

ACTIVITY CITY ADMINISTRATION

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Abstract:

The project is designed to help citizens and the administrative body interact more smoothly, thanks to the power of the online platform. Citizens can now communicate ideas, participate in discussions, report issues and suggest or petition for changed administration on the platform. With this system, we wish to assure transparency, involve more public members and make our administration more flexible. Citizens must still come to the city hall offices to make their requests or express concerns. Working this way makes things difficult and can also tear citizens away from the people elected to govern their area. With the proposed platform, these problems will be simplified and communication between participants can be more effective.

Keywords — *Online platform, citizen-administration communication, transparency, flexibility, citizen engagement.*

1. Introduction

1.1 Objective

Developing an online platform that allows easy communication between the public and local government is the study's main objective. The platform works to conquer distance and time difficulties so that people can interact easily with local authorities. As a result, users will be able to express their ideas, talk with others, report issues and introduce suggestions meant to enhance the city's administration. The platform also wishes to help the government system become more open and flexible.

1.2 Existing System

For the most part, the system currently depends on manual methods. Anyone who wants to bring concerns or hints to the attention of city officials

must visit the office in person. The result of this system is both delays and a physical divide between the people and the officials. In practise, this way of working often causes the company to respond and communicate less efficiently.

1.3 Proposed System

The system we propose features an updated mechanism for communication to enhance what is currently being used. Offering an online system will connect citizens and administrative authorities without the usual time and distance problems. Because of this system, users will now be able to give their opinions, speak in public forums, file feedback and participate in improving urban administration from their phones or computers. The

proposed system tries to make it easier and better for citizens to connect with the administration.

2. System Analysis

2.1 System Study

To allow users more options, interfaces now can be used directly from a web browser. All Graphical User Interfaces (GUIs) can be categorised into two principal categories.

- The area you log in to manage your business.
- At the generic level, operational user interfaces are used.

The Administrative User Interface handles major data within an organisation and demands correct authentication to open it. An administrator can accomplish different data activities, including adding, removing or updating records through this interface. Big data querying is also possible with this tool because of its impressive search abilities.

The Operational (Generic) User Interface, by contrast, gives users the capacity to access and work with information already present. The interface is designed so users can handle their personal information however they like for each transaction and data task.

2.2 Input & Output Representation

Input Design

Carrying out input design aims to secure an economical way for recording accurate and clear input. There are six steps in input design:

- Data Recording
- Data Transcription

- Data Conversion
- Data Verification
- Data Control
- Data Transmission
- Data Validation
- Data Correction

An input is considered either direct or embedded input.

- The primary information comes directly from users.
- User communications with the system are internal inputs to IT support.
- Messaging from IT to the system is considered an operational input.
- Things you input during your conversations with the game.

The type of input data, flexibility in formats, how quickly it's processed, how correct it is, verification systems, how much it can be rejected, ease of corrections, the amount of storage space required, secure use, ease of use and how portable it is must all be considered when choosing input media. A keyboard is the right choice for user input because users input data right onto the keyboard.

