

Student Grievance Support System

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Abstract- An effective and efficient response to the grievance is an essential index of any educational institution's performance. The proposed "Student Grievance Support System" will help encourage the students to go ahead and raise the grievance online through the website since there is no need for the student to go to the complaint box, we may see an increase in the grievances, which is a good thing for any institution to understand the issues students are facing in the college campus. The proposed system must be easy to access application accessible to students, and members of grievance redressal committee. Students should be able to post complaints under different categories such as academic, administrative, unfair treatment, harassment & discrimination, etc. The system will use text analysis to prioritize the grievances based on certain keywords for faster redressal of high-priority grievances. It will also consist of a chatbot to make it easy for the user to access and explore the system.

I. INTRODUCTION

A grievance is any dissatisfaction or feeling of injustice having a connection with one's organization or educational institution which is brought to the attention of management. Speaking broadly, a grievance is any dissatisfaction that adversely affects organizational relations and productivity. To understand what a grievance is, it is necessary to distinguish between dissatisfaction, complaint, and grievance.

- Dissatisfaction is anything that disturbs an employee, whether or not the unrest is expressed in words.
- A complaint is a spoken or written dissatisfaction brought to the attention of the supervisor or the shop steward.
- A grievance is a complaint that has been formally presented to a management representative or to a union official.
- There may be different types of grievances in different domains but at the university/institution level the major types of grievances are
 1. Academic grievance
 2. Administrative Decisions
 3. Unfair Treatment
 4. Harassment and Discrimination

II. LITERATURE SURVEY

[1] A Prototype for Grievance Redressal System

The researcher proposed a Grievance Redressal System that requires a completely automated system, thus helping the user retrieve the information as soon as possible. The backup plans were provided in the form of a database to help avoid data in case of catastrophic situations. Hence, the system is reliable to perform in adverse situations. Their system is scalable and can be expanded and customized to meet the needs of the firms for which it will be implemented. Moreover, the system provides a user-friendly interface with a realistic view. The system provides search facilities to search a specific entry matching in the database. The system consists of an administrator and a collector through whom the tasks can even be passed at the time of encountering someone not proficient in handling the given task, and thus the system works smoothly without further delays. complainant's authentication was done beforehand in order to avoid the nuisance which might arise in the manual system. The aim of this GRS was to address the issues present in the current system, implement validation techniques that will help reduce the margin of error in operations, provide adequate data backup facilities in order to ensure system restart even after a calamity, and ensure consistency.

[2] A Model for Complaint Redressal System using Android Architecture

The researcher proposed a Complaint Redressal System which will allow the user to register their complaint and user can get the solution and the status of complaint easily, the CRS system will have two different modules that are the website and an Android App it will use various libraries and API for implementing the Android app so that the working of the application will be smooth and the same database will be used to store the data as to maintain the uniformity of the system. The user was able to use both the system with one single login id, user can create the account using the app and also register a new complaint, the user was then able to check the status of the complaint when it is accepted, the other module of the system will allow the user to generate the poll which can be voted by the other user of the

same area this voting process will take place depending upon the area of the user will be notified as soon as the result of the poll is declared.

[3] An Online Grievance Redressal System

The researcher proposed an online complaint Management System for submitting complaints online by using this system a user can upload/post his complaint from anywhere by using this website on his phone or computer connected to the internet. This is supposed to be an easy and secure way. Due to this system manual effort and wastage of paper are reduced. Users can submit their complaints by easily creating their profile, and users can check the current status of their complaints and can view what kind of action is taken. Online complaint Management System shows the current status of the complaint whether it is in process or closed. It is based on centralized management; only the admin can check or solve the complaint. Admin has the authority to remove a user and update the status of complaints. Admin can generate a report of this system in between the selected date of his own choice.

