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RESEARCH ARTICLE

CLOUD-BASED: PURCHASE ORDER AND INSPECTION AND ACCEPTANCE REPORT MANAGEMENT SYSTEM

Wilferd Jude A. Perante, MSIT, Jomarey Z. Dacuyan, Marichelle P. Hombid and Raymart T. Magallanes

Eastern Visayas State University Ormoc Campus

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Corresponding author:
Wilferd Jude A. Perante, MSIT

ABSTRACT

Manual handling of procurement records remains a persistent challenge in many public institutions, often leading to inefficiencies, delays, and data inconsistencies. At Eastern Visayas State University-Ormoc Campus (EVSU-OC), the lack of an integrated system for managing Purchase Orders (PO) and Inspection and Acceptance Reports (IAR) has hindered operational efficiency and document retrieval. This research addresses that gap by developing a cloud-based PO and IAR management system designed to streamline procurement workflows, improve data accuracy, and enhance record accessibility. Employing a qualitative research approach, the study combined stakeholder interviews, document analysis, and user acceptance testing to inform system design and ensure alignment with institutional needs. Built using a three-tier web architecture and developed through Agile methodology, the system enables real-time PO creation, automated IAR generation, role-based access control, and secure cloud-based storage. Evaluation using the ISO/IEC 25010 software quality model, with input from twelve respondents across government and private sectors, yielded consistently excellent ratings in usability (mean: 4.93), performance efficiency (4.88), and security (4.78). Results demonstrate a significant reduction in processing time—from up to an hour per transaction manually to under ten minutes using the system—while also minimizing clerical errors and improving transparency. The system's adaptability, scalability, and compliance with public sector procurement standards underscore its value as a replicable model for other government institutions seeking to modernize procurement operations.

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INTRODUCTION

Procurement considered as one of the important elements of organizational management, also referred to as the source-to-settle process since it encompasses the evaluation, selection, and creation of formal contractual agreements as well as managing the institution's ongoing supplier relationships (Oracle, n.d). The Purchase Order and Inspection and Acceptance Report is a key part of the procurement management process to ensure that procurement transactions are well-documented, transparent, and compliant with regulatory standards. The procurement process includes sourcing, purchasing, receiving, and inspecting all the goods and services an organization needs to operate everything from raw manufacturing materials to software to office supplies. As stated by (Araújo et al., 2017), outsourcing has become a popular business strategy due to its high competitiveness. The public sector follows procurement guidelines established by Republic Act No. 9184 which is also known as the Government Procurement Reform Act. This law, as stated in Article II, section 7, emphasizes the state's commitment to fostering good governance across all levels of government, including its agencies, institutions, local government units (LGUs), and government-owned corporations. According to the Government Procurement Reform Act, procurement activities should align with the approved Annual Procurement Plan (APP) and the budget of the entity conducting the procurement (Commission on Audit, n.d.). A purchase order (PO) is an official document issued by an agency or entity that authorizes a purchase transaction for goods or services from a supplier (Sievo n.d.). The document provides necessary procurement information which includes the entity name and supplier data along with the PO number, procurement mode, delivery conditions, payment terms and item details. The purchase order serves as a contract or legal agreement between the buyer and supplier to maintain delivery compliance for their procurement policies. The acceptance of a PO creates a reference document that guides delivery verification and inspection processes. The Appendix 62-Inspection and Acceptance Report (IAR) which also a part of this procurement process is a document used to verify and confirm whether the purchased goods or services have met the correct specs or standards defined in the purchase order. The procurement process involves returning items to suppliers when there are discrepancies. This helps improve quality control and ensures that

suppliers are held accountable. The inspection officer or committee must verify the quality and quantity of received items before completing their signature and marking in the inspection section. After inspection the supply and/or property custodian confirms receipt in the acceptance section whether the delivery status is complete or partial (Manlapaz, 2025). The way we store and retrieve physical records for purchase orders and internal audit reports complicates record management. This not only slows down the procurement process but also makes it harder to find documents quickly. While proper procurement documentation is essential, Eastern Visayas State University-Ormoc Campus (EVSU-OC) faces significant challenges in managing purchase orders and inspection and acceptance reports. There is no existing system to efficiently manage the process of purchase orders and inspection and acceptance reports, such as computerizing the data entry and storing and retrieval of records. The purchase order and inspection and acceptance report are created manually through Excel spreadsheets which is a time-consuming process and can cause delays and inaccuracies especially when handling loads of POs and IARs. The physical storage retrieval method for POs and IARs creates difficulties in record management that lead to inefficient document retrieval and delayed procurement processes. To address these issues, the research develop a cloud based purchase order (PO) and inspection and acceptance reports (IAR) management system. The study aims to computerize the data entry process of managing Purchase Orders (PO) and Inspection and Acceptance Report (IARs), enhance record storage and simplify the retrieval process. The system is expected to improve efficiency and reduce processing time allowing staff to focus on other higher-priority tasks. According to Abdullahi et al., (2019), many public institutions in both the developed and developing countries have adopted digital procurement systems to mitigate the inefficiencies associated with the manual-based method such as lack of efficiency, transparency and accountability. Gamido, M. V. (2022) found that implementing a web-based procurement system can reduce processing times by up to 75% which proves the potential benefits of automation in procurement workflows. This study focuses specifically on the creation and management of Purchase Orders (PO) and Inspection and Acceptance Reports (IAR) within the procurement process and Eastern Visayas State University-Ormoc Campus. The proposed system will facilitate PO entry, computerized IAR generation upon delivery and efficient record storage and retrieval processes. The system does not handle other aspects of procurement management such as purchase request creation, BAC review and approval or final budget allocation. The implementation of this system will benefit stakeholders including supply office staff, BAC team members, property custodians and future researchers. It enables supply office staff to handle IARs with ease and makes PO data entry more efficient for BAC members also including the storage and retrieval of records. The inspector can easily access and view the Inspection and Acceptance Report (IAR) form generated from the created purchase order and the property custodian will get better supply tracking capabilities. The research findings will provide valuable references for studies aiming to enhance procurement systems in government institutions.

METHODOLOGY

The objective of this study is to develop a cloud-based purchase order (PO) and inspection and acceptance reports (IAR) management system. The study aims to simplify the process of managing the creation of PO and IAR while improving the storage and retrieval of procurement records. The research examines manual procedures to identify inefficiencies which leads to the development of a web-based system that meets the procurement and supply office requirements at EVSU-Ormoc Campus.

