

## DEPARTMENT OF SOFTWARE ENGINEERING

### UNIVERSITY OF MALAKAND

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# 1 Introduction

The University of Malakand (UoM) is committed to providing a high-quality learning environment for all its students. To achieve this goal, it is essential to have a system in place for students to report complaints and concerns. The current manual system is difficult to use, inefficient, and lacks transparency, leading to frustration among students and hindering effective problem-solving. To address these challenges, we propose the development of a new web-based complaint portal that will streamline the complaint reporting process, enhance