**THE ESSENCE OF HAVING ONLINE LOCAL SERVICES SYSTEM:**

**E-BARANGAY DOCUMENTS PROCESSING AND ISSUANCE PORTAL**

**OF**

**ICCT COLLEGES FOUNDATION, INC. (Antipolo Campus)**

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A Capstone Project and Research

Presented to the Faculty of the College of Computer Studies

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In Partial Fulfillment of the Course

Requirement in System Analysis and Design

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**E-BARANGAY**

***Documents Processing and Issuance System***

**EXECUTIVE SUMMARY**

E-Barangay Portalis an online service portal which aims to ease the processing and issuance of documents needed by local residents in a municipality subdivided into Barangays. E-Barangay Portal serves as a gateway for a hassle free transaction.

Instead of personally going through their specific barangays to request and process their documents, E-Barangaygot it all. From creating their own personal accounts, residents can fill out their personal information online for easier registration to requesting documents online which notifies personnel real-time, thus providing quicker processing and issuing of documents like Barangay Clearance, Certificate of Indigence, Certificate of Residence, Barangay Certificate and other relevant documents.

**Outcomes**

* Short term: During this transition from Pandemic Period to the New Normal Period, it is highly vital that we still promote less crowd and social distancing to prevent cases from spiking up again.
* Intermediate term: It shortens waiting time for issuance of documents and promotes usage of online platforms as we divert into the development of technology and internet to ease our needs.
* Long term: This may serve as a portal passed through generations to develop in the future and is a potential solution to save time and money spent on going back and forth for processing and requesting documents.

**The Problem**

In 2020, the Philippines had 17 administrative regions, 33 highly urbanized cities (HUCs), 108 component cities, five independent component cities, and 1,488 municipalities and as of this date, our population is 112,002,351 with approximately 67 million adults according to Statista Research Department in 2021.

With the current population, the observance of residents per municipalities going to barangay to request and process documents result to long lines and overcrowded people especially through peak events.

With these being said, it is crucial to build a website portal that would provide an easier way to attend to requests simultaneously instead of just relying manually to limited barangay staffs and/or personnel for queries, requesting and issuing of documents.

**The E-Barangay Solution**

The Design

Using PHP as our main programming language and Laravel as our framework, we aim to build a simple, user-friendly interface that will enable users to register, login, request documents, track their requests and choose from a variety of payment options in an all in one website portal for barangay documents processing and issuance.

The Research

The internet became widely available in the Philippines in 1994, which led to a slowly developing internet savvy consumers in the country. In 2020, the number of internet users in the country grew to approximately 79.7 million people, accounting for more than half of the total population. The digital population mostly belong to the age group of 16 years old and above.

During this digital age wherein almost everything can be found on the Internet, we must use it wisely, efficiently and accordingly. As Internet is widely used now in the Philippines, it would be much easier for our fellow citizens to adjust to upbringing E-Barangay Portal which would be adaptive for use.

The Implementation

Implementing E-Barangay Portal tackles the old way barriers of processing and issuing documents one by one to improving and developing a local service system by targeting all the possible needs by local residents on specific Barangays. Thus, leading to a more diverse process and management of documents and providing an online database system for admin, barangay personnel and users.

**ACKNOWLEDGMENT**

The success of this project would not have been possible without the gift of knowledge and skills from our **ALMIGHTY GOD** who gave strength, determination and ideas to the researcher to conduct this project. Likewise, the researcher wishes to extend their profound gratitude and appreciation to those who generously extended their support and assistance for the accomplishment of this study.

We would like to express our gratefulness to our dear adviser **ROMMEL DASALLA** whoprovided patient advice and guidance throughout the research/projectprocess.

Secondly, we also would like to give special thanks to our friends and classmates who gave us their unending support making his project possible and showered us with word of encouragement and enthusiasm.

Finally, to the Researchers’ Family, in helping us to pursue this study as well as in giving us love, care and undoubted support during the process of grasping this research project. Thank you for your unwavering support.

-The Researchers

**APPROVAL SHEET**

This capstone project proposal entitled: “E-Barangay Documents Processing and Issuance Systemof ICCT COLLEGES FOUNDATION, INC. (Antipolo Campus)” is prepared and submitted in partial fulfillment of the requirements for the course Capstone Project and Research 1 (CAPSTONE 1) by Emmanuel S. Balisalisa, Neil Alexis P. Faustino, Jaslen T. Magalong, Judito B. Rosco and John Paul V. Tanion, has been examined and is recommended for acceptance and approval.

