**NUEVA VIZCAYA STATE UNIVERSITY**



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**COLLEGE OF INDUSTRIAL TECHNOLOGY**

Information Technology Department

**CASA ALL'INTERNO LA SCUOLA: Online Dormitory Reservation and Monitoring System**

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Chapter I

**The Problem and Its Background**

**INTRODUCTION**

The existence of computers has had a significant impact on every aspect of human life in today's modern civilization. Our society has benefited greatly from the computerization of practically all jobs because it allows for the quick completion of all tasks that require information. The advancement of one's life has been greatly aided by computer technology. The majority of businesses, corporations, and institutions evolved their usage of such technology to aid themselves in working more effectively with less time and effort, improving productivity, profit, and customer satisfaction. The development of a computer system is one instance of computer technology.

It is not a secret that the current trend in today's society is internet browsing, which has grown and classified as necessity for daily living. There are organizations that uses internet as the backbone of their every transaction.

One of the top universities in the nation is Nueva Vizcaya State University. Students can get educational services from the university, and residents of Nueva Vizcaya can enroll in extension programs. The university serves as a research center for a variety of academic disciplines. Numerous managerial tasks are carried out within the university. One of the key management tasks is the allocation and arrangement of student housing, which is done as part of the management operations at Nueva Vizcaya State University. There could be a difficulty with the management of the dorms in this process. In order to discover, assess, and perhaps address those issues, the team started this project

We researchers have proposed the study “CASA ALL'INTERNO LA SCUOLA: Dormitory Online Reservation and Monitoring System” that will make the application for reservation more easily, accurate, faster. The study also removes the “paper-based system” and replaces it with a computerized system. It can also help both dormitory manager and students to make ease of ever transactions possible.

**Project Context**

The state institution known as Nueva Vizcaya State University was founded in 1997. One of the most reputable colleges in the region. since it first began to run

The Dormitory of Nueva Vizcaya State University is using the traditional way of managing and

Ones the new system is implemented, firstly proctors and proctor managers are benefited from the system in such a way that the quality and performance of their work is improved, the time they spent for manual operation is significantly reduced and their management and control of their job is improved. Secondly students are not expected to be in campus to know about their dormitory information. That is, once the allocation report is generated by the system, the system provides an interface which enables the students to know about their dormitory information, about academic colander and some academic announcements and finally they submit their personal information through the Internet

The project context of any proposal not only gives an introduction to your project but it also builds up a justification process to help the donor agency convince as to why it is important to start this project and how can your organization resolve the ‘problem in question’ by implementing the proposed activities. In this sample proposal, you will see that the context and justification process has been broken up into 3 parts: ‘The Challenges’, ‘The Opportunity’ and ‘Why Now?’ It is a wonderful way of drawing attention of the reader and also give enough reasons as to why you require this funding to implement the project.

**Purpose and Description**

This project is initiated to develop system, as a final year project for completing a study of B.S. Degree in Computer Science and IT. The team is organized to develop a web-based Dormitory Management System which will enable the project team to get B.Sc. Degree in Computer Science and IT.

**Objectives of the Project**

The main objective of this project is to develop a new Web-Based Dormitory Management System which solves the above-mentioned problems with the existing system. This is achieved by designing a web-based application program that will change the actual manual processing to a computerized environment.

**Scope and Limitation Of the project**

Any system has its own set of capabilities and boundaries. CASA ALL'INTERNO LA SCUOLA is a web-based system that can optimize the application process for possible tenants of Nueva Vizcaya State University

This project is limited only to those activities and operations related to the dormitory management which the team is intended to deal with. The project is limited to developing the web-based dormitory management system.

**Definition of Terms**

**MVC**- also known as Model-View-Controller is nothing more than the integration of three components: Model, View, and Controller. The Model component of the MVC, as its name suggests, contains the application data that is required, the View component is used to display data and control actions, and the Controller component serves as the link between the Model and View components. It is a well-known alternative for systems with numerous views of large amounts of data to quickly change it.

**Web Application** – A web application is a computer software that executes a certain task using a web browser. Web apps

**Tenants** - are individuals with the right to use and occupy a rental property under a rental agreement or lease

Chapter II

**Review of Related Literature and Systems**

Each institution has a unique system that enables quick and efficient information processing. The student dormitory management has always been a crucial component of school management work, and it should be enhanced and made better as the size of students has progressively grown. As a result, the amount of student information is becoming increasingly large. This is undoubtedly for the schools with large student information storage to offer a practical and effective mode of operation, so that individuals from the heavy data processing and maintenance out of relief, replaced by a friendly interface, the design of a very user-friendly front Application, the user will feel very easy to operate (Jingxiu, 2017).

