**Business Case**

**RAMS Corner Ticketing Service System**

**Nacor Industries**

**Humabon Place, Magallanes,**

**Makati City 1232**

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# Executive Summary

Through the cooperation of Asia Pacific College’s Information Technology Resource Office (APC-ITRO), Nacor Industries could help them improve their workflow and minimize any unwanted outcome that was prevalent before by making them an application suited more for their jobs as our client. The issue, anticipated outcomes, recommendation, and justification are provided in this report.

## Issue

Upon meeting the head of the APC-ITRO, Mr. Castillo himself has stated that it is getting “harder and more inconvenient” for him and his team to continue their work through the same method he has been continually doing, due to their limited workforce and manpower to handle the school’s issues and queries. Even though everyone could reach them through emails, he or his agents could not always afford to get back at them and reply immediately, rendering the requests or questions futile since they would only be left unattended regardless of the urgency or importance of the task at hand.

## Anticipated Outcomes

The anticipated outcome for the ITRO Client is that this software will make it easier for them to manage, prioritize, and organize the requests they will get from both instructors and students, whether they are on school premises or not.

## Recommendation

The project approach is to create a dedicated system for the ITRO so that they would be able to address the requests and inquiries as soon as possible. The first step is communicating with Sir Jojo on what the ITRO needs and how it needs to be implemented and providing our own creative ideas for it. Next step is the stage where the system is being made (UI/UX. Backend) then testing and showing it to Sir Jojo if it is satisfactory. Lastly, the debugging, retesting, and deployment of the project will be done to check if the system is doing fine. We expect the system to be satisfactory for Sir Jojo, as well as the ITRO staff and also the students and teachers that would use it.

## Justification

The project is being implemented to keep up with the modern era and for the school to be more efficient when it comes to dealing with requests and inquiries.

# Business Case Analysis Team

Nacor Industries is a team composed of six BSIT students from Asia Pacific College under the common goal of performing and delivering the best possible software experience for the client, APC-ITRO.

|  |  |  |
| --- | --- | --- |
| **Name** | **Project Task** | **Business Role** |
| Allan Vincent Nefalar | Front-end Developer | Project Manager |
| Ruth Morallos | Back-end Developer | Lead Developer |
| Kieyl Ponce | UI/UX Designer | Product Owner |
| Vincent Nacor | Documentation | Team Member |
| Patrick Cortez | Documentation | Team Member |
| Bryan Denylle Geneta | Front-end Developer | Team Member |

## 

# Problem Definition

## Problem Statement

The Asia Pacific College ITRO Department lacks a system that would help them address the school’s technical-related problems. They only use email system which oftentimes. ITRO personnel tend to miss out on the students, teachers, or staff emails regarding the problem they encountered. This might lead to a bigger problem since there are problems that need attention and action.

## Organizational Impact

The Nacor Industries’ Ram’s Corner: Ticketing System will make a significant change on the ITRO Department. Some of the changes that will immediately take effect is the current system that they are using.

Tools:

Once the RAMS Corner: Ticketing System is up and running. It will replace the old email system that the Department is currently using. This will require training for the ITRO personnel because the software is new and fresh. The training will provide much smoother work as they will navigate each button and functions continuously and they won’t need to guess the functions of a specific button.

Processes:

With the new System made, it will boost the Department’s productivity as the system will ask its users for full details of the problem they encountered. This will reduce the time of the personnel trying to figure out what the users are trying to convey. It will reduce the manual assigning of tickets as the system will automatically personnel to resolve the problem.

Roles and Responsibilities:

The department is divided into two groups. One that handles all hardware related problems and other for all software related problems. With the new system, all the ITRO personnel can focus on the fields of their expertise. In this way, the job gets to be done in a short time as the personnel who handle the problem know what they are doing resulting in a smooth resolution for the users.

Hardware and software:

The hardware will not be much of a problem as the Department already has a laptop that can run the software. As for the software needs. It does not require much, and it only needs a stable internet connection to run properly.