This study employed a qualitative research approach to gather insights into the procurement process and assess the effectiveness of a cloud-based purchase order (PO) and inspection and acceptance reports (IAR) management system. Data collection was conducted through interviews combined with user acceptance testing (UAT) procedures and document analysis. Structured interviews were conducted with stakeholders including procurement staff, supply office staff, and inspectors, to determine their workflow, challenges, and expectations for the developed system. The UAT involved selected users who tested the system in a controlled environment to provide feedback on its usability, efficiency and accuracy. The analysis of the documents focused on existing procurement records to ensure that the system aligned with institutional procurement policies and correctly duplicated manual workflow procedures. The selection criteria for documents included relevance to procurement activities, completeness of data and frequency of use in the supply office. For data analysis, thematic analysis was employed to identify patterns and recurring themes from user feedback and interview transcripts. These methods were chosen to align with the goals of procurement digital transformation which has been shown to significantly enhance transparency and efficiency in higher education supply chains (Sutawijaya et al., 2023). The process initiation involved transcription followed by familiarization where all responses were reviewed to understand user concerns thoroughly. Responses were categorized by using key themes which included system usability alongside accuracy, efficiency, and security; repetitive issues; and common feedback that were combined to recognize the major themes that highlighted system performance and areas for improvement. These themes were further validated by cross-checking multiple user responses to ensure consistency and reliability in the findings. User perceptions about how the system improves procurement processes were interpreted through the analysis of final themes. The study conducted by Gamido M. V. (2022) focused on the development and implementation of a web-based procurement planning management system which aims on simplifying the creation and consolidation of the Project Procurement Management Plan (PPMP) into the Annual Procurement Plan (APP) where it addresses inefficiencies such as item duplication, manual errors, and delays in planning. In comparison, the present study advances the procurement process further by automating the post-planning phases specifically the creation of Purchase Orders (PO) and the generation of Inspection and Acceptance Report. The system was created and built using Agile methods, the agile process supports an iterative approach, providing continuous feedback that enables team members to adapt to challenges as they come up. It also allows stakeholders to communicate regularly. The Agile approach, initially designed for software development, is now commonly applied to various project types and organizational management. Coursera, 2023. This process ensured that the system was refined based on actual needs, leading to a high-quality, user-friendly, and efficient final product.

System Architecture and Design: The web-based system has a three-tier architecture layer which is the presentation layer, application layer and data layer. The presentation layer focuses on how the system will be user-friendly or understandable to use

when creating PO's and IAR's. The application layer is the logic on how the PO's and IAR's saved to the database and how the data from the purchase order can easily fetched on generating the inspection and acceptance report, this layer also includes validation, access control, and status management for purchase orders and inspection and acceptance reports. The data layer interacts with the database side where the data is organized, and this is where the data is stored and manages all PO and IAR data. The security of the system uses hashed passwords and role-based control of each account for access permissions for a specific account type. The system uses TCPDF for printing reports and paginations to ensure good performance for the users of the system.

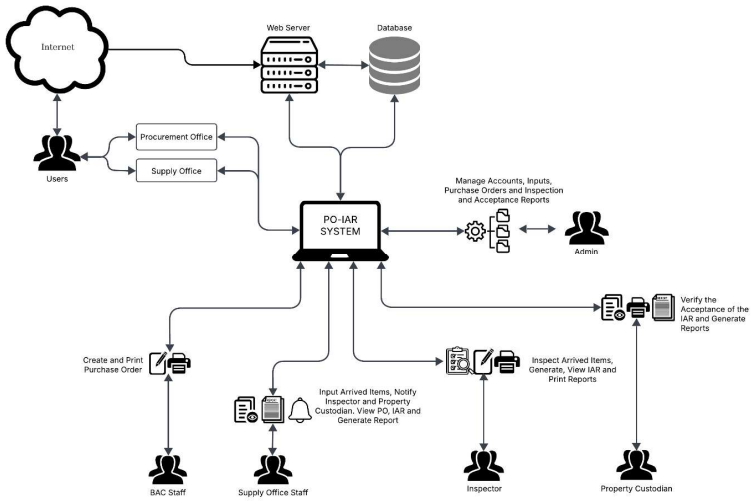


Figure 2. System Architecture

Diagrams: Figure 3 below is a use case diagram that illustrates the interactions between three user roles, procurement office staff, supply office staff, and inspector in managing purchase orders and generating reports. Procurement staff create and approve purchase orders, forwarding them to the supply office upon approval. The supply office staff then tracks the arrival of items, notifies the inspector, and manages the viewing of purchase orders. The inspector generates inspection and acceptance reports. Then the property custodian role indicates involvement in report generation and viewing, likely related to asset management. The diagram effectively visualizes the workflow and responsibilities of each role in the process

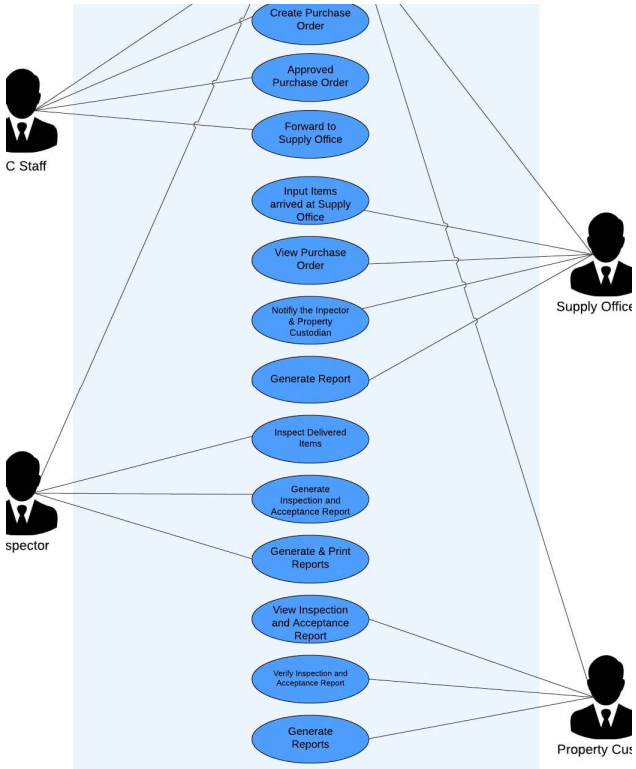


Figure 3 Use Case Diagram illustrates the interactions between three user roles, procurement office staff, supply office staff, and inspector in managing purchase orders and generating reports

Figure 4 and 5 below represents the workflow of the Purchase Order (PO) and Inspection and Acceptance Report (IAR) process where it shows how different roles interact with each other. The BAC staff begins the process by entering purchase order information to create POs. The saved PO is routed for further processing which enables printing of necessary reports. The Supply Office Staff manages item delivery after the Property Custodian and Supply Office Staff members view the Purchase Order. The

inspector performs an examination of received items to verify that they match the specified requirements. The IAR generation process begins after a satisfactory inspection result, and then the document moves to the Inspection and Acceptance Reports section. The Property Custodian and Supply Office Staff use the IAR for review purposes while reports regarding the process become available for documentation printing. His workflow ensures an organized and transparent procurement process, where purchase orders are efficiently managed, deliveries are inspected, and proper documentation is maintained for accountability.