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Accepted in partial fulfillment of the requirements of the course

Capstone Project and Research 1.

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*VP for Academic Affairs*

**DEDICATION**

**This study is wholeheartedly dedicated to our beloved parents, who have been our source of inspiration and gave us strength when we thought of giving up, who continually provide their moral, spiritual, emotional, and financial support.**

**To our professor Mr. Rommel Dasalla, this research project won’t be complete without you. Thank you for guidance and motivation throughout the whole process.**

**To our brothers, sisters, relatives, mentor, friends, and classmates who shared their words of advice and encouragement to finish this research, this would not be possible without all of your support and help.**

**Above all, we dedicated this book to the Almighty God, thank you for the guidance, strength, power of mind, protection and skills and for giving us a healthy life. All of these, we offer to you.**

**TABLE OF CONTENTS**

**LIST OF FIGURES**

**LIST OF TABLES**

**LIST OF NOTATIONS**

**CHAPTER 1:**

**THE PROBLEM AND ITS BACKGROUND**

**1.1 INTRODUCTION**

The Local Government Unit or LGU particularly comprising of Barangay Hall Offices are responsible for a variety of significant things interrelated with the local residents and citizens. The needs to serve each residents in a fair manner is a vital responsibility of Barangay personnel. As time goes by, the population in the Philippines increases dramatically which can affect the quality of services our barangay office can offer specifically in document processing and issuance.

As a response to improving the current system we are using which is the manual method, we have therefore proposed a research that will enable us to create a system we have named “E-Barangay Portal” – with the help of this system, we can easily make a transaction to our barangay office using the latest technology we had today without going through the same hassle of manually requesting and processing documents.

The E-Barangay Documents Processing and Issuance System has a great significance for both residence and the village office, from its functionality where every residing individuals can have their record virtually and enable them to process relative documents like Barangay Certificates and other documents that the system is able to provide.

Devising an E-Barangay Portal is a great advantage in terms of time, modernization and money. Whereas, it can save a large amount of time since everyone don’t need to go personally to specific Barangays and end up in a crowd of people to fall in line.

Additionally, the system is designed to be simple and user-friendly and at the same time maintains its security by engaging users to authentication of their login credentials beforehand. Thus, E-Barangay Portal prevents costly damage brought by data confidentiality and data accessibility.

Moreover, E-Barangay aims to help in the transition of COVID-19 pandemic period to the New Normal period by lessening crowds of people going at the same time to specific barangays and this would timely uphold social distancing as well.

The proponents who choose this unique idea of creating E-Barangay Portal prove that the existing way of processing Barangay documents can be upgraded, with the help of technology and the Internet, the services can possibly be faster and easier than the old manual process.

The modern barangay system will help overcome many limitations which aggravates time consuming process of directly going through Barangays. Since technology is fast arising and people are quickly coping up with modernization of technology and Internet, E-Barangay Portal aims to adapt and develop a system that is precise and conducive to our fellow citizens and local residents.

**1.2 PROJECT CONTEXT**

Technology has long became an essential part of our daily lives. Nowadays, most people rely on using technology and the Internet for almost everything whether it be for communication, gathering information, news and current trends, socializing, ordering food online or in application, online shopping and many more. What is noticeable is that the use of the Internet as an online platform to process and request local documents for requirements and personal uses are not much of attention but is highly needed and vital for fellow citizens and local residents.

In the Philippines, there are some government websites that can be used to register an account and request an appointment, but it doesn’t ease the transaction since we are still required to visit the branch personally and even have to fall in line most of the times which is a lot of hassle for many. The same goes with our municipalities and barangays.

Often, local residents have to first go through the Barangay to request documents before being able to head to government offices that require specific documents like Barangay Clearance, Barangay Certificate, Certificate of Residence and other necessary documents to further proceed to their application.

This has become the motivation for us to conduct this research and build a system wherein local residents have the option to process and request barangay-issued documents online through a website we proposedly entitle as “E-Barangay Portal” which will serve as an easier and hassle-free way for the issuing of documents that even provides an option for delivery or ready to pick up document which reduces and even diminishes the need to visit personally.