[4] A Model for Customer Complaint Management System using ‘Service-Oriented Architecture’

The researcher has highlighted how the Complaint Management System works, who are the main users, services, and how they can deal with the proposed system. The researcher presents an overview of the development and implementation of the Complaint Management System as a web service based on SOA. The working flow process of the proposed model is first, the Citizen validity is verified, then the Citizen writes a complaint which is followed by a detailed process to manage each complaint according to its classification priority and searching in the knowledgebase for related references or similar cases in order to find a quick-handling procedure for finding a solution with the contribution of the responsible staff who will be dedicated to identifying the rules on how to solve and get appropriate solutions. The researcher emphasizes that Complaints and compliments are valuable sources of information that organizations can use to improve program delivery and service. As regulatory and market pressures continue to mount upon companies, industry leaders will need to develop effective solutions or face the high costs inherent in failed technology implementations and weak customer relationships. support vector machine (SVM) based learning.

III. PROPOSED SYSTEM

In the proposed system whenever a grievance is received from a student it will be recorded and a unique number will be given to the grievance for future reference. The recorded grievance will be forwarded to the concerned grievance redressal committee member asking them about the information and a timeframe required to provide a solution. The admin will then acknowledge the student with the information given by the concerned grievance redressal committee member.

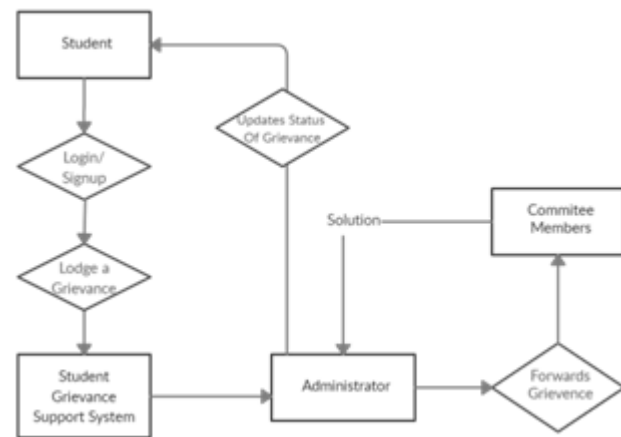


Fig -1: Proposed Diagram

Students can check the status of the grievance which is under process. At the end of the stipulated time, a report will be collected from the concerned grievance redressal committee member. If the grievance is resolved to the expected level of satisfaction, the student is supplied with the solution provided by the grievance redressal committee member. If the grievance is not resolved to the expected level of satisfaction, a detailed report stating the reasons for not arriving at the expected solution will be collected. If the reason for not resolving the grievance is insufficient time, the time required will be rescheduled appropriately by looking into the details and the same will be acknowledged to the student and again the same procedure would be followed until there's a solution for the concerned problem. In case, the complaints and grievances could not be handled by the grievance redressal committee member they can also be forwarded to higher management.

Use Case Diagram

Fig.2 represents the use case diagram. Roles

- Student: Student is the one who will register their grievances on the portal

- Admin: Admin is responsible for transferring the received grievance to the concerned grievance redressal committee member
- Committee Member: The Committee member upon receiving the grievance is tasked with the on-ground disposal of the grievances and ensuring that the issue is resolved

The cases are as follows

1. Register: The user will have to register into the portal. By entering their mail id, password and entering an OTP received on the mail id (only for the first time)
2. Login: Once the student has registered, he can sign in using the registration details.
3. Complaint: The user can select the nature of the grievance and lodge a complaint accordingly.
4. Track Grievance: The user can track the status of their complaint, they have to first log in to the system where they can see the details in a tabular form of all the grievances they have raised to date.
5. Feedback: After the end of the complaint solving, users can give their feedback if they are satisfied or not with the solution from the Grievance committee members.
6. Manage Account: An admin is assigned to manage accounts and keep check on all the complaints received.
7. Manage Grievance: An admin takes care of all the complaints and forwards them to the grievance committee. The admin also updates the status of the grievance and sends it to the users, admin works as a mediator between the students and the grievance redressal committee members.
8. Check Grievance: The Grievance committee checks the authenticity of the grievance if its legitimate to address the problem otherwise neglects it. The admin then updates the status of the grievance accordingly.
9. Solve Grievance: After checking the authenticity of the grievance the committee tries to solve the problem and come up with a solution or an alternative option.
10. Update Status of Grievance: Once the Committee member gives an update about the status of the grievance the system updates the status of grievance and then lets them know the current status of the lodged grievance either as completed, in progress, or still waiting to be assigned