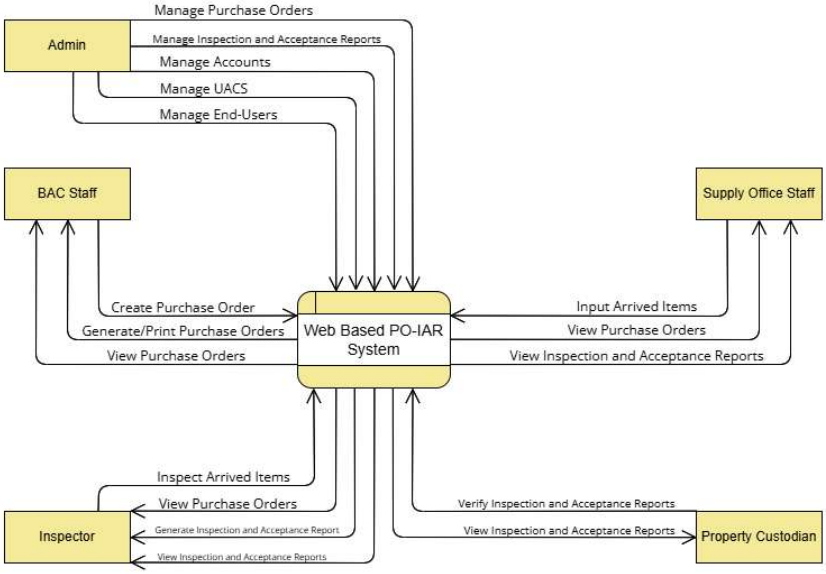


Figure 4. Shows the Data Flow Diagram level 0

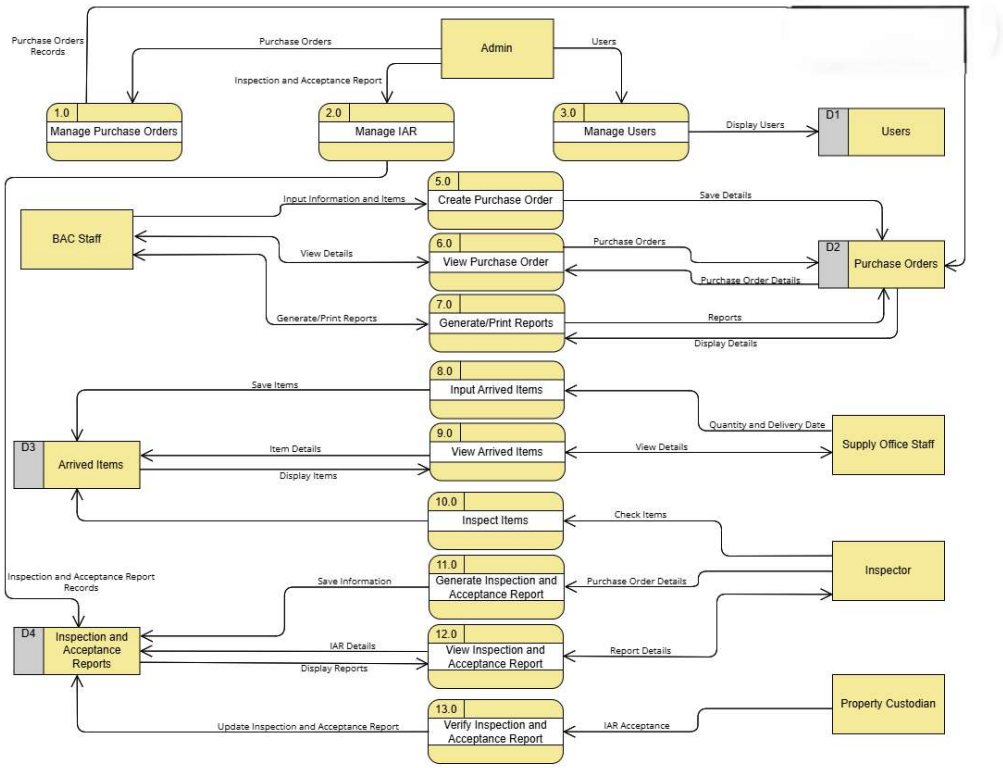


Figure 5. Shows the Data Flow Diagram level 1

Flow Charts: The flowchart in Figure 6 illustrates the overall process of a Web-Based Purchase Order (PO) and Inspection and Acceptance Report (IAR) System, beginning with user access via the Admin or Website Portal. Upon successful login and authentication, users are directed to specific dashboards based on their roles. The Procurement Office handles the preparation and processing of Purchase Orders, from pending to approval stages, and forwards them to the Supply Office. The Supply Office manages item arrivals, monitors pending IARs, and processes all IARs, including viewing details, creating, editing, or deleting records, and generating output files. The Accounting Staff validates the IARs once processed. Additionally, system administration includes account management where authorized users can create, view, and delete accounts, and manage UMACS codes (used for classifying items) by adding, editing, or deleting them. End-users can manage their personal profiles, including adding, editing, or deleting their user data. Throughout the system, various decision points ensure data validation and user confirmation, and each successful process is acknowledged with a confirmation output, eventually concluding when the user logs out or the final output is generated.

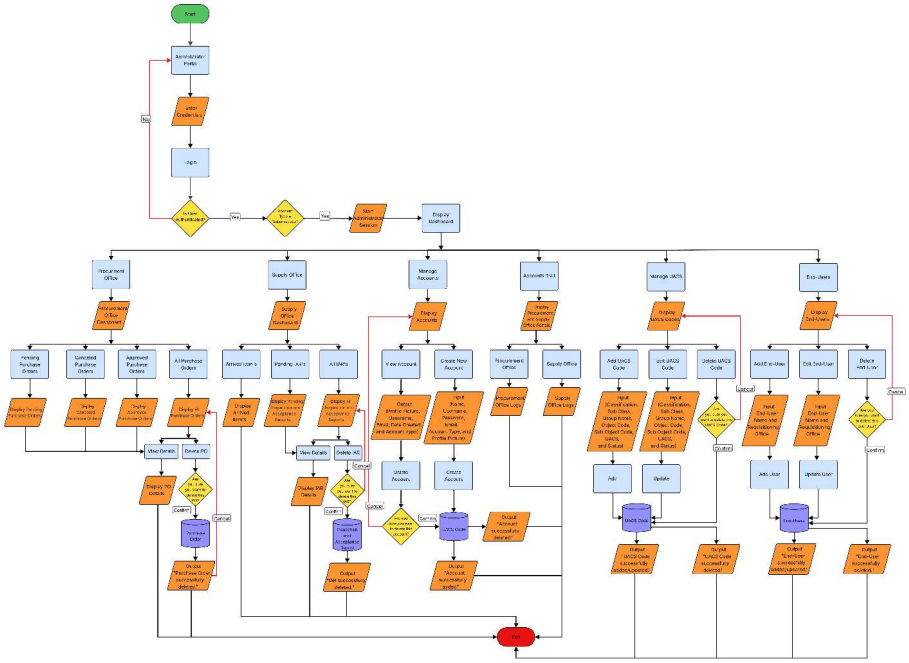


Figure 6. Admin Flow Chart

The Figure 7 the BAC staff flowchart shows how authorized users manage Purchase Order (POs) through the procurement office portal. After logging in and being authenticated as BAC staff, users access a dashboard where they can create, update, cancel, view or submit POs by entering supplier, delivery and item details. They can also view POs by status (pending, approved, canceled or all) and generate downloadable reports based on the selected filters. The process ensures data validation and confirmation at each step, ending when tasks are completed, or the user logs out.

