Software Requirements Specification

for

e-Munisipyo: A web-based Request Managements Information System

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

e-Munisipyo: A web-based Request Managements Information System is a system that is intended for Citizens of Nasugbu Batangas. It is significant to them because it will help them to get public documents that they need in the easiest way. Researchers**,** this study provides learning experience that will surely enhance the researcher's skill that can help them in the future. Future Researchers**, t**his study could help them as reference if they were conducting research related to the study.

The 30% range of this system project is, it already has the Admin and Super Admin login interface. Our system has three (3) users. The Admin, Super Admin and the user. The login interface of the system Admin will direct to the homepage of e-Munisipyo. The login interface of the Super Admin will also direct to the homepage of e-Munisipyo. The User homepage interface will be the choices of different public documents that will be acquired through the system and will direct to the information filling form.

1.1 References

- https://www.fortinet.com/resources/cyberglossary/tcp-ip#:~:text=TCP%20stands%20for%20Transmission%20Control,data%20and%20messages%20over%20networks.
- https://whatis.techtarget.com/definition/Web-server#:~:text=A%20web%20server%20is%20software,over%20the%20World%20Wide%20Web.

- https://www.cloudsavvyit.com/1535/what-is-laravel-and-how-do-you-get-started-with-it/#:~:text=How%20Does%20Laravel%20Work%3F,ve%20made%2C%20that's%20your%20model.

2. Overall Description

2.1 Product Perspective

The system provided a public online service to the citizens of Nasugbu Municipality, it is amid the Covid-19 pandemic to avoid social gathering and be able to follow the community health protocol in a public place like Municipality and to lessen the burden of frontline service personnel.

2.2 Product Features

Module 1: Admin Homepage

Module 2: Approved and Decline user request

Module 3: User Homepage

Module 4: User Information Filing Form

Module 5: User Document Status

2.3 User Classes and Characteristics

The user of the system will be for transactional only. The user will request a document through the system then pay for it in order to claim the document.

2.4 Operating Environment

The system to be developed is a web based system with mobile view. It requires Internet connection to perform a transaction in requesting public documents. The system is compatible with Windows operating systems.The system will be for Governmental and community use only. It will be deployed through web hosts and also to the government offices that are included from the system's document scope.The needed software in developing e-Munisipyo: A web-based Request Managements Information System are listed below.

- PHP
- CSS
- SQL
- Bootstrap
- Visual Studio
- Sublime text Editor

2.5 Design and Implementation Constraints

The system is having difficulties in layout design, the layout doesn't fit at the actual homepage of the system. Data privacy is also one of the toughest tasks in developing the system because it might be attacked by the intruders because the system security is hard to implement through the system.

2.7 Assumptions and Dependencies

The system will be having third parties in the payment area, the developers are planning to implement gcash as a payment method of the system but it is still undecided by the team members, so implementing gcash as a payment method will be soon to be decided.

3. System Features

3.1 User Front Page

3.1.1 Description and Priority

- Users can choose documents they want to request, can check if it is approved or declined and if it is done and ready to pick-up.

  -Birth Certificate

  -Death Certificate

  -Marriage Certificate

  -Cedula

  -Amilyar

3.1.2 Stimulus/Response Sequences

- click the “Birth Certificate” button, then the user information filing form will pop-up.
- click the “Next” Button, then the verification form of the user’s input will pop-up, ensuring that the information is spelled correctly.
- click the “Next” Button, then the Parent’s information form will pop-up.
- click the “Next” Button, then Place of Birth’s information form will pop-up.
- click the “Next” Button, then the system will ask the user what is the purpose of the request.
- click the “Next” Button, then the message dialogue box will pop-up saying that the document will be processed ahead of time once it's paid.

3.1.3 Functional Requirements

The Users, specifically, the citizens of Nasugbu have to access the website first. On the front page of the system, there are three responsive buttons; “ Request now” button, if the user wants to request a document. Users can only request most used and one-day process documents like Birth Certificate, Death Certificate, Amiliar, Cedula and Marriage Certificate. The system will ask for User’s necessary information. After providing the Information and making sure that all information is correct the user can now submit the request. There’s also a “Track request” button just in case the user wants to know the status of their request. The payment method button is also provided for the payment options and developers also provide a Contact Us button that contains information of the developers. So that, users can easily contact them just in case they have questions and it is also necessary for business purposes. After submitting the request, the user will just have to wait to receive a notification about the status of their request, if it is done and ready to pick-up.

REQ-1: Notice of availability of each document

REQ-2: Modal for groupings of related fields and buttons for each document.

