

**Asia Pacific College**

**School of Computing and Information Technology**

**Magallanes, Makati City**

**Public School Ranking System**

**In Partial Fulfillment of the Requirements for the subject Project Management**

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# INTRODUCTION

## **Project Overview**

## **Purpose**

To build a dashboard website wherein the team shall issue data reports of Quarterly Assessment examination results to the Region and Division Offices which will then be able to identify the strength and weaknesses of each school through the cloud.

## **Scope**

The Institutional and Student Performance Profile shall be posted in the Dashboard website and can be viewed by individual schools, divisions, and regions. The site has restricted access because it contains information that may be accessed only by authorized users. The Bureau of Education Assessment shall provide usernames and passwords to authorized personnel in regions, division, districts or schools so they can access the data viewable in the website. This project covers all public schools in Makati City who takes the Quarterly Assessment Exam. Also, this project should not be used to compare and rank schools and divisions based on the Quarterly exam results but to merely gather insights from the analysis.

## **Objectives**

To build a dashboard website wherein the team shall issue data reports of Quarterly Assessment examination results to the Region and Division Offices which will then be able to identify the strength and weaknesses of each school through the cloud.

## **Company Profile**

* + *Brief Background*

*Barangay Don Bosco belongs to the Municipality of Parañaque and was formerly part of Barangay La Huerta. It was created as a barangay by the Virtue of Presidential Decree No. 1322 that took effect on April 3, 1972. Currently, Barangay Don Bosco handles 20 subdivisions.*

* + *Mission*

*Through SIPAG ay PAG-UNLAD serve Bosconians effectively and efficiently to the fullest of abilities, to implement rules and regulations, create partnerships for political, social, cultural and economic development moving towards a harmonious life with God, man and nature.*

* + *Vision*

*Barangay Don Bosco to be a home of God fearing Bosconians living peacefully and orderly. A friendly environment with feeling of belongingness, free from crimes and poverty, cooperative, religiously participating for a progressive barangay.*

## **Problem Statement**

* *Manuel process in handling daily transaction such as:*
* *Processing requests for permits, barangay clearance, etc.*
* *Processing residents’ payments for community tax dues, professional tax, barangay clearance fees, etc.*
* *Filing incident report.*
* *Adding, updating, and searching barangay records*
* *Residents need to go to the Barangay Office to inquire requirements or fees, and to get forms for Barangay Clearance, Business Clearance, Community Tax Certificate, etc.*
* *List of requirements are attached in front of the form*
* *Residents will only know the total fee once processed or inquired*
* *Barangay Announcements are usually done by distributing a memorandum to the head of each area under the barangay. The head of each area are the ones responsible to announce it to the residents which is usually done using megaphones and tarpaulins.*

**Ishikawa Diagram (Fishbone Diagram)**

**A screenshot of a cell phone screen with text

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## **Project Overview**

*Barangay Don Bosco handles twenty (20) subdivisions, and has ten (10) employees assigned in the Administration/Treasury Department. This department manages mainly the issuance of clearances, permits, and certificates.*

* *Automated Business Processes*
* *Assessment and Tracking Feature. Assessment and Tracking Feature. Residents will be able to track the status of the requested document and be notified for release along with the breakdown of fees to paid before going to the barangay.*
* *Incident Reporting. The system can automate the filing of incident reports to by letting the concerned people file through the system which will be further be investigated by the officials. This will help the peace-keeping council to have a more efficient way to record the incident reports.*
* *Records Management*
* *Residents Profiling. CRUD (Create, Read, Update, Delete) to keep the residents’ profile updated.*
* *Household Records. The system will be able to record the household profile which can help identifying if a person is a resident or transient. It also uses CRUD (Create, Read, Update, Delete) to keep the household information updated as possible.*
* *Business Records. The system will have a record for business information. It also uses CRUD (Create, Read, Update, Delete) to keep the business records updated as possible*
* *Barangay Officials. The system will have a record of barangay officials who have been elected in the past until present.*
* *Reports. With the use of the other features of BDBMS, the system will be able to generate reports such as Barangay Profile, Socio-Demographic Profile, Residents’ Census Information, etc.*
* *Forms and Clearances. Availability of digitized forms (with the list of requirements) such as Barangay Clearance, Barangay Business Clearance, Community Tax Certificate, etc.*
* *Residents will have the decision to either download and print the forms; or*
* *Fill forms online and send it with scanned requirements with the use of the mobile applications*
* *Barangay Announcements. This feature that can help update the community about upcoming barangay activities. Also, announcements such as road construction/re-blocking, etc., will be included.*