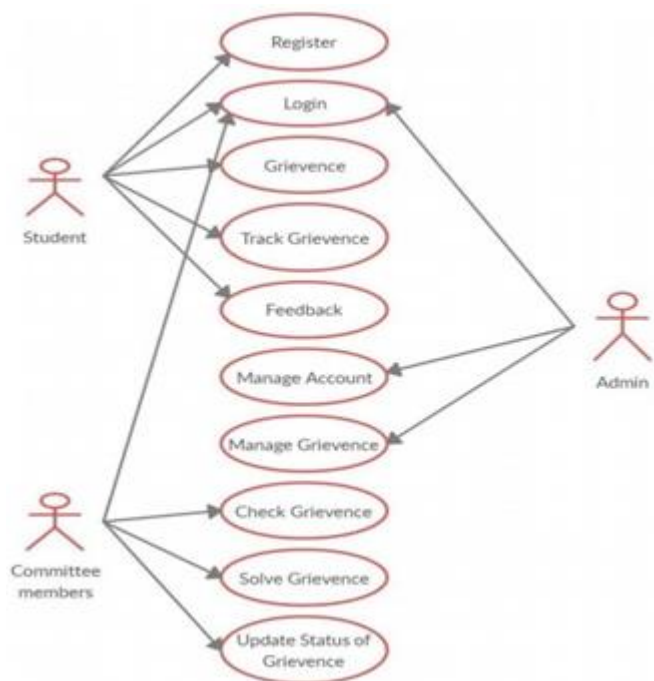


Fig. 2 Use Case Diagram

Suffix Trie Algorithm

This Algorithm is used for prioritizing the grievances based on certain keywords in the description, it ranks the urgent grievances on top priority for immediate resolution.

It is a tree that exploits some structure in the keys - e.g. if the keys are strings, a binary search tree would compare the entire strings, but a trie would look at their individual characters - Suffix trie are a space-efficient data structure to store a string that allows many kinds of queries to be answered quickly. - Suffix trees are hugely important for searching for large sequences like genomes. The basis for a tool called "MUMMer" SufTrie(s) = suffix trie representing string s. Edges of the suffix trie are labeled with letters from the alphabet Σ (say {A, C, G, T}). Every path from the root to a solid node represents a suffix of s. Every suffix of s is represented by some path from the root to a solid node. A trie has a number of advantages over binary search trees. A trie can be used to replace a hash table, Looking up data in a trie is faster in the worst case, also there are no collisions of different keys in a trie. Looking up data in a trie is faster in the worst case, O(m) time (where m is the length of a search string), compared to an imperfect hash table.

IV. RESULT

In this paper, we have briefly presented a Student Grievance Support System, we have explained the objectives of the proposed system, we have conducted a literature survey

of previous works. We have briefly explained the existing system architecture and the proposed architecture. Further, the report also explains all the algorithms and technologies implemented in the proposed system such as the Suffix Trie algorithm, NLP concepts for chatbot implementation



Fig -3: Landing page



Fig -4: Main page



Fig -5: Admin Panel

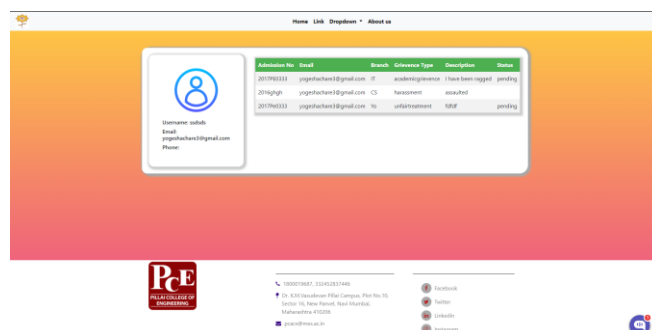


Fig -6: Student Profile - Tracking of Grievance

V. ACKNOWLEDGEMENT

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