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**ASIA PACIFIC COLLEGE**

**3 Humabon Place, Magallanes Makati City**

**School of Computing and Information Technologies**

**Applied Projects 2(MCSPROJ)**

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| **APPLIED PROJECTS 2** | | |
| **Project:** | Barangay South Signal Village Web App | |
| **Team Members:** | Wilkins Caducio | Jakerson Bermudo |
|  | Princess Joy Ferrer | Rark Mowen Alcantara |
|  | Mikedale Dellera | Mohammad Darwish Mustary |
| **Presentation:** | Midterms | |
| **Term and School Year:** | 2nd Term, SY: 2022 - 2023 | |
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| **Component** | **Panelists** | **Recommendation** | **Plan of Action** | **Remarks** |
| **Part I: Introduction** | | | | |
| Objectives | Rhea-Luz R. Valbuena | Make the objectives measurable (Like objective number 4) | **Improved Version:**  **Specific Objectives:**   1. To provide the community with an alternative way to request barangay documents using the web app that lessens the processing time by 3 to 5 mins. 2. To help the community, especially the vulnerable citizens such as PWDs and senior citizens, to lessen the risk of acquiring contagious diseases such as COVID-19 in requesting barangay documents by applying through the web app that lessens their direct contact with other people. 3. To provide the community with credible information about the barangay by using their official web app that they can search on the internet with two (2) to three (3) clicks away. 4. To provide a new way of communication between the barangay officials and their community online with the help of a chat box feature that typically replies within 24 hours and has a response rate of 85% or higher. 5. To build a secure and safe storage location for data using cloud, which saves data over the internet, and this can only be access by the administrator or the barangay staff itself by logging in the account making it 90% more secure than using file cabinet/s. 6. To provide barangay staff with real-time insights regarding the number of requests per day, number of pending requests/s, number of online requests, and number of registered accounts by going through the statistics page with one (1) to two (2) clicks. |  |
| Scope and Limitation | Rhea-Luz R. Valbuena | Provide a soft copy for the constituents. | **Improved Version:**  (2) When making an online request, the web app will provide a soft copy of the request form and documents. The constituents will still get the document through the barangay office, where the original copy of the stated requirements will be presented for verification. |  |
| Scope and Limitation | Manuel Sebastian S. Sanchez | Add in the scope and limitations of the documents for the businesses. | **Improved Version:**  (6) The online documents that can be requested are only limited to Barangay ID, Community Tax Certificate, Barangay Clearance, Barangay Certificate, and Business Clearance. |  |
| Scope and Limitation | Rhea-Luz R. Valbuena | Be specific with the scope and limitation | **Improved version:** (6) The online documents that can be requested are only limited to the documents that the client will provide. |  |
| Objectives | Rhea-Luz R. Valbuena | The objective that is based on why the website is being created | **Improved version:**    The proposed system of the “Barangay South Signal Village Web App” is to provide online services to the community of the barangay. It will also contain substantial information about the barangay including its current officials and location. Below are its general and specific objectives:    **General Objectives:**       To develop a web app that provides information about the barangay and online service/s for their community in a more efficient, effective, and transparent way.    **Specific Objectives:**   1. To provide the community with another option to request barangay documents online. 2. To help the community, especially the vulnerable citizens such as PWDs and senior citizens, to lessen the risk of acquiring contagious diseases such as COVID-19 in requesting barangay documents by avoiding direct contact with other people. 3. To provide the community with credible information about the barangay. 4. To provide a better way of communicating online with the help of a chat box feature between the barangay officials and their community so that they do not need to go to the barangay to inquire and request for help. 5. To build a more secure and safe storage location for data using cloud, which saves data over the internet. 6. To provide barangay staff with real-time insights regarding the number of requests per day, number of pending requests/s, number of online requests, and number of registered accounts. |  |