## **Goals and Objectives of the System**

|  |  |  |
| --- | --- | --- |
| GOALS | DESCRIPTION | OBJECTIVE |
| Organize Records | Records are computerized and stored in a database | To easily search and access needed records and information |
| Incident Reporting / Community Feedback | Residents can send a picture and reports using the mobile application. This will be received by the barangay for them to act. | To raise awareness between the barangay and the community when it comes in security. Also, the barangay officials will know the sentiments of the people. |
| Digitized Forms and Automated Transactions | Forms are available for download and can be filled-up and sent online. The status of requested documents can be tracked, and the user will be notified if the document is ready for release along with the breakdown of fees to be paid. | To provide accessibility of barangay services to the community and prevent long queues and waiting. |
| Barangay Announcements | Official Barangay Announcements regarding barangay projects, meetings, road construction/re-blocking, etc. | To keep residents updated on the things happening in the barangay and lessen the work of announcing through megaphones/roaming. |
| Barangay Analysis Reports | Resident Profiles, Household Records, Barangay Profile, Socio-Demographic Profile, Residents’ Census Information etc. | To help the officials have statistical and analysis reports that will be used to plan future projects and events for the barangay. |

## **Assumptions, Constraints, Risk**

|  |  |  |  |
| --- | --- | --- | --- |
| **ASSUMPTIONS** | | | |
|  | **Technology** | **People** | **Process** |
| **Assumption 1** | “Name of the system” must have an internet access of at least 8.5mbps for them to access the system and use it efficiently | The users must be a computer literate in using the system | The system’s processes must be consistent with the department |
| **Assumption 2** | “Name of the system” must be equipped with the required hardware requirements | The people who are going to use the system must be authorized personnel in the Department. |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **CONSTRAINTS** | | | |
|  | **Technology** | **People** | **Process** |
| **Constraints 1** | The system will no longer be accessible without internet connection | Storing, Retrieving and Updating records will only be managed by authorized staff of the Department. |  |
| **Constraints 2** | The hardware shall meet the minimum requirements to run the system | The major stakeholders of the system should undergo a proper training to cope with to the system’s functionalities |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **RISK** | | | |
|  | **Technology** | **People** | **Process** |
| **Risk 1** | The internet bandwidth should be upgraded to cover larger volume of users | There should be a skilled personnel to maintain and support the system | The system records must be updated to match the department’s analytic procedures. |

# STAKEHOLDERS MANAGEMENT STRATEGY

## **Purpose**

The Stakeholder Management Strategy will serve as a stepping stone for the project success. Through this, the team may identify the significance of each role and for the team to know what to display in the dashboard of each authorized personnel to avoid comparison and ranking of schools and as well as to implement data privacy.

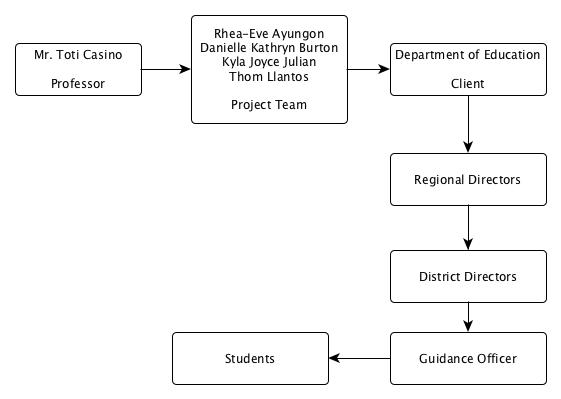
## **Stakeholder Analysis**

The team identified the following who will be involved in the project regardless of its state of significance. The team created a table to identify their position and project role. The team analyzed the list of stakeholders based on the Power/Interest Grid wherein:

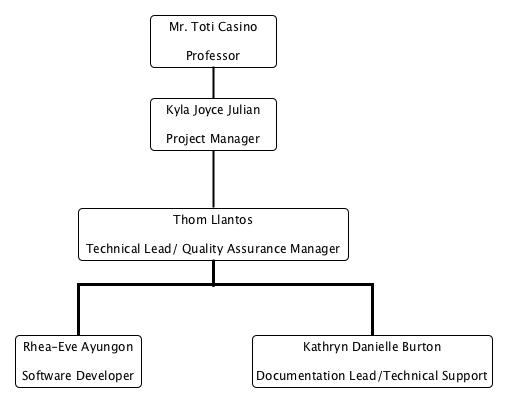
* High Power/Low Interest – the team should be able to meet their needs;
* High Power/High Interest – the team considers them as the key players;
* Low Power/Low Interest – the team considers them as least important because they are affected in minor ways; and
* Low Power/High Interest – the team should be able to show consideration to them by keeping them informed about the project.

# PROJECT ORGANIZATION

## **External Structure**



## **Internal Structure**

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## **Roles and Responsibilities**

|  |  |  |
| --- | --- | --- |
| NAME | ROLES | RESPONSIBILITIES |
| Kyla Joyce Julian | Project Manager | * Responsible for managing and leading the team * Monitor project progress and performance * Manage coordination with the team and client to ensure if the organization’s requirements are being fulfilled * Detailed project planning |
| Rhea-Eve Ayungon | Developer, Quality Assurance and Control Analyst, Integration Manager | * Analyze client requirements * Works with lead developer to ensure system compatibility and meet organization’s requirements * Responsible in ensuring the quality of the end product and its process * Responsible in system integration |
| Kathrine Danielle Burton | Database Analyst, Documentation Lead | * Researching and examining current system and consulting users * Responsible in training the users and perform adequate support * Ensuring the security of databases and perform maintenance to guarantee the system’s performance * Responsible in documenting different phases of the project |
| Joneil Thom Llantos | Lead Developer, Database Coordinator, Quality Assurance and Control Coordinator | * Programs software and writing of operating manuals * Works with system developer to ensure the system compatibility and meet organization’s requirements * Modifying and testing comprehensively the system to ensure the reliability of it * Undertake on system processes and analysis * Apply feasible solutions to possible problems |

# MANEGERIAL PROCESS PLAN

## **Start Up Plan**

### Estimates

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **WBS** | **Phase** | **Time Estimation (Days)** | **Participants** | **Estimated Cost** |
| 1 | Project Initiation | 14 | Project Manager; Project Developer; Documentation Specialist; Graphic Model Designer; System Designer; Quality Assurance Analyst; Stakeholders |  |
| 2 | Planning | 26 | Project Manager; Project Developer; Documentation Specialist; Graphic Model Designer; System Designer; Quality Assurance Analyst |  |
| 3 | Project Designing | 4 | Project Manager; Project Developer; Graphic Model Designer; System Designer |  |
| 4 | Project Development | 50 | Project Manager; Project Developer; Documentation Specialist; Graphic Model Designer; System Designer; Quality Assurance Analyst |  |
| 5 | Project Closing | 8 | Project Manager; Project Developer; Documentation Specialist; System Designer; Quality Assurance Analyst |  |
| **Estimated Total** | |  | | |

### Staffing

### Procurement Plan

### Project Staffing Training

## **Work Plan**

### Work Breakdown Structure (WBS)

|  |  |  |
| --- | --- | --- |
| **LEVEL 1** | **LEVEL 2** | **LEVEL 3** |
| **A+ Ranking**  **System** | 1. Initiation | * 1. Input quarterly assessment Results into the machine   2. Business Case   3. Determine Authorized Personnel   4. Stakeholder Management Strategy   5. Conduct interview with DepEd representative |
| 1. Planning | * 1. Identify Project Scope   2. Create Project Scope Management Plan   3. Conduct Meeting with DepEd Representative to finalize details   4. Create Quality Management Plan   5. Identify which medium to display quarterly assessment results |

