

Design of Students Complaints Management System

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Summary

Handling Complaints of students regarding their grades and marks is a very important aspect in the whole education process. Many times, students have inquiries and complaints regarding their grades in different assessments in certain courses. Also sometimes, students don't get their grades in some assessments early enough to enable them to track their performance in a certain course. To ensure transparency and accountability in the grading process, the students are allowed to raise any concern regarding their marks and even to file formal complaints. In this paper, we propose to automate the process of handling students' complaints. The proposed system is a web-based application that enables the management and automation of students' complaints at various colleges within the Islamic university of Madinah regarding marks related to midterm, final and annual work. The proposed system provides an easy-to-use interface for students to submit and track their complaints. It also facilitates transparent communication between students, instructors, academic advisors, department heads, academic advisors and vice deans to ensure an efficient resolution process and allows the university administration to make data-driven decisions to improve overall student satisfaction within the college. This paper addresses the functionality and the first steps in developing and implementing the Student Grade Complaints Management System. We first present an introduction to the system and an extensive literature review for similar systems and the systems that exist within the Islamic University of Madinah. Then, we present results of system analysis and the functional and non-functional requirements. Finally, we show the different UML diagrams for the proposed system.

Keywords:

Students Complaints, Transparency, Students Grades.

1. Introduction

Fair and just grading is very important aspect in the whole education process. Ensuring transparency and grading accuracy is a target for every education institution they strive to achieve. Allowing students to raise a concern or even a formal complaint regarding their marks is important to guarantee fairness and transparency.

This paper proposes to automate the process of handling students' complaints within the colleges of Islamic university of Madinah. The proposed system is a web-based application that enables the management and automation of students' complaints

at various colleges within the Islamic university regarding marks related to midterm, final and annual work.

1.1 Significance of Handling Students' Complaints

Fairness in the education process is a corner stone in the whole education process. Faculty members in various colleges do their best to ensure fair grading for different assessments. However, in some cases, students are not satisfied with the grades they get in different assessments. Managing student complaints effectively ensures that students' voices are heard and that fairness in grading is maintained. Allowing students to raise a concern or even a formal complaint regarding their marks is important to guarantee fairness and transparency. Even if the result of the complaint is not in favor of the student, allowing the students to raise a complaint regarding the assessment process fosters trust, transparency, and accountability within the academic institution, ensuring that student concerns are taken seriously. Ensuring transparency and fairness in the grading process is crucial, and universities must provide clear procedures for students to and appeal their grades when necessary. Additionally, by providing a platform for students to raise their concerns, the institution can gain valuable feedback that may not be apparent through traditional assessment methods. This approach helps identify areas for improvement in the assessment process, ultimately raising the quality of education and fostering a fair and transparent environment for both students and faculty.

1.2 Scope of the Project

The proposed system is a web-based application that enables the management and automation of students' complaints at various colleges within the Islamic university of Madinah regarding marks. It facilitates transparent communication between students, instructors, academic advisors, department

heads, academic advisors and top management to ensure an efficient process. It enables a student to file a complaint and track their filed complaints. It enables the academic advisor to process the complaints and forward it to the responsible person. When the decision is made regarding a complaint, it is sent back to the academic advisor and hence the student. The system enables the administration to generate various reports and statistics related to the closed complaints and the pending complaints.

In more detail, the scope of this project includes several key functions and objectives that ensure an organized, transparent and efficient resolution process for grade-related complaints within educational institutions. The main areas covered by the scope of this system include:

- **Submitting and Tracking Complaints:**

Students can submit a formal complaint, upload supporting documents, track the status of the submitted complaint and receive updates on it.

- **Multi-level Review and Approval Process:**

The complaint is routed through the system to the academic advisor, then to the head of department, to the review unit, and to the top management. Then it goes in the opposite direction to inform the students of the outcome of the complaint.

The final decision is taken by the marks Review Committee (MRC).

- **Database and Documentation:**

Provides an archive of all grade-related complaints, making it easy to document and retrieve complaint records.

- **Automated Notifications and Communications:**

Send notifications to students and faculty members.

- **Reporting:**

Provides tools to generate reports on the number, type, and status of complaints.

- **User Roles and Permissions:**

Defines distinct user roles with specific permissions and access controls.

- **User-friendly Interface:**

Designed with a focus on user experience, making it easy for students and staff to submit and receive complaints and use the system.

1.3 Dealing with student complaints and announcing grades:

Figure 1 shows the data flow diagram for the complaints process. Figure 2 shows the process followed when there is Late announcement of Grades.