| Objectives | Jose Eugenio L. Quesada | In the objective, add make the business process more efficient, transparent, and timely | **Improved version:**    The proposed system of the “Barangay South Signal Village Web App” is to provide online services to the community of the barangay. It will also contain substantial information about the barangay, including its current officials and location. Below are its general and specific objectives:    **General Objectives:**       To develop a web app that provides information about the barangay and online service/s for their community in a more efficient, effective, and transparent way.    **Specific Objectives:**   1. To provide the community with another option to request barangay documents online. 2. To help the community, especially the vulnerable citizens such as PWDs and senior citizens, to lessen the risk of acquiring contagious diseases such as COVID-19 in requesting barangay documents by avoiding direct contact with other people. 3. To provide the community with credible information about the barangay. 4. To provide a better way of communicating online with the help of a chat box feature between the barangay officials and their community so that they do not need to go to the barangay to inquire and request for help. 5. To build a more secure and safe storage location for data using cloud, which saves data over the internet. 6. To provide barangay staff with real-time insights regarding the number of requests per day, number of pending requests/s, number of online requests, and number of registered accounts. |  |
| Objectives | Manuel Sebastian S. Sanchez | Rephrase objective number 6 | **Old version:**  To provide the community with credible information through an official web application.  **New version:**  To develop a web application that provides timely, accurate, and trustworthy information verified and approved by the barangay and its officials to the community. |  |
| **Part II: RRL** | | | | |
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| **Part III: Technical Background** | | | | |
| Proposed System | Rhea-Luz R. Valbuena | Functionality on the constituent's part. Consider the POV of the constituents. | The proposed solution of the team to the client is to build a centralized and live web application for their barangay residents that have different functions:   1. About Us – where the information about the Barangay South Signal Village will be posted such as the barangay profile including the history of the barangay, mission, vision, demography, and the organizational chart of the barangay officials. 2. Safety Section – where the safety guidelines are posted as well as the Map Book of the barangay (provided by the Philippine Red Cross) which includes the base map, capacity map, vulnerability map, land use map, historical hazard map, and the flood hazard map. 3. Contacts – where the contact information of the barangay is displayed such as the barangay hotlines and emergency hotline. It also includes the embedded Google map of the Barangay South Signal Village Office that can be used for tracking the location of the barangay. 4. Requirements Guidelines – wherein all the available documents that can be requested are listed including how much it will cost, instructions for manual request, estimated time of the process, and the requirements needed.   In the proposed project of the team, the resident can register in the web-application wherein they will have their own profile dashboard that will utilize the functions of the barangay’s web-app such as:   1. Online Request – the registered residents can request barangay documents or rent a barangay facility online without personally going to the barangay. After the resident submits his/her request online, the web app will send a message or an email that will notify his/her application and it will include the tracking key of his/her request. 2. Submitting Tickets - the registered residents can report any problem or incidents within the vicinity of the barangay. 3. Track Request – the registered residents can create a ticket that may contain an inquiry, a request, an issue, or a complaint to the barangay. 4. Transaction History - the registered residents can see all his/her transactions using his/her barangay account.   The web app will provide an alternative translation for each part of the application form in Tagalog for the constituents to better understand the form.  In our proposed solution, the team will also implement different roles for the barangay side namely as the Barangay Secretary, Web-App administrator, and the Barangay Captain wherein they will have their own dashboard with different tasks and functions such as (1) processing the online requests and tickets for the residents, (2) supervise the admin accounts and residents account in the web application, (3) generating analytics report, and (4) managing the web-applications.  The team proposes to their client to upgrade their records from the manual into a database wherein the data for all online requests will be stored. The team will add a feature to the Barangay Secretary dashboard where she can create a form to manually input the data from face-to-face requests. Add two categories for the requested document in the database that will distinguish if it is requested online or requested manually for the purpose of the analytics for the dashboards. |  |
| Proposed System | Manuel Calimlim | **Proposed System –** add the functionality on how the constituents will be informed regarding the status of their request/concern. | Changes have made |  |
| **Part IV: Design and Methodology** | | | | |
| System Analysis and Design: Context Flow Diagram | Roselle Wednesday L. Gardon | **CFD** – sticky notes on the content of the data being described in each flowing if its ambiguous if the reader might not be able to understand it right away. | Changes have been made |  |