REQ-3: Information that will come from the users.

3.2 Admin Home page

3.2.1 Description and Priority

- Can manage a user's request, approve or reject the request and provide a reason why it has been rejected.

3.2.2 Stimulus/Response Sequences

- Click the “Manage Request”button, then the request list will pop-up and will choose whether it is approved or rejected.
- Click the “Approved”button, then the system will notify the user that their request has been approved and will be processed ahead of time.
- Click the “Reject”button, then the message dialogue box for the reason why it is rejected will appear and once it's done the system will notify the user that their request has been rejected along with the reason why it is being rejected.

3.2.3 Functional Requirements

REQ-1: Privilege to access the user’s information

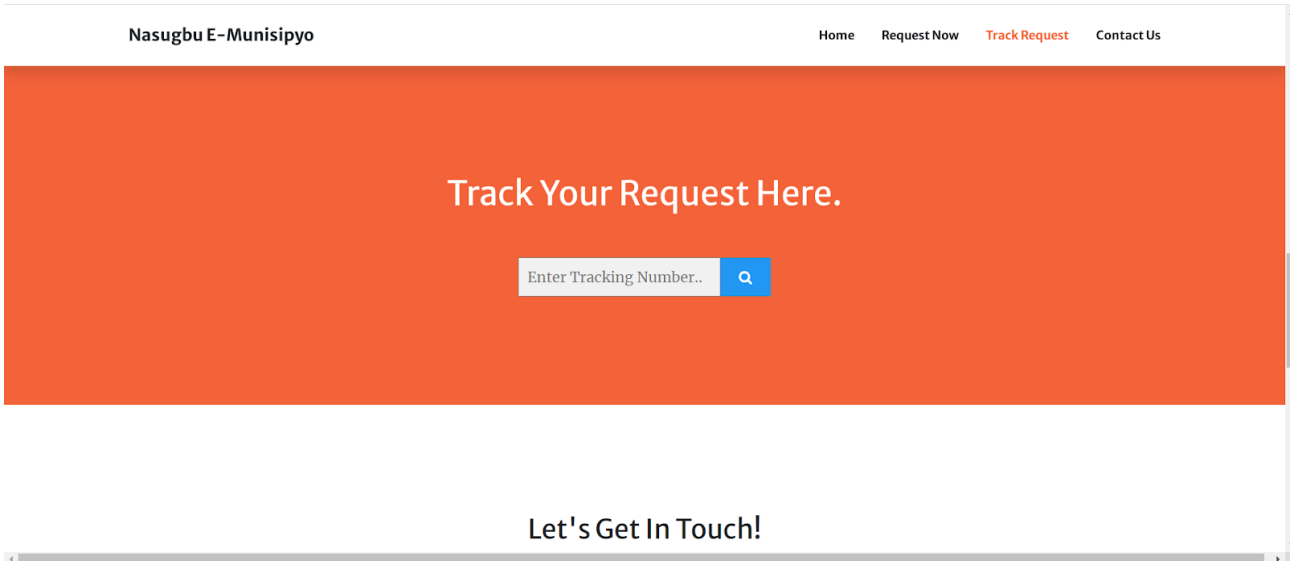
REQ-2: Requests that will come from the users.

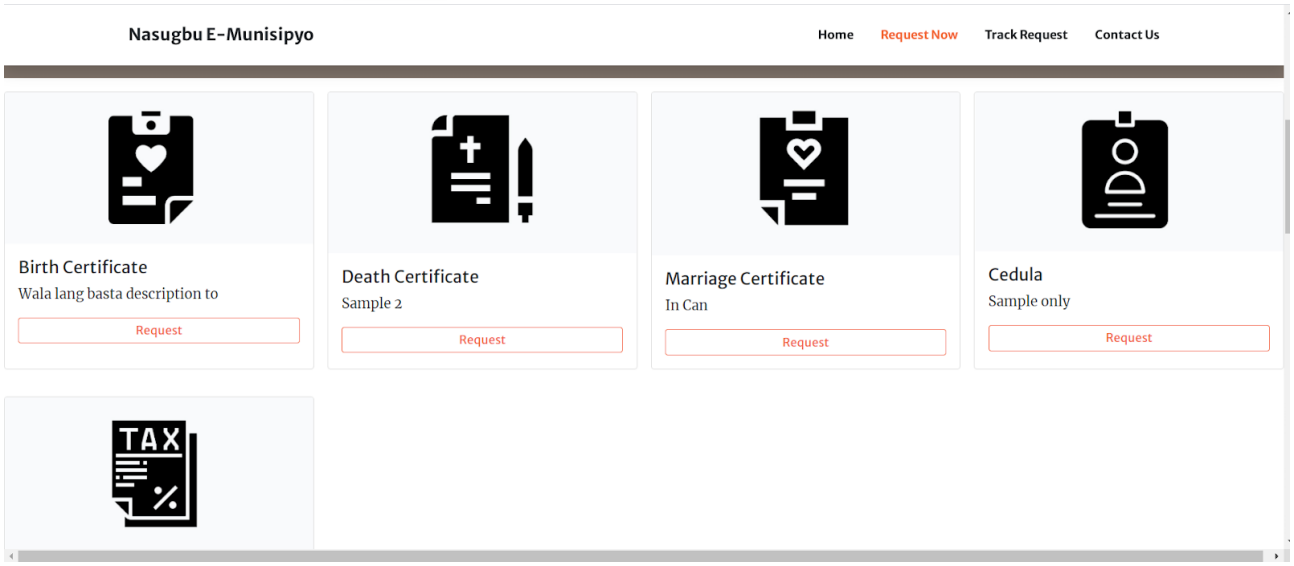
REQ-3: Tab for managing the user’s requests.