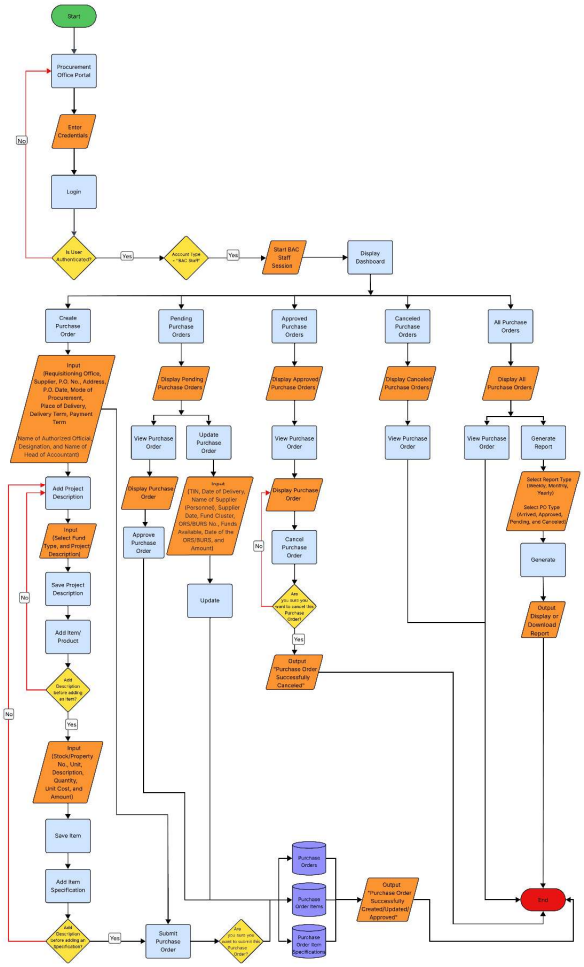


Figure 7. BAC Staff Flow Chart

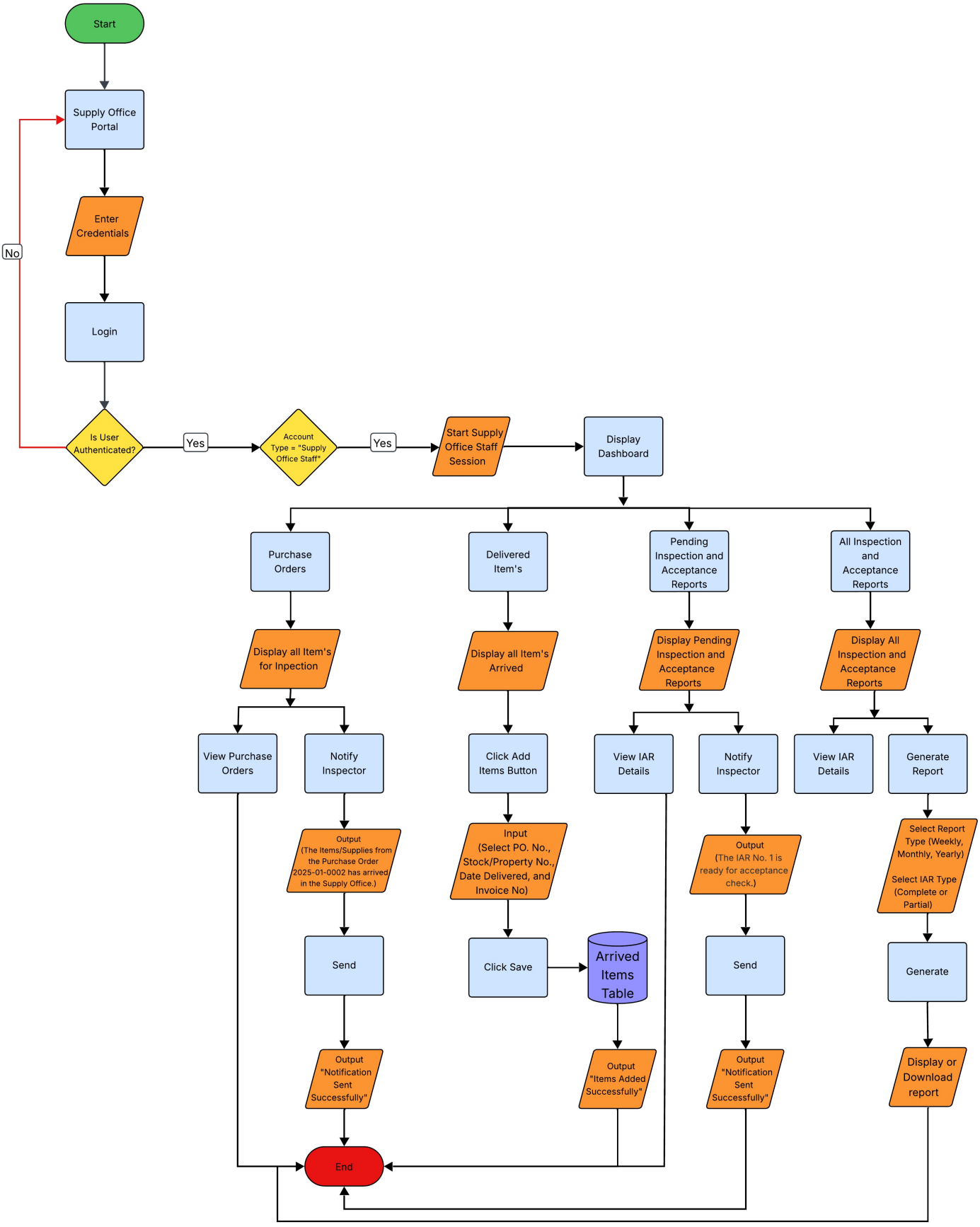


Figure 8 Supply Office Staff Flow Chart

The **Figure 8** illustrates the flow in supply office staff, where the process is managing deliveries and Inspection and Acceptance Report (IARs). After logging in through the supply office portal and being authenticated, staff access a dashboard to view purchase orders, delivered items, and IARs. The staff notify inspectors of items ready for inspection or IARs ready for acceptance. When items arrive, staff input details like PO number and delivery date to update the system. It also allows staff to generate reports by selecting the IAR type and time range. Each action leads to confirmation outputs, completing the process.

