

Digital Municipal

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Abstract The Main Purpose of Digital Municipal is to issue license, Permission and Lodge a Complaint through network instead of manual processing. In this, user details are submitted online instead of submitting manually. This reduces duplication and consumes less time. The application provides ease of access with a Secure Login page. It will reduce the applicant's effort by providing reliable and efficient communication online. The man -power requirement by the Government in this procedure can be reduced by such an application. This project is beneficiary both to the Government and Society as it propagates the concept of networking in which each node needs to capture its data but also disseminate their own data. Each node is dependent on other node and then they send the data into the network. Application serves the user with the list of available services with details. The user need not visit the Municipal office manually but he can visit virtually through this Application. The Applicant has the freedom of checking upon the application status and can keep track of the number of applications that have been applied.

Keywords Services, License, Permission, Complaint, Municipal, Police, Admin, User

1. Introduction

The aim of the project is to ease the access of various municipal license for the public. Application serves the user with the list of available services with details. The user need not visit the Municipal office manually but he can visit virtually through this Application.

1. It converts the manual processing into automated processing system between the authorities: City Corporation, District Commissioner Office and Police Station by connecting them through the network.
2. It eliminates the manual presence, paper work.
3. It will reduce the applicant's effort by providing reliable and efficient communication online.
4. Ease of access with a Secure Login page.
5. An applicant need not carry any documents with him often.
6. It requires less man Power for the Government.

The system has four users- Admin, Municipal, Police, Users.

Admin has all the privileges like making data entry, viewing all the details and also to view all the reports. All the requests sent by the user will be accessed and processed by the **Municipal** Staff which will be then sent to the Police Department for further processing based on the category the User has requested for. All the requests sent by the Municipal Staff members will be accessed and processed by

the Police staff by taking respective action and there by sending the verification results to the Municipal Staffs. User can use the application from the given Login ID and Password obtained after registration to apply for the License, Permission and Lodging complaint.

Functions: The system contains various functions that can be used by all the actors.

1. **User Management:** Is an authentication feature that provides admin with the ability to identify and control the state of users logged into the network.
2. **Request License:** Helps the user to apply for the New License.
3. **Renew License:** Helps the user to apply for the Renewal of License.
4. **Cancel License:** Helps the user to apply for the Cancellation of License and the staff to confirm the cancellation.
5. **License Category:** Helps the user to choose the type of license he wants.
6. **Permission Request:** Requesting for permission for Social, Religious or Political type.
7. **Enquiry:** Depending on the License or Permission type requested by the User, it helps the Police Staff members to carry out Spot Verification or Character Enquiry based on which the License and the Permission will be Approved or Cancelled.
8. **Complaint Request:** Lodging Complaint on various issues. Status: Gives the status of the application.
9. **Search:** Helps the Administrator to search the details or the status of various operations, according to the respective numbers or by Staff names.

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10. Reports: This is used to create reports from data collected from the database.

The world of the 21st century is shifting into being increasingly digital, powered by advances in computing, data storage and transfer capabilities. The pace is not likely to slow down. Many transactions are moving online: people do not have to leave their houses to make purchases or reservations to services and an immense mass of information is available real time to anyone with internet access. Furthermore, the people do not even have to be at their houses anymore to access this, the movement into mobile has been quick and comprehensive.

Private companies have embraced this change fast; in many industries it is a necessity for the continuity of the business.

Competitive advantage is sought for example by improved and individualized customer service, listening to customers, following the competition, online self service models, data integration of different business units, collecting information on the business and its performance and constantly analyzing and measuring success. In a fast changing environment, it is not about the survival of the strongest, but the most responsive to change. Interaction with one's customers is required to be able to react to change before it is too late. The existing website of the Mangalore city Corporation doesn't provide a means of applying for various license and permission, which lead us to think innovatively to develop a website and an android application that helps the society as well as the government.

2. Background

At present the procedure of issuing license is done manually. It includes a lot of paper work and documents need to be submitted manually in different authorities such as City Corporation, District Commissioner Office and Police Station. In the manual process the communication between authorities is difficult and time consuming.

