**Barangay Clearance Request System**

A Capstone Project Presented to Northeastern Cebu Colleges, Inc.

In Partial Fulfilment of the Requirement for ASSOCIATE IN COMPUTER TECHNOLOGY

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A.Y 2024-2025

**CHAPTER 1**

**PROJECT CONTEXT**

The inefficiency of manual barangay clearance request systems reflects broader challenges in local governance and administrative processes, particularly in developing countries. Traditional paper-based systems often result in long processing times, lost or misplaced records, and a lack of transparency (Gupta & Sharma, 2020). This inefficiency is worsen by limited digital infrastructure, making it difficult for residents to access essential services conveniently (Minges, 2019). Additionally, security concerns arise from the manual handling of sensitive personal data, increasing the risk of unauthorized access or document falsification (Bertot, Jaeger, & Grimes, 2010). These issues highlight the need for digital transformation in local government services, as seen in global e-governance initiatives that aim to enhance efficiency, accountability, and accessibility (UN E-Government Survey, 2022). The transition to a digital Barangay Clearance Request System can address these concerns by automating processes, securing data, and improving service delivery for residents.

In the Philippines, the manual processing of barangay clearance requests poses significant challenges, including inefficiency, delays, and lack of proper record-keeping. Studies have shown that many barangay offices still rely on paper-based systems, making it difficult to retrieve records and increasing the risk of misplaced or lost documents (Dizon & Reyes, 2021). This outdated approach also contributes to long waiting times for residents, especially in highly populated barangays, where demand for clearance certificates is high (Garcia & Santos, 2020). Furthermore, security concerns arise due to the manual handling of personal information, making data vulnerable to unauthorized access or forgery (Lopez & Cruz, 2019). The implementation of a Barangay Clearance Request System can significantly improve efficiency, ensure data security, and provide better accessibility for residents, aligning with the country's digital transformation initiatives (DICT, 2022).

Residents and barangay officials often face various challenges in the manual processing of barangay clearances, highlighting the need for an automated Barangay Clearance Request System. Many residents experience long waiting time and line, causing inconvenience, especially for those with busy work schedules or mobility issues such as senior citizens and persons with disabilities. Additionally, manual record-keeping increases the risk of lost or misplaced documents, making it difficult for both officials and residents to retrieve past records. Human errors, such as misspelled names or incorrect details, further delay processing and may lead to issues when using the clearance for official transactions. Security and privacy concerns also arise, as paper-based records are vulnerable to unauthorized access and faking. Furthermore, the lack of an online system limits accessibility, forcing residents in remote areas to travel long distances to request clearances. These challenges emphasize the urgent need for a digital Barangay Clearance Request System, which would streamline processes, enhance data security, and improve overall service efficiency.

Hence, the Barangay Clearance Request System is a vital innovation that addresses the inefficiencies of manual processing by providing a faster, more secure, and more accessible way for residents to request clearances. By automating transactions, enhancing record-keeping, and ensuring data security, this system improves the overall service delivery of barangay offices. Its implementation not only benefits residents by reducing waiting times and enhancing convenience but also supports barangay officials in managing records more effectively. As local governments move towards digital transformation, this system serves as a crucial step in modernizing barangay services and promoting efficient governance.

**PURPOSE AND DISCRIPTION**

The Barangay Clearance Request System can significantly improve efficiency, accessibility, and security. Research shows that digital platforms streamline processes, reduce delays, and enhance service delivery, as demonstrated in countries like Estonia and South Korea (World Bank, 2021). The Smart Nation Initiative in Singapore showcases how automation minimizes waiting times and enhances citizen convenience (Government of Singapore, 2020). Scholars also stress the importance of encrypted digital record-keeping and secure user authentication, aligning with GDPR standards in Europe (European Commission, 2020). Furthermore, the World Bank (2021) highlights that automated identity verification helps reduce errors and ensures document authenticity. In addition, Green ICT initiatives promote paperless transactions, contributing to environmental sustainability (United Nations ESCAP, 2019). These global trends confirm that digitalization enhances public service efficiency, data security, and environmental responsibility, aligning with broader e-governance developments.