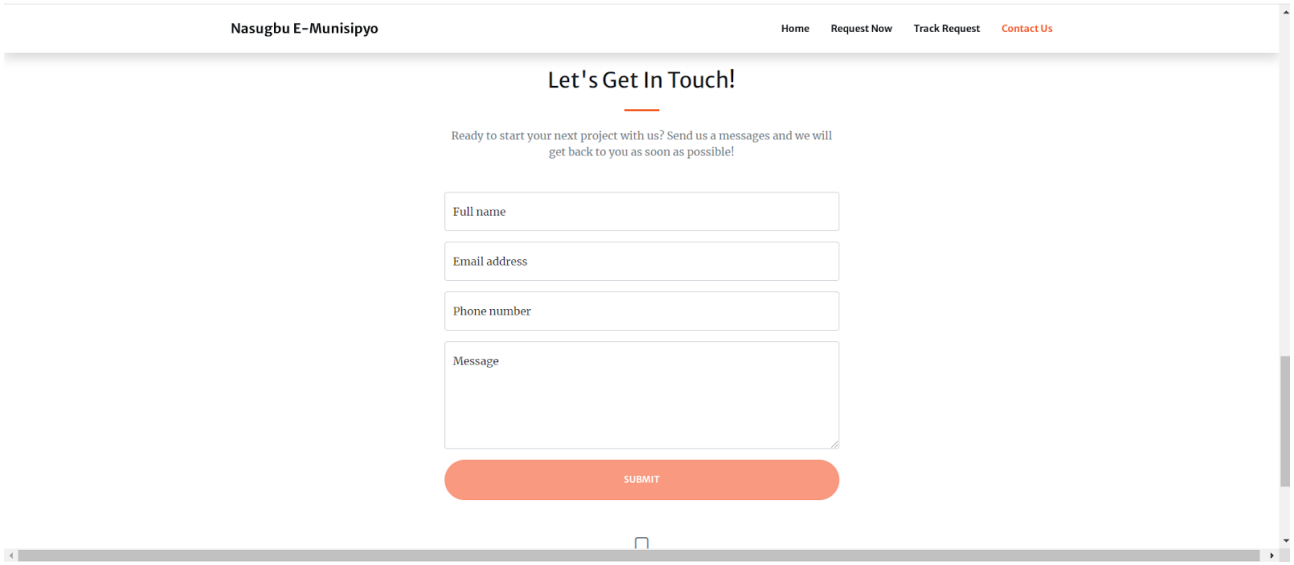
4. External Interface Requirements

4.1 User Interfaces

User UI







4.2 Hardware Interfaces

The system will work on any OS of PCs as well as Cellphones as long as the device has internet access and a browser because it has a bootstrap that will only automatically adjust to the screen size of the device.We will use HTTP (and HTTPS) protocol which is **TCP** based. It is

designed to send packets across the **internet** and ensure the successful delivery of data and messages over networks.

4.3 Software Interfaces

The system will run on Laravel Framework. Model-View-Controller, or MVC, is a design pattern used by Laravel.

The "Model" is the form of the data that your application works with. If you have a table of users, each with a list of posts they've made, that's your model. This model is interacted with by the "Controller." When a user asks to access their posts page, the controller communicates with the model (which is usually simply the database) and obtains the information. The controller changes the model if the user wishes to create a new post. The controller houses the majority of your application's logic. Laravel uses this structure to power custom apps. It uses the Blade templating engine, which allows HTML to be broken into pieces and managed by the controller. It all starts with routes, defined in routes/web.php, that handle HTTP requests based on the location being requested.

