



802-GO: Barangay Management System

by SISTEM



SISTEM



Ryan John Perez
Adviser



Jose Enrique Nunez



Jhon Iberson Marinas



Joana Grace Garcia



Allan Miguel Moldez



Hazel Ann Mones
Project Leader



Overview

1 Project Overview

2 Comments Matrix

3 Entity Relationship Diagram

4 GitHub Repository

5 Cloud Hosted Prototype

6 Member Contributions



Project Overview

Barangay 802, Sta Ana, Manila City



Product Vision

For:	The Barangay officials, residents, businesses, and community organizations in Barangay 802 Sta. Ana, Manila City.
Who:	Encounter challenges in service provision and access, communication, and resident engagement.
The:	802-GO is a centralized digital platform.
That:	Enhances service access, communication, and community engagement.
Unlike:	Conventional Barangay Systems.
Our Product:	Provides a user-friendly, one-stop website that empowers residents, supports local businesses, streamlines governance.

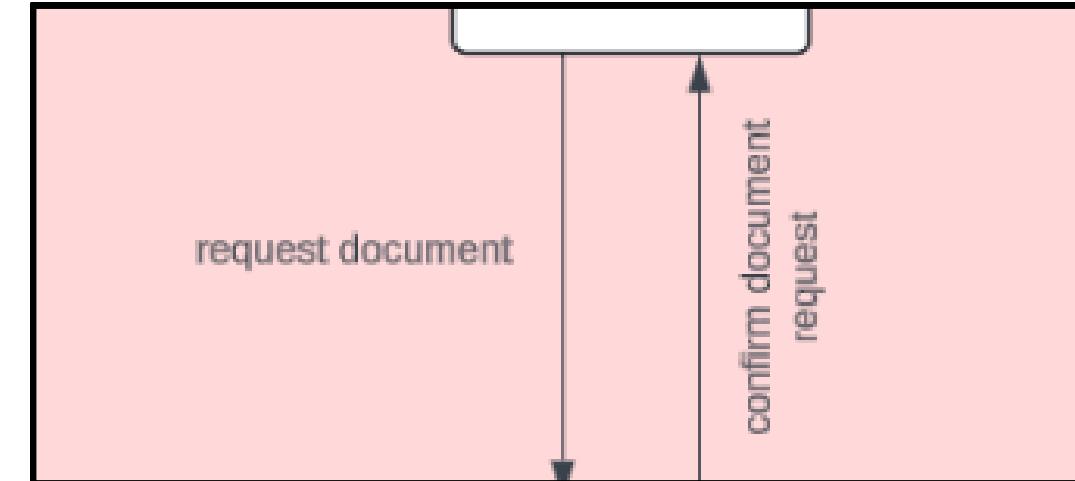
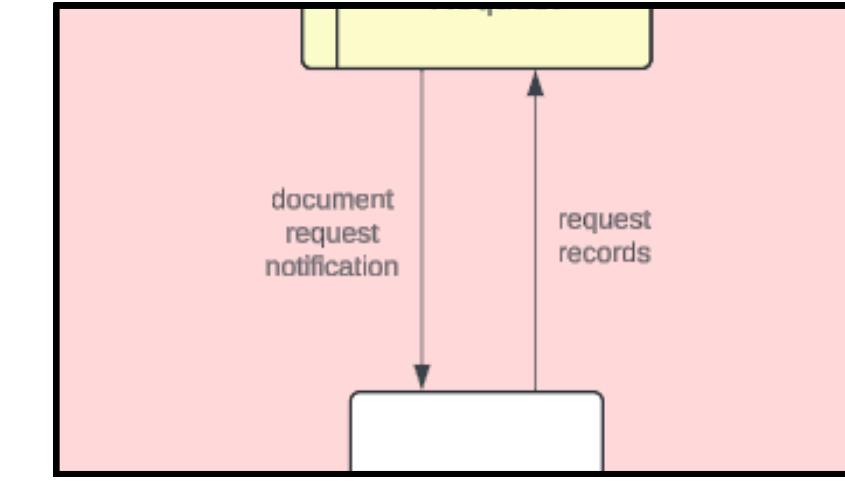
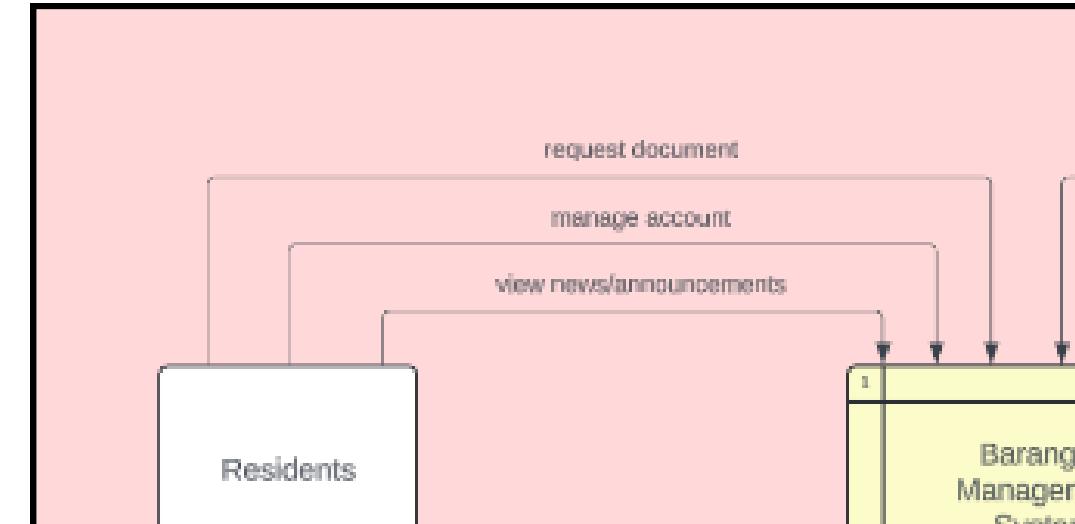
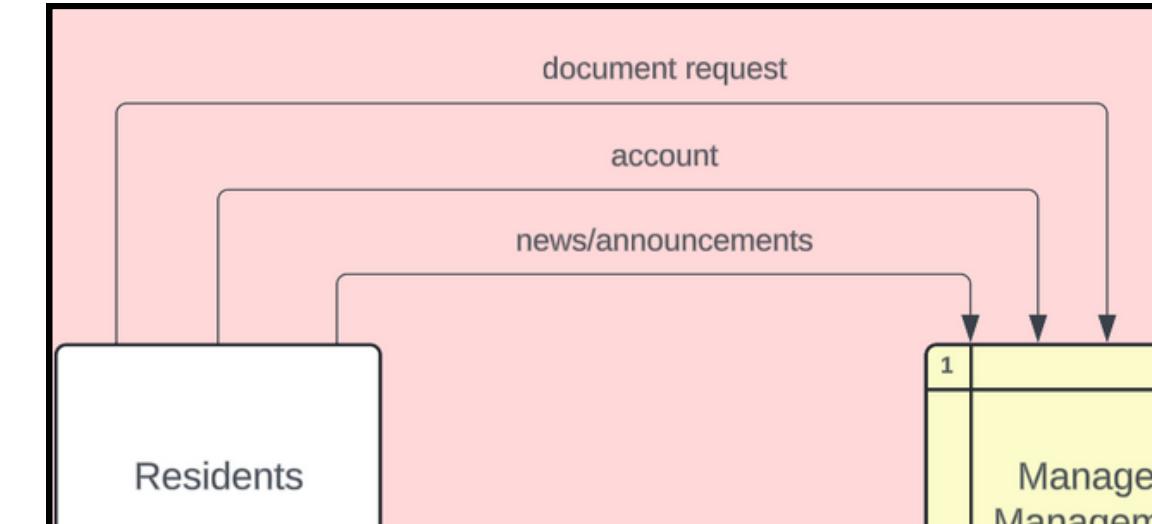