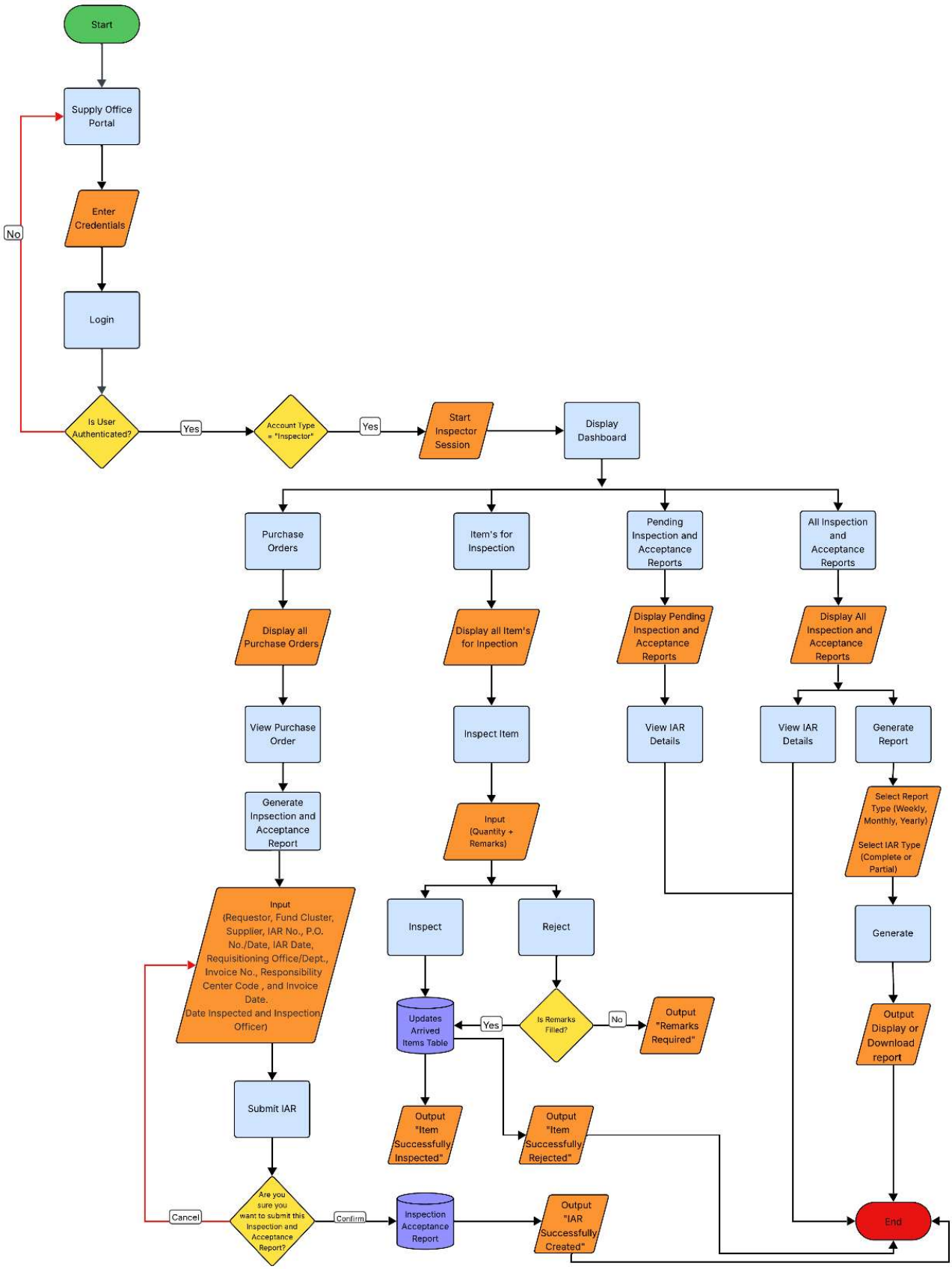


Figure 9. Inspector Flow Chart

The **Figure 9** below is the Inspector side, it focuses on the inspecting delivered items and creating Inspection and Acceptance report (IARs). Inspector can view purchase orders, Items for inspections and Existing IARs and allows inspector to inspect or reject items by entering quantities and remarks with successful actions updating the system and producing confirmation messages. The inspector can then generate and submit IARs by providing required details and may also generate report by selecting the IAR type and time range.

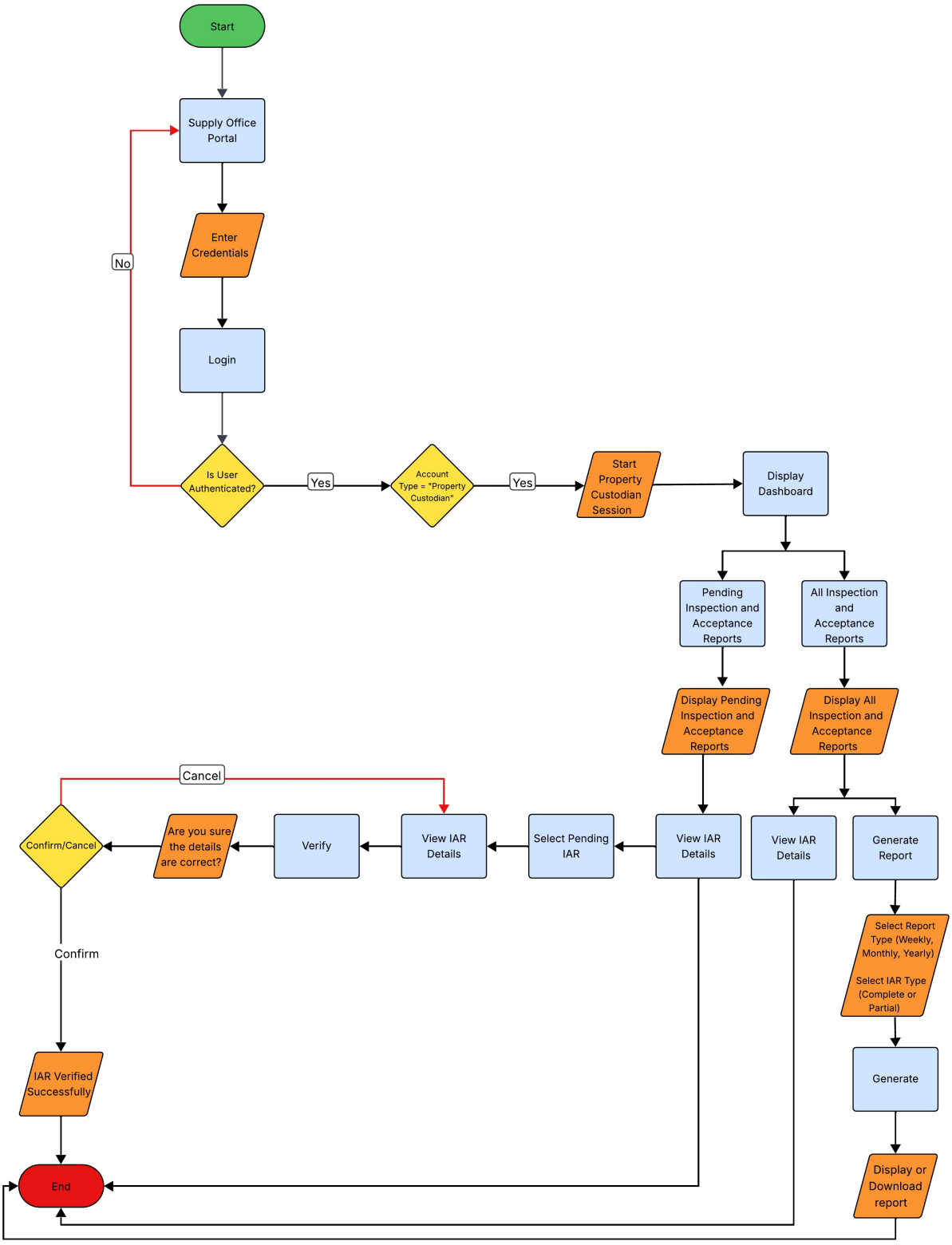


Figure 10. Property Custodian Flow Chart

Figure 10 below shows the flow for the property custodian where it verifies the inspection and acceptance reports IARs. Property custodian can select a pending IAR, view details, and verify the information. Once confirmed, the system marks the IAR as successfully verified. It allows also the user to generated reports by selecting the desired type (weekly, monthly, yearly) and IAR status either complete or partial, with the option to display or download the report. The figure shown in figure 11 shows the user profile dropdown flow which includes updating the profile photo, modifying account settings, changing password and logging out. Upon selecting an action from the dropdown, the user can upload a new profile photo, update personal details (name, username, email) or change their password. The password changes process involves validating the current password, checking for complexity and matching the new password with confirmation. If all checks pass, the system updates the user's data and outputs success messages.

