Student Feedback Review Analyzer using Sentiment Analysis

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Abstract—**The Student Feedback Review Analyzer is deployed to obtain student feedback on a particular faculty or a teacher. Using the responses provided by the students, it analyzes the responses over all and assists admin to make better decisions. Those in attendance, such as the higher authorities, can see the entire report. It includes modules for students, faculty, and administration. A class is created by the administration, which also appoints the appropriate professors to the class. We can quickly learn how the professors are doing from the perspective of the students. Each of the 13 evaluation questions for professors includes five possible answers to rate the instructor, including excellent, very good, good, average, and poor.**

Index Terms—**Feedback, Sentiment Analysis, Student, Teacher, Review**

I. INTRODUCTION

The Student Feedback Review Analyzer is an essential tool for educational institutions seeking to improve the quality of education they offer. This student data management system provides a platform for students to express their opinions and views on their academic experiences, specifically regarding their faculty members. The feedback obtained from students is crucial in evaluating the effectiveness of teaching methods and helps the faculty members to identify areas where they need to improve to better meet the need soft heir students.

The Student Feedback Review Analyzer is designed to be user-friendly, ensuring that students can easily navigate the system and submit their feedback without any difficulties. The system is equipped with a range of ordered feedback options, such as "always," "poor," "generally," and "very frequently, "which allows students to express their opinions in a concise and effective manner.

Once feedback is submitted, the system analyzes the sentiment of the feedback to determine the overall tone and provides the faculty members with an overview of how their students perceive their teaching methods. This comprehensive overview helps the faculty members to identify their strengths and weaknesses and formulate strategies to improve their teaching methods.

The Student Feedback Review Analyzer is a valuable tool in promoting transparency and accountability within educationalinstitutions.Thesystemallowsforhonestandconstructivefeedback, which creates a sense of openness between faculty members and students. By giving students a platform to express their opinions and views, institutions can create an environment that fosters a sense of community and enhances the learning experience.

In summary, the Student Feedback Review Analyzer is an essential tool that educational institutions should in corporate into their systems. The feedback received from students helps faculty members to improve their teaching methods and create a better learning experience for their students. Additionally, the system promotes transparency, accountability, and community, which are vital values for any institution.

II. CURRENT TECHNIQUE

The current procedure used by educational institutions for obtaining feedback from students regarding unsatisfactory teaching or areas where they need better understanding is quite cumber some. Under this procedure, students are required to submit an application to the concerned Head of Department (HoD) or higher officials, detailing their feedback and there as ons behind it. This application must be submitted in writing, and students must provide a detailed explanation of their concerns.

Once the application is received, the HoD reviews it and assesses its validity. If the HoD believes that the feedback is justified, they will forward the application to the higher authorities for further review. This process can take some time, as the higher authorities must evaluate the feedback and determine the appropriate course of action.

One of the major drawback soft his procedure is that students are unable to obtain authorization for their feedback application if the HoD or higher authorities are unavailable. This can be frustrating for students, as they may need urgent assistance and not be able to receive it due to bureaucratic delays.

More over, the current procedure for obtaining feedback from students can create a communication gap between students and faculty members. Students may feel discouragedfromprovidingfeedbackduetothelengthyandcomplexprocessinvolvedinsubmittingtheirapplications.Thislackofcommunication can lead to a lack of understanding between students and faculty members, resulting in a subpar learning experience.

To improve this process, educational institutions should considered opting a more streamlined and efficient approach to obtaining feedback from students. This approach should prioritize ease of use, accessibility, and transparency, ensuring that all students have equal access to express their opinions and concerns. Additionally, institutions should foster a culture of open communication and encourage students to provide feedback regularly. This will help build trust and create a more positive learning environment for

everyone involved.