Comments Matrix

SISTEM | 802 - GO



DFD Comments Matrix

Panelist	Comment	Response
	<p>Flow line text indicators should always be horizontal, not vertical.</p> 	<p>Adjusted the diagram to ensure all flow line text indicators are horizontal.</p> 
Ms. Gardon	<p>Flow line text indicators must be data.</p> 	<p>Updated all flow line text indicators to be “data”, ensuring they are aligned with the required format.</p> 

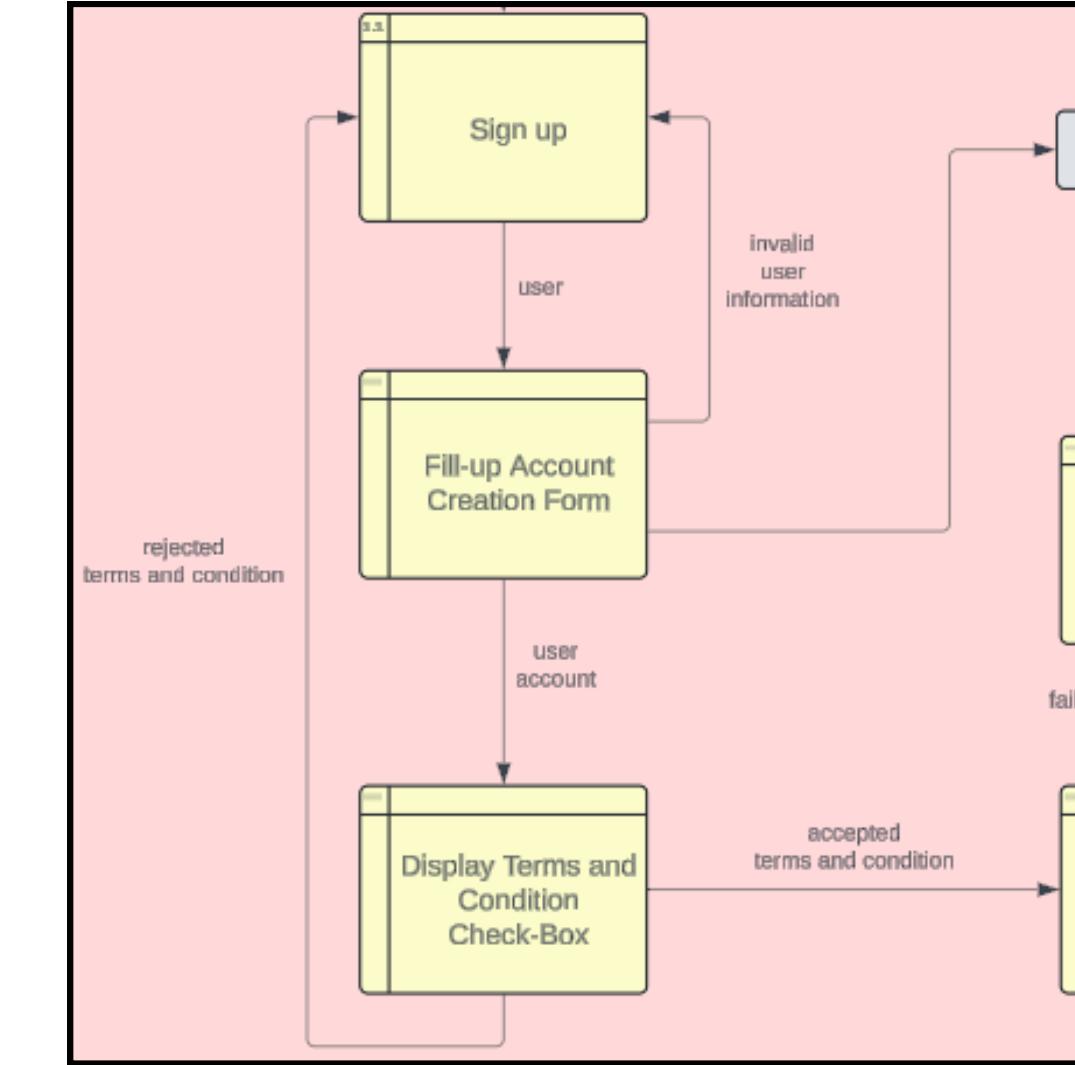


DFD Comments Matrix

Panelist(s)	Comment	Response
Ms. Gardon & Ms. Valbuena	<p>Data stores can be reduced to 1 and Generalized data store. And that, the Multiple Data Stores are not required in Data Flow Diagram. This can be specified on when creating the ERD.</p> <pre>graph TD; D1[Full Name] --- D2[Gender]; D2 --- D3[Age]; D3 --- D4[Date of Birth]; D4 --- D5[Place of Birth]; D5 --- D6[Permanent Address]; D6 --- D7[Civil Status]; D7 --- D8[Religion]; D8 --- D9[Spouse's Full Name
(if applicable)]; D9 --- D10[Number of Children
(if applicable)]; D10 --- D11[Children's Full Name/s
(if applicable)];</pre>	<p>Consolidated multiple data stores into a single, generalized data store to simplify the diagram.</p> <pre>graph TD; A[resident information] --> B[Show Information]; B --> C[D User Information]; C --> D[resident information]; D --> E[Update/Validate Data
(if needed)]; E --> C;</pre>