To avoid this problem we introduce Digital Municipal to convert manual processing into automated processing system between authorities and establishing communication in an easy, simple and efficient way by connecting them through the network. This eliminates manual presence, paper work and completing the task in short period.

3. Implementation

The proposed system is implemented using the following tools:

Microsoft visual studio 2010

Microsoft visual studio is an integrated development environment from Microsoft. It is used to develop console and graphical user interface applications along with Windows Forms applications, websites, web applications,

and web services in both native code together with managed code for all platforms supported by the system is implemented using the various software tools:

My SQL

MySQL is the world's most widely used open source Relational Database Management System (RDBMS) that runs as a server providing multi-user access to a number of databases. MySQL is a popular choice of database for use in web applications, and is a central development of the widely used LAMP open source web application software stack. LAMP is an acronym for "Linux, Apache, MySQL, and Perl/PHP/Python" Free software-open source projects that require a full feature database management system often use MySQL.

Eclipse 3.7.2 (Classic) IDE for Java Developers

Eclipse is an integrated development environment (IDE). It contains a base workspace and an extensible plug-in system for customizing the environment. Written mostly in Java, Eclipse can be used to develop applications. By means of various plug-ins, Eclipse may also be used to develop applications in other programming languages.

ADT (Android Development Tools) Plug in for Eclipse

Android Development Tools (ADT) is a plug in for the Eclipse IDE that is designed to give a powerful, integrated environment to build Android applications. ADT extends the capabilities of Eclipse to let quickly set up new Android projects, create an application UI, add packages based on the Android Framework API, debug applications using the Android SDK tools, and even export signed (or unsigned). apk files in order to distribute application.

4. User Characteristics of the Proposed System

Admin: Admin has full-fledged rights with regards to create and manage the concerned user's account like adding, deleting, modifying and access to any user's profile. Admin registers the staff members and the users by giving them a Login ID and a Password to access the system.

Municipal: All the requests sent by the user will be accessed and processed by the Municipal Staff which will be then sent to the Police Department for further processing based on the category the user has requested for.

Police: All the requests sent by the Municipal Staff members will be accessed and processed by the Police Staff by taking respective action and there by sending the verification results to the Municipal Staffs.

User: User can use the application from the given Login ID and Password obtained after registration to apply for the License, Permission and Lodging complaint.

The control flow diagram of the system shows how the different actors perform various tasks through the network for the approval of documents.