4.4 Communications Interfaces

We will use the HTTP (and HTTPS) protocol which is **TCP** based. For encryption we're planning to use Laravel's encryption uses OpenSSL to provide AES-256 and AES-128 encryption. Laravel's built-in encryption facilities and not attempt to roll your own "home grown" encryption algorithms because all of Laravel's encrypted values are signed using a

message authentication code (MAC) so that their underlying value can not be modified once encrypted. For Email notifications we will use PHP Mailer and for SMS notifications we're planning to use Twilio.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The developers provide 30 % of the system features. They focus on the basic features and requirements of the system. The 30% of the system is already functional but for limited use only since there are features that need to be done for the system to be fully functional. The 30% status of the system is just temporary and the developers are working for the other parts of t

5.2 0-Safety Requirements

Guidelines that are included in The Data Privacy Act of 2012 will be strictly enforced in the system for safeguarding of the private information of the users. Also the system has terms and conditions before proceeding with the request of their desired public document so that the users will know what will happen to their private information after sending it to the system administrator.

5.3 Security Requirements

Admin can only access the assigned certificate for him/her to manage, the Super Admin is the one who will assign this task. For authenticity of the documents that the users will send to the admin that is required to claim a specific public document, the system will let the user upload the pictures of the required documents for authenticity and the Admin is the one who will verify the document.

5.4 Software Quality Attributes

- **Reliability** – The system can be accessed and used by multiple users concurrently.
- **Availability** – The system can be used and accessed anytime.
- **Maintainability** - The Developers and the municipal maintenance staff are in charge of maintaining the good performance of the system. They are also assigned if there is something needed to repair within a given time frame.
- **Correctness**- Municipal staff can maintain the integrity of data and other reports because it is automatically generated by the system and.

6. Other Requirements

- User Reviews - the user can optionally review their experience after using the system so that the developer can improve the system through the outside point of view.

Appendix A: Glossary

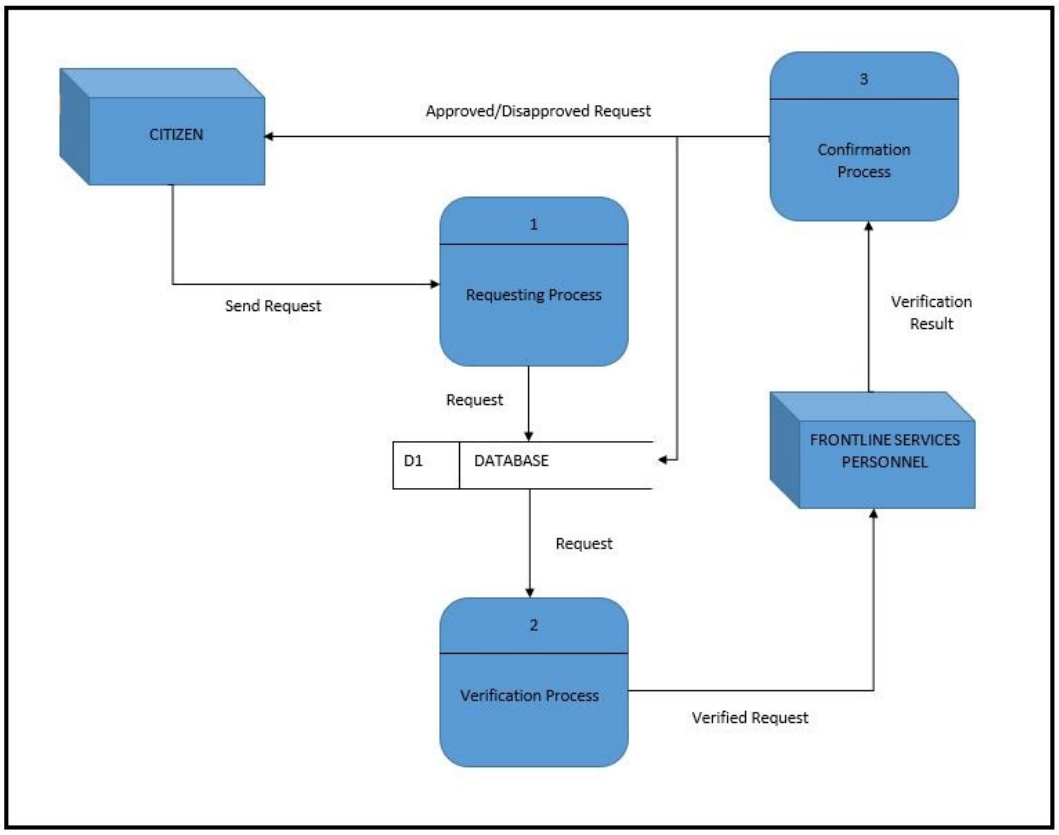
TCP - stands for Transmission Control Protocol, a communications standard that enables application programs and computing devices to exchange messages over a network.