**1.3 PURPOSE AND DESCRIPTION**

This research aims to conduct and convey the Essence of having Online Local Services System that gave way for the proponents to intend E-Barangay Portal as a website that mainly focuses on giving assistance to local residents and fellow citizens to easily request, process and get their relevant documents. In addition to this, E-Barangay also intent to control the crowd per barangay coming personally to get their required documents.

The system will automate the processes and transactions in the barangay. Most of the barangay use manual approaches in assessing daily transactions. The proposed research and system would let barangay personnel to process requests online and keep track of transaction records in an online database where it is easily accessible and more secure in terms of data loss and data consistency.

E-Barangay Documents Processing and Issuance System will not only benefit local residents but Barangay personnel as well. This is in relation to the provision of a more systematic user-friendly system that handles requests, transactions, records and accounts whether it be for personal accounts of local residents, for barangay personnel or administrator of the proposed system in case there are any updates and maintenance needed.

Concluding this forward as we continue to strive for a better and hassle free transactions moving forward to the New Normal Period alongside with what technology and the Internet can offer, our E-Barangay proposed system attenuates the necessity of local residents walking in to process and request documents as well as barangay personnel issuing documents manually or one by one.

**1.4 OBJECTIVES**

The Online Local Services System aims to develop a multi-functional online system that will aid in an easier and more effortless way of transacting Barangay documents as well as the security of documents and records for Data Security, Data Confidentiality and Data Accessibility for the advantage of both local residents and barangay personnel or employees.

**The research also aims to:**

* Provide the barangay residents an easier access in filing, requesting and printing of documents such as Cedula, Certificate of Indigency, Business Permit Documents and such documents that can only be obtained by physically visiting the Barangay Hall.
* Secure barangay office records with a database and organized filing of barangay records to keep track of the most vital documents to maintain.
* Introduce a more systematic and easily accessible system to the barangay office employees that offers a modernized way of document creation and distribution in order to lessen expenses and workloads.
* Create a safer and less crowded workplace for Barangay Personnel by reducing the number of arriving guests and residents that visits the barangay hall amidst the pandemic.

**1.5 SCOPE AND LIMITATIONS**

**SCOPE**

**RESIDENT ACCOUNT**

* Local residents can register an account into the website portal and can access their account by logging in using their email and password.
* E-Barangay Portal provides an email verification before users can successfully login into their account to confirm, backup and secure their account.
* E-Barangay Portal verifies their submitted Valid ID’s for confirmation of their residence or address.
* Local residents would be able to request Barangay-issued documents such as Barangay Certificate, Barangay Indigency, etc.
* Local residents have the access to update or cancel their requested documents given that the status of requested document is still pending.
* Local residents have access to view and track their requested documents.
* Local residents that proceed on the online request have to upload a receipt as proof of their payment depending on their preferred payment channels.

**ADMIN AND STAFF ACCOUNT**

* Admin and Staff can access their account by logging in using their email and password.
* Admin and Staff can manage requested documents and modify status of the requested documents.
  + Approved - The document will be available for pickup, download (if applicable depending on the type of document) or delivery (depending on the address)
  + Completed - The document has been issued and claimed.
  + Cancelled - Requested document has been cancelled.
* Admin and Staff have access to manage the records of E-Barangay Portal.
* Generation of records with a variety of format such as PDF and Excel, as well as printing of records.
* Filtration of records
  + - Filter by resident
    - Filter by status
    - Filter by date such as daily, monthly, yearly and custom date
* Admin and Staff are able to view and approve the receipt of residents who have submitted a proof of payment.
* Admin has the access to view and monitor other admin accounts.
  + Create a new admin account
  + Update an admin account
  + Deactivate an admin account
* Admin has the access to view and monitor staff or personnel accounts.
  + Create a new staff account
  + Update a staff account
  + Deactivate a staff account
* Admin has the access to view and monitor the resident accounts.
* Deactivate a resident account
* Admin has the access to view and monitor available requested documents.
  + Create new available requested documents
  + Update available requested documents
  + Remove available requested documents

**LIMITATIONS**

* The E-Barangay Portal is not capable of third party payment process that automatically redirects to various payment channel apps and generate automatically into the portal’s payment database.
* The E-Barangay Portal won’t load or process if there is no internet connection.