

Voice Enabled Complaint Management System

[VECMS]

FINAL YEAR PROJECT REPORT

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Abstract

The Voice Enabled Complaint Management System provides an online way of solving the problems faced by the companies by saving time and eradicate corruption. The objective of the complaints management system is to make complaints easier to coordinate, monitor, track and resolve, and to provide company with an effective tool to identify and target problem areas, monitor complaints handling performance and make business improvements. Complaint Management is a management technique for assessing, analyzing and responding to company complaints. Complaints management software is used to record resolve and respond to company's complaints, requests as well as facilitate any other feedback.

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PROJECT INTRODUCTION

The Companies and its Staffs have a variety of procedures for dealing with company-related issues. A voice enabled complaint system is a set of procedures used in organizations to address complaints and resolve disputes. One area not generally covered by other procedures concerns company complaints about staff environment problems or other informal company settings. There is also a major need to collect, review and understand the nature of conflict management and complaint systems around the staff and clients. VECMS (The Voice Enabled Complaint Management System) is aimed at creating efficient software portal for addressing the grievances of the companies for various purposes like broken furniture problem in class, microphone issues, projector problems, toilets plumbing, electricity issues, and other faculty mess related problems and many more. Therefore, a need for a system that could detect student's problems and provide them with suitable feedback is raised. This system will be able to handle complaints by recording and giving feedback for each raised complaint. Results of the study can be a good reference to find out user needs from e-complaint and the handling process of this complaint.

Project goals

The objective of the complaints management system is to make complaints easier to coordinate, monitor, track and resolve, and to provide company with an effective tool to identify and target problem areas, monitor complaints handling performance and make business improvements.

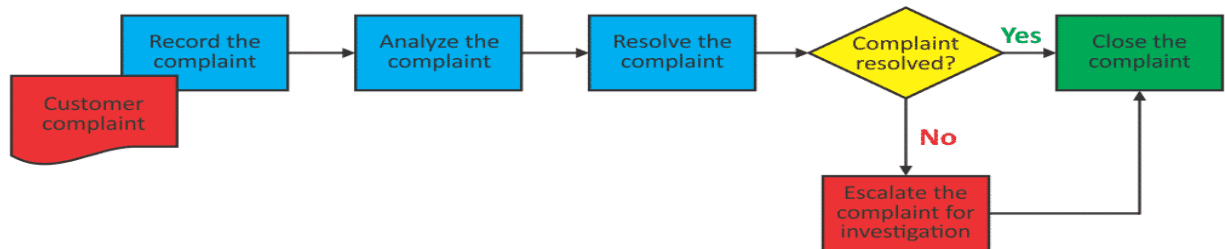
Project Tools and Technology

1. Microsoft Visual Studio Code (VS CODE).
2. Microsoft Visual Studio (VS).
3. Microsoft SQL Server Management System (MSSQL).
4. Angular 8 (Front End Framework).
5. ASP.NET Core.

Project Methodology

➤ Application Design & Structure:

We will follow generic repository pattern in between Asp.Net Core and Angular.



Steps for handling the complaint

➤ Services :

In Angular Framework, a service is used when a common functionality or business logic needs to be provided, So we will define all front end related business logics in services for each component or form.

➤ REST API SERVICE:

An **API** is an application programming interface. So we are using or creating Restful APIs on the server to send data to client side framework. Here our client side framework is Angular.

➤ HTTP CLIENT MODULE:

We will use and import HttpClientModule Service to communicating with backend Rest API's.

INTRODUCTION ABOUT MODULES

User Management:

The purpose of user management module is used to create or manage users of the application and populate this screens or menu according to their authorization permission.

System Setup Module for Administration:

The purpose of System setup module is to allow configuring the setup like Complaint Category, Complaint Subcategory, Complainer State, and Complaint Type.

