

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 of Mater Dei Academy**

**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 OF MATER DEI ACADEMY**

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. However, 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.

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.

By applying the use of modern technology, the proponents believe that it will greatly ease up the school’s election process. Since the students will not be required anymore vote inside a classroom and have their classes interrupted as well as helping them to secure their rights to privacy when they are voting, because this proposed system will enable them to vote anywhere as long as they are using a smartphone or PC that has an internet access. Furthermore, it will make their voting more secure from any fraudulent activities pertinent to the election (i.e. tampering of ballots, vote count manipulation etc.)

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, and managing the election(s), as well as managing the records of voters and accounts of administrators. On the other hand, the Client side is the one that will be utilized by the voters. They will be able to vote, manage their password as well see the results of the election when the canvassing is done.

* ADMIN-SIDE APPLICATION
* CLIENT-SIDE APPLICATION

1. **Application Architecture**

The project is using the Enterprise Web Based Architecture as defined by the Woodger Computing Inc., which utilizes the following logical layers: Client Layer, Presentation Layer, Business Logic Layer and the Data Layer.

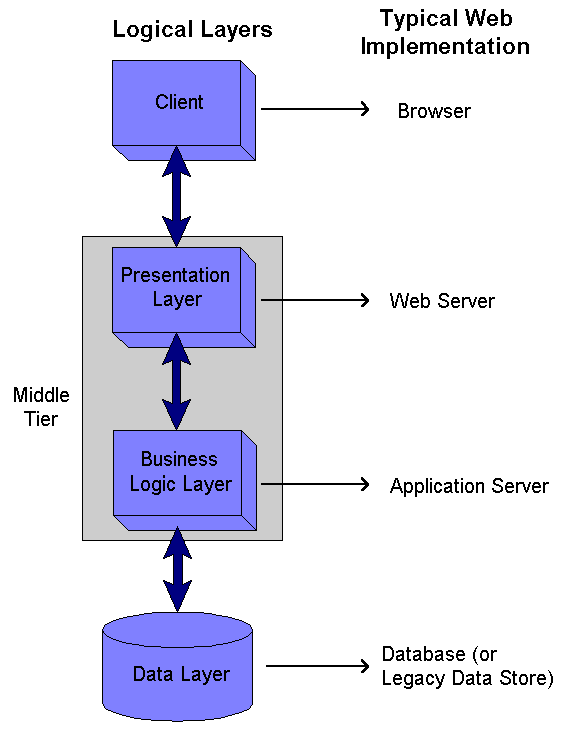


Figure 4.1 Architecture for an Enterprise Web Based Application

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.