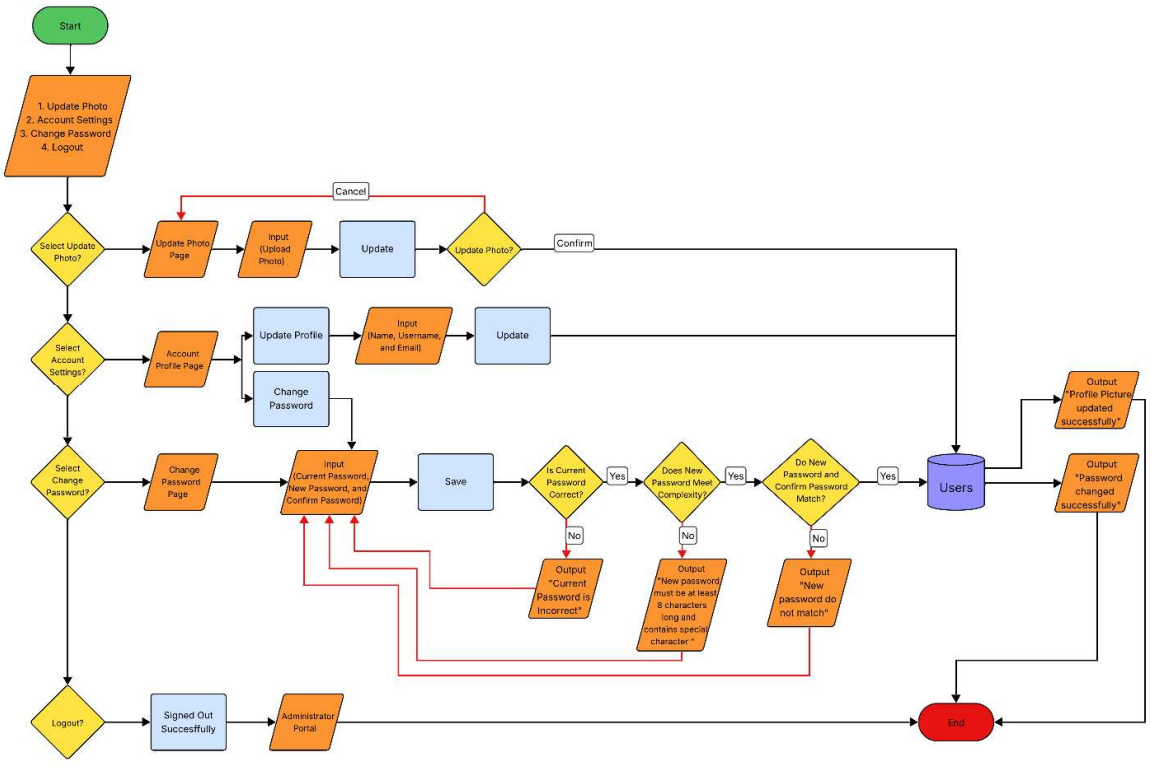


Figure 11. User Profile Dropdown

The system was designed and implemented by using a set of tools and technologies to make the system fast, scalable and easy to maintain. On the hardware side, the use of personal computers or laptops for inputting and managing data was useful in supporting the researchers monitoring and evaluation of tasks. An Internet connection was required for full functionality to allow online access to the system and the printer was also integrated into the system so that the users could print the reports, and other necessary documents required from the platform. In software, Visual Studio Code was the main code editor, selected for its flexibility and support for multiple programming languages, aiding both backend and frontend development. Web browsers were employed to test the system's functionality and design ensuring that the platform was accessible and performed well across different web environments. The backend was completed with the PHP programming language which is powerful language for server-side applications that handled complex server-side operations, which the flexibility of the system could be tested before the actual implementation. MySQL was also selected as the relational database management system to enable proper storage of data including purchase orders and inspection reports. Apache, which is an open-source web server was used to deliver content across the internet. In the frontend, HTML structured the web pages while CSS was used to style the pages for a clean and organized design. JavaScript added client-side scripting, making the platform dynamic and interactive. Bootstrap was employed to design a responsive, mobile-friendly interface that adapts smoothly to different screen sizes. By developing this project, the team used GIT for backup and storing the code so that the team can easily see the code of the system and it can be easily tracked the changes of the code made when debugging the code. For compiling the code, the team used Visual Studio Code as the development environment for the code.

Functional Requirements: The table 1 and 2 shows the functional and non-functional requirements of the developed web-based system for purchase order and inspection and acceptance report in EVSU-Ormoc Campus

Number of Participants: Tables 3 and 4 shows the number of respondents and interpretation of evaluation in the Likert scale. The system was evaluated by the total of 12 respondents, 9 end-users in Eastern Visayas State University-Ormoc Campus, 2 from the private sector and 1 from other government agency using the ISO/IEC 25010 software quality model, which provides a systematic approach for assessing functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability (Britton, 2021).

Statistical Treatment: The study used descriptive elements including frequency analysis and weighted mean calculation and ranking methods along with percentage distribution. Table 4 shows the descriptive interpretation of evaluation in Likert Scale. The Likert scale was interpreted as "5" Excellent, "4" Very Good, "3" Good, "2" as Fair, and "1" as Need Improvement. The questionnaire includes both rating scales and open-ended feedback, the data is systematically organized into tables and categories into performance suitability, reliability, portability, usability, performance efficiency, security, compatibility and maintainability that helped determine how well the system meets user needs.

Table 1. System's Functional Requirements

No.	Requirements		
1	**User Login**	Description	• Users can request an account. • Users are (admin, inspector, receiver) and they can do specific tasks.
2	**Data Entry**		• Automatically read item details from documents. • Easily fetching data's using dropdowns
3	**Email & System Notifications**		• Notify the supply office staff when there is PO approved • Notify the inspector when items are ready for checking. • Notify the property custodian when supplies are ready for acceptance
4	**Tracking and Retrieval of Records**		• Can easily search recent and past records of PO and IAR • View the history and status of items.
5	**Generate Reports**		• Generate Purchase order and inspection and acceptance reports.

Table 2. System's Non-Functional Requirements

No.	Requirements		
1	**'erformance**	Description	• The system should be fast in response times. • Should be able to handle lots of data and users without slowing down.
2	**Scalability**		• The system should be able to update to improve as the numbers of users and data increases. • Add new features without major changes.
3	**Availability**		• The system should be functional and running almost all the time.
4	**Security**		• Use strong passwords combination. • Encrypt data and have a regular security check.
5	**Usability**		• The system should be user-friendly
6	**Maintainability**		• The system should be easy to update and fix.
7			
8	**Compatibility**		• Work on various browsers and devices.

Table 3. No. of Respondents

Respondents	Population	Sample size
Procurement Staff	6	4
Supply Office Staff	5	3
Property Custodian2	1	
Inspector	1	1
Supply Officer (Private Sector)	4	2
Supply Officer (Public Sector)	3	1
Total	**21**	**12**

Table 4. Likert Scale

Scale	Range	Verbal Interpretation
5	4.50–5.00	Excellent
4	3.50 – 4.49	Very Good
3	2.50 – 3.49	Good
2	1.00 – 2.49	Fair
1	1.00– 1.49	Need Improvement

RESULTS AND DISCUSSION

System's Evaluation according to its characteristics: The system received high evaluation ratings across multiple quality characteristics from the users. Prior to system implementation, processing purchase orders and inspection and acceptance reports was time-consuming due to manual data entry and verification. On average, it took an hour maximum to finish entering data in PO depends on multiple items to be purchased that the procurement staff manually input data and verify PO details through excel spreadsheets which leads to delays, errors and inconsistencies, they retrieve past records through manually searching either the file or the physical documents which also caused time-consuming, same as in generating IARs. Table 5 shows the System's Evaluation according to its characteristics.