Complaint Registration and Verification Module:

The purpose of Registration module is to register all online complaint of users and companies and verified them through status and shows their complaint statistics on each user dashboard

Roles of Complaint Management System

- Admin
- Users

Admin

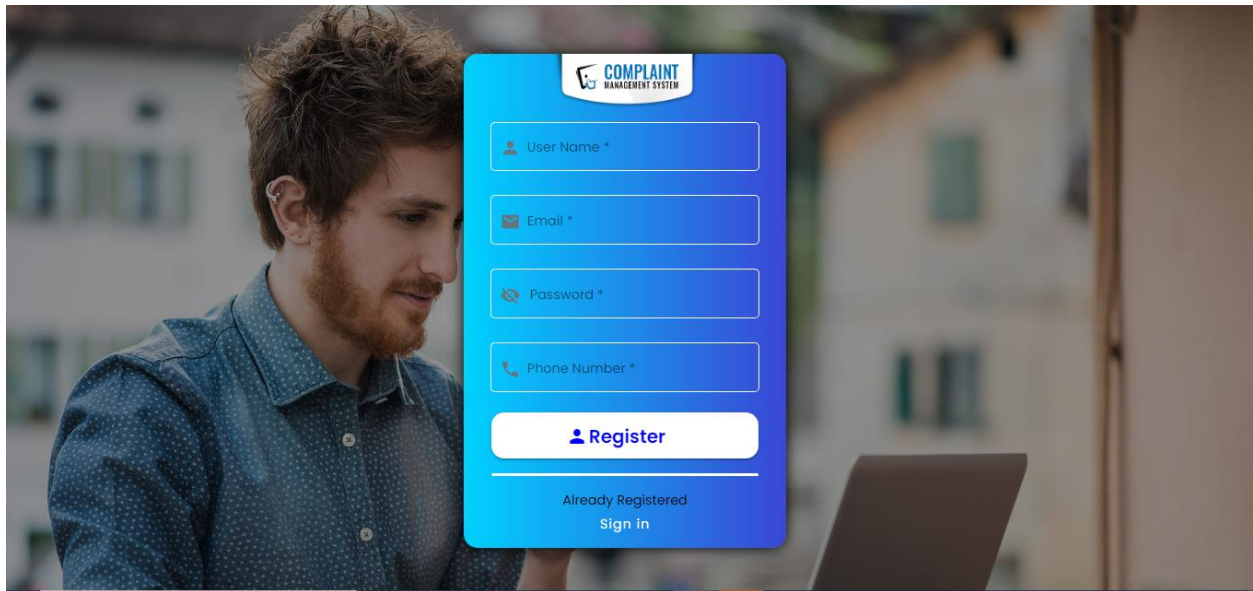
- Admin can create a category and also manage the category
- Admin can create Subcategory and also manage the Subcategory
- Admin can create state and also manage the state
- Complaint Management Admin can update remark on complaints
- Manage users
- Admin change password

Users

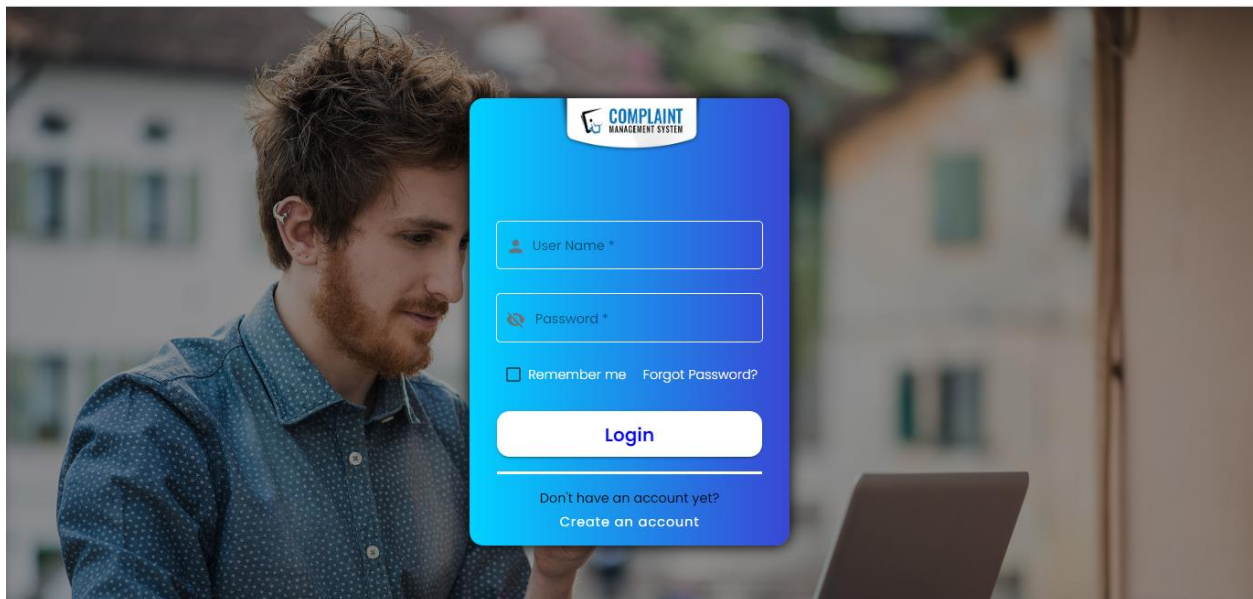
- User Registration
- User forgot Password
- After login user can lodge a complaint
- Complaint History
- Profile Management
- Change Password
- Dashboard