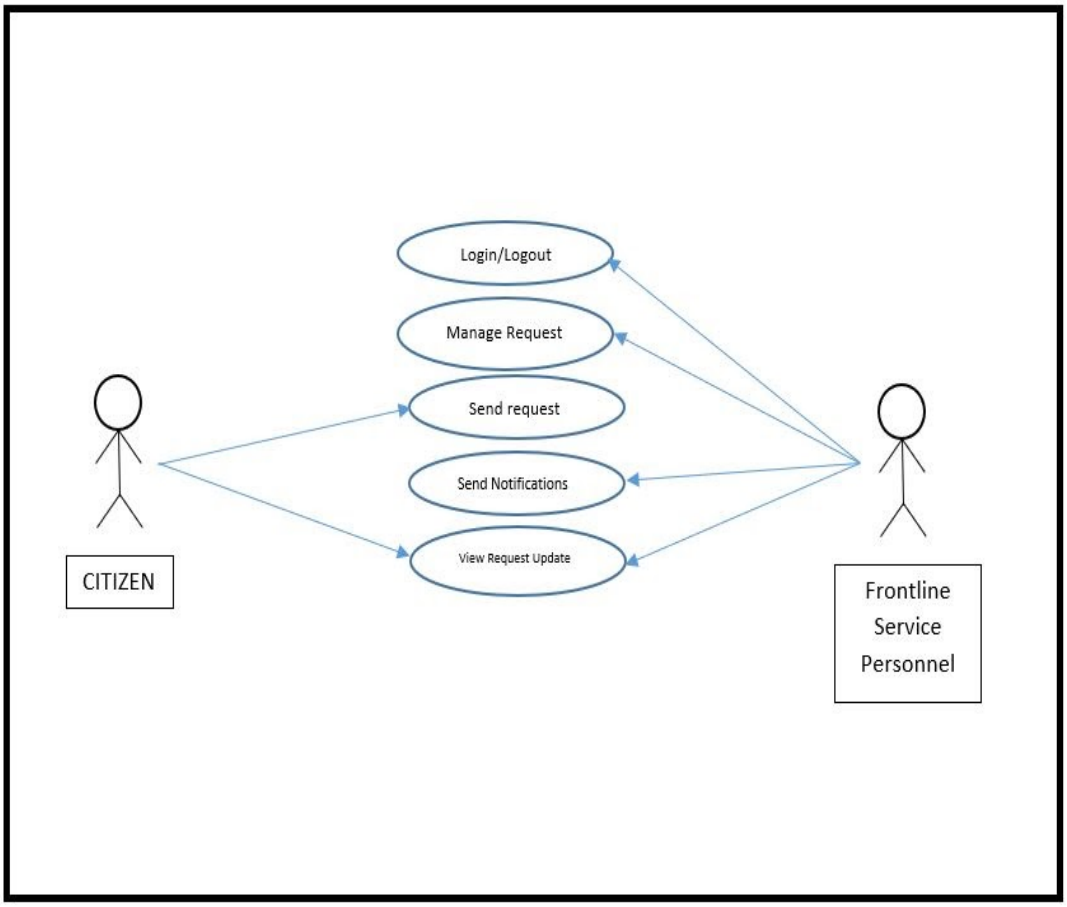
HTTP (and HTTPS) protocol - HTTPS stands for Hypertext Transfer Protocol Secure. It is the protocol where encrypted HTTP data is transferred over a secure connection. By using secure connections such as Transport Layer Security or Secure Sockets Layer, the privacy and integrity of data are maintained and authentication of websites is also validated.

Laravel is a web application framework with expressive, elegant syntax. We've already laid the foundation — freeing you to create without sweating the small things.

Twilio - allows software developers to programmatically make and receive phone calls, send and receive text messages, and perform other communication functions using its web service APIs.

Appendix B: Analysis Models





Appendix C: Issues List

The team is still deciding whether to add an online payment method or not, if the Nasugbu Municipal Hall accepts an online payment method the team will find a suitable, secure and easiest way to pay online. Request for certificate of Amilyar is still undecided whether to add or not.