Table 5. System's Evaluation according to its characteristics

Characteristics	Mean	Verbal Interpretation
Performance Suitability	4.75	Excellent
Reliability	4.75	Excellent
Portability	4.80	Excellent
Usability	4.93	Excellent
Performance Efficiency	4.88	Excellent
Security	4.78	Excellent
Compatibility	4.83	Excellent
Maintainability	4.73	Excellent

With the implementation of the web-based system, based on the user evaluation shown in Table 5, It was rated Excellent across all eight characteristics which shows it fully meets the functional requirements for processing purchase orders and generating inspection reports. Usability received the highest mean score of (4.93) showing that users find the system easy to navigate and operate which significantly reduced manual effort and time spent on data entry and verification, tasks that previously took an hour are now completed in less than 10 minutes. Performance efficiency followed with a mean of was rated 4.88 it means the system has a capability to handle multiple inputs and processes with reliable speed. Other characteristics such as Compatibility (4.83),

portability (4.80), and security (4.78) also received strong ratings reflecting the system's strong performance in terms of responsiveness, protection, stability and manageable. Meanwhile, performance suitability and reliability both received a score of (4.75) which shows it meets user expectations and performs consistently. Maintainability was rated (4.73) which indicates the system's ease of updates and troubleshooting. Based on the gathered data from the private sector or in a non-government agency, their process when purchasing goods is different from a government agency because private sector is typically more flexible and simplified compared to the public sector. In the private sector, their procurement begins when a department identifies needed items, if the items are available in central supplies they are retrieved directly otherwise the process involves canvassing suppliers where at least three suppliers are considered, and the selection must be approved by the general manager. A Purchase requisition (PR) is then created and signed by the requisitioner followed by the general manager's approval. Once approved, the supplier delivers the goods after submitting necessary documents, and the payment process is handled by the accounting usually within 15 to 30 days. The supplier in return submits required documents such as the PR, PO, 2307 form (for creditable tax withholding) and the signed paperwork. Upon completion of verification and documentation the supplier provides the official receipt (OR) and sales invoice (SI), and the goods are delivered. This system allows for quicker decisions, minimal governmental steps and adaptable timelines.

Thematic analysis

Theme	Description
Ease of use / Usability	The system's interface is user-friendly, it was easy to learn and navigate without extensive training.
Time Efficiency	The automation of tasks reduced the time required to complete purchase orders and IAR's. Users reported finishing in minutes what previously took up to an hour.
Error Reduction / Accuracy	The system's auto-fill features and dropdowns selections minimized data entry mistakes, making process more reliable.
Transparency and Role clarity	Users appreciated how the system clearly defined roles and responsibilities, it improves accountability and task flow.
Improved retrieval of records	The system removed the inefficient manual method of retrieving records and allowed for quick, accurate retrieval of past records of PO's and IAR's.
Security and confidence in the system	Strong password policies and access control gave users confidence in data protection.
System stability	Users observed that the system operated smoothly even with multiple users logged in without crashes or slowdowns.
Adaptability / Future use	The system could scale or be upgraded with new features.
Impact on workload	The system helped reduce repetitive clerical work and allows staff to focus on other important tasks.

System Implementation: The table 6 shows the manual process of creating purchase order in the procurement office side by using the developed web-based system.

Table 6 Create Purchase Order Interface

PROCUREMENT OFFICE MANUAL		
User manual	**Name**	**Description**
	Landing Page	Open Web Browser and search for https//po-iar.com to login the system Select the "Procurement Office Portal" option to log in as the procurement staff.
	Login Page	Enter your username and password in the login field.

Continue …

Dashboard

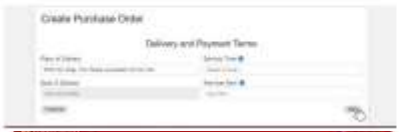
You have successfully logged into the procurement office portal. To create a Purchase Order, click the "Burger icon" and select "Create Purchase Order

Create Purchase Order Page

After you click the create button by this part you can now create the Purchase order if you done fill up the information you can proceed by clicking the "Next" button

Here, you can input the Delivery and Payment Terms.

Here, you can add the project description (e.g., Office supplies) and the items that requestor wants to purchase.



After you have done added the item on this side, it is for the supplier information and the date that supplier will deliver the item to the supply office.

In this section, you do not need to fill in any information; leave it blank. This is because the Accounting and Budget Office is not part of the Procurement Office. Instead, click the "Submit" button to proceed.

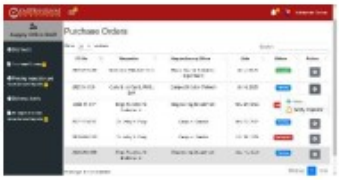
Pending Purchase Order Page

Your Purchase Order has been successfully created. You will automatically be directed to the "Pending" section to forward the Purchase Order to the supply office. At this point, click the "Action" button and select "View" to forward the Purchase Order (PO) to the supply office.

After confirming with the accounting and the authorized official gives their approval, the created Purchase Order will be forwarded to the Supply Office, click the "Forward" button to send the Purchase Order to supply office.

The table 7, 8 and 9 shows the manual process of generating Inspection and Acceptance report in the supply office side by using the developed web-based system.

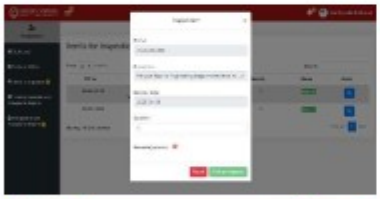
Table 7 . Supply Office Staff Manual

SUPPLY OFFICE STAFF MANUAL		
User manual	**Name**	**Description**
	Landing Page	Open Web Browser and search for https//po-iar.com to login the system and select the "Supply Office Portal" option to log in as the supply office staff.
	Login Page	Log in as a supply office staff member to notify the Inspector if an item has arrived at the supply office. Enter your 'username' and 'password' in the login fields.
	Dashboard	You have successfully logged into the supply office portal. Your role is to input the arrived items and their delivery date and to notify the inspector if items have arrived by Purchase Order and the Property Custodian.
	Delivered Item's Page	This the page where it displays Delivery Date and manage the Item's that arrived in the Supply Office.
	Add Item's Arrived	This is the modal for adding the Item's that arrived in the supply office you can add an item based on the PO Number of the Item and their delivery date and invoice no.
	Edit Item's Arrived	In this part you can manage the items you inputted where you can edit and delete an item.
	Purchase Order Page	After you have done addingan item and thedelivery date of the Item that arrived in the Supply Office you can now view the Purchase Orders.
	Delivery Details Page	After clicking "View" this will be the result. Click view so that you can view the Purchase Order and below you can see the Delivery History button.
	Notification Page	After you have done adding of the Item that arrived in the Supply Office you can now notify the Inspector and the Property Custodian for the IAR's.

continue …..

	Generate Report Page	To generate a report, click the burger menu, select "All Inspection and Acceptance Reports", and then click the "Generate Report" button.
	Logout Button	Once you're done, you can log out by clicking the profile icon and selecting "Log Out".