Sign in:

This is SIGN IN interface to create account for register complain.



Login:



Features in VECMS:

VECMS consists of User Management, Application Management and Complaint Management and Monitoring. The Main features are;

a. Manage User

This is the User Creation interfaces to created user for the application

User Creation Screen (For Admin):

Add/Edit and Update User

The screenshot displays the 'COMPLAINT MANAGEMENT SYSTEM' interface. A modal window titled 'Add User' is open, allowing for the creation of a new user. The form includes fields for Full Name (with a red asterisk and error message 'This is required Field'), User Email, Contact Number, Address, State (dropdown), User Type (dropdown), Company, Pin Code, and Password. There is an 'Approved' checkbox and 'Close' and 'Submit' buttons at the bottom. In the background, a table lists existing users: Shahzad Ismail, Furqan, Ali, abbas, irfan, and Arif, with columns for User Name, Email, Contact No, User Type, State, and Actions.

User List:

The screenshot displays the 'COMPLAINT MANAGEMENT SYSTEM' interface. The 'User Management' section is active, showing a table of users. The table has columns for User Name, Email, Contact No, User Type, State, Approved, and Actions. The data rows are as follows:

| User Name | Email | Contact No | User Type | State | Approved | Actions |
|----------------|----------------------------|--------------|-----------|--------------------|-------------------------------------|---------|
| Shahzad Ismail | shahzadismail392@gmail.... | 923422898945 | Admin | Sindh | <input checked="" type="checkbox"/> | |
| Furqan | furqanmitha@gmail.com | 03152646302 | Normal | Sindh | <input type="checkbox"/> | |
| Ali | Ali@gmail.com | 90078601 | Company | Khyber-Pakhtunkhwa | <input checked="" type="checkbox"/> | |
| abbas | abbas@gmail.com | 09856746346 | Company | Sindh | <input type="checkbox"/> | |
| irfan | irfanrafiq90@gmail.com | 03232097143 | Normal | Sindh | <input type="checkbox"/> | |
| Arif | arif@gmail.com | 034228945 | Normal | | <input type="checkbox"/> | |

b. Manage User Profile by Individual User

This is the Edit User Profile interface to update user information.

User profile also has an image uploading option.

User Profile Management Screen:

Profile

Full Name *

Shahzad Ismail

User Email

shahzadismail392@gmail.com

Contact Number

923422898945

Address

A 606 Sector 11-G new Karachi.


State *

Company *

Anonymous

Pin Code

78580



Upload

Save

Activate Windows
Go to Settings to activate Windows.

c. Manage Complaint Category

This is the complain category interface to create complaint category.

Complain Category (For Admin):

Add/Edit and Update Complaint Category

Category

Category Name *

E-Commerce

Description

This is e-commerce description

New

Update

Delete

Drag a column header here to group by that column

Search...

| Category | Description |
|------------|--------------------------------|
| E-Commerce | This is e-commerce description |
| | |

Activate Windows
Go to Settings to activate Windows.

d. Manage Complaint Sub Category

This is the complaint sub category interface to create sub category.

Complaint Sub Category Screen (For Admin):

Add/Edit and Update Complaint Sub-Category

Sub Category

Category *

E-Commerce

SubCategory *

Online Shopping

New

Update

Delete

Drag a column header here to group by that column

Search...

| Category | SubCategory |
|------------|-----------------|
| E-Commerce | Laptop |
| E-Commerce | Power Supply |
| E-Commerce | Online Shopping |
| E-Commerce | E-Wallet |
| E-Commerce | Online Shopping |

Activate Windows

Go to Settings to activate Windows.

e. Manage Complainer State

This is the complainer state interface to create state.