Barangay Clearance Request System, particularly in enhancing efficiency, accessibility, and security in barangay operations. Research on e-governance in the Philippines emphasizes how digital platforms streamline government services, reducing processing time and minimizing manual errors (Dela Cruz, 2020). Studies by Luz et al. (2021) on online government transactions show that automation in barangay services leads to faster and more reliable clearance issuance, benefiting both residents and officials. Additionally, research by Reyes and Santos (2019) highlights the importance of secure digital record-keeping in preventing data loss and unauthorized access, ensuring transparency and accountability in local governance. The Philippine E-Government Master Plan (EGMP 2022) also supports automated verification and tracking systems, which improve service efficiency and citizen engagement. Furthermore, paperless transactions promoted by digital systems align with the country’s sustainability initiatives by reducing paper waste and administrative costs. These local studies confirm that the Barangay Clearance Request System modernizes local government operations, making services more convenient, secure, and efficient for both barangay officials and residents.

To address the inefficiencies of manual barangay clearance processing, the implementation of a digital and offline Barangay Clearance Request System is a practical solution. This system can automate form submissions, resident data management, and clearance issuance, significantly reducing processing time and minimizing human error (World Bank, 2021). An offline system ensures reliability in areas with limited or no internet connectivity, which is common in many rural barangays (Asian Development Bank, 2020). Integrating secure local databases and user authentication protocols can enhance data privacy and protect sensitive resident information, aligning with global standards like the GDPR (European Commission, 2020). Additionally, adopting digital templates and automated logs promotes transparency and reduces paper consumption, supporting sustainable governance practices (United Nations ESCAP, 2019). Overall, a localized, secure, and automated system enhances service delivery and strengthens administrative efficiency at the barangay level.

Developing a Barangay Clearance Request System is essential to address the inefficiencies of the current manual process and improve the overall experience for both residents and barangay officials. The researchers use Vb.net (Visual Basic .NET), SQL (Structured Query Language), and Crystal Report.

**OBJECTIVES**

To develop an offline Barangay Clearance Request System that automates and efficient clearance application and issuance process.

This study aims to:

To allow barangay staff to store and retrieve resident records digitally

To automate the clearance request, approval, and printing process

To enable the system to work without internet connection

To generate reports and maintain logs of all transactions

**SCOPE AND LIMITATIONS**

**SCOPE**

The Barangay Clearance Request System is designed to streamline the process of requesting and issuing barangay clearances in an offline environment. The scope of the system includes:

1.Resident Information Management: Storing, updating, and retrieving resident profiles for easy reference.

2.Clearance Request Processing: Logging and tracking requests for barangay clearance documents.

3.Approval Module: Allowing authorized personnel to approve or reject requests based on residency status or barangay records.

4.Offline Functionality: The system runs entirely without internet access, suitable for barangays with limited connectivity.

5.User Access Levels: Admin and staff users with role-specific permissions to protect data integrity.

**LIMITATIONS**

While the system offers improved efficiency and organization, it has the following limitations:

1.No Online Access: Residents cannot request clearances remotely; all requests must be done on-site.

2.Single-Device Deployment: The system is intended for use on a single local computer; multi-user or networked access is not supported in the initial version.

3.Limited to Barangay Clearance: The system is focused only on barangay clearance requests and does not cover other barangay documents (e.g., indigency, residency).

4.Manual Backup Required: Although digital, backups must be manually performed to external storage devices to avoid data loss.

5.No Biometric or ID Scanning Integration: Identity verification is manual; the system does not currently support fingerprint or ID scanning.

