Transparent Government Display System: Conceptual Implementation of CRUD approach

Project Presentation of Group 6

# The Team

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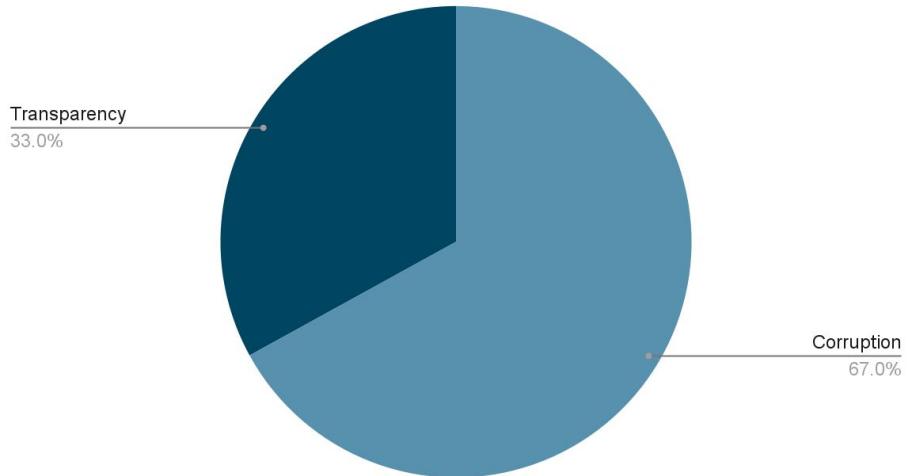
Demain

Introduction

Addressing the major challenge of a lack of transparency in public finance which enables the misuse of taxes and causes public distrust, a concern amplified by studies (Farazmand et al., 2022) suggesting that technological solutions like blockchain-based fund-tracking can make records traceable and tamper-proof, thereby strengthening accountability this project proposes to design and implement a transparent financial management system that makes financial records accessible, verifiable, and easier to audit by combining tamper-evident digital tracking, user-friendly public reporting, and compliance checks with existing Philippine laws such as Republic Act No. 6713 and Executive Order No. 2 of 2016, leveraging our expertise to ensure it is technically robust and legally aligned, with the ultimate goal of supporting and piloting the system within a local government unit to evaluate its effectiveness, gather stakeholder feedback, and scale the solution nationally if it demonstrably improves transparency and reduces financial irregularities.

Statistical Presentation

Points scored

Transparency
33.0%

Corruption
67.0%

PHILIPPINES

Score
33/100
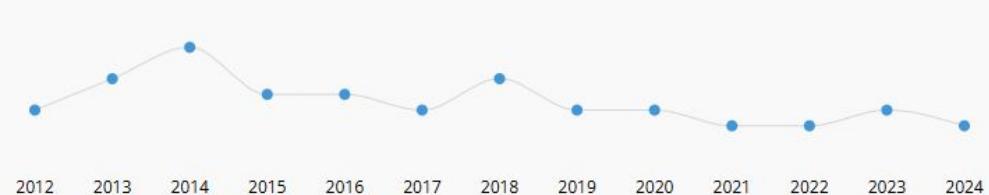
Rank
114/180

Score change
⬇ **-1** Since 2023

Score changes 2012 - 2024

40
38
36
34
32

2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

Objectives

1. Develop a management system that:
   a. Integrates a login feature to access information.
      I. For local user log-in (For the public with view feature only)
      II. For administrative log-in (For dedicated users to edit, delete, update, etc.)
   b. Read user credentials and privileges
   c. Displays and creates all project information such as, budget used, etc.
   d. Deletes outdated projects BUT stores it in the archive.
2. Test and evaluate the system's accuracy.