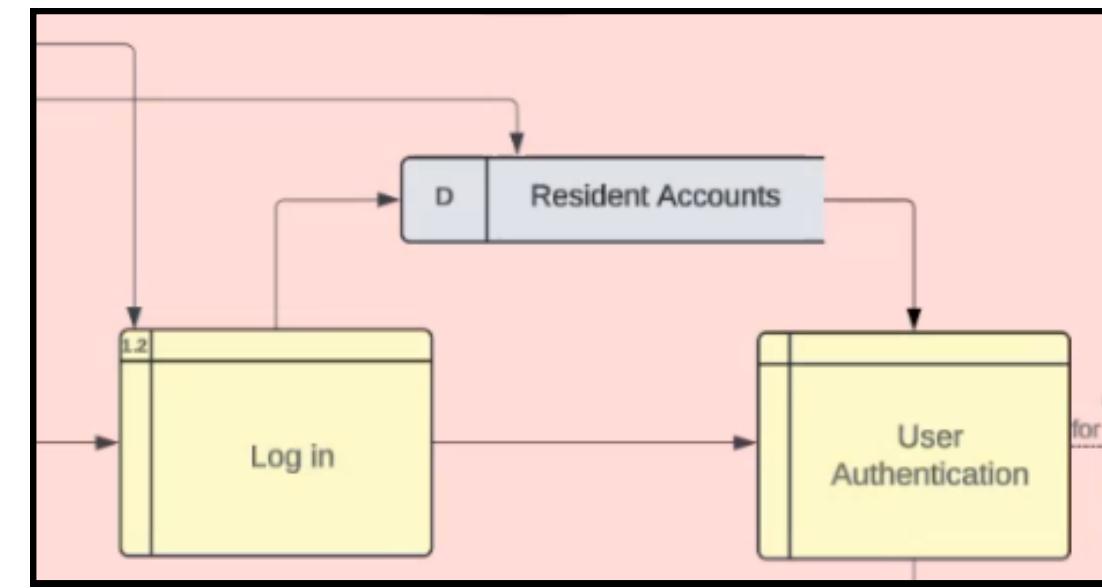
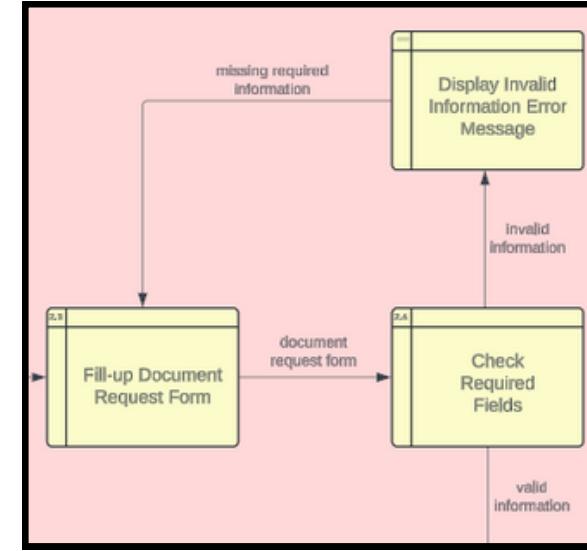
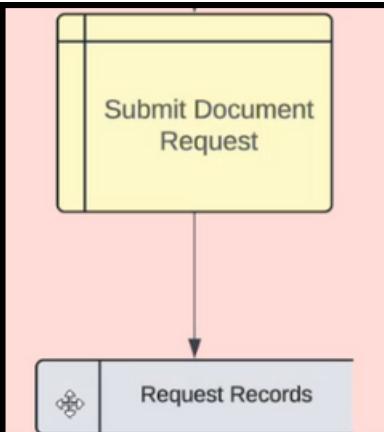
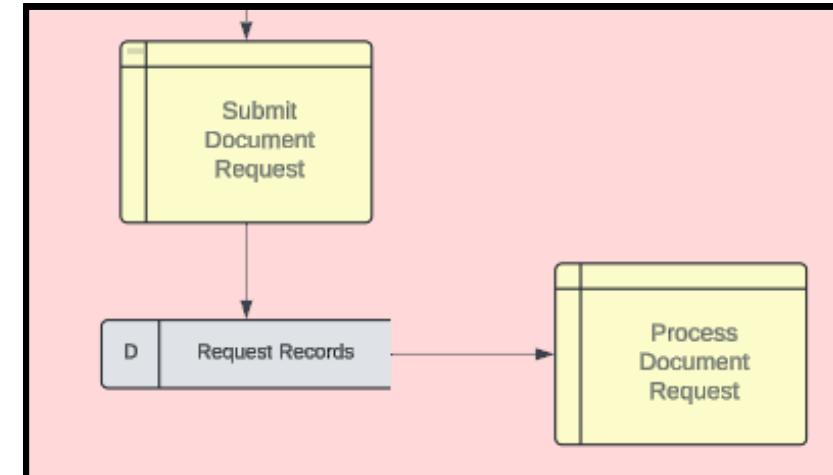


DFD Comments Matrix

Panelist	Comment	Response
Mr. Gumogda	<p>Level 1 DFD Cash Donation: If not in scope of the system, it should not be included.</p> <p>Level 2 DFD Token Access Denied Message: Create a checkbox instead so that the resident will not be able to move on to the process until the checkbox is ticked.</p>	<p>We removed the Cash Donation on the DFD because Barangay doesn't require payments for their services.</p> <p>We merged the process of the Terms and Condition to remove the confusion and create an improved visual of the process for the Diagram.</p> 

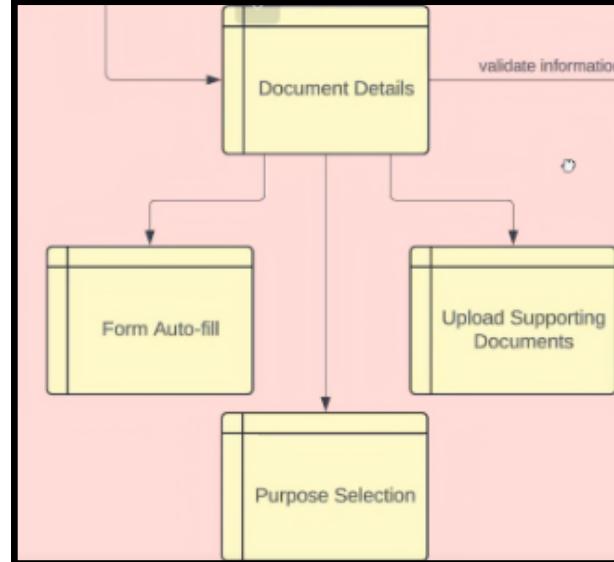
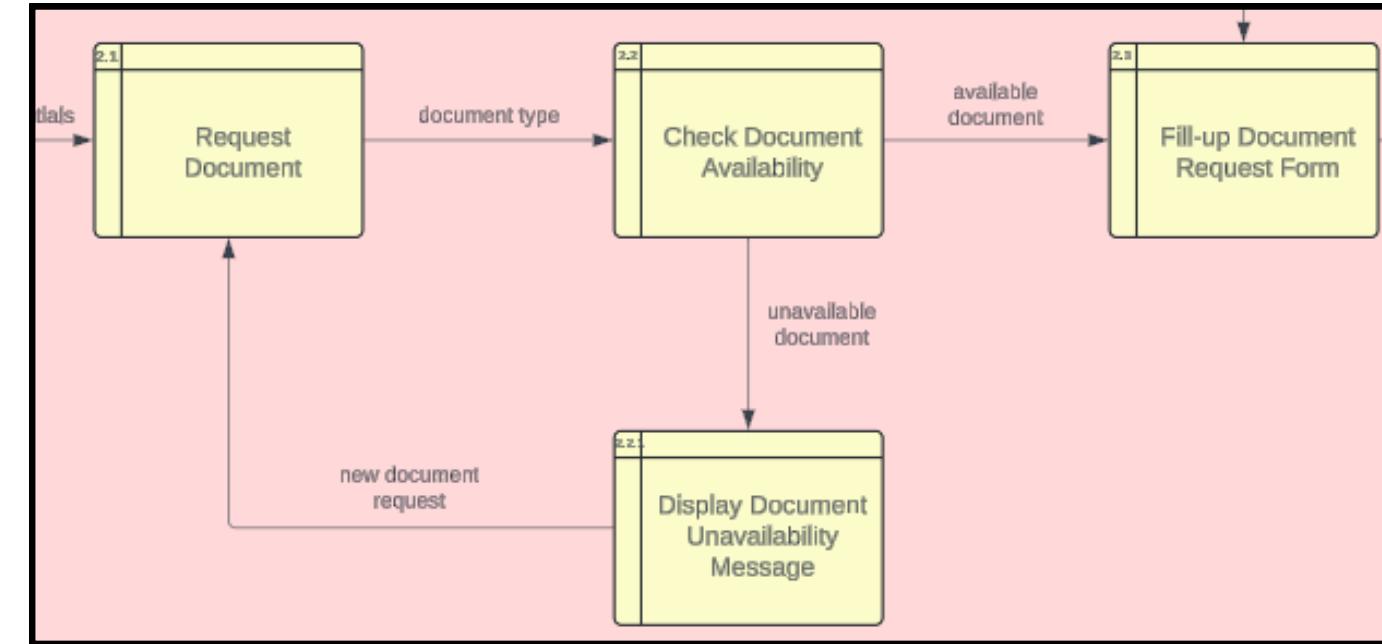


DFD Comments Matrix

Panelist	Comment	Response
Ms. Valbuena	<p>There are so many Arrows that doesn't have a description. Example:</p> 	<p>We revised the diagram and included the data that flows through in and out of the processes and data stores.</p> 
	<p>Level 1 Process 2 Request of Documents: The Request records data store is only saving the request and no other process one is retrieving the data that was stored.</p> 	<p>Data that flows through the process and Data Store will be named. We revised the Diagram so that there is a process that needs the data from the data store where the request of the residents is saved.</p> 



DFD Comments Matrix

Panelist	Comment	Response
Ms. Valbuena	<p>DFD, Level 1 Process 2 Request documents: No data flow from the 3 processes under the Document details and shows that one process goes to three right away. The processes also doesn't have a number so it's hard to distinguish if the following processes are inside of one or not.</p> 	<p>Addition of data that flows from the processes. Addition of process numbers e.g., 2.3 under that is 2.3.1, 2.3.2, 2.3.3 [...].</p> 



DFD Comments Matrix

Panelist	Comment	Response
Ms. Valbuena	<p>Use Case names should also be the same name as DFD since it is connected, the same with the other diagrams to avoid confusion.</p> <p>Use Case Diagram</p> <p>Barangay Management System</p> <pre>graph TD; Residents --> MA[Manage Account]; Residents --> VNA[View News/Announcements]; Residents --> RD[Request Document]; Residents --> MDR[Manage Document Request]; Residents --> MRD[Manage Resident Database]; Residents --> MNA[Manage News/ Announcements]; BaranggayOfficial --> MDR; BaranggayOfficial --> MRD; BaranggayOfficial --> MNA;</pre>	<p>We revised the names of the processes on the Diagrams so that it will be connected to one another.</p> <pre>graph TD; Residents -- "log in credentials" --> RA[Resident Accounts]; Residents -- "sign up credentials" --> RA; RA -- "account credentials" --> MA[Manage Account]; RA -- "document request" --> RD[Request Document]; RA -- "document request confirmation" --> VNA[View News/ Announcements]; MA -- "resident data" --> RR[Request Records]; RR -- "request records" --> MRD[Manage Resident Database]; RR -- "document request notification" --> MDR[Manage Document Request]; RR -- "content" --> MNA[Manage News/ Announcements]; VNA -- "news/announcements" --> RR; MDR -- "resident data" --> BO[Barangay Official]; MDR -- "document request notification" --> BO; MDR -- "request records" --> BO; MNA -- "content" --> BO;</pre>

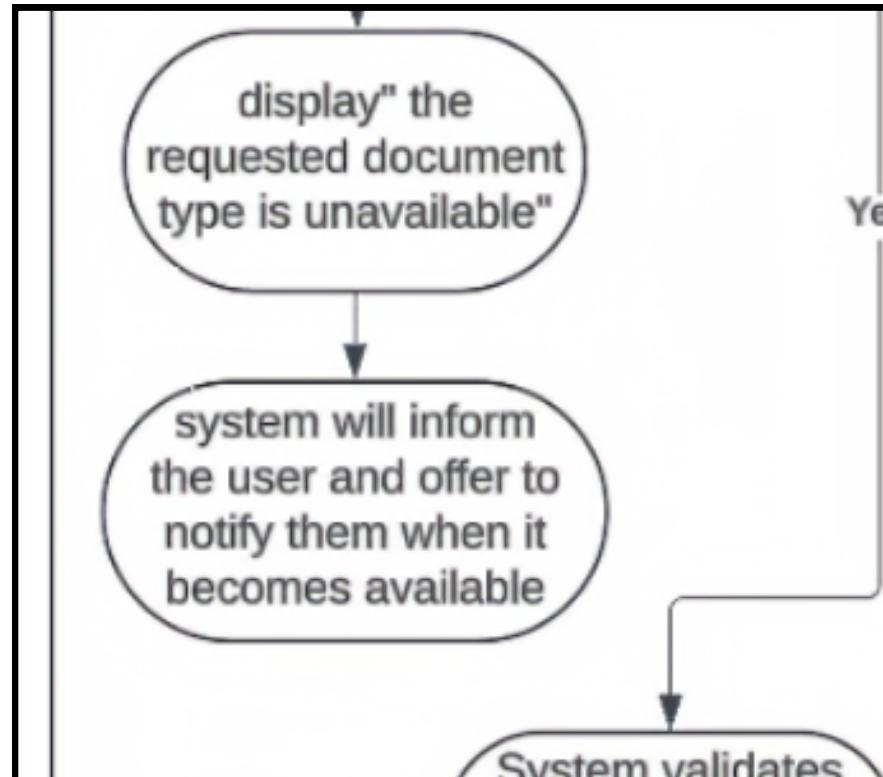
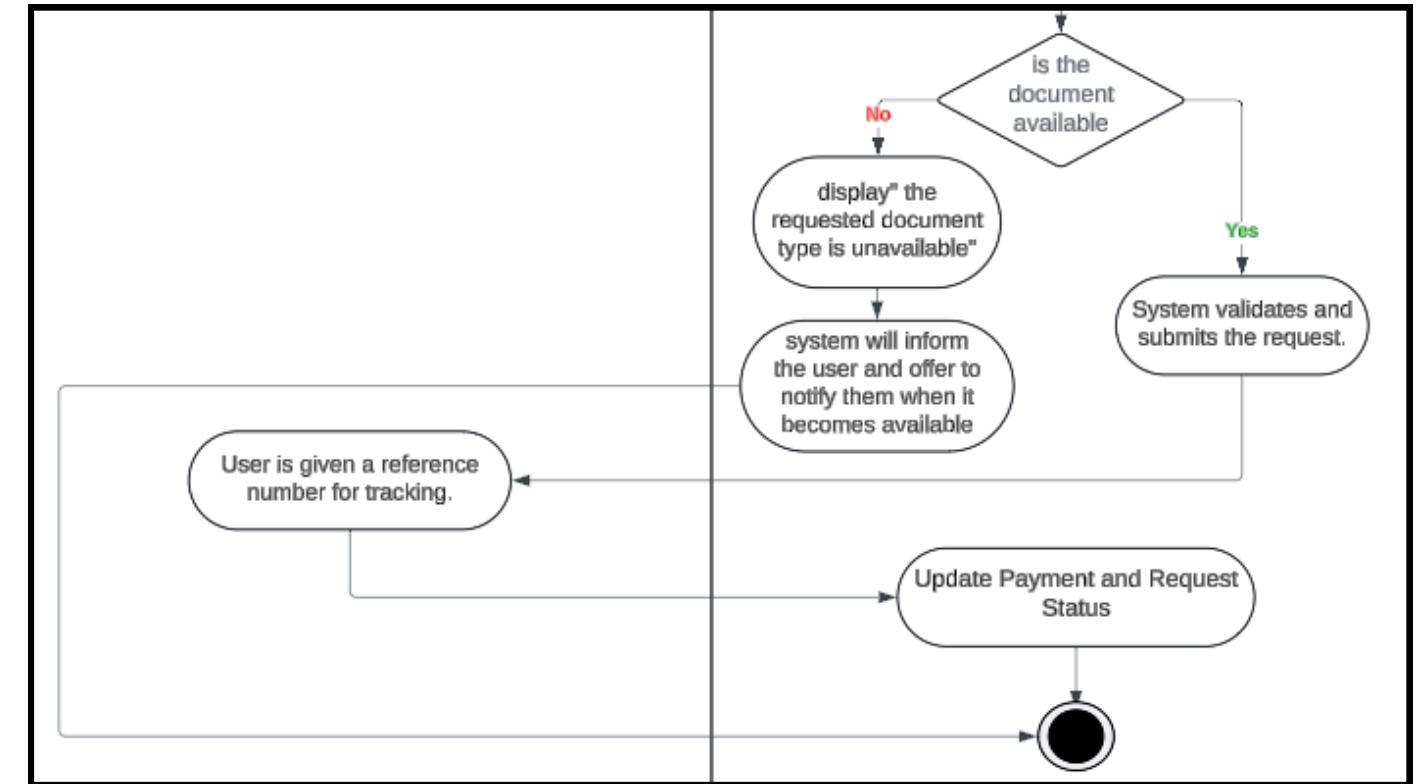


Activity Diagram Comments Matrix

Panelist	Comment	Response
Mr. Gumogda	<p>Activity Diagram Manage Account: The decisions on the flow is confusing.</p>	<p>We changed the content of the “decision” to a “question” e.g., “Is the user able to log in?” and will be answered by Yes and No, the process will go on.</p> <pre>graph TD; Start(()) --> Decision{Are required field filled up?}; Decision -- No --> Display[Display missing information on required Fields]; Display --> Availability{is the document available}; Availability -- No --> Unavailable[display the requested document type is unavailable]; Unavailable --> Notify[system will inform the user and offer to notify them when it becomes available]; Availability -- Yes --> Validate[System validates and submits the request.]</pre>



Activity Diagram Comments Matrix

Panelist	Comment	Response
Ms. Valbuena	<p>Activity Diagram: Request Document The flow shows a dead end where there is no process next after the system informs the user that they will be notified after the requested documents become available for pick up.</p>  <pre>graph TD; A([display "the requested document type is unavailable"]); B([system will inform the user and offer to notify them when it becomes available]); C([System validates]); A --> B; B --> C;</pre> <p>The diagram illustrates a process flow starting with an activity labeled "display 'the requested document type is unavailable'". This leads to another activity labeled "system will inform the user and offer to notify them when it becomes available". Finally, it ends at an activity labeled "System validates". There is a feedback loop from "System validates" back to the first activity, indicating a dead end in the original process flow.</p>	<p>Addition of next flow on the process until it reaches the end of the activity.</p>  <pre>graph TD; Start(()) --> Q{is the document available}; Q -- No --> A([display "the requested document type is unavailable"]); A --> B([system will inform the user and offer to notify them when it becomes available]); B --> C([User is given a reference number for tracking]); C --> D([Update Payment and Request Status]); D --> End((())); Q -- Yes --> E([System validates and submits the request]);</pre> <p>The refined diagram shows the addition of a decision point "is the document available". If the answer is "No", it leads to the original sequence of activities: displaying the unavailable status, informing the user about notifications, and providing a tracking reference. If the answer is "Yes", it directly leads to the "System validates and submits the request" step, which then leads to the final status update and completion.</p>



Fully-Dressed Use Case Comments Matrix

Panelist	Comment	Response
Ms. Gardon	<p>The alternate flow should contain only alternate routes which goes back to the main flow.</p>	<p>Revised the alternate flow to include alternate routes that leads back to the main flow, removing any unrelated details.</p> <div data-bbox="2257 1054 3640 1939" style="border: 1px solid black; padding: 10px;"><p>AF1: Invalid login credentials</p><ol style="list-style-type: none">1. If the login credentials are invalid, the system displays an error message.2. The user is prompted to re-enter their credentials.3. Once the user corrects their credentials after being prompted, the flow should return to the main sequence at Step 3, where the system verifies the credentials.<p>AF2: Missing or invalid sign-up information.</p><ol style="list-style-type: none">1. If the new user provides incomplete or invalid details during sign-up, the system displays an error message prompting the user to correct or complete the information.2. The user is prompted to correct or complete the missing information before the account is created3. After the user corrects the missing or invalid information, they should continue from Step 3 of the main flow, where the system saves the new account details and logs the user in automatically.</div>

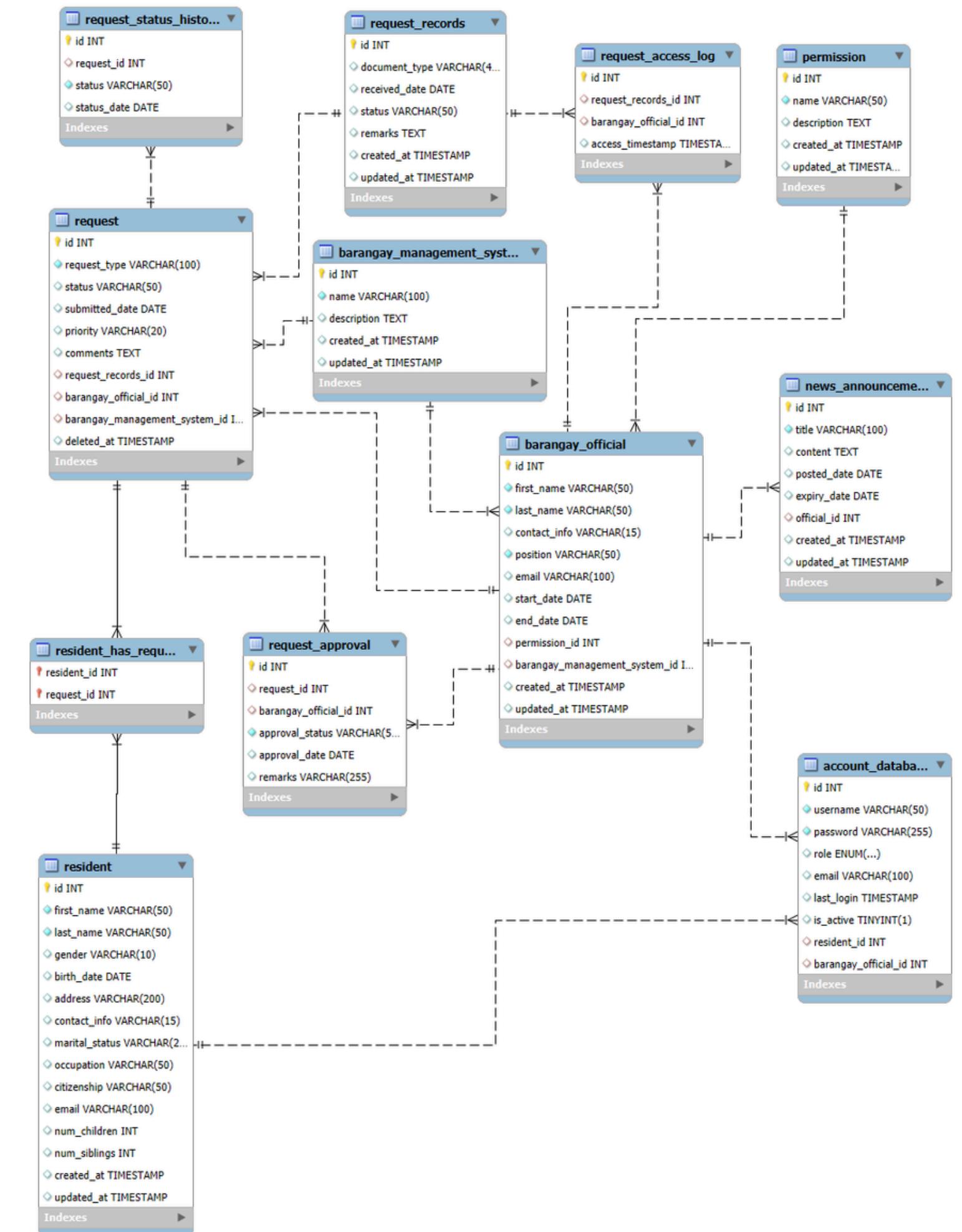


Entity Relationship Diagram

SISTEM | 802 - GO



Entity Relationship Diagram (ERD)





Github Repository & Cloud Hosted Prototype

SISTEM | 802 - GO



Contributions

	Documentation	Diagrams	Development
Joana Grace Garcia	<ul style="list-style-type: none">Final PaperPresentation Deck	<ul style="list-style-type: none">DFDFully-Dressed Use CaseTest Cases	Document Request Page
Jhon Iberson Marinas	<ul style="list-style-type: none">Comment Matrix	<ul style="list-style-type: none">Fully-Dressed Use CaseActivity Diagram w/ SwimlanesERD	About Us Section (Home Page)
Allan Miguel Moldez	<ul style="list-style-type: none">Final PaperMOTMs	<ul style="list-style-type: none">Use Case DiagramDFDFully-Dressed Use Case	Homepage
Hazel Ann Mones	<ul style="list-style-type: none">Final PaperDocumentation Lead	<ul style="list-style-type: none">DFDFully-Dressed Use CaseTest Cases	Log In and Register
Jose Enrique Nunez	<ul style="list-style-type: none">Comment Matrix	<ul style="list-style-type: none">Fully-Dressed Use CaseActivity Diagram w/ SwimlanesERD	Barangay Contact Section (Home Page)