Table 8. Inspector manual

INSPECTOR MANUAL		
User manual	**Name**	**Description**
	Landing Page	Open Web Browser and search for https//po-iar.com to login the system and select the "Supply Office Portal" option to log in as the Inspector.
	Login Page	Log in as an inspector to generate the Inspection and Acceptance Report. Enter your "username" and "password" in the login fields.
	Dashboard	You have successfully logged into the supply office portal you can now create an Inspection and Accept Report by clicking the (View Details) of Purchase Order or the notification icon.
	Items for Inspection	You can inspect the items in this page that the Supply Office Staff inputted as arrived item.
	Inspect Item	You can Inspect the item from clicking the Inspect button and you can input the quantity, also you can add remarks and reject the Item.
	Purchase Orders	This section has a search bar to easily find old Purchase Orders and it has also status for the purchase orders to see if it is ready to be generated an Inspection and Acceptance

continue ….

	Generate Inspection and Acceptance Report	After clicking the "View" button of a Purchase Order, scroll down and click 'Generate Inspection and Acceptance Report based on that Purchase Order.'"
	Inspection and Acceptance Report Page	Now, begin generating the Inspection and Acceptance Report by filling in the required information. Once done, click the "Next" button to proceed.
	Item Details	After clicking "Next" you can see the Items that it is only inspected based on that Purchase Order.
	Verify the Item	You can verify the item to include the items when generating the Inspection and Acceptance Report.
	Inspector Conforme Page	After the inspector confirms the item is correct, click the 'Submit' button to successfully creating the Inspection and Acceptance Report.
	Successfully IAR Creation Message	Once the Inspection and Acceptance Report (IAR) is successfully created, it will be automatically forwarded to the Property Custodian for review.
	Logout Button	After successfully creating the Inspection and Acceptance Report, you can log out of your account by clicking your profile and selecting "Logout.

Table 9. Property Custodian Manual

PROPERTY COSTUDIAN MANUAL		
User manual	**Name**	**Description**
	Landing Page	Open Web Browser and search for https//po-iar.com to login the system and select the "Supply Office Portal" option to log in as the Property Custodian.
	Login Page	Log in as a supply office staff member to notify the Inspector if an item has arrived at the supply office. Enter your 'username' and 'password' in the login fields.

Continue …

	Dashboard	You have successfully logged into the Supply Office Portal as a Property Custodian. Your role is to review or check the Inspection and Acceptance Report created by the Inspector.
	Pending Inspection and Acceptance Reports	When verifying the Inspection and Acceptance Report's as a Property Custodian go to the Pending Inspection and Acceptance Reports and "View" the IAR.
	View Inspection and Acceptance Reports	Viewing the IAR, scroll down and click "Check" to review the Inspection and Acceptance Report that the inspector created.
	Verifying the Inspection and Acceptance Report	This time verify only the Inspection and Acceptance Report, click the "Next" button to proceed with checking.
	View Item Details	This time, click the view icon to see the expected items to be received.
	Expected Item Page	Click done to proceed.
	Acceptance Conforme Page	At this point, after you have finished checking everything, click the "Confirm" button to accept the Inspection and Acceptance Report.
	ConformeMessage	This part confirms that you have successfullyconfirmed the Inspection and Acceptance Report.
	Generate Report Page	To Generate Reports on the Inspection and Acceptance Reports you can go to All Inspection and Acceptance Report's Page.
	Type of Report	You can generate reports weekly, monthly, or yearly, and filter by the type of Inspection and Acceptance Report, such as complete, and partial.
	Inspection and Acceptance Reports Page	After you click the 'Generate' button, this is a sample of the printable Yearly Inspection and Acceptance Report.
	Logout Page	If you are done, you can now log out of your account. Just click the profile icon and choose "Log Out".

CONCLUSION

The implementation of the a cloud based purchase order (PO) and inspection and acceptance reports (IAR) management system has successfully achieved its primary objectives of simplifying the procurement process, enhancing accuracy, and improving data accessibility. The computerized data entry and validation significantly reduced errors and eliminated inefficiencies associated with

manual processes, providing a more reliable method for managing procurement records. Users highlighted the system's intuitive interface, role-based functionality, and enhanced data security as major improvements over the previous manual methods. The system's ability to provide instant access to current and past records addressed the challenges of delays and cumbersome searches, demonstrating a significant advancement in operational efficiency. Moreover, the user-centric design facilitated an organized and transparent workflow, ensuring that tasks were completed promptly and accurately. Feedback from users indicated that the system met and, in some cases, exceeded expectations, validating its effectiveness in addressing the identified challenges. In comparison, public sector procurement follows more structured and legally regulated process established by laws such as Republic Act No. 9184, which is also known as Government Procurement Reform Act, in government institutions like EVSU-Ormoc Campus must strictly adhere to transparency, accountability and compliance with approved budgets and Annual Procurement Plan (APP). Public procurement includes more formal steps such as compliance with standardized documentation like Purchase Order (PO) and Inspection and Acceptance Report (IAR), multiple process of approvals and strict auditing process unlike in the private sector where speed and efficiency might be prioritized, the public procurement process demands both accuracy and compliance making digital transformation and automation even more necessary to overcome inefficiencies such as longer processing times and ensure regulatory alignment.

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REFERENCES

What Is Procurement Management? | Oracle Philippines. (2022). Oracle.com. https://www.oracle.com/ph/erp/procurement/what-is-procurement/

THE GOVERNMENT PROCUREMENT REFORM ACT REPUBLIC ACT NO. 9184. (n.d.). https://www.gppb.gov.ph/wp-content/uploads/2023/06/9th-Ed.-Handbook_Sept2022.pdf

Commission on Audit - The Official Website of the Commission on Audit. (2009). Coa.gov.ph. https://www.coa.gov.ph/

Sievo. (n.d.). Purchase order process: Steps and procedures simply explained. https://sievo.com/blog/purchase-order-process-steps-and-procedures-simply-explained

Mchopa, A. D., Ismail Abdi Changalima, Sulle, G. R., & Msofe, R. M. (2024). Public procurement trajectories in Tanzania: a review of reforms, practices, and compliance. Cogent Business & Management, 11(1). https://doi.org/10.1080/23311975.2023.2300498

Manlapaz, E. (2025). *Appendix 62 - Instructions - IAR*. Scribd. https://www.scribd.com/document/622514490/Appendix-62-Instructions-IAR

Abdullahi, B., Ibrahim, Y. M., Ibrahim, A. D., & Bala, K. (2019). Development of web-based e-Tendering system for Nigerian public procuring entities. International Journal of Construction Management, 1–14. https://doi.org/10.1080/15623599.2019.1620492

Us, A. (2020). About us. *Info.buy.nsw*. https://doi.org/10/540649/static/0

Coursera. (2023, July 27). What Is Agile? And When to Use It. Coursera. https://www.coursera.org/articles/what-is-agile-a-beginners-guide

Anuncio, H. (2025). Decryption of attendance monitoring of senior high school students at Asian Caregiving and Technology Education Centers, Inc. (ACTEC) using the Zebra Crossing (ZXing) algorithm. Mindanao Journal of Science and Technology, 22(S1). https://doi.org/10.61310/mjst.v22iS1.2211

Sutawijaya, A., Firman, A., & Muktiyanto, A. (2023). Improving Higher Education Supply Chain Performance Through Procurement Digital Transformation. *Proceeding of the International Seminar on Business, Economics, Social Science, and Technology*, *3*(1). https://doi.org/10.33830/isbest.v3i1.1355

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