1.4 Aim and Objectives

Our aim is to automate and improve the process of handling complaints within FCIS and other colleges within Islamic university. Currently, this process is a paper-based process which makes it difficult to submit a complaint and track the progress of the complaints. Generating various reports for the closed as well as pending complaints is not easy. We aim to preserve time and effort for all stakeholders, making it easy for students to file complaints and track their complaints. Also, enable the administration to monitor the progress of all submitted complaints classified by college/department/course and generate various reports and statistics.

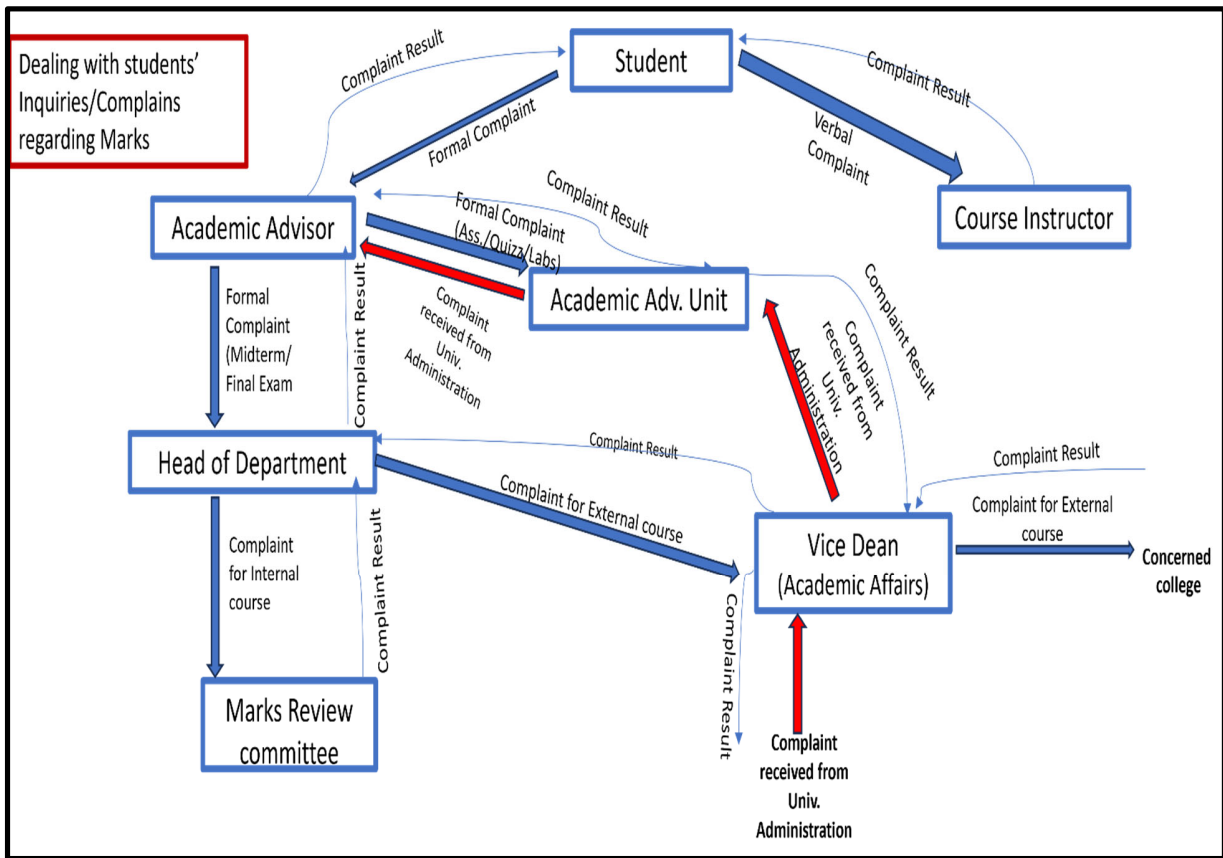


Figure 1. Dataflow Diagram for Students' Complaints [8]