Pseudocode
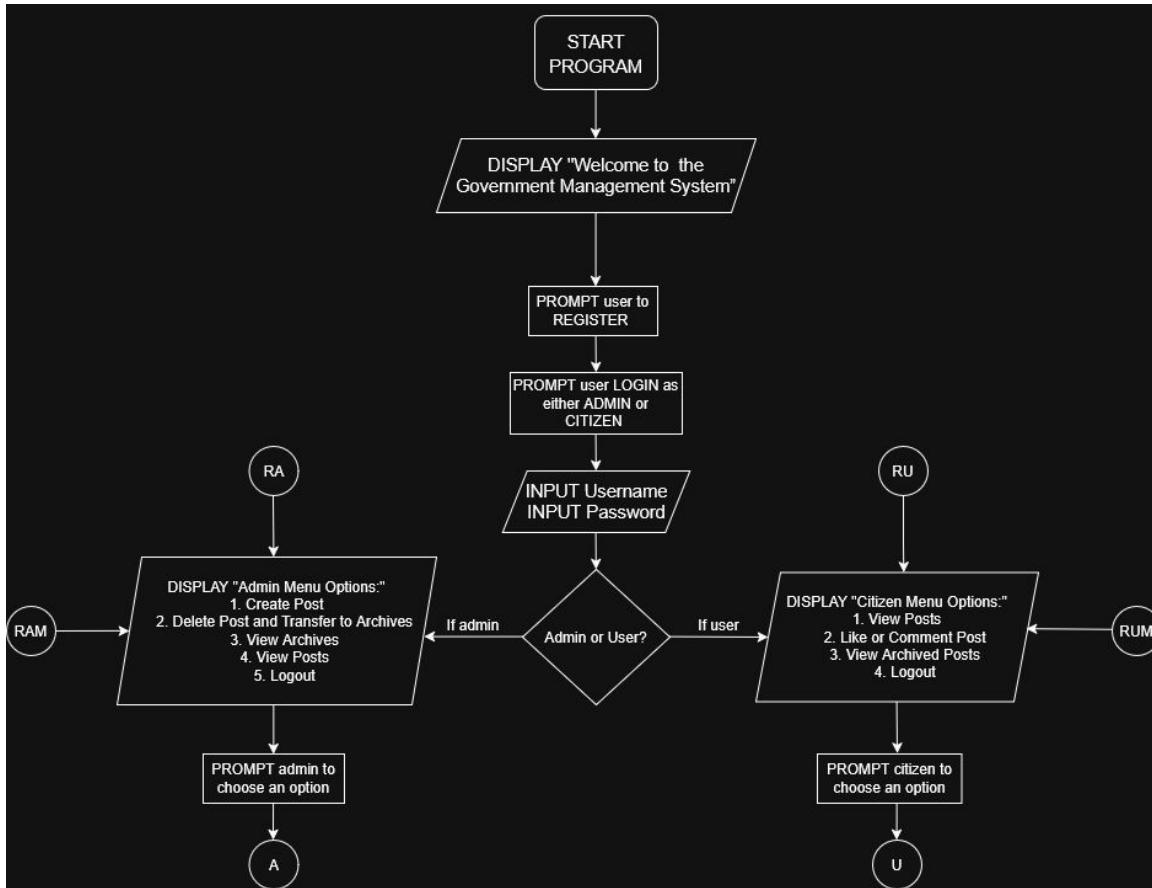
```
START PROGRAM
        DISPLAY "Welcome to the Government Management System"

        REPEAT
                DISPLAY "What would you like to do?"
                DISPLAY "(1) Register"
                DISPLAY "(2) Login"
                DISPLAY "(3) Admin Login"
                DISPLAY "(4) Exit"
                PROMPT user for choice

                IF choice = 1 THEN
                        CALL registration()
                ELSE IF choice = 2 THEN
                        CALL login()
                        IF login is successful THEN
                                CALL localMenu()
                        END IF // END THE IF STATEMENT
                END IF

                ELSE IF choice = 3 THEN
                        CALL adminLogin()
                        IF admin login is successful THEN
                                CALL codeInter() // ID
                                IF code is correct THEN
                                        CALL adminMenus()
                                END IF
                        END IF
                ELSE IF choice = 4 THEN
                        DISPLAY "Thank you for using our system!!"
                        EXIT LOOP
                ELSE
                        DISPLAY "Invalid Main Menu choice!"
                        WAIT for 2 seconds
                END IF
        UNTIL choice = 4
END PROGRAM
```
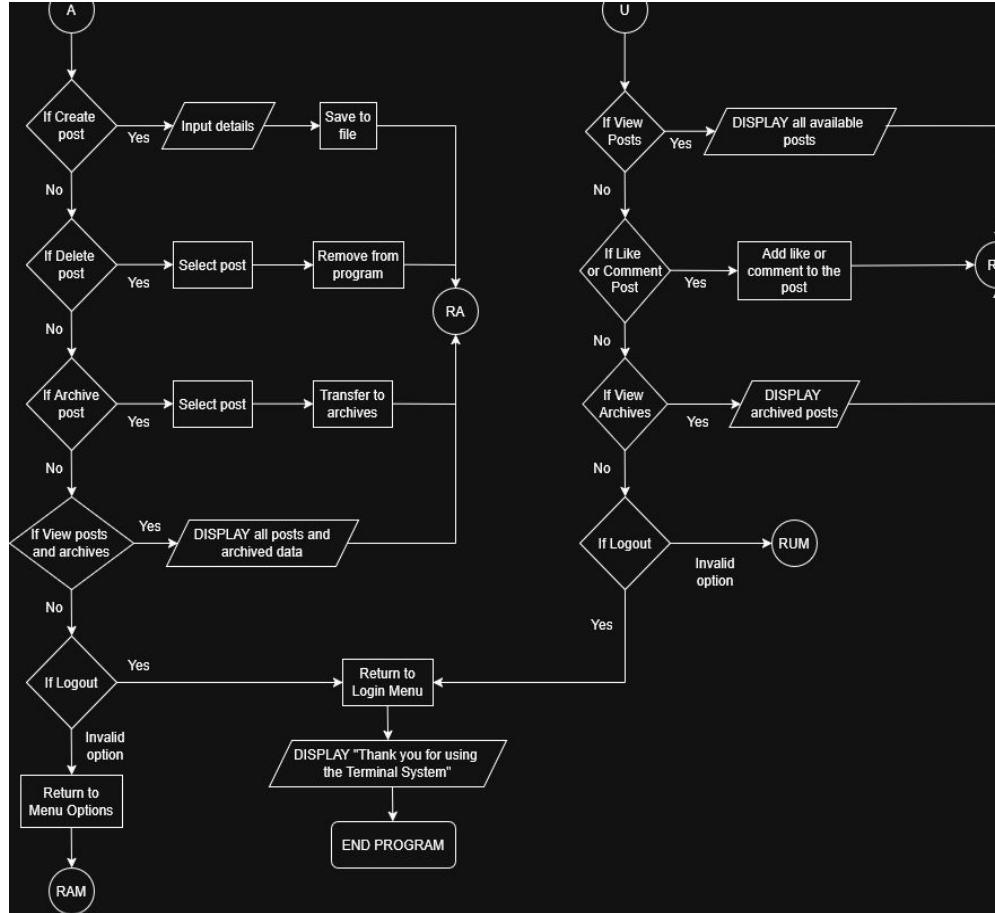
Flowchart