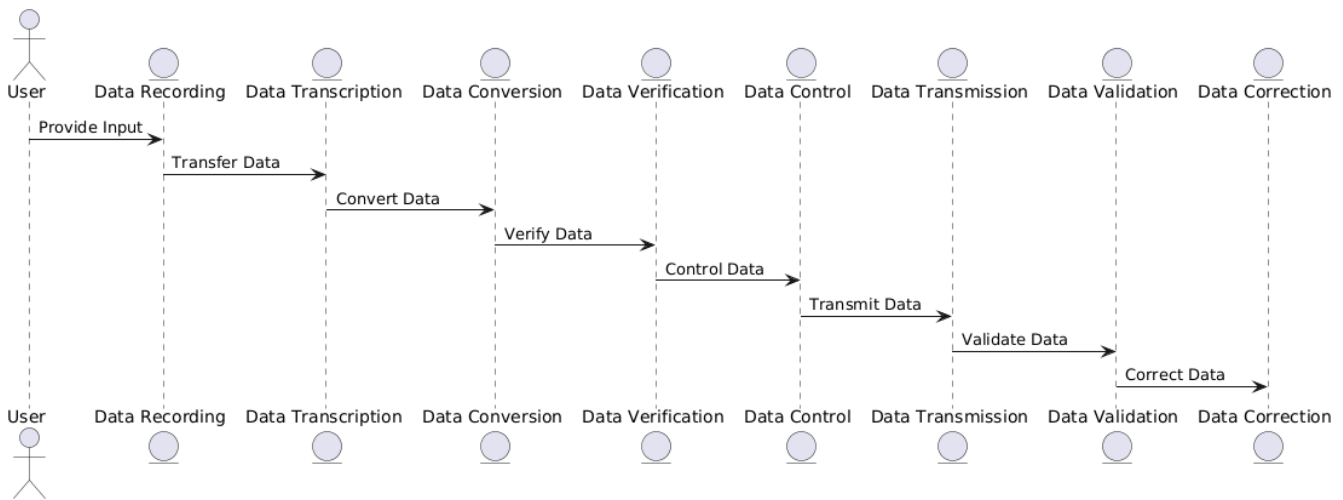


Fig1: Input&Output

Output Design

There are a variety of outputs that this technology leads to:

- Such outputs of external systems are called external outputs because they go beyond the boundaries of the organisation.
- Internal: Objects the user interacts with which isn't sent outside of the organisation.
- Content Created: Computer department uses this data.

- How users use the system is considered here.

The design process should outline the output in this way:

- The way you present your information will depend on the type, content and format you choose.
- How important is considering the location, frequency and volume?
- Series of Results

You must figure out the proper form of the data, whether figures need trailing zeros or not.

3. System Architecture

A visual aid is included below, showing the flow of user requests handled by the database and managed by the servers. The system architecture is built using 3-tier technology, where the layers are called Presentation, Business Logic and Data Link. Because of this architecture, developers can keep separate focus areas, so everything remains scalable and easy to maintain.

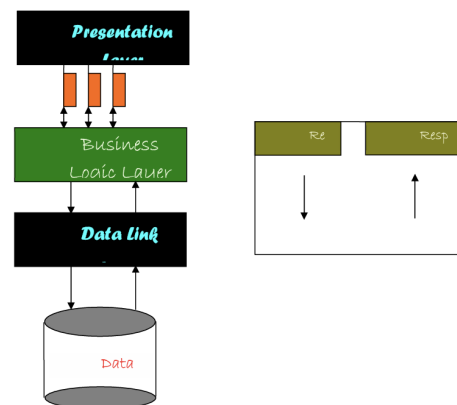


Fig1: Sys-Architecture

4. Software Requirements and Requirement Specification

The Software Requirements Specification (SRS) serves as the foundation of the software development process. During this phase, the goal is to create a comprehensive document detailing the client's requirements. This document is crucial for guiding both the development and validation processes of the software.

4.1 Project Scope

Purpose:

The purpose of this document is to give you a clear outline of what is needed now and what has been analysed. The document also establishes the required running practises for the new system.

Scope:

All parts of the SDLC are tied to this document, since it describes all the conditions for the system. The document is designed for developers to use and relied on during the testing cycle. Any time the requirements are updated, it will happen through a proper change approval process.

Responsibilities of the Developer:

- Work out the system using the specifications from the SRS and guarantee every necessary requirement is included.
- After all tests are complete and the system is approved, put it into practise and instal it at the client's place.
- Give the manual that provides details of system interfaces together with instructions on how to use the system.
- Those in charge should organise user training if they think it would be beneficial for the team to learn about the system effectively.
- Our clients are offered system maintenance for 12 months after we instal the appliance.

4.2 Functional Requirements

Every software engineering process needs to include Functional Requirements. These manuals

Specification (SRS)

list the technical features, details of the system's design and rules, tool kits and modules that control how information is managed and processed.

These needs differ from Non-Functional Requirements, as those concentrate on things like the system's performance, its quality, robustness, safeguards against threats, costs and constraints for development or design.

The main goal of finding functional requirements is to outline what a software system must do so that its technology supports the company's business procedures.

