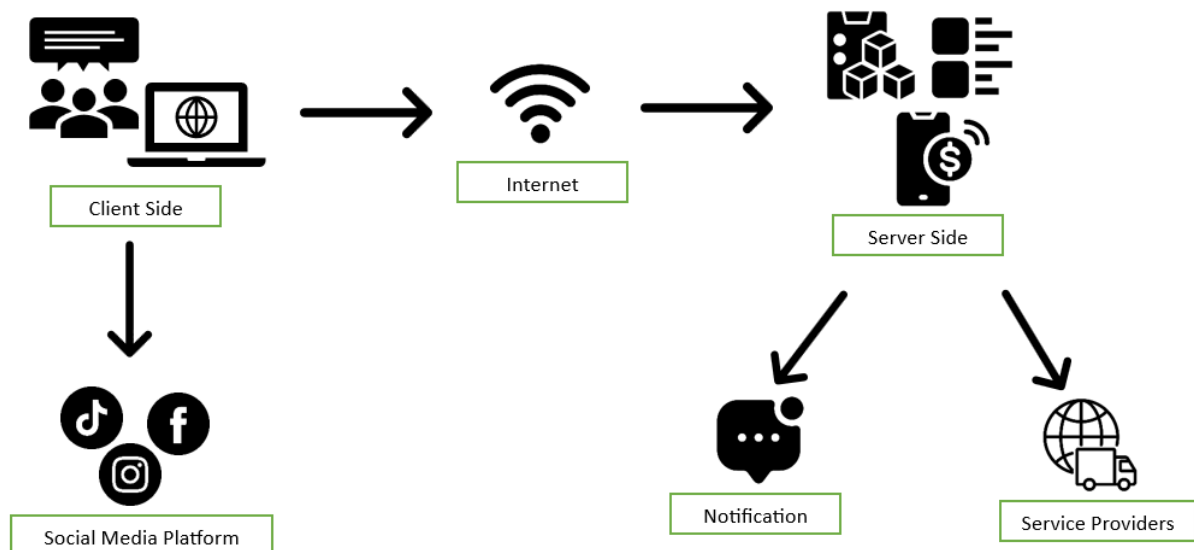


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Functionality:

1. **Product & Inventory Management:** Easily add, edit, and track product stock.
2. **Order Management:** Track orders from placement to delivery, with status updates.
3. **Payment Integration:** Secure payments through the Square payment gateway.
4. **Shipping Management:** Integrate with shipping providers for real-time delivery tracking.
5. **Email Notifications:** Automated emails for order confirmation and updates.
6. **Social Media Integration:** Link to platforms like Facebook and Instagram for easy promotion.
7. **Customer Feedback:** Allow customers to leave reviews and ratings.
8. **Sales Analytics:** Reports on product performance and sales trends.
9. **Responsive Design:** Optimized for mobile and desktop, ensuring a smooth user experience.

System Architecture:



1. Client Side:

- **Browser Interface:** Customers access the website through web browsers like Chrome, Firefox, or Safari.
- **Responsive Design:** The website is optimized to work on both mobile and desktop devices, ensuring a smooth user experience across all platforms.
- **E-commerce Pages:** These include the core pages where users can browse products (Product Listings), manage their shopping cart (Cart),



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and complete purchases (Checkout). Customers can also manage their accounts through this interface.

2. Internet (Cloud) Layer:

- The internet acts as the medium for communication between the client side and the server side. All user requests (such as viewing products or making a purchase) are transmitted through this layer and sent to the server for processing.

3. Server Side:

- Square API: Acts as the backbone for the e-commerce functionalities, handling product management, payment processing, and inventory control.
- Product Catalog: This handles the display and management of the vendor's waterlily products, allowing the vendor to update descriptions, prices, and images.
- Inventory Management: Automatically tracks stock levels and updates product availability based on user purchases.
- Payment Gateway: Processes payments securely, verifying transactions before completing orders. The gateway also handles order management, ensuring orders are recorded and tracked from purchase to delivery.