**CHAPTER 2**

**REVIEW OF RELATED LITERATURE**

A Barangay Clearance Request System refers to a manual or semi-digital process by which individuals or organizations request and obtain official clearances from local or national authorities without relying on continuous internet access. These clearances may pertain to legal status, residency verification, employment eligibility, or business operations, depending on local governance practices. In many developing countries or regions with limited digital infrastructure, offline systems remain the primary mode of public service delivery (World Bank, 2021). Typically, clearance requests involve several in-person interactions, including form submission, identity verification, payment processing, and document issuance. While efficient in contexts with minimal digital penetration, offline systems are often criticized for being time-consuming, prone to corruption, and lacking in data traceability (UN E-Government Survey, 2022).

In an international context, offline systems continue to play a vital role in bridging the digital divide, especially in remote or underserved areas. For example, in Sub-Saharan Africa, South Asia, and parts of Southeast Asia, governments have implemented hybrid models where citizens submit clearance requests offline, but records are later digitized by administrative staff (International Telecommunication Union, 2020). This ensures service continuity while gradually transitioning toward full digitalization. Challenges commonly associated with offline clearance systems include: Lack of transparency and auditability delays in processing and service delivery Risk of document forgery or loss High administrative costs Nonetheless, offline systems remain essential in ensuring equitable access to government services, especially in regions where internet connectivity is unreliable or unaffordable. Governments and development partners are increasingly investing in offline-first solutions—digital tools that can function without constant internet and sync data once connectivity resumes (GSMA, 2021).

A Barangay Clearance Request System in the Philippine local government context refers to the traditional, manual process by which residents or businesses request official clearances—such as barangay clearances, business permits, or police clearances—from their respective local government units (LGUs). This system is still widely used in rural areas and smaller municipalities where digital infrastructure is limited or where constituents prefer face-to-face transactions due to familiarity and accessibility. In a typical setup, residents physically visit the barangay hall or municipal office, fill out paper forms, submit required documents (e.g., valid ID, proof of residence), and pay fees over the counter. The clearance is then processed and issued manually, often within the same day or within a few days depending on workload and staffing.

According to the Department of the Interior and Local Government (DILG), barangay clearance is a vital document required for employment, job application, travel, or business registration, and is considered proof of good moral standing within the community (DILG, 2020). Despite national efforts to promote e-governance, many LGUs continue to rely on offline systems due to budget constraints, lack of IT infrastructure, or digital literacy gaps.

Some key characteristics and challenges of offline clearance systems in local settings include: Manual record-keeping, which may lead to lost or damaged files Long queues and waiting times due to limited staffing Limited transparency and tracking mechanisms Higher risk of bureaucratic inefficiency or corruption. Despite these limitations, the offline system remains an essential service delivery mechanism, especially in geographically isolated or disadvantaged areas. It allows citizens without access to digital tools or the internet to engage with local governance structures and obtain necessary documents for legal and socio-economic participation. The Philippine government, through the Digital Governance Awards and initiatives such as the Integrated Local Government Unit System (ILGU’s), is actively encouraging the transition from manual to digital systems while ensuring that no community is excluded from basic public services (DICT, 2022).

The effectiveness of the Barangay Clearance Request System in an international context highlights the growing success of localized e-governance models in improving service delivery, transparency, and civic engagement. By digitizing the process of issuing barangay clearances, this system reduces processing time, minimizes bureaucratic inefficiencies, and lowers the risk of corruption often associated with manual documentation (OECD, 2019). In developing countries like the Philippines, where the barangay serves as the most grassroots level of governance, digital clearance systems can bridge the gap between citizens and government, ensuring more inclusive access to legal and administrative services (World Bank, 2021). Moreover, the integration of such systems with national ID databases and payment platforms enhances data accuracy and convenience, aligning with global standards for digital government services (UN E-Government Survey, 2022). These outcomes reflect the broader international trend of leveraging digital technologies to modernize public administration, particularly in underserved communities.