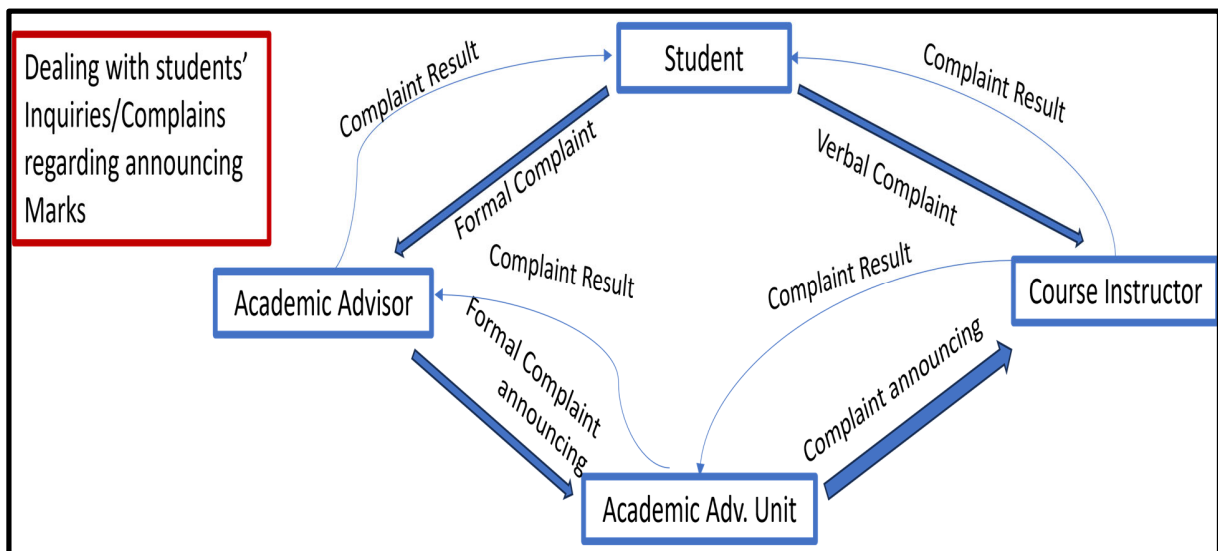


Figure 2. Dataflow Diagram for Late Grade Announcement [8]

The main objectives of the system:

1. Facilitate timely complaint resolution:
Provide a formal mechanism for students to complaints grade-related concerns.
2. Ensure transparency in complaint resolution:
Create a transparent process for students and academic staff to monitor and document the complaints.
3. Enhance communication: To improve communication channels between students, teachers, academic advisors, department heads and administrators, thereby reducing misunderstandings and fostering a collaborative environment for problem solving.
4. Standardize the complaint handling process:
Establish a standardized approach to handling complaints.
5. Support decision-making on submitted complaints: Enable academic administrators to collect and analyze complaints to improve grading policies and teaching practices.
6. Promote a positive academic experience:
Foster a supportive environment where students feel their voices are heard.
7. Reduce administrative burden: Streamline administrative tasks associated with handling

1.5 Organization of the Paper

In the next section, we present the literature review and methodology. Section 3 presents the literature review and systems similar to our proposed system and the comparison between these systems. In Section 4, we present our methodology also present the

requirements. Finally, Section 5 makes some concluding remarks.

2. Literature review

Handling students' complaints related to grades plays a critical role in ensuring the integrity and transparency of the educational process. These complaints typically arise when students feel their grades are unfair or when they don't receive timely feedback on their assessments. Without an efficient system to manage these complaints, issues like delays, lack of transparency, and frustration can undermine the trust between students and academic staff. This section presents the literature review and examines the current practices and challenges of complaints management systems, especially in relation to grades, and compares existing similar systems to identify gaps in the literature. In Section 2.1, we present similar complaints systems and a comparison among them. Section 2.2 lists some of the literature review gaps. Section 2.3 In brief, the benefits and challenges we will face in creating and dealing with the program.

2.1 Similar Systems and Comparison

The lack of an electronic system to handle grades' complaints at FCIS and through the Islamic University stands as a motive for us to complete this project and hopefully be adopted by the various faculties of Islamic University of Madinah.

In our literature review, we have looked for systems that offer similar functionalities and compared these systems according to a number of criteria that we think important to our proposed system. Also, we looked for different features that we can benefit from in our system.

Although there are similar systems that have number of common functionalities with our system, some systems lack some essential functionalities required for filing and tracking complaints. Most of these systems lack the functionality of filing complaints for late announcement of assessment results and lack the ability to upload an absence excuse. Many educational institutions have systems to file complaints which offer a big advantage for their students. Table 1 lists some of these systems and compare them according to some criteria. It also includes the proposed system VoS (Voice of Students). The criteria include:

- Web based system
- Filing complaint for Grade/Late Announcement
- Tracking the complaint in system
- Get response in system
- List of previous complaints
- Upload files to the system
- Communicate with academic advisor
- Get reports in system for Top Management

2.2 Literature Review Gaps

Despite the advantages of electronic systems, there are still gaps in the existing literature regarding the implementation and effectiveness of complaints management systems in educational settings. These gaps include:

1. Not all system is available online
2. The complaint cannot be tracked by the academic advisor or department head on the system.
3. Most, if not all, systems are not specifically designed for complaints related to grades.

2.3 Benefits and Challenges

Automating the complaints process offers significant advantages, such as faster resolution times, more transparent tracking, and data collection for further analysis. Electronic complaints systems lead to higher levels of satisfaction because students feel their complaints are addressed promptly and transparently. However, challenges remain in implementing such systems. Initial setup costs can be high, and there is a need for proper training of faculty members and

students to use the system effectively. Institutions need to implement stringent security measures to prevent unauthorized access to this data.

