

Republic of the Philippines

**Polytechnic University of the Philippines**

**Department of Information Technology**

Santa Maria, Bulacan campus

1st Semester, School Year 2018 - 2019

**Web-Based Voting System for Student Council and Organization Elections**

**Bachelor of Science in Information Technology**

Program

Instructor

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Proponents

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BSIT 4-2

1. **Project Title**

**WEB-BASED VOTING SYSTEM FOR STUDENT GOVERNMENT**

**AND ORGANIZATION ELECTIONS**

1. **Project Overview**

Over the years, part of the Mater Dei Academy’s curriculum in developing its students into well-rounded individuals is involving them in extra-curricular activities such as Student Government and other academic as well as non-academic clubs and organizations. This aims to develop the potential and skills of students as leaders in different organizations, who in turn, may become future leaders in the different aspects of society.

This project intends to solve the project beneficiary’s problems in their current system of voting, which is done manually by using paper ballots and manual counting of votes. Here, the proponents are suggesting the use of a web-based voting system as a replacement for the manual voting system which has been the method that the school has been employing ever since they started conducted elections. A web-based application/system, as defined by Wikipedia, is a type of client-server computer program that runs through a browser, either from a mobile phone, laptop or a desktop PC.

Having a voting system done in a manual fashion has its disadvantages. First, the method is quite costly because the school needs to print ballots every year since the names of the candidates in the yearly elections are dynamic. Secondly, the results are prone to fraud because the ballots can be tampered, and the vote counts can be manipulated. And lastly, counting the votes tend take a lot of time because they are counted manually, as compared to the proposed system, which can display the results way faster than the manual method.

By applying the use of modern technology, the proponents believe that it will greatly ease up the school’s election process and make it more secure from any fraudulent activities pertinent to the election, ensuring also the confidentiality of the choices of the voters.

1. **High-level System Components**

The proposed voting system has two sides which will also define the type of its users, the Admin side and the Client side. The Admin side contains the modules that are necessary for the creation, monitoring,

* ADMIN-SIDE APPLICATION
* CLIENT-SIDE APPLICATION

1. **Application Architecture**

The project is using the three-tier network architecture, which is composed of the presentation or client tier, business logic tier, and the database tier. The presentation or client tier is what the end-users will see and access while the business logic tier is the one that does the processing of the inputs (i.e. registration and votes), and the outputs (i.e. election results) before being transmitted back to the presentation tier. Meanwhile, every data or information that needs to be stored or retrieved is taken care of by the database tier. It serves as the storage for all the data and information that has been entered in the system, which of course, must be kept secure in order to ensure the integrity of the election results and the safety of the information of those people whose data/information are in the database.

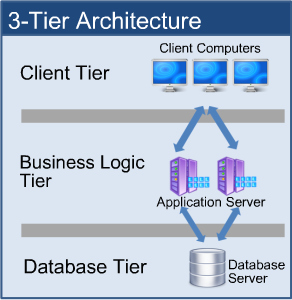


Figure 4.1 Web

1. **Hardware and Software Specifications**
2. **Tools and Technologies Used**

The application tools, which are to be used on front and back end of the system to be developed, should be listed. The reasons for these tools should also be enlisted including the host (or development) platform(s), target platform(s), and programming language(s) to be used.