The effectiveness of the Barangay Clearance Request System in a local Philippine setting lies in its ability to enhance accessibility, streamline administrative processes, and promote transparency at the community level. Traditionally a manual process, the shift toward digitized or semi-automated systems in some barangays has significantly reduced waiting times and human error, while improving the tracking and issuance of clearances (DICT, 2022). In areas where the system has been successfully implemented, residents report greater satisfaction due to more efficient service delivery and reduced need for multiple visits to barangay offices (DILG, 2021). Moreover, the system supports the objectives of the Philippine e-Government Master Plan, which seeks to foster more responsive and accountable local governance (DICT, 2020). However, its effectiveness is still constrained in remote barangays lacking sufficient digital infrastructure, highlighting the need for broader ICT investment and capacity-building efforts across local government units.

Here are key legal bases and articles related to the Barangay Clearance Request System.

1. Local Government Code of 1991 (Republic Act No. 7160)

Section 152(c) – Tax on Business States that barangays may impose fees and charges for services rendered in connection with the operation of business and the issuance of barangay clearance. It establishes the barangay’s authority to issue clearances for business permits and other activities within its jurisdiction. Section 393(b)(5) – Powers, Duties, and Functions of the Barangay Secretary Requires the barangay secretary to issue and keep records of barangay clearances and other documentation.

2. Revised Katarungang Pambarangay Law (Chapter 7 of RA 7160) Barangay clearance may also serve as proof that a dispute has not been filed or is not pending before the Lupong Tagapamayapa, especially when needed for legal or administrative purposes.

3. Department of the Interior and Local Government (DILG) Memorandum Circulars DILG Memorandum Circular No. 2019-72 – Guidelines for Issuance of Barangay Clearance for Business Permit Applications Clarifies that barangay clearances should be issued promptly and outlines standardized processing procedures. Reinforces the “Ease of Doing Business” principles under RA 11032.

4. Republic Act No. 11032 – Ease of Doing Business and Efficient Government Service Delivery Act of 2018

Mandates all government agencies, including LGUs and barangays, to streamline procedures for issuing permits and clearances. Supports digital transformation initiatives like online barangay clearance systems.

These legal frameworks ensure that barangay clearance issuance is anchored in proper local governance, transparency, and service efficiency.

In conclusion, the Review of Related Literature (RRL) on the Barangay Clearance Request System highlights the system’s critical role in efficient local government services, enhancing administrative efficiency, and promoting transparency at the grassroots level. Drawing from both local and international sources, the literature underscores how digitizing the barangay clearance process aligns with broader government services initiatives and supports inclusive service delivery, especially in underserved communities. While significant progress has been made in integrating digital solutions, the success of such system ultimately depends on adequate infrastructure, policy support, and the capacity-building of local government units. This foundation sets the stage for further innovations and reforms that can strengthen local governance in the Philippines.

**TECHNICAL BACKGROUND**

1. Barangay – The smallest administrative division in the Philippines, equivalent to a village or district, governed by elected officials and responsible for local governance and public services within its jurisdiction.
2. Residents – Are the people officially recognized by the barangay as members of the community, often validated through a certificate of residency or valid identification, and are eligible to request services such as barangay clearances.
3. Barangay Clearance – An official document issued by the barangay certifying that an individual or business is in good standing in the community, has no pending legal issues, and is qualified to engage in specific activities such as employment, travel, or business operations.
4. Clearance Request – The formal process by which a resident or business submits an application to obtain a barangay clearance, often requiring the submission of identification, documentation, and payment of fees.
5. Barangay Clearance Request System – A system, either manual (offline) or digital (online), designed to manage the end-to-end process of applying for, verifying, approving, and issuing barangay clearances.
6. Local Government Unit (LGU) – A political subdivision in the Philippines, such as a province, city, municipality, or barangay, responsible for delivering basic public services and enforcing local regulations.
7. E-Governance – The use of information and communication technologies (ICT) to enhance the delivery of government services, promote transparency, and engage citizens more effectively.
8. Manual System – A traditional, paper-based method of processing clearance requests that involves in-person submission and manual record – keeping.