The administration procedure is still carried out manually at our universities using paper-based applications that students must print, fill out, and submit to the residence

offices. It presents a challenging situation because the registration procedure, in some ways, takes longer to complete from beginning to end. Students from remote locations who can't get to the dormitory will struggle to find a suitable place to stay where the reapplication procedure might take place.

To have an effective management system, the development of the Dormitory Information and Management System should support the student's online admission, payment, and booking process as well as the staff's ability to control and manage integrated programs or activities in accordance with a predetermined schedule.

Presently most of schools have reinforced students, such as strict execute work attendance, student dormitory checking at district division signal language of danger and so on, however, bring exceptionally numerous working pressures can for like this keeper of school, efficient isn't high yet, and need to leave a lot amount of manpower financial capacities, the factual work is huge. What's more, in the urgent need to understanding's students lead, each do not have a kind of effective means or instrument all by linking up work and the life that has had a strong impact on teacher with teacher yet as the parents of student, and the head of a family is the work that is difficult to cooperate school (Renqiu Vocational and Technical Education Center, 2013).

At present, dormitory management of many primary and secondary schools or colleges is always an important part in campus management. In the traditional management mode, a school teacher or a student can make post-checking statistics on the lodging situations of students in each dormitory, but the mode is slow in efficiency and does not reflect the situations in the dormitory in real time. In order to improve the post checking mode, some colleges and universities supervise students by installing and monitoring in the dormitories of the students, and the existing dormitory management system has the defects of low intelligent level, inconvenience in use and low working efficiency (Renqiu Vocational and Technical Education Center, 2021).

The target of the study application is to foster a web-based residence framework for improving Software Quality and Reliability is valuable for applications created in an association. This study can be utilized for decreasing issues of the students against an application/module, allocating quarters to people and tracking issues of the students (Mothe, KK. Soraguni, R. Vakity, 2015).

**Technical Background**

**What is Laragon?**

Laragon is a portable, isolated, fast & powerful universal development environment for PHP, Node.js, Python, Java, Go, Ruby. It is fast, lightweight, easy-to-use and easy-to-extend.

**What is Laravel?**

Laravel is a free and open-source PHP web framework,[2] created by Taylor Otwell and intended for the development of web applications following the model–view–controller (MVC) architectural pattern and based on Symfony. Some of the features of Laravel are a modular packaging system with a dedicated dependency manager, different ways for accessing relational databases, utilities that aid in application deployment and maintenance, and its orientation toward syntactic sugar.

**What is MariaDB?**

MariaDB is a database. MariaDB is very similar to MySQL (a database management system) and, in fact, a fork to MySQL. The MariaDB database is used for various purposes such as data warehousing, e-commerce, enterprise-level features, and logging applications.

**What is PHP?**

PHP is a server-side and general-purpose scripting language that is especially suited for web development.

**What Is a Webserver?**

A webserver is software run by your website hosting provider so that visitors can view the web pages on your site.

Chapter III

**Development Methodology**

The team has employed the following fact-finding strategies in order to obtain precise data from the client. The team has spoken with some students and dormitory administrator about the services provided to them and the issues related to the environment in order to gather background information and fundamental facts about the current management system. On-the-job observation: In this instance, the team was responsible for implementing the online reservation for tenants, updating reports and data entry forms related to the management process.

**Requirements Analysis**

**Requirements Documentation**

**Design of Systems**

The first step is to identify Actors and use cases associated with the system. The following table specifies the actors and use cases that a group member have identified with in the proposed new system. The table also describes use case descriptions associated with the corresponding use cases.

The second step is to construct the use case model which graphically depicts the interaction of the system with the external environment. The following figure specifies the use case model of the system.

The third step is to document each of the above use case courses of events to determine the requirement use cases as described in the following section.

**Implementation Plan**

The Implementation of CASA ALL'INTERNO LA SCUOLA: Dormitory Online Reservation and Monitoring System will take place at Nueva Vizcaya State University. A Server, An Access Point is needed to implement this kind of project

The Nueva Vizcaya State University will use the CASA ALL'INTERNO LA SCUOLA in Bambang Campus. The implementation and installation of the server will take place at the CAS building, where the university's server room is located, an access point will the students must access in order to access the configured and CASA ALL'INTERNO LA SCUOLA.