Functional Specifications (which is the same as Functional Requirements Document or Functional Requirement Specifications) spell out what features and tasks the system needs to have.

Key elements of Functional Requirements include:

- ⇒ Descriptions of the data that needs to be input into the system
- ⇒ Operations and actions associated with each screen
- ⇒ Workflows executed by the system
- ⇒ Reports or other outputs generated by the system
- ⇒ Who is authorized to input data into the system
- ⇒ How the system complies with relevant regulatory standards

4.3 Non-Functional Requirements

- **Performance:** By making the business logic independent of the user interface on the web server, the overall performance for web pages is increased.
- **Interface:** The system is created with simplicity in mind, so users of any skill level will be confident using it.
- **Usability:** The system is designed to be intuitive and user-friendly, ensuring ease of use even for novice users.
- **Supportability:** The cross-platform compatibility of the system is ensured because it runs on the Java platform.

- **Reliability:** Because it is based on Java, the system achieves greater reliability and security.

4.3.1 Performance Requirements

How efficiently the system produces the correct results is the main factor of its performance. A clear explanation of what is needed within the system is vital from the start of analysis to support user requirements. Making significant changes to a system once it's built is very hard which is why

user requirements should be known and recorded at the beginning.

The performance needed from the system has been detailed as follows: The system should seamlessly integrate with existing systems.

- Solutions should be easy to connect with other programmes already in use.
- It requires high accuracy levels.
- It should perform better than the current system both in how it works and in how efficiently it does so.

4.4 Software Requirements:

Technology	J2SE & J2EE
Web Technology	HTML, JavaScript, CSS
Web Server	Tomcat 5.5
Java Version	JDK 1.6
Backend Database	Oracle 10g