III. RELATED WORK

The current feedback system relies on pen and paper, which can be a tedious and time-consuming task. It also requires careful management of the paper to prevent loss or misplacement.Makingphotocopiesoffeedbackformsgenerates alargeamountofpaper,raising environmental concerns. RajveePateletal.[3]addressedthisissuebydevelopinga"Feedba ckManagement System" that takes into account the concerns ofstudents and provides an easy and consistent way for them todeliver feedback to the college's head or principal. In theirrespectivestudies,PhaniRamaPrasadandSivasankariS.int roduced two different online systems aimed at automatingthefeedbackprocessforlecturers.PhaniRamaPrasa detal.proposedan"OnlineStudentFeedbackSystem"thatallow sstudents to provide feedback online, automatically generatingfeedbackforlecturers,thuseliminatingtheneedtowri tedown feedback manually. Meanwhile, Sivasankari S. et al. [7]developed the "Online Student Feedback Analysis System"(OSFAS),whichusespredefinedcommentsandcatego riessuch as "good," "interesting," "late," and "interactive" to pro-vide relevant feedback about teachers automatically. Both ofthese systems share a common objective, which is to enhancethe quality of feedback while reducing the amount of time andhumaneffortrequired.

IV. PROPOSED MODEL

Theregisteredstudentscaneasilygeneratefeedbackatanyti me,wherevertheyareinthecollegeoruniversity,usingtheproposedfeedbacksystem.TheHOD,principal,and admin sendthe feedback that isthereby created. Thishelpstosaveaplethoraoftimeandwork.Thefeedbackreport ssenttotheHODandprincipalareavailabletothematalltimesand fromanylocation.Facultymembersalsohaveaccesstotheiracco untwithoutalsohavingaccesstothe entire file. By utilizing the opportunity provided by thisportal's features, students can now directly initiate feedbackstatements,evenwithoutanyauthorization.Thesecurit yofthe feedback is improved by this portal. The proposed systemhasthefollowingbenefits:

- Savesalotoftimeandlabor;
- Reducespaperwork;
- AccessibleandConvenientinterface;
- Creatingreportsmadesimpleandeffective;
- Enhancesconfidentiality

V. IMPLEMENTATION OF MODULES

Thisapplicationhastwomainmodules.Themodulesare:

- FacultyModule
- StudentModule

A. Facultymodule

The category of users, which comprises faculty membersand administrative staff, is also included. Upon entering their faculty ID and passcode, the database verifies the credentials of the faculty member. Once the account is valid, the portal will open and include functionalities such as "Add Faculty, ""View Faculty," and "View Class." HoDs cannot see results for other departments within their department, nor can they see classes in other departments. Superusers of the student feedback review system are also faculty members. After the super user inputs the super user ID and passcode, the data base validates. Once valid, the account opens and includes modules such as "View Faculty,""View Classes," and "Logs." You can view actions performed by the faculty by using the log module.

B. Student module

In the student module, students provide their registration number and batch details. The corresponding instructor name and instructor ID are displayed based on the selected batch. By clicking on the instructor ID, a feedback form containing about 15 questions will appear. Students can choose the most suitable answer from their perspective, and the responses will best oredon the server.

VI. INFERENCE

The Student Feedback Review Analyzer portal has been de-signedinawaytomakecomplexworksimplerforeducationalinst itutions and to simplify feedback for students. This physically consumes a plethora of time, energy, and paperwork. Also, you are free to provide your unbiased response without any hesitation. So, this model tackles all of these obstacles and provides lots of backing during the entire process of requesting a leave. Teachers are equally accountable here to be able to directly sort out any kind of issue withthestudents.Ifthisprojectneedstobeimplementedproperly, thiswilltakea collective effort from teachers, students as well as adminstaff. The utilization of a feedback review system is prevalentin educational institutions such as schools and colleges. Itspurpose is to enhance the quality of education and other activities, with the aid of an online feedback system. By gatheringsincere feedback from students, we can effectively identifyareas of improvement in teaching methods and facilities. Theimplementation of an online feedback system not only savestime but also streamlines the process of analyzing feedback. Incases where feedback results are excellent, improvements maynotbenecessary.However,iffeedbackresultsaremoderateo r poor, necessary improvements can be identified. Thus, theonlinefeedbacksystemprovidesbenefitssuchastheeaseofob tainingdatafromstudentsandsimplifiedanalysisoffeedback data.