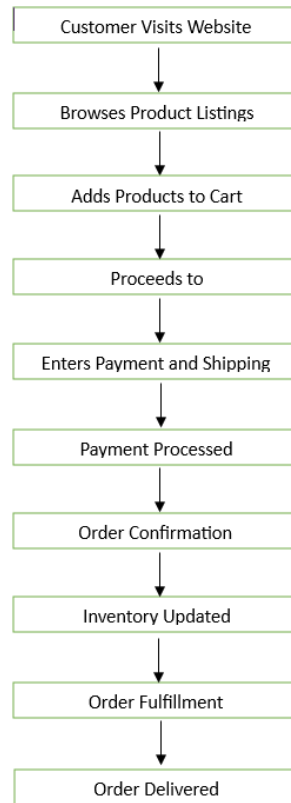
4. External Services:

- **Social Media Platforms:** LilyCraft links to platforms like Facebook and Instagram, where the vendor promotes handcrafted waterlily products. This integration allows customers to discover products through social media and directs them to the website for purchasing.
- **Email Service:** Notifications such as order confirmations and shipping updates are sent via email to keep customers informed about the status of their orders.
- **Shipping Providers:** After a customer completes an order, shipping providers manage the logistics of delivering the products. This integration ensures real-time updates for both the vendor and customer regarding shipping status.



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Flowchart:



1. **Customer Visits Website:** The customer navigates to the LilyCraft website through their browser.
2. **Browses Product Listings:** They explore the available products, viewing details like price and description.
3. **Adds Products to Cart:** The customer selects desired products and adds them to their cart for purchase.
4. **Proceeds to Checkout:** After reviewing the items, the customer proceeds to checkout to finalize the purchase.
5. **Enters Payment and Shipping Information:** The customer inputs their payment details and shipping address.
6. **Payment Processed:** The system processes the payment through the Square API.
7. **Order Confirmation:** Once the payment is successful, the customer receives an order confirmation.
8. **Inventory Updated:** The system updates the inventory to reflect the purchase.
9. **Order Fulfillment:** The order is packed and prepared for shipment by the vendor.
10. **Order Delivered:** The product is delivered to the customer, completing the transaction.



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NAME: _____

YEAR AND SECTION: _____

EVALUATION CRITERIA

| CRITERIA | EXCELLENT (4) | GOOD (3) | SATISFACTORY (2) | NEEDS IMPROVEMENT (1) | SCORE |
|--|---|--|--|---|-------|
| I. Brief Description of the Organization | Thoroughly describes all important details: Business Owner, Address, Year Established, Services/Products, with pictures. | Describes most of the important details but lacks minor information or has less visual representation. | Provides some details but lacks important information and minimal visual representation. | Incomplete or missing information, lacks clear and concise details. | |
| II. Current Business Processes | Clearly outlines different transactions with detailed steps, well-organized descriptions, and multiple relevant pictures. | Outlines different transactions with steps but lacks some detail or organization. Includes some pictures. | Describes transactions in a basic manner with few steps and minimal pictures. | Lacks clarity in the description of business processes, missing steps, and pictures. | |
| III. Content Management System (CMS) | Provides a comprehensive discussion on the selected CMS with a strong justification for its choice, including relevant visuals. | Discusses the selected CMS with a reasonable justification but lacks depth or detailed visuals. | Provides a basic discussion of the CMS with a weak justification and minimal visual content. | Inadequate discussion of the CMS or unjustified choice; missing visuals. | |
| IV. Expected Output | Clearly discusses the target output, including detailed descriptions of CMS functionality, well-crafted illustrations, flowcharts, and system architecture. | Discusses the target output with clear descriptions of CMS functionality but lacks some detail in visuals. | Provides a basic discussion of the target output, with minimal details on CMS functionality and limited visual aids. | Lacks clear discussion of the expected output, CMS functionality, and is missing key visual elements. | |
| V. Visual Quality | Uses high-quality, relevant images, illustrations, and diagrams that enhance understanding and presentation. | Uses relevant visuals that aid in understanding but lacks in quality or diversity. | Uses some visuals but they are of low quality or do not fully aid understanding. | Rarely uses visuals or uses visuals that are irrelevant or unclear. | |
| VI. Clarity and Organization | Information is well-organized, logically structured, and clearly presented for all sections. | Information is mostly organized and clearly presented with minor lapses in logical flow. | Information is somewhat organized, but sections are confusing or poorly structured. | Information is disorganized, confusing, and lacks logical structure. | |
| VII. Depth of Analysis | Demonstrates a deep understanding and thorough analysis of each section, with critical thinking and insightful observations. | Demonstrates a good understanding and analysis of each section but lacks depth or insight in some areas. | Demonstrates a basic understanding of each section with limited analysis or critical thinking. | Lacks understanding and analysis, with superficial or missing observations. | |

Scoring Guide:

- Excellent (4): Outstanding level of understanding, depth, and clarity with high-quality visuals.
- Good (3): Above average understanding, good organization, and clarity with sufficient visuals.
- Satisfactory (2): Average understanding, acceptable organization, and clarity with minimal visuals.
- Needs Improvement (1): Below average understanding, poor organization, and clarity with little to no visuals.