4.5 Hardware Requirements:

Processor	Pentium IV
RAM Capacity	1 GB

5. Design

5.1 Class Diagram

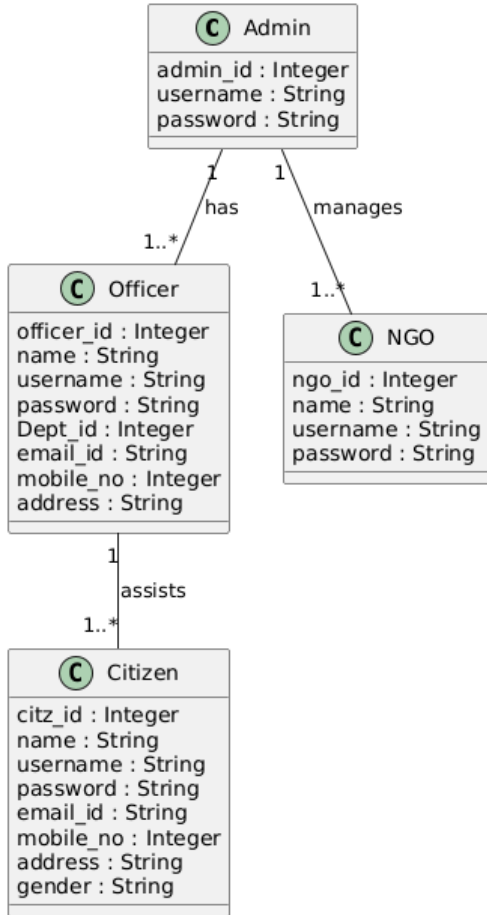


Fig3: class-Diagram

5.2 Use Case Diagram for Officer & NGO

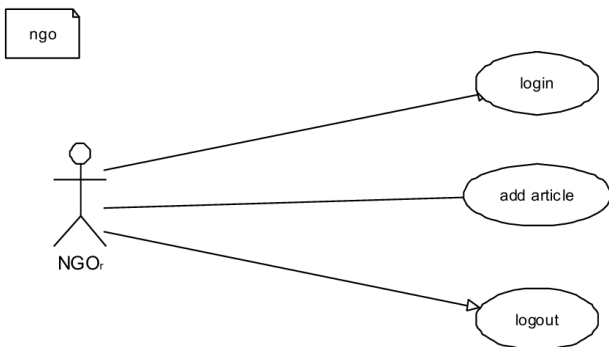


Fig4: Use:Case-Diagram-User

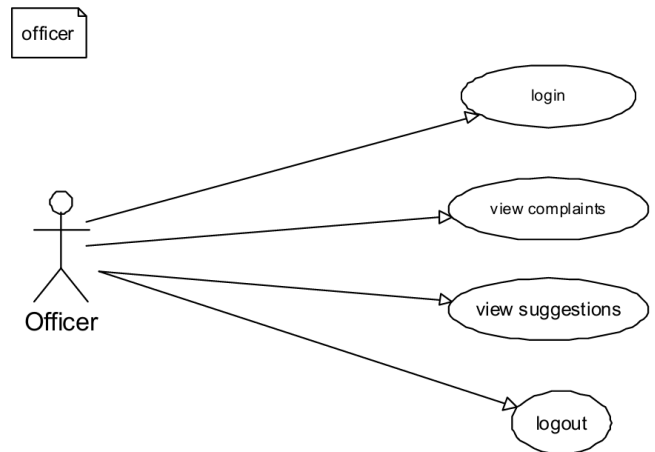


Fig5: Use:Case-Diagram-User

5.3 Sequence Diagram for Admin and Ngo:

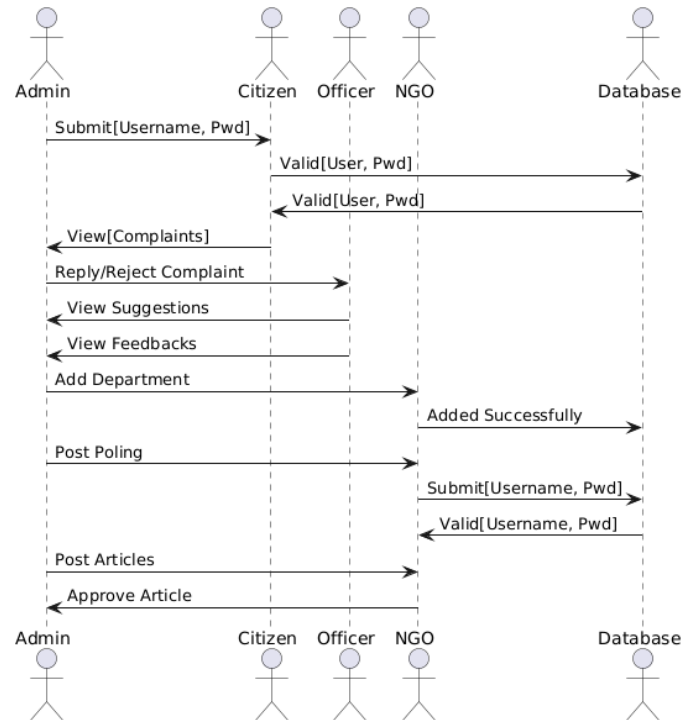


Fig6: Sequence-Diagram

5.4 Test Cases

Test Case ID	Test Case	Expecting Behaviour	Exhibiting Behaviour	Result
1	Enter the wrong Username and Password for Admin	Error message has to be displayed	Error message is displaying	Pass
2	Try to add new user	It has to add the new user	It is adding successfully	Pass
3	Login and try to send data from user	It has to allow to send	It is sending data	Pass
4	Login and try to receive data as user	It has to receive the data	It is receiving successfully	Pass
5	Try to get data transferring user to officer	It has to show the data	It is displaying data successfully	Pass
6	Display Service Time of data transferring	It has to show data transferring time	It is displaying result of data	Pass

6. Conclusion

Finally, the proposed web application is designed to manage and leave the process of moving and changing data within organisations and across cities, automatically over the internet. With data being sent securely, quickly and easily by the system, dealing with big data is not a problem. With the application, you can centralise the management of data streams, making sure only permitted people see confidential data. With its aim to work quickly, cost less and limit access, this solution helps organisations improve and trust their data management process. Thanks to the system, both data processing and teamwork are enhanced which improves the company's overall success.

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