3. System Requirements

To gather requirements, we used two methods, namely students survey and faculty members interviews. From the survey and the interviews, we have the following system's requirements

Functional Requirements:

- Complaints submission
- Reports Generation
- View Complaints' Status (Complaint Tracking)
- View previous complaints.
- Admin Dashboard / Settings (to assign different roles and privileges)
- Document Upload
- Get Notification when status is changed.
- Data analysis of complaints (reports might be in graphical form)

Non-Functional Requirements:

- Privacy and Security
- Performance
- Scalability
- Maintainability
- Usability

4. System Design

This chapter presents the design of the VoS system using different UML diagrams

Table 1: Comparison Between Similar Systems

System Criteria	University of hail (Daeem) [1]	King Abdulaziz University (Anjez) [2]	Tawasol System [3]	Taibah University (Ansifny) [4]	King Saud University [5]	Qassim University [6]	Qiyas Testing System [7]	Voice of Students
Web based system	Yes	Yes	In part	Yes	Yes	Yes	Yes	Yes
Filing complaint for Grades/Late Announcement	No	Yes (for grades only)	No	Yes (for grades only)	Yes (for grades only)	Yes (for grades only)	Yes (for grades only)	Yes
Tracking the complaint in system	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Get response in system	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
List of previous complaints	Yes (if the complaint is still pending)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Upload files in the system	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Communicate with academic advisor	Yes	No	No	No	No	No	No	Yes
Get reports in system for Top Management	Yes	No	No	No	No	Yes	No	Yes

System prototype.

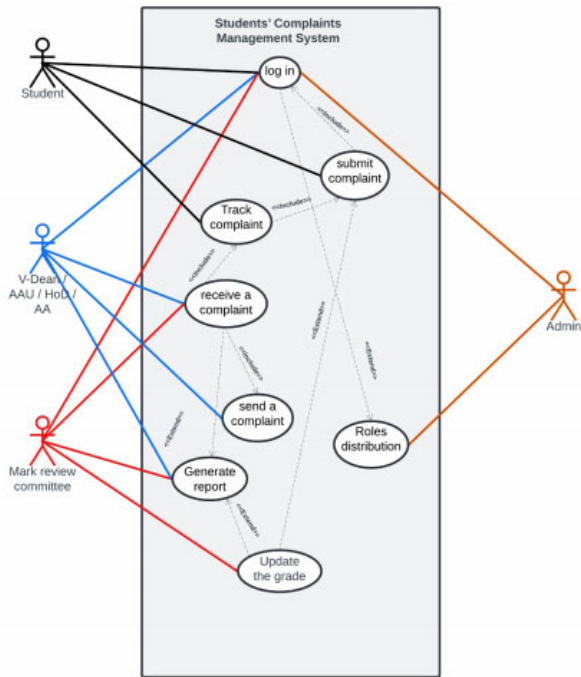


Figure 3. Use Case diagram

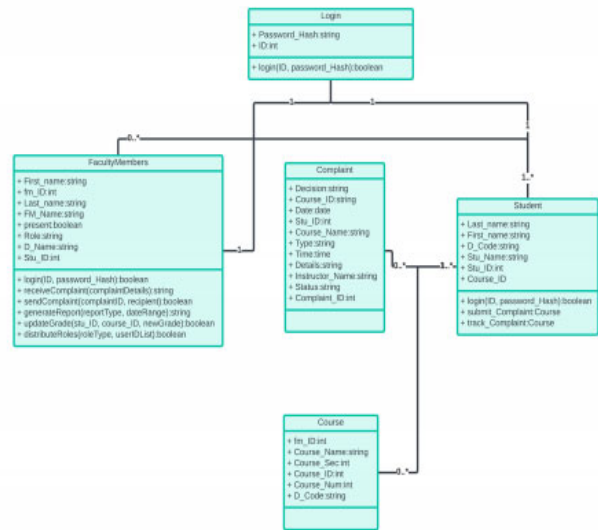


Figure 5. Class diagram

5. Concluding Remarks

In this paper we presented the project, VoS: Students' Complaints Management System. The main objective is to automate the paper-based process for handling students' complaints at FCIS and other faculties in IU. First, we conducted an extensive literature review and searched for similar systems in educational institutions. Many of universities encourage their students to submit complaints regarding marks for the purpose of transparency, simplifying the submission process, improving communication, and ensuring transparency. Some gaps in the literature review were identified. Then, we presented our methodology to gather information which included conducting surveys among students and interviews with faculty members. The analysis of the gathered data leads us to define the functional and non-functional requirements of the project. Finally, we created UML Diagrams to show how the complaint site will look like.

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Figure 4. Entity Relationship diagram

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