### Resource Allocation

## **Project Tracking Plan**

### Requirements Management

### Schedule Control

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### Budget Control

### Quality Control

### Communication Plan

### Project Metrics

## **Risk Management Plan**

## **Project Closeout Plan**

# TECHNICAL PROCESS PLAN

## **Process Model**

## **Methods, Tools and Techniques**

|  |  |
| --- | --- |
| **SYSTEM DEVELOPMENT** | |
| **TOOL** | **TOOL PURPOSE** |
| Sublime Text Editor | developing, debugging and testing program codes |
| phpMyAdmin | handle administration of system's database (MySQL) with the use of a web browser |
| Github | repository for version control system |
| Google Chrome | served as a platform to display system's output |
| XAMPP Application | platform used to process and send request from the user specifically in system's implementation within the environment |

|  |  |
| --- | --- |
| **DOCUMENTATION** | |
| **TOOL** | **TOOL PURPOSE** |
| Microsoft Word 2016 | for documentation purposes |
| Microsoft PowerPoint 2016 | for presentation purposes |
| MySQL Workbench | creating Entity-Relationship Diagram (ERD) design to facilitate the system's database |
| yED Graph Editor | used in making quick and effective diagrams high quality diagrams (eg. Data flow Diagram (DFD), Context Diagram (CD), Entity-Relationship Diagram (ERD)). |
| ProjectLibre | for creating Gantt Chart |

## **Product Acceptance**

To ensure that the customers will accept the product of the project. First will be tested by the developers (alpha test) after bugs are determined and fixed for three iterations. The product of the project will be opened for beta testing. Here are other ways to ensure product acceptance:

* There will be demonstrations for the users to understand and learned the mechanics of the product.
* User manuals will be given to users, which will serve as a guide on how to use the product.
* The deliverables and product was properly reviewed, tested or audited by the team.

# SUPPORTING PROCESS PLAN

## **Configuration Management**

The Configuration Management Plan covers all the progress and changes in each documentation made by each member of the group and system made by the software development group. The Project Manager of the group is responsible for checking baseline plans and execution of the Configuration Management Plan made by all members of the group.

## **Documentation**

## **Process Improvement**

# COST MANAGEMENT PLAN

## **Cost Breakdown**

|  |  |
| --- | --- |
| CATEGORY | TOTAL COST (Php) |
| Project Development | 442,608.00 |
| Hardware | 142,796.00 |
| Software | 0.00 |
| Miscellaneous | 8,000.00 |
| TOTAL | **PHP 593,404.00** |

## **Cost Reference**

According to payscale.com, A Project Manager, Information Technology (IT) earns an average salary of PHP 926,656 per year. So if given the instance that this project is workable in 3 months. The total pay for the project manager alone would be PHP 231,664. Then the team is composed of three developers. The average pay for a Project Developer is PHP 252,919 per year. The total pay for the three project developers would be PHP 189,689. The team have to work with desktop computers or laptops. As for us, a laptop will be more convenient since we can carry it around. The price of a laptop posted in Lazada.com is PHP 35, 699.00. The model is Asus X540UP-DM020T. With the specs of:

|  |  |
| --- | --- |
| **OS** | Genuine Windows 10 Home Single Language (Recovery OS Intact) |
| **Processor** | Intel Kaby Lake Core i7-7500U Ultrabook Processor (2.7-3.5GHz) |
| **Dedicated Graphics** | 2GB Dedicated AMD Radeon R5 M420 |
| **Integrated Graphics** | 2GB Total Intel HD Graphics 620 |
| **Memory** | 4GB DDR4 Memory 2400MHz |
| **Hard Disk** | 1,000GB HDD (5400 RPM) |

The total cost for the laptop is 142,796.00. The technologies that are being used are all open-source. The budget for miscellaneous would go around PHP 8,000.

## **Budget Summary**

The project will be completed on roughly four (4) months from defining the needs of the client up until to the implementation and installation of the new system. The project team will be working comprehensively eight (8) hours a week to finish the weekly task assigned to them.

|  |  |
| --- | --- |
| CATEGORY | TOTAL COST (Php) |
| Project Development | 363,685.37 |
| Hardware | 145,470.00 |
| Software | 0.00 |
| Miscellaneous | 7,449.00 |
| TOTAL | **Php516,604.37** |