## Technology Migration

Since the legacy system utilized by the client is only email-based and the team’s system, RAMS Corner runs on the web on an entirely new environment, the team decided to pursue the migration through a systematic approach to avoid any conflicts regarding the ongoing processes within the legacy system (email-based reporting):

Phase 1:

* + The development team would pull a handful of the existing accounts within the project stakeholders through their APC outlook emails for isolated testing purposes.

Phase 2:

* + If the test cases were all satisfactory, then the backend developer would proceed to pull all existing accounts and build their own accounts with pre-determined credentials to be modified later by each of the stakeholders and fill the Knowledge Base with past issues raised and solved by the ITRO.

Phase 3:

* + With the acknowledgement of the ITRO Head, Mr. Jojo Castillo, the ITRO are encouraged to promote the newly developed web-application by informing their clients of its existence through pre-established communication channels such as their APC emails or through a formal press release.

Phase 4:

* + Since most inquiries sent through email are only being recorded and handled manually, the complete transfer of the already ongoing processes from emails to the RAMS Corner Ticketing Service System would not be advised, therefore, all new inquiries would be made in the web application, while the already ongoing ones are meant to be handled separately until completion. Inquiries that are sent through email, but have long been pending, however should be sent to the RAMS Corner to be handled.

# Project Overview

## Project Description

RAMS Corner Ticketing System is a web-based application that would make use of a ticketing method similar to that of Discord and other outsourcing companies that would not only help the students and teachers get an equal chance to be given audience by the ITRO, but also to provide automated questions to frequently-asked-questions through a dedicated knowledge base that would be done by surveying them before the development phase. Making troubleshooting easier and much more convenient.

## Goals and Objectives

The business objectives for this project are to direct support of our team’s strategic plan to provide an alternative work environment for the ITRO and improve their workflow efficiency.

* Complete implementation of the RAMS Corner Ticketing System within the next 90 days (about 3 months) to replace the current email-based system.
* Shorten time duration of ITRO’s interactions with their clients by 85% after the app deployment.
* Minimize the number of inquiries that does not reach the ITRO by at least 70%—within the next month after the full app deployment.

## Project Performance

The objectives which mutually support the milestones and deliverables for this project have been identified. In order to achieve success on the ISA project, the following objectives must be met within the designated time and budget allocations:

* Finish the improvement of the app’s user interface within the next 50 days (about 1 and a half months)
* Retrieve all the necessary data of the ITRO and their clients for the database within the next 60 days (about 2 months)
* Present a working prototype with at least 85% of its functions realized within the next 50 days (about 1 month and 2 weeks)
* Present the beta version of the application with all its functions intact within the next 100 days (about 3 and a half months)
* Conduct an isolated deployment of the application within the next 100 days (about 3 and a half months)
* Deploy the application for the use of ITRO and their clients within the next 120 days (about 4 months)

## Project Assumptions

Listed below are the team’s project assumptions revolving regarding the deployment of RAMS Corner Ticketing System.

* + The ITRO, as well as their clients have access to the internet through APC Rams Wi-Fi (or personal data/ISP) along with the necessary devices to use the web application.
  + The ITRO Staff would be trained in using the new web application.
  + The web application will be developed without any major technical issues or roadblocks.
  + The web-app will be deployed by the client using their resources with sufficient processing power, memory, and storage.
  + The web application will be developed within the given timeline (the entirety of PBL1).
  + The APC faculty and students would utilize the new system instead of the email-based reporting system.
  + The ITRO would properly launch and promote the new system.
  + The email notification system will work without any issues.

## Project Constraints

Listed below are the possible project constraints revolving around RAMS Corner’s design and implementation which involves—but are not limited to--the following:

* + Data Privacy
    - Upon takeover, the ITRO would be the one fully responsible for the web-application, and any other authorization regarding the APC faculty and the user’s credentials.
  + Deployment Budget
    - The development team would not ask for any form of payment, and the ITRO would be the ones in charge of the system’s deployment within their budget, along with any other preceding financial needs that the app might incur.
  + Manpower / Workforce
    - The web-application has been made with the limited manpower that the ITRO currently has, however, their lack of workforce should be dealt with to have more hands-on deck to ensure that there would always be an eye out to see the updates within the system.
  + Training / System Migration
    - The ITRO staff are bound to learn and familiarize themselves with the new system to utilize it to its fullest extent along with its features and functionalities.