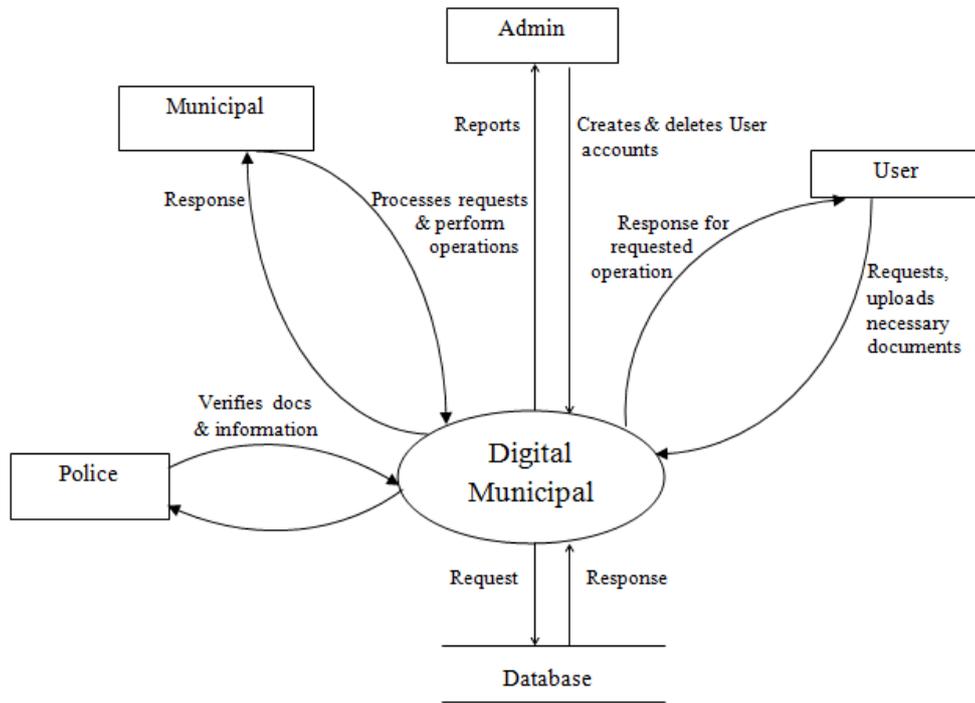


Figure 1. Control flow diagram for Digital Municipal

The system has an user interface that can be easily accessible to all the users. It starts with a homepage followed by a login page and the pages that provide the functionality.

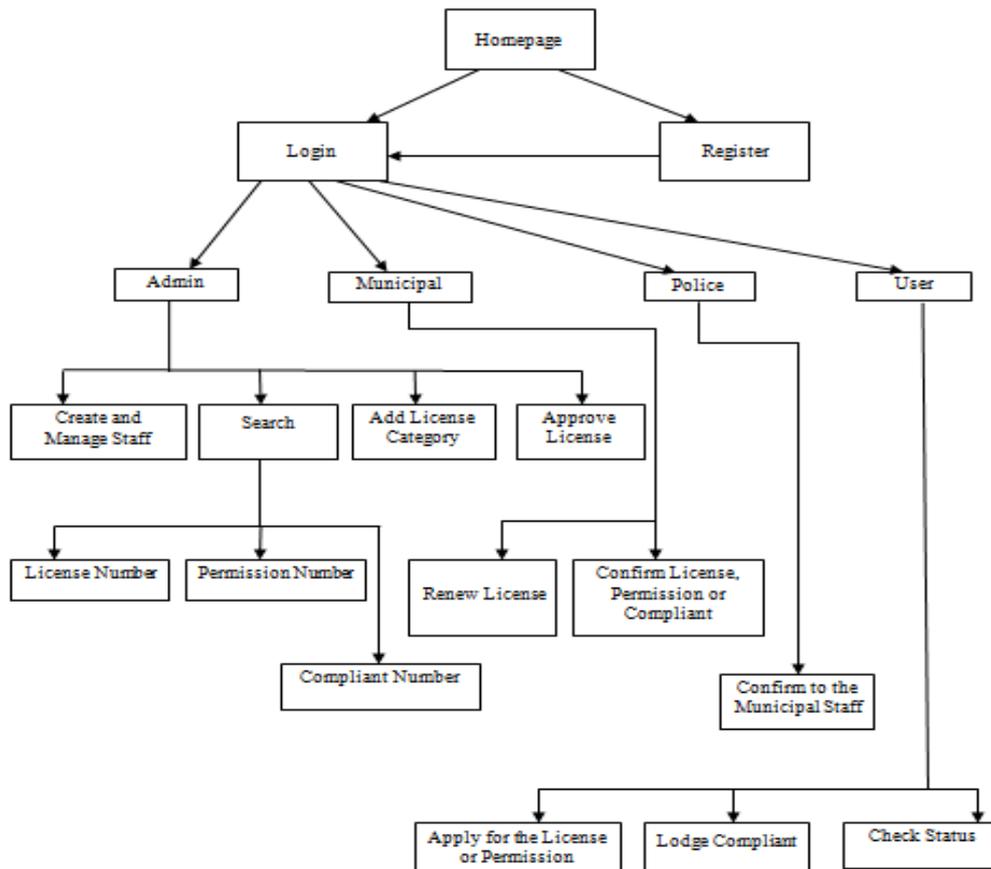


Figure 2. User Interface flow diagram

5. Methodology

A sequence diagram shows the participation in an interaction of a system and the sequence of messages among them. Each actor as well as the system is represented by a vertical line called Lifeline and each message by a horizontal arrow from the sender to the receiver. Time proceeds from top to bottom.