| System Analysis and Design: Activity Diagram | Roselle Wednesday L. Gardon | **Activity Diagram –** System is not necessary anymore. | Changes have been made |  |
| System Analysis and Design: Activity Diagram | Roselle Wednesday L. Gardon | **Activity Diagram –** Actions of the system would be reflected in the use case full description | Changes have been made |  |
| System Analysis and Design: Object Diagram | Roselle Wednesday L. Gardon | **Object Diagram** – Give specific example what type of data will be saves in those types | Changes have been made |  |
| System Analysis and Design: Entity-Relationship Diagram | Manuel Calimlim | **ERD** – Remove the sub entity for the barangay employee. | Changes have been made. |  |
| System Analysis and Design: Entity-Relationship Diagram | Roselle Wednesday L. Gardon | **SMD** **- Revise** the diagram. Input the proper state inside the boxes as well as the trigger in each state. | Changes have been made. |  |
| System Analysis and Design: Entity-Relationship Diagram | Manuel Calimlim | **ERD -** Be mindful of the size of ERD | Changes have been made |  |
| System Analysis and Design: Entity-Relationship Diagram | Rhea-Luz R. Valbuena | **ERD -** Price in ERD should be in decimal, not an integer | Changes have been made |  |
| System Analysis and Design: Entity-Relationship Diagram | Rhea-Luz R. Valbuena | **ERD -** Add St., zone, etc. in the ERD for the address | Changes have been made |  |
| System Analysis and Design: User Stories | Mark Andrew Manoy | **User Stories -** Add prioritization in user stories | Changes have been made in Product Backlog/User Stories. Adding a new column for priorities (high, medium and low) |  |
| System Analysis and Design: User Stories | Mark Andrew Manoy | **User Stories -** Be consistent with format in user stories | Changes have been made in Product Backlog/User Stories. |  |
| System Analysis and Design: User Stories | Mark Andrew Manoy | **User Stories -** Your User Stories are too large that can be consired as Epic. For example, User Story #7 “As the Resident, I want to have access to the barangay web-app’s online services” that contains too many features | Changes have been made in Product Backlog/User Stories. |  |
| System Analysis and Design: User Stories | Mark Andrew Manoy | **User Stories -** When you create User Stories, it should state the value stating "so that..." missing for User Stories 3, 4, 5, 6, 7 and 8 | Changes have been made in Product Backlog/User Stories. Adding so that in user stories 3,4,5,6,7 and 8 |  |
| System Analysis and Design: Entity-Relationship Diagram | Mark Andrew Manoy | **ERD -** Database table column "Concern.Concern\_description" why does it have an integer(10) not varchar? | Changes have been made in ERD. |  |
| System Analysis and Design: Entity-Relationship Diagram | Mark Andrew Manoy | **ERD -** Database table column "Request.updated\_at" VARCHAR while other tables are using TIMESTAMP? | Changes have been made in ERD. |  |
| System Analysis and Design: Entity-Relationship Diagram | Mark Andrew Manoy | **ERD -** Zone field is required but in paper nullable | Changes have been made in ERD. |  |
| **Part V: Results and Discussion** | | | | |
| Prototype | Rhea-Luz R. Valbuena | Make instructions clear. | The team will improve the UI/UX design of the web-app to create a more user-friendly web-app. |  |
| Prototype | Rhea-Luz R. Valbuena | Guide the constituents in terms of their level of understanding such as adding a Tagalog option. | ***(Stated on the Proposed System Section)***  The web app will provide an alternative translation for each part of the application form in Tagalog for the constituents to better understand the form. |  |
| Prototype | Rhea-Luz R. Valbuena | Process of inputting data for the face-to-face application. | The team will add a feature to the secretary dashboard where she can create a form to manually input the data from face-to-face requests.  Add two categories/attributes for the requested document in the database that will distinguish if it is requested online or requested manually. |  |
| Use Classes and Characteristics | Jayvee M. Cabardo | Staff in the barangay have the necessary skills to maintain the web application. | **New Version**:   |  |  | | --- | --- | | *Roles* | *Description* | | *Resident* | * *This user is the primary visitor of the webapp.* * *He/she is the one who can access and avail themselves of the services offered by the web-app.* | | *Administrator* | * *This user has the highest power over the web-app* * *He/she assigns roles to barangay employees*   *He/she manages the web-app* | | *Barangay Secretary* | * *This user handles and processes the requests and tickets created by the resident of barangay.* * *He/she verifies the requirements given by the residents of the barangay.* | | *Barangay Captain* | *He/she views the analytics report of the web-app* | | *Barangay Ticket Manager* | * *He/she processes and manages the tickets created by the resident* | | *Barangay Request Manager* | * *He/she processes and manages the requests created by the resident* | |  |