## Major Project Milestones

|  |  |
| --- | --- |
| **Summary Milestone Schedule** | |
| **Project Milestone** | **Target Date (MM/DD/YYYY)** |
| * Project Idea | 03/24/2022 |
| * Project Proposal Approval | 05/12/2022 |
| * Project Management Plan Approval and Sponsor Acceptance | 07/11/2022 |
| * System Design Approval | 11/14/2022 |
| * Low/High-Fidelity Wireframe Approval | 12/13/2023 |
| * Verified Use Case Requirements | 07/25/2023 |
| * Successful Testing | 08/24/2023 |
| * Discovery and Feedback | 09/13/2023 |

# Strategic Alignment

1. The ITRO follows the following mission and objectives for each of the ITRO sub-department:

**Objectives of the Infrastructure Team:​**

1. Provide IT hardware, cloud services, technical support services, where and when needed by the members of the APC Communality​
2. Maintain the equipment ready for use by everyone.

**Objectives of the Development Team:​**

1. Develop software needed by the organization for its efficient operations.​
2. Maintain these applications to go with the times including any process changes.​
3. External environment analysis:
   * Mostly, it is the growing trend and increase in volume of the demand for cloud-based technologies.
4. Internal resources and capabilities analysis:
   * People: ITRO only has a few staff. These staff are highly skilled in terms of technology handling.
   * Process: Follows specific receive-process-deliver steps in completing a request/solving a problem. No data gathering tools are used for better decision-making.
   * Technology: Equipped with latest technology tools
5. Strategic goals
   * Launch an app that is specifically used to manage the problems and inquiries of APC Community
   * Lower the requests/inquiries that are frequently asked to the ITRO by 10% very year
   * Increase the percentage of the people who are accommodated by 20% within a year
   * Keep track of the interaction between ITRO and its clients as a basis for decision-making and for record-keeping
6. Strategic plan
   * Develop a web application that is accessible both in desktop, laptop, or smartphone, with or without connectivity issues, with an uptime of 95% a year
   * Include a library for solutions as a feature of the web app to lower the percentage of receiving redundant request
   * Create Service Level Agreement (SLA) for the problems/request raised to the ITRO according to its impact and severity to an individual, a group of individuals or the whole APC Community
   * Data analytics

By following this strategic alignment, the ITRO can leverage or improve its internal resources and capabilities to be able to manage the external environment issues and achieve the objectives of their department whilst retaining their success in providing service for the APC Community in the following years

# Cost Benefit Analysis

The cost and benefits section will provide an overview of the analysis of the expenditure versus the benefits that the ITRO can incur from the RAMS Corner: ITRO Ticketing Service System Project. The expected primary benefits will include work efficiency, transparency, accountability, and improved customer service.

Listed below are the identified specific intangible benefits that the ITRO can gain from this project:

* + - Efficient Issue Management: RAMS Corner will allow the users to submit their issues or requests, and the ITRO Staff can prioritize and address them accordingly. This ensures that all requests are properly attended to in a timely manner.
    - Streamlined Communication: RAMS Corner will have centralized communication between the APC Residents and the ITRO. Clients can submit tickets with detailed information about their issues, and ITRO Staff can respond and provide updates within the system. This eliminates the need for back-and-forth emails or phone calls (in which they are currently using), making communication more streamlined and reducing the chances of miscommunication.
    - Accountability and Transparency: Using the report generation of RAMS Corner, it will become easier to track the progress of each request, be it by the status, prioritization, or the person assigned to the ticket. The system records all actions taken on a ticket, including who is working on it and when updates were made. This improves accountability within the ITRO and allows ITRO Head to have a clear overview of the team's workload and performance.
    - Efficient Problem Resolution: By having an automated categorization and prioritization of issues based on their severity or impact, the ITRO can set service level agreements (SLAs) for different types of tickets, ensuring that critical issues are resolved immediately. This helps in managing resources efficiently and ensures that IT Staffs can focus on resolving issues effectively.
    - Knowledge Base Creation: Over time, from the ITRO’s current system (the email-based), ITRO has accumulated a wealth of information about common IT problems raised by APC Residents as well as their solutions. This can become a foundation for the knowledge base that can be used to create a library of self-troubleshooting articles or FAQs, which can be made available to both the ITRO and their clients as a resource for troubleshooting common issues. This reduces the workload on ITRO staff and empowers users to find answers to their queries independently.
    - Data-driven Insights: By using the data analytics collected within the RAMS Corner, the ITRO Head can gain insights as to what are the recurring issues, service trends, and resource requirements. This information can be used to identify areas for improvement, optimize allocation of resources, and make data-driven decisions for enhancing the ITRO Services.
    - Customer Satisfaction: RAMS Corner enhances customer satisfaction by providing an efficient customer support experience. Clients receive timely updates on the progress of their tickets, and ITRO Staff can provide better support by having access to complete ticket histories, knowledge base, and related information. This will allow them to resolve issues faster and more effectively that leads to improved customer satisfaction.

On the other hand, listed below are the expected cost that the development of RAMS Corner will incur from the ITRO:

* Planning, analysis and design, development, and implementation cost is approximately ***PHP 870,397.58***
* During the testing phase, the team will need hosting services, which will cost ***PHP 3,948.00***. Although this can be lowered or removed if the ITRO will use in-house servers in the actual deployment

RAMS Corner Ticketing System, and the team of developers behind it: Nacor Industries would be working for 21 months within the specific budget allotted for the project—RAMS Corner: Ticketing Service System as referenced in the table below:

A screenshot of a document

Description automatically generated with low confidence

Figure 2: Budget Summary

Within the entirety of the timespan attributed to the development of the project, it is important to note that the only expenses that the client—APC-ITRO—would consider will only be the salaries for each member, along with the hosting and security expenses, and the depreciation expenses. Utilities and devices used will be made from the project team’s own devices, and the work environment will be from their own homes, if not within the premises of Asia Pacific College, making it more cost-effective and beneficial for the client as opposed to hiring other professionals nor subscribing to pre-existing services available online.

# Alternatives Analysis

Upon various discussions with the project stakeholders through an agile-based methodology, the team managed to list down the following as the alternatives that have been found prior to the project development:

* Maintain Current System
  + By maintaining ITRO’s current system, this means that they would still be using their email-based reporting and inquiry method for their clients and stakeholders. It would save them from having to implement and learn to navigate a new user interface, but they would ultimately sacrifice their productivity as it will lead to stagnation.
* Subscribe to Freshdesk
  + Freshdesk is delivered as a SaaS or Software-as-a-Service that is both powerful and easily customizable by the user. This software needs little to no training to be implemented by an organization – big or small – but it does come at a price. The set of features introduced in this software focuses on helping the users maximize their worktime by utilizing the creation and organization of tickets such as the Team Inbox for tracking the incoming tickets from a multitude of channels, Agent Collision Detection to avoid having the different personnel work on the same ticket. They also include a self-service feature so that customers can solve their own problems without the need to contact a live person by using forums and articles. They also have a feature to organize the team’s tasks so that they can improve the efficiency of their work. Despite its features though, it would not benefit ITRO all that much as they are just a small organization yet the price for subscription would be $15 per agent per month, furthermore, utilizing a third-party software such as this would induce the ITRO’s lack of identity as they won’t be able to customize nor carry out their brand along with Asia Pacific College’s.

By weighing down the pros and cons of each option, the team ultimately decided to partner up with the client in order to create a tailor-made ticketing service system that would utilize their brand and identity while still providing the necessary functions to tend to their needs to save their time and finances altogether.

# Approvals

Approved by the Project Sponsor:

Date:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mr. Jojo Castillo

ITRO Head

Approved by the Project Adviser:

Date:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mr. Alvin C. Limpin

APC Professor