Fig. 1. Usecase Diagram
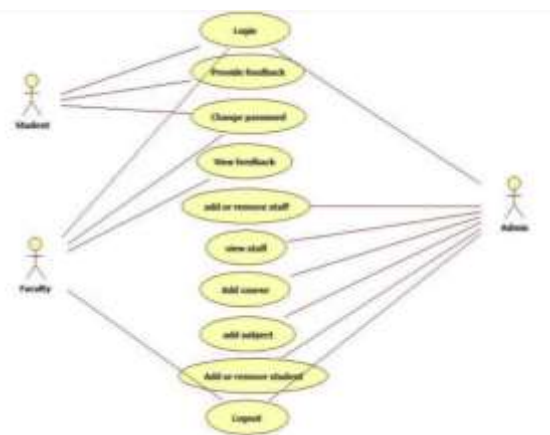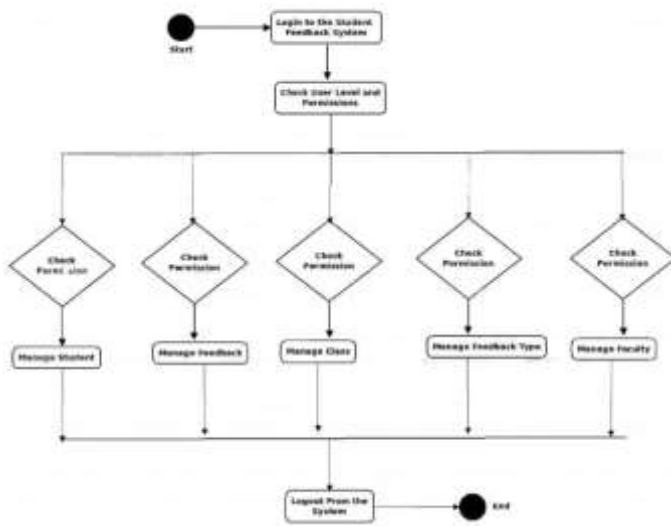
Fig. 2. Workflow Diagram

Fig. 3. Landing Page

Fig.4.Over all result after inputs

Fig.5.Graphsshowingimpact

VII. Scope Of Project

Effective communication between teachers and students iscrucialtopromoteacademicgrowthandsuccess.Itisnotjust verbal communication that is important, but also writtencommunication. When teachers provide incisive opinions andhonest judgment in written form, it can significantly enhancestudents'overalloutcomeandproductivity.Furthermore,evaluations must be transparent and fully disclosed to studentswithouthesitation.Thisapproachhelpstobuildtrustand foster students' academic affinities, resulting in better learningoutcomesfromfaculties.

As technology continues to evolve, educational institutionsare also incorporating innovative tools to enhance the learningexperience.Onesuchtoolistheintegrationofanewfeaturein the feedback questions that will provide more context andaninteractiveuserinterface.Thisfeaturewillbeavailableon various operating systems like Windows, iOS, and Linux,makingiteasilyaccessibleforstudentstoprovidefeedback.

Toensuretheauthenticityoffeedback,atruthdetectiondevicecanbeemployed.Thisapproachwillensurethatstudents'feedback is genuine and reflects their actual experience in theclass. Additionally, it is important to tailor questions based onstudentrecommendations.Thiswillmakethefeedbackprocessmoremeaningfulandrelevantforstudents.

Moreover, the ease of use of the online feedback system isequally important. Improving the web design can significantlyenhance the overall user experience and make it more accessible to students. A user-friendly interface can encourage students to provide feedback and increase participation, therebyproviding a more comprehensive and accurate evaluation offacultyperformance.

In conclusion, effective communication, transparency, andinnovation are essential components of a successfulfeedbacksystem.Byimplementingtheabovestrategies,educationalinstitutions can ensure that feedback is authentic, meaningful,andfostersanenvironmentofgrowthandlearning.

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houtthisjourney.Theirconstantencouragementandbeliefinme
havebeenasourceofstrength,andIamgratefulfortheirunwaveri
ngsupport.

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