

# DEVELOPMENT OF MOBILE APPLICATION FOR COMPLAINT MANAGEMENT SYSTEM- CASE STUDY OF AN EDUCATIONAL ORGANIZATION

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**Abstract**— The Online Complaint Management structure is an organizational framework for assessing, separating and responding to protests. Online Complaint Management System gives an online strategy for dealing with the issues looked by the people from the affiliation. The standard motivation driving this undertaking is to help the workforce in getting their issues grasped online without leaving to the Data Entry Operator (DEO) dependably until the issue is settled. By this system, the workforce can save their time.

**Keywords**— Complaint Handling Team, Teaching Staff, Non Teaching Staff, Online Complaint Management System, Admin, User, Reports.

## I. INTRODUCTION

In educational organizations two types of employees are present, the teaching and non teaching. The teaching staff is for teaching various courses to the students and also helps the students in gaining practical knowledge in those courses where as non teaching staff are act as supporting staff and assist the teaching staff. There are various cadres in non teaching staff such as Data Entry Operator (DEO), Attender, Programmer, Office staff, Complaint handling team, etc.

In an Existing Complaint Management framework, whenever clients require administration from the Complaint Handling Team he/she has to move to the respected office DEO and afterward DEO sends a complaint email to the complaint handling team. Then the complaint handling team administrator will take care of grumblings and will take care of the client issues. After that, the administrator will enquire and allocate the issue to the predefined individual in that division. The individual will enquire the issue and after that corrects it.

Here in the Existing framework, the clients need to visit the DEO (information passage administrator) of regarded office [2]. The present framework is moderate. The total current

framework is a manual framework and sets aside much effort for a head to enquire and allocate specialists.

The fundamental motivation behind this paper is to help the clients in getting their issues understood through online without heading off to the Data Entry Operator (DEO) normally until the issue is illuminated [1]. By this framework, the clients can spare their time.

## II. LITERATURE SURVEY

Devika Radhakrishnan, etal[1] presented " Smart Complaint Management System ", to give the client a stage to hold up a grumbling effectively. So Smart Complaint decreases individuals' endeavors. Protest Lodger can share an area utilizing GPS. This application manages the inner preparing of grumblings.

Gaurav Gawde, etal[2] proposed " Mobile Application for Resolving Citizens Complaints", that limits the time of the users.

Osman Nasar, EnayatAlkhider [3] created "Online Complaint Management System", to make protest simpler to coordinate, screen, track and resolve and to furnish the organization with a powerful instrument to recognize target issue territories, screen grievances.

Yooncheong Cho, Roxanne Hilz, Jerry Fjermestad [4] done the examination and composed a paper titled "An Analysis of Online Customer Complaints: Implications for Web Complaint Management", it incorporates dealing with client disappointment goes with web client grumbling administration and e-CRM. It gives brilliant online client administrations and reacts to clients' protests quick.

(Cho, Im, Hiltz, & Fjermestad, 2002) [5], proposed an internet application e-CRM called as e- customer relationship management. The authors explained that through this application the customers can get an excellent service and also customer satisfaction increased by responding to their complaints in proper time.

(Galitsky, González, & Chesñevar, 2006) [6], the authors proposed a machine learning application for online resolution of customers complaints.

(Philip et al., n.d.) [8], developed an intelligent management system for handling the complaints in health care system.

(Lu, Li, Niu, and Xie, 2008) [7], proposed a framework which joined online bank framework with the client relationship the executives framework (CRM) for the bank to look follow and break down each client through the web in the most advantageous manner.

(Tabassum, Shaiba, Shamrani, & Otaibi, 2018) [9], developed an online application to receive reports and complaints from the individuals in police department.

#### Problem Definition:

The main aim of this paper is to develop an Android Application for Online Complaint Registration which is used by the users of the organization to lodge their complaints related to an organization.

The proposed framework is mechanized procedure of sending demand through the electronic framework. The grievances can be sent effectively by the clients from anyplace. The administrations are given physically and furthermore through the framework.

#### Objectives:

The objectives of the paper are –

- Developing Mobile Application on Complaint Management System which focuses on the issues related to Organisation.
- Reducing efforts of going to respected department for lodging complaint.
- Facilitating both users and complaint handling team to contact directly.
- Facilitating the users to lodge their complaint from anywhere and anytime.
- Saving the time of user.

### III. PROPOSED SYSTEM

The objectives of the complaint management application is to provide the users with an effective tool to identify and target problem areas and monitor complaints.

This application provides an effective solution which helps users to choose the service of their choice. The choices includes different services like technical and electrical services, software and hardware requirements, instrumental services, telephonic issues and services related to/in organization. This App mainly deals with the connectivity of users and service providers, and helps the expansion of many service providers to serve more users in the area in shortest possible time.

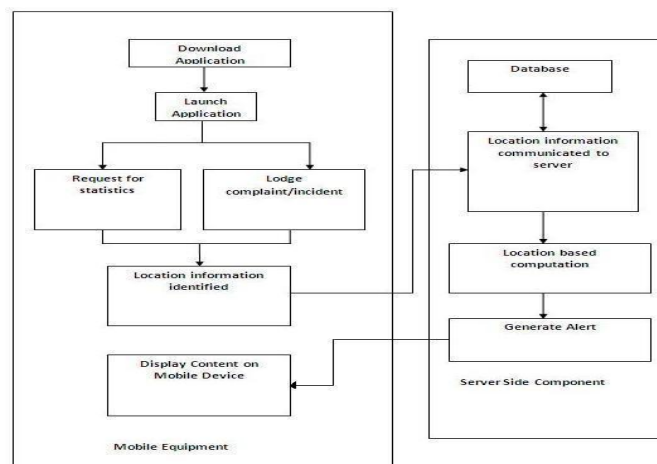


Fig.1. Block Diagram of Proposed System

One of the best feature of this application is user friendly, robust, authenticate, users can use the app without any difficulty and can lodge their complaints from anywhere and anytime. It also provides the option of re-complaining, if the user is dissatisfied with work.

This application allows user to register their complaints. New user must sign up to register a complaint. This application contain a sign up form which is to be filled by the authenticated users .This application has login page to Sign In where users enters username and password to register a complaint. The registered complaints are then forwarded and taken care by the agents of organization.

At Complaint Handling Team end, the administrator receives the complaints and allots the workers accordingly, and ensures all complaints to be solved and generates reports. The outcome of this project provides an effective way of solving the problems when compared to an existing System.

The new proposed framework model appears in Fig.1.The clients need to simply download this application onto their cell phone. At that point, the client needs to run the application on their cell phone, to begin with, an appreciated screen. At that point, the client needs to hold up the grievance. The protest is directed to Complaint handling framework square. At that point the protest handling framework deciphers the clients' grievance to decide the definite idea of the grumbling methods the Department name and a Complaint Type and different subtleties like UserId, room no, and objection depiction which is compulsorily required to hold up grumbling. When this data is gathered by the framework, it sends the related data to objection taking care of the group in a good or straightforward organization. When the framework has got all the required data about grumbling, it sends to the protest dealing with group expert to unravel and refresh the objection status to the clients [2].

The advantages of the proposed framework are:

- The proposed framework is a totally mechanized framework.
- Provides direct contact with complaint handling team.
- This additionally gives security to the client data.
- Takes less time.
- User can in all respects effectively register as another part utilizing an android application.
- By utilizing this application, a client can protest from any territory they wish in a simple way.
- Finally, there is a procedure of acknowledgement from the clients which is being considered for further improvement.

**Users Lodging Complaint:** Firstly, The User must Register/Login into their account and then lodge complaint in Complaint Form and these complaints are internally forwarded to Admin and then admin will enquire and allot specific worker in respected department to solve the complaint.

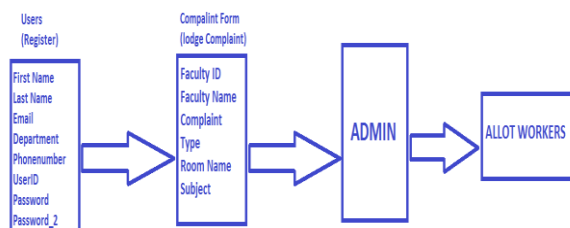


Fig.2. User lodging complaint

**After Complaint is Solved:** The User must Login in to their account and must give feedback in Feedback form after complaint is solved and these feedbacks are internally forwarded to Admin.

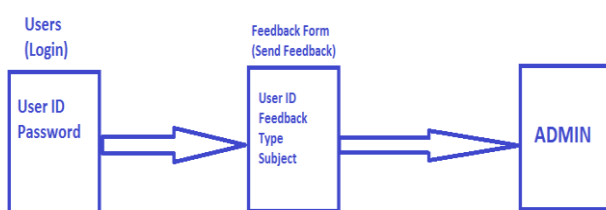


Fig.3. User giving feedback

**Login Module:** The following figure shows login form. Here the users who already have a registered their accounts must login to lodge a complaint by entering their username and password.

The screenshot shows the 'Online COMPLAINT Registration' app interface. It features a blue header with a logo and the text 'Online COMPLAINT Registration'. Below the header is a 'Log-In' section with two input fields: 'User ID' (labeled 'Enter User ID') and 'Password' (labeled 'Enter Password'). A blue 'Login' button is positioned below the password field. At the bottom, there is a 'Remember Me' checkbox and a 'Powered by 000webhost' logo. The app is running on a mobile device, as indicated by the status bar at the top showing the time as 1:24 PM.

Fig.4. Login Form

**Sign Up Module:** In this module, new users must Sign up to register a complaint. This application contains a Sign Up form which is to be filled by the authorized users.

The screenshot shows the 'Sign Up' form in the 'Online COMPLAINT Registration' app. The header is the same as in Fig.4. Below the header, the text 'Please fill the form to create an account.' is displayed. There are two input fields: 'First Name' (labeled 'Enter First Name') and 'Last Name' (labeled 'Enter Last Name'). A blue 'Sign Up' button is positioned below the last name field. At the bottom, there is a 'Powered by 000webhost' logo. The app is running on a mobile device, as indicated by the status bar at the top showing the time as 1:32 PM.

Fig.5. Registration Form.

**Complaint Form Module:** In this module, all the Authorized users can describe their Complaints and these complaints are internally forwarded and taken care by the Complaint Handling Team.

Fig.6. Complaint Form

**Feedback Module:** After Completion of work the users are made mandatory to give Feedback So that the admin can generate reports accordingly.

Fig.7. Feedback Form

**Change Password Module:** In this module, the users can change their passwords.

Fig.8.Change Password

**Forgot Password Module:** If the user forgets his/her password, clicks on forgot password link where the user needs to enter their name and mobile so that the OTP will be sent to their mobile phone, to reset new password.

Fig.9. Forgot Password form

**Administration Module:** This Administration module is dedicated to administrate the users, division categories, sections, grants access permissions, view list of complaints, view feedbacks from users and generate reports based on the information given by the users.

**Admin Registration Form:** It contains Admin page where admin must Sign Up to register an account. This application

contains a signup form which is to be filled by the Authorized Admin.

Fig.10. Admin Registration form

**Admin Login Form:** It contains admin login page, where the admin who already have a registered their accounts can login to check reports by entering their username and password.

Fig.11. Admin Login form

**Reports Module:** Report Generation Module is dedicated to produce reports based on the information given by the faculties.

**Admin Home Page:** The home page contains list of complaints lodged by users/faculties.

Faculty ID	Faculty Name	Room Name	Complaint Type	Complaints	Date & Time
102	aruna	art-13	Software requirement	No softwares are installing in system	2019-04-03 12:52:00
103	muzrahi	art-14	Instrumental	No mouse	2019-04-03 12:50:50
12345	Nazya	art-6	Technical	Projector is not working	2019-04-03 12:49:47

Fig.12. Admin Home page

**List of Authenticated Faculty and Workers Page:** In this faculty page, admin provides access to authorized faculties by adding their IDs.

Faculty UserID	Action
124	Edit Delete
195	Edit Delete
7782	Edit Delete
12345	Edit Delete
100	Edit Delete
102	Edit Delete

Fig.13. List of Authenticated Faculty and Workers

**Current Status of Complaints:** The Current status page describes the status of complaints lodged by faculties.



Faculty ID	Complaint Type	Complaints	Status
12345	Technical	Projector is not working	Not Satisfied
12345	Technical	Projector is not working	satisfied
103	Telephonic issue	Telephone problem	satisfied
103	Instrumental	No mouse	satisfied
102	Instrumental	Agan System problem	Not Satisfied

Fig.14. Current Status of Complaints

**From-To Dates Complaints:** The from Date to Date page describes the complaints from-to-date specified by particular time period.

From: mm/dd/yyyy To: mm/dd/yyyy

Get Complaints

Faculty ID	Faculty Name	Room Name	Complaints	Date & Time
103	muzath	staff room ar5	Telephone problem	2019-04-03 12:30:22

Fig.15. From-To Dates Complaints

**List of Re Complaints Screen:** The Re Complaints page contains the list of re complaints that are lodged by faculty.

Faculty ID	ReComplaints	Date & Time
102	Agan System problem	2019-04-03 12:41:33
103	complaint done	2019-04-03 12:40:59
12345	complaint done	2019-03-27 11:11:45
12345	eee	2019-03-27 11:11:25

Fig.16. List of Re Complaints Screen

**Users Feedbacks:** The Feedback page contains list of feedbacks sent by faculty.

Faculty ID	Feedback Type	Date & Time
102	Not Satisfied	2019-04-03 12:41:33
103	satisfied	2019-04-03 12:40:59
12345	satisfied	2019-03-27 11:11:45
12345	Not Satisfied	2019-03-27 11:11:25

Fig.17. Users Feedbacks

**List of Particular Faculty Complaints:** In List of Particular Faculty page provides Admin to check the complaints lodged by particular faculty.



Fig.18. List of Particular Faculty Complaints

**Admin Change Password:** In Admin Change Password page the admin can change his/her password.

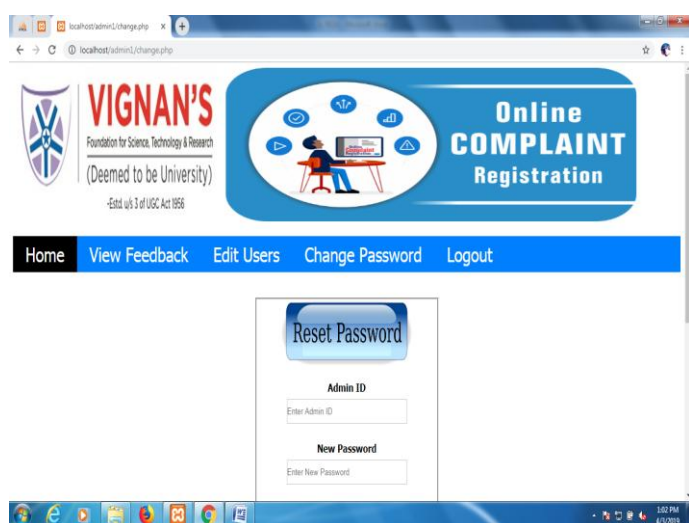


Fig.19. Admin Change Password

#### IV.CONCLUSION

This paper explains the importance of handling complaints from the users in various domains such as health care systems, banking sectors, police department educational organizations etc. This paper considers an educational organization as case study and developed an android based mobile application for solving various complaints that disturbs the work of faculty. The complaint management system has different modules in order to resolve the complaints timely. Admin module, user's module, reports module etc are the modules playing vital role in complaint management system. One of the best feature of this application is user friendly, robust, authenticate, users can

use the app without any difficulty and can lodge their complaints from anywhere and anytime. It also provides the option of re-complaining, if the user is dissatisfied with work.

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