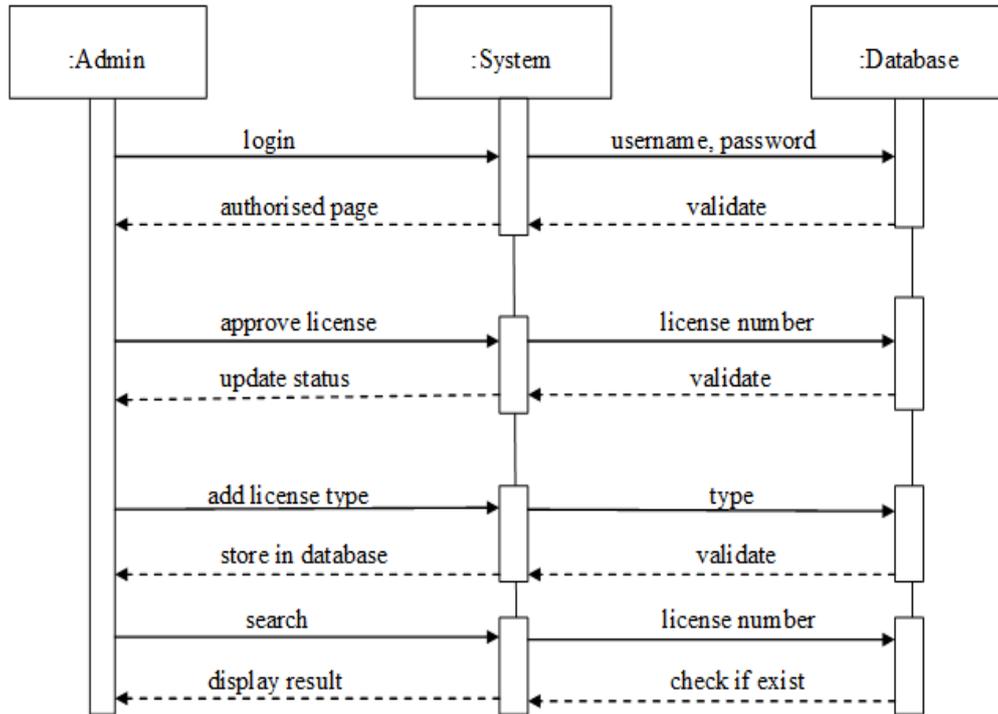


Figure 3. Sequence diagram for Admin

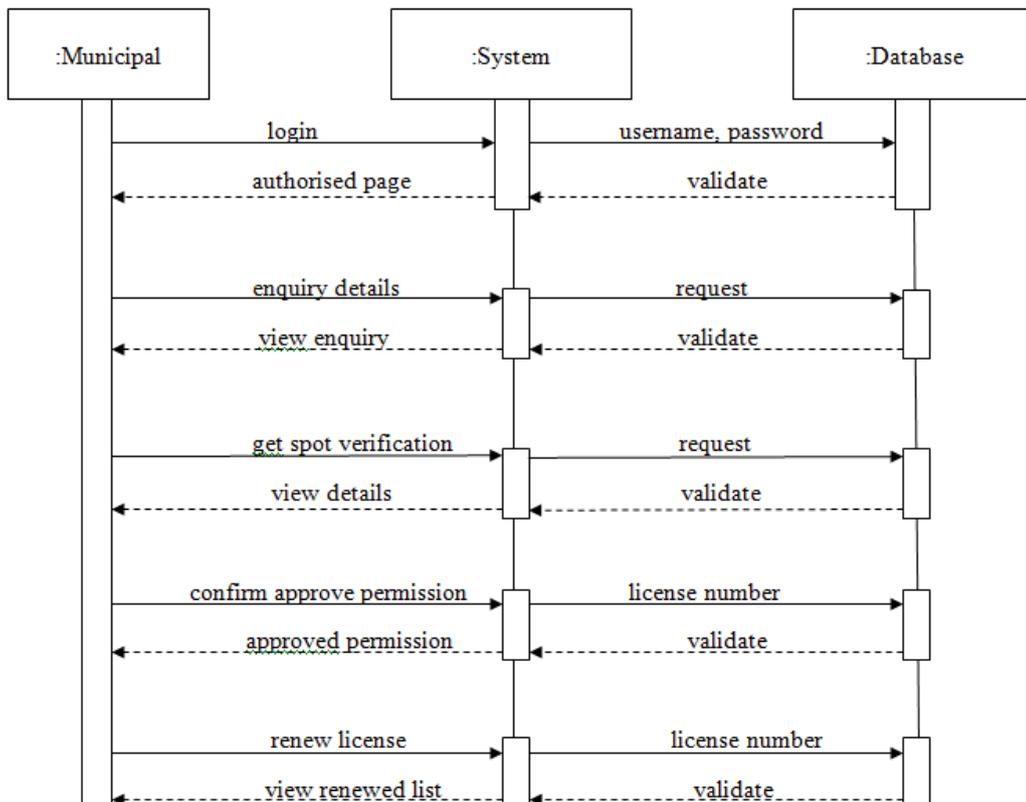


Figure 4. Sequence diagram for Municipal

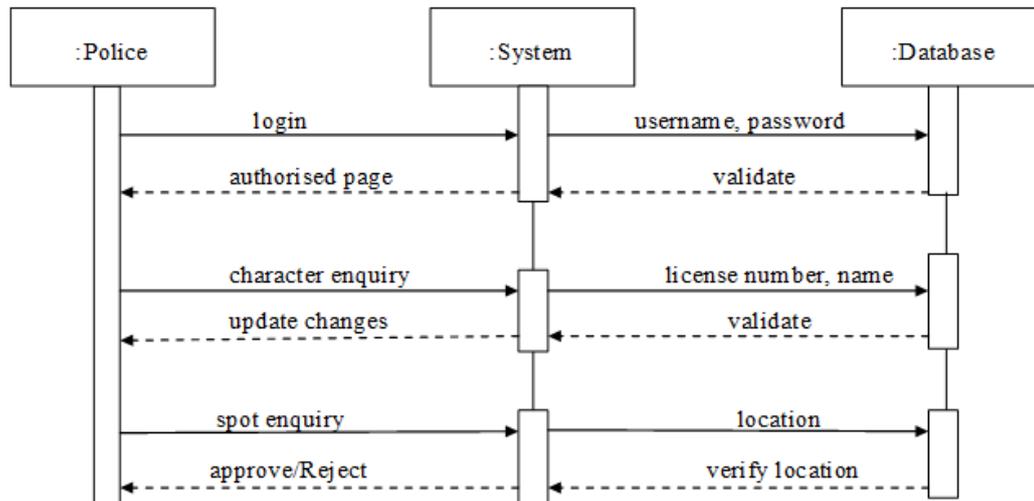


Figure 5. Sequence diagram for Police

6. Conclusions

Digital Municipal is an application concerned with providing a platform for both users and professionals. It deals with a huge database that must be queried effectively. The purpose of this application is to issue License, Permission and Lodge a Complaint through network instead of manual processing. It will reduce the applicant's effort by providing reliable and efficient communication online. The user need not visit the Municipal office manually but he can visit virtually through this Application. Lessman-power requirement by the Government. This application is beneficiary both for the Government and Society.

REFERENCES

- [1] <http://www.academicjournals.org/AJBM> ISSN 1993-8233 ©2010 Academic Journals
- [2] <http://asp.net-information.com/gridview/asp-gridview.html>
- [3] <https://dev.mysql.com/doc/visual-studio-making-a-connection.html>
- [4] www.w3schools.com/sql/func_convert.asp
- [5] <https://msdn.microsoft.com/en-us/library/dd566231.aspx>
- [6] www.telrick.com/forums/inline-editing-cancel-removes-the-row
- [7] https://www.youtube.com/watch?v=B0sCahhT_A4
- [8] <https://www.youtube.com/watch?v=gTgkdNkMr8I>
- [9] <http://cs.wellesley.edu/~cs110/project/design.html>
- [10] www.dotnetfunda.com/tutorials/controls/gridview.aspx
- [11] www.w3schools.com/sql/sql_dates.asp