Complainer State Screen (For Admin):

Add/Edit and Update Complainer State

State

State *

Khyber-Pakhtunkhwa

Description

capital- Peshawar

New

Update

Delete

Drag a column header here to group by that column

Search...

| State | Description |
|--------------------|--------------------|
| Punjab | capital- Lahore |
| Khyber-Pakhtunkhwa | capital- Peshawar |
| Balochistan | capital- Quetta |
| Islamabad | capital- Territory |
| Sindh | capital- Karachi |

Activate Windows

Go to Settings to activate Windows.

f. **Manage Register Complaint**

This is the Manage complaint interface to create new complain.

Here User can write detail with the help of Voice as well as upload complain document.

Register Complain Screen:

Add New Complain

Register Complaint

Category *

▼

Sub Category *

▼

Complaint Type *

▼


State *

▼

Nature of Complaint *

Choose File

No file chosen



Complaint Details (max 100 words)

Activate Windows

Go to Settings to activate Windows.

g. Complaint Info History

This is the individual complainer interface to check detail of every complain.

Complaint History:

View Detail of Each Complain

Your Complaint Info

Drag a column header here to group by that column

Search...

| Complaint no | Reg Date | Last Updation Date | Status | Action |
|--------------|------------------------|------------------------|----------|------------------------------|
| 1 | 07-07-2020 06:27:35:PM | 07-07-2020 06:34:09:PM | Rejected | View Details |
| 2 | 07-07-2020 06:29:15:PM | 07-07-2020 06:37:21:PM | Approved | View Details |
| 5 | 07-07-2020 08:35:47:PM | 07-07-2020 08:40:15:PM | Approved | View Details |
| 6 | 10-07-2020 02:23:42:PM | 10-07-2020 02:26:52:PM | Rejected | View Details |
| 7 | 09-09-2020 02:01:14:PM | 09-09-2020 02:02:27:PM | Rejected | View Details |
| | | | | |

Activate Windows

Go to Settings to activate Windows.

h. Manage all Complains

This is a tabular representation of complains according to complain status. There are three statuses;

1. Completed complaint.
2. Pending complaints.
3. Rejected complaints

Manage Complain Screen (For Admin):

Manage Complaints

Completed Complaints 5

Pending Complaints 1

Rejected Complaints 4

Drag a column header here to group by that column

Search...

| Complaint no | Complainant Name | Reg Date | Completed By | Status | Action |
|--------------|------------------|------------------------|----------------|----------|------------------------------|
| 2 | irfan | 07-07-2020 06:29:15:PM | Shahzad Ismail | Approved | View Details |
| 3 | Furqan | 07-07-2020 06:30:08:PM | Shahzad Ismail | Approved | View Details |
| 4 | Furqan | 07-07-2020 06:31:38:PM | Ali | Approved | View Details |
| 5 | irfan | 07-07-2020 08:35:47:PM | abbas | Approved | View Details |
| 10 | athar | 09-02-2021 11:44:26:AM | Shahzad Ismail | Approved | View Details |

Activate Windows
Go to Settings to activate Windows.

Completed Complaints 5

Pending Complaints 1

Rejected Complaints 4

Drag a column header here to group by that column

Search...

| Complaint no | Complainant Name | Reg Date | Status | Action |
|--------------|------------------|------------------------|---------|------------------------------|
| 9 | Arif | 19-11-2020 11:57:59:PM | Pending | View Details |

Activate Windows
Go to Settings to activate Windows.

Manage Complaints

Completed Complaints ⁵
Pending Complaints ¹
Rejected Complaints ⁴

Drag a column header here to group by that column

| Complaint no | Complainant Name | Reg Date | Rejected By | Status | Action |
|--------------|------------------|------------------------|----------------|----------|------------------------------|
| 1 | irfan | 07-07-2020 06:27:35:PM | abbas | Rejected | View Details |
| 6 | irfan | 10-07-2020 02:23:42:PM | abbas | Rejected | View Details |
| 7 | irfan | 09-09-2020 02:01:14:PM | Shahzad Ismail | Rejected | View Details |
| 8 | Furqan | 17-10-2020 04:05:50:PM | Ali | Rejected | View Details |

Activate Windows
Go to Settings to activate Windows.

i. Complaint Detail Screen (For Admin):

Admin can see detail of complain after clicking on view detail.