Flowchart

Results and Discussion

Testing		
Category	Remark	Result
User Registration	Saves Unique User and Pass	☑
Admin Login	Secured Verification	☑
View Project and Archives	Includes Filters and Displaying all Projects	☑
Create and Delete Posts	Saving and deleting with timestamps	☑
Archives Transfer	Moving to archives	☑
Error Input Handling	Detecting Invalid Inputs	☑

Conclusion

The development of the *Transparent Government Display System* successfully achieved its main objective to promote transparency by allowing citizens to view how government funds are utilized. The system effectively integrates essential features such as user and administrator login, project creation, updating, deletion, and archiving of outdated records. Through these functions, the project demonstrates how technology can strengthen accountability and public trust by providing accessible and organized information about government projects and expenditures.

All   the   objectives   were   met:
The **log-in system** ensures secure access and distinguishes between public users and administrative users with different privileges.

The **data management functions** (create, read, update, delete, and archive) allow proper record handling and ensure data integrity.

The **archiving feature** retains deleted project records for reference and transparency.

The **testing and evaluation phase** confirmed the system's reliability and accuracy in displaying project data.

References

- Abhishek, A., Rao, S., & Sinha, R. (2022). *Towards devising a fund management system using blockchain*. *arXiv preprint arXiv:2211.03613*. https://arxiv.org/abs/2211.03613

- Farazmand, A., Kim, S., & Rafiq, A. (2022). Corruption, lack of transparency and the misuse of public funds in times of crisis. *Public Organization Review, 22*(4), 901–915. https://doi.org/10.1007/s11115-022-00651-8

- Transparency International. (2024). Corruption Perceptions Index 2024 – Philippines. Retrieved from https://www.transparency.org/en/countries/philippines

- Zuijderwijk, A., Al Mushayt, O., & Janssen, M. (2025). *TAPAS: A pattern-based approach to assessing government transparency*. *arXiv preprint arXiv:2505.16413*. https://arxiv.org/abs/2505.16413