**CHAPTER 3**

**METHODOLOGY**

The Barangay Clearance Request System (BCRS) for Barangay Baring, located in Carmen, Cebu, aims to improve the existing offline process of requesting and issuing barangay clearances. Barangay clearance is an essential document required by residents for various purposes, including employment, business permits, and legal procedures. However, the current offline process, which involves manual paperwork and face-to-face interactions, can often be slow, prone to human error, and inefficient. To address these challenges, the BCRS will optimize the manual process through a more organized, efficient workflow while still relying on offline procedures. The system will enhance the efficiency of request submission, document approval, and issuance by implementing structured steps for each phase of the clearance process. This includes a tracking system for requests, a clearer approval chain, and automated record-keeping on paper forms to reduce delays and errors in issuing clearances. This project will follow the Agile methodology, an repetitive and flexible approach focused on collaboration, continuous feedback, and progressive improvements. Even though the process is offline, Agile will allow the Barangay staff to refine workflows step by step, gathering feedback from the users Barangay staff and residents and making adjustments as necessary. The project will be developed in defined phases: Planning Phase, Design Phase, Development Phase, Testing Phase, Deployment Phase, Review & Retrospective Phase. Each phase aims to introduce improvements to the offline process, focusing on increasing efficiency, reducing wait times, and minimizing errors, while ensuring that the new workflows are easy for both Barangay officials and residents to follow. Agile methodology ensures that the process evolves repeatedly, with feedback from users incorporated into each phase, guaranteeing a well-tested and effective system.

**Planning Phase**

The Planning Phase focuses on organizing the project into manageable tasks. The development team and stakeholders identify the user stories that define the core functionalities of the system. Based on these user stories, the team creates the product backlog, where tasks are prioritized according to their business value. At this stage, the team will break down the backlog into smaller iterations called sprints, each lasting 2-4 weeks. The initial sprint is planned, and the key features for the first release are identified, such as creating a user registration system and implementing the basic clearance request submission process. The team sets clear goals for the sprint and allocates resources accordingly. This phase ensures that everyone is aligned on the priorities and objectives for the first development cycle.

**Design Phase**

In the Design Phase, the development team works on creating the architecture and user interfaces that will be implemented in the system. Detailed wireframes, mockups, and prototypes are created based on the user stories defined earlier. These designs address the user’s needs, ensuring the system is intuitive and user-friendly for both residents and Barangay officials. The team also outlines the technical architecture, including the backend system design, database schema, and integration points with other services, if necessary. In collaboration with the stakeholders, the team ensures that the design meets all functional and non-functional requirements. The designs are reviewed regularly, and necessary revisions are made before development begins.

**Development Phase**

The Development Phase follows an repetitive process, where features are developed in short sprints (typically 2-4 weeks). During each sprint, the development team focuses on completing a set of prioritized features from the product backlog. The team conducts daily stand-up meetings to ensure open communication, track progress, and resolve any blockers. Continuous integration is used to integrate new features, and regular testing is performed to ensure quality. The team follows an incremental approach, releasing the core functionalities early (e.g., clearance request submission and basic approval workflow) and continuously improving the system with each sprint. This phase allows the stakeholders to review the progress frequently and provide feedback for improvements.

**Testing Phase**

The Testing Phase occurs continuously during the Development Phase, as Agile emphasizes continuous validation and feedback. At the end of each sprint, the system undergoes various types of testing, including functional testing (to ensure that features work as expected), usability testing (to ensure the system is easy for users to navigate), and performance testing (to evaluate the system's flexibility). Feedback from actual users (Barangay officials and residents) is collected during testing and used to make adjustments or fix issues. The system is continuously refined based on these testing outcomes, ensuring that bugs are fixed quickly and the software is reliable before deployment.

**Deployment Phase**

The Deployment Phase involves releasing the completed system to live production, where Barangay officials and residents can start using it. The deployment is done incrementally, with initial releases focusing on core functionalities like filling up request forms digitally and clearance approval. User training is provided for Barangay staff to ensure smooth operation. The deployment team also monitors system performance post-launch to identify any issues that need immediate attention. After initial deployment, the team continues to gather feedback from users, ensuring that the system is running smoothly and meeting user expectations. The deployment phase may involve several minor updates or patches to address any early-stage bugs or improvement requests.

**Review & Retrospective Phase**

The Review & Retrospective Phase happens at the end of each sprint and at the end of the project. In this phase, the team holds a sprint review meeting with stakeholders to demonstrate the progress made and obtain feedback. The development team presents the newly implemented features and any enhancements. Afterward, the team conducts a retrospective meeting to discuss what went well during the sprint, what could have been improved, and what actions should be taken for the next sprint. This phase encourages a continuous improvement cycle, where the team learns from each iteration and adapts its processes, enhancing collaboration, communication, and efficiency for future sprints.

**REQUIREMENTS ANALYSIS**

The Barangay Clearance Request System (BCRS) aims to have efficient and improve the process of applying for and issuing barangay clearances in Barangay Cogon East, Carmen, Cebu. The system involves collecting specific inputs, processing these requests by the Barangay staff, and producing outputs, such as clearance approvals, rejections, and documents. This analysis defines the inputs, processes, and outputs involved in the system.

**Input**

The input defines the data and information that the system requires to function correctly. These inputs are primarily provided by the residents and some of the data provided by the Barangay staff to ensure the accurate processing of requests.

Resident Input

Resident Information:

Full Name: The full name of the resident requesting the clearance. Address: The current address of the resident, for verification.

Purpose of Clearance:

The specific purpose for which the clearance is needed (e.g., employment, business permits, legal reasons).

Type of Clearance Requested:

Depending on the requirement, residents may need to select or specify the type of clearance (e.g., general clearance, business clearance, employment clearance).

Supporting Documents:

Residents must submit supporting documents based on the type of clearance being requested (e.g., ID cards, proof of address, business registration documents).

Payment Information (if applicable):

Payment for the clearance if there is a processing fee (e.g., payment receipt or payment log).

Barangay Staff Input

Request Logging:

Clearance Request Logs: Staff will log the requests manually in a logbook or form, recording the date of submission and request reference number for each resident's request.

Approval/Verification Data:

Information provided by staff during the verification and approval process. This can include data like approval signatures, rejection reasons, or date of approval.

**Process**

The process describes the series of steps the system follows to handle the input and transform it into meaningful output. This includes how Barangay staff processes the request, approves or rejects it, and generates any necessary documents.

Resident Request Processing

Request Submission:

The resident submits the clearance request form along with the necessary supporting documents and payment information (if applicable).

Barangay staff logs the request in a physical tracking system (logbook or register) with a unique reference number for tracking.

Verification: Barangay staff verifies the resident’s details by checking the submitted information, including address verification and document authenticity.

If the resident's request does not meet the required criteria or is missing information, staff will either ask the resident to provide additional information or reject the request (with a valid reason).

Approval Process:

After successful verification, the request is forwarded to the appropriate Barangay official (or higher authority) for approval.

The official will either approve or reject the request based on the information presented. The decision is logged into the system.

If approved, the payment (if applicable) is verified, and the request is marked as ready for clearance issuance.

Issuance of Clearance:

Once the clearance is approved, the Barangay staff prepares the official clearance and notifies the resident that their clearance is ready for collection. If the clearance is not approved, the resident is notified with a reason for rejection.

Record Keeping and Reporting

Data Storage:

All request logs, approvals, rejections, and clearance issuance details are recorded manually in physical logs or files and organized for easy retrieval.