| Prototype | Jose Eugenio L. Quesada | Online appointment system to reduce the time of waiting in line in the barangay | The web app will add a new feature for appointments for face-to-face transactions. |  |
| Prototype | Carolyn Samonteza | **Prototype –** change the password instead of having three characters and apply the proper password characteristics defined in the paper. | Changes have been made. |  |
| Prototype | Rhea-Luz R. Valbuena | Be descriptive, especially in the placeholder on the track page | Changes have been made. |  |
| Prototype | Rhea-Luz R. Valbuena | Be consistent with the spelling | Changes have been made. |  |
| Prototype | Rhea-Luz R. Valbuena | Add the contact number of the barangay in the modal if already submitted | Changes have been made. |  |
| Prototype | Rhea-Luz R. Valbuena | Add logs in the database for changes | Changes have been made |  |
| Prototype | Rhea-Luz R. Valbuena | Add extra sorting such as the most recent (filter) | Changes have been made |  |
| **Others** | | | | |
|  | Rhea-Luz R. Valbuena | Look into the feasibility for the constituents on how they will be encouraged to use the web app. | The team will provide a new way to access public information about the barangay and provide an easier way to request barangay documents online without having to wait in line and spend time requesting in the barangay.  The team also discussed with the client the possible marketing strategies that the barangay can use to market the web application namely:   1. For each Face-to-Face transaction, the department of the barangay secretary will inform every resident that will request documents physically. 2. Through their Official Facebook Page, as well as the barangay employee Facebook accounts, they will create a post that will advertise their web-application. |  |
|  | Jayvee M. Cabardo | Help them prepare their infrastructure plan or readiness plan. | The team will collaborate with the client to create a readiness plan that covers on how to manage, maintain, and adapt to the project that will be implemented. |  |
|  | Rhea-Luz R. Valbuena | Think carefully whether the team should choose a website or a mobile app | As the client requested the team will continue developing the website    The web app will be responsive on all platforms including mobile devices as long as it has an internet and browser application. |  |
|  | Rhea-Luz R. Valbuena | Identify compelling reason for the constituents why they would choose Facebook over the website | Online services that will be provided by the website are the most compelling reason why the constituents will choose the website over the Facebook page. |  |
|  | Rhea-Luze R. Valbuena | Socialize CAMSS – think of the way for engagement | After the South Signal Village residents submit their forms online, the web app will notify them about their requested documents and send the tracking key that will be used for tracking their request online.    The web app will also notify them about their requesting document status whether it is approved or denied. |  |
|  | Jose Eugenio L. Quesada | Barangay must first have an internal transformation; they must have an internal management system | The web app will have dashboards for the admin and the secretary that will manage the request and the transaction as well. They can store and retrieve data. |  |
|  | Jose Eugenio L. Quesada | Staff in the barangay should be well equipped in terms of desktops and laptops and hardware overall | The barangay is already well equipped in terms of the devices that will be used for the web app.    The web app can run smoothly using the browser. |  |
|  | Jose Eugenio L. Quesada | Consult and think about how to put the current data in the new systems | There's no need to save old records because the data will begin to be saved once the web app is launched. |  |
|  | Jose Eugenio L. Quesada | Plan about file management in the barangay | The transaction will be stored through a database. |  |
|  | Manuel Calimlim | Clarify in the barangay regarding the term for the “ticket” | **New Version:**   * Concern - The team conducted the meeting with the client and discussed the proper terminology. The client decided to change the term “**ticket”** to “**concern”.** |  |
|  | Manuel Sebastian S. Sanchez | Clarify the requirement in the business clearance | The client decided to change the term “**ticket”** to “**concern”.** |  |
|  | Manuel Calimlim | Fix the word in the web app (Requirements) | Changes have been made |  |
|  | Manuel Calimlim | Clarify with the client about the contact number not being duplicated | The client decided to use email instead of contact number |  |
|  | Manuel Calimlim | Clarify for new citizens of the barangay how they can create an account | Just register and use email for verification |  |
|  | Manuel Calimlim | Reports | Changes have been made |  |
|  | Mark Andrew Manoy | Use S.A.L.T for passwords. | Hash password already implemented in the system. |  |
|  | Mark Andrew Manoy | Registration, labels are redundant. | Changes have been made in the system. |  |
|  | Mark Andrew Manoy | Registration, make middle name optional | Changes have been made in the system. |  |
|  | Mark Andrew Manoy | Registration, forced +63 in contact number. | According to barangay, it requires Philippine number |  |