Complaint Detail

| | | | | | |
|--------------------------|--|----------------------------|-------------------------|-----------------------|------------------------|
| Complaint Number | 2 | Complainant Name | irfan | Reg Date | 07-07-2020 06:29:15:PM |
| Category | | SubCategory | Power Supply | Complaint Type | Complaint |
| State | Balochistan | Nature of Complaint | Electricity bill issues | | |
| Complaint Details | please review my previous payments all are paid. | | | | |
| File(if any) | View File | | | | |
| Remarks | Your previous payment issues has been resolved please pay your bill on time , next time we will not accept any query from your side. | | | | |
| Final Status | Approved | | | | |
| Action | | | | | |

Activate Windows
Go to Settings to activate Windows.

Admin can assign complaint to his employee.

mpl

k. Take Complain Action Screen

Admin itself can approve or reject any complain.

Complaint Action

Complaint No *

9

Status *

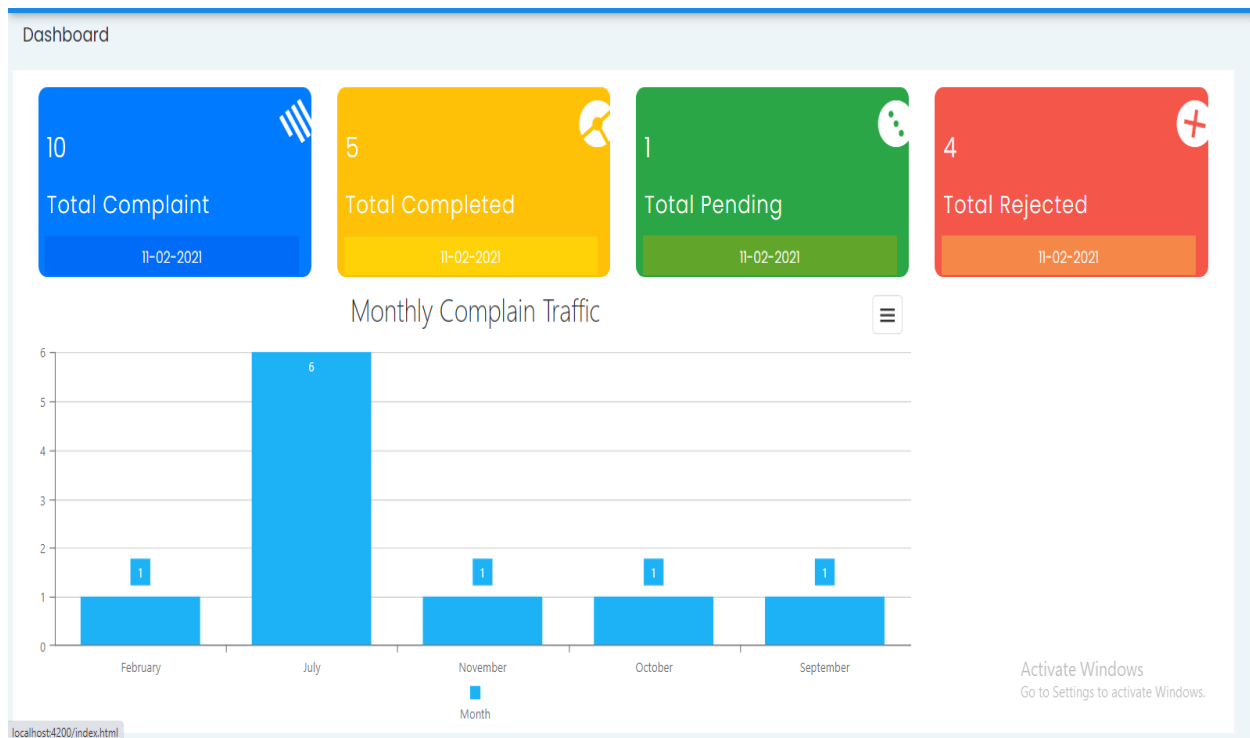
Approved

Remarks

✕ Close

💾 Submit

I. Complain Dashboard



CONCLUSIONS

The system has the benefits of easy access because it is developed as a platform independent web application, so the admin can maintain a proper contact with their users, which may be access anywhere. All communications between the client/user and administrator has done through the online, so this communication cost also is reduced.