The system should ensure that no requests are lost and that proper records are kept for audit purposes.

Report Generation:

Barangay staff can generate reports that summarize clearance requests (e.g., number of requests processed, approved, and rejected).

Reports are typically used for monthly statistics and performance monitoring.

**Output**

The output refers to the result of processing the inputs, which include the responses, approvals, documents, and notifications generated by the system.

Resident Output

Approval/Disapproval Notification:

Residents will receive a notification once their clearance request is approved or rejected. This notification can be given via phone call, email, or in-person communication.

If the request is rejected, the notification will include the reason for rejection and any additional instructions (e.g., submit missing documents).

Clearance Document:

Once approved, the Barangay Clearance document is issued to the resident. This document will include:

Resident’s name.

Purpose for the clearance.

Clearance issuance date.

Barangay official’s signature.

A unique reference number.

Payment receipt (if applicable).

Payment Receipt:

If there is a payment required for the clearance, a payment receipt will be issued to the resident, documenting the amount paid, date, and method of payment.

Barangay Staff Output

Approval and Rejection Logs:

Barangay staff maintain a logbook or spreadsheet of approved and rejected clearance requests, recording the necessary details such as approval status, payment status, and issuance details.

Reports:

Staff can generate monthly or annual reports showing the number of requests received, approved, rejected, total fees collected, etc.

This can help the Barangay office manage workloads and allocate resources more effectively.

Clearance Issuance:

Staff prepares the clearance certificate and ensures that it is signed by the Barangay Head or other authorized personnel before being given to the resident.

This Input-Process-Output (IPO) model for the Barangay Clearance Request System (BCRS) helps to clarify the flow of information and the roles of residents and Barangay staff throughout the clearance request process. By understanding the inputs, processes, and outputs, both residents and Barangay officials can benefit from a more organized and efficient system. The manual system is designed to ensure accuracy, transparency, and timeliness in the clearance issuance process.

**NARRATIVE**

The Barangay Clearance Request System (BCRS) is designed to streamline the process of requesting and issuing barangay clearances. The process begins with a staff member logging into the system using their account credentials. Once logged in, the staff collects the personal information of the resident and fills up a request form on their behalf. After completing the form, the staff validates the information to ensure it is complete and accurate. The validated request form is then encoded into the BCRS, where it is stored for further processing.

Once the request form is encoded, the system retrieves the request details and generates the barangay clearance document. This generated clearance is then forwarded to the barangay captain for review. The barangay captain assesses the request and, if all conditions are met, approves the clearance. After the request is approved, the finalized barangay clearance is issued and made available to the resident, completing the process efficiently and accurately.

**CONTEXT DIAGRAM**

Barangay Captain

Resident

views application

status

verifies approval

request

0

BARANGAY CLEARANCE REQUEST SYSTEM

approves/rejects

clearances

manages

records

Barangay Staff

approves/rejects

clearance

**DATA FLOW DIAGRAM**

1

Log-in account

Staff

account details logged account BCRS

2

Fill-up request form

Filled-up personal

Resident

RF information

3

Validate request form

Encoded

RF

4

Encode request form

Filled-up validated

RF RF

5

Generate BC

Barangay Captain

Generated RF

BC details

6

Approve request

Generated approved

\*

Resident

BC request

**ENTITY RELATIONSHIP DIAGRAM**

Barangay Official

PK official\_id

first\_name

last\_name

position

contact\_number

Approval

PK approval\_id

FK request\_id

FK official\_id

approval\_date

remarks

Clearance Request

PK request\_id

FK resident\_id

purpose

request\_date

status

clearance\_number

release\_date

Resident

PK resident\_id

first\_name

last\_name

address

birth\_date

contact\_number

email

LEGEND:

BCRS – Barangay Clearance Request System

RF – Request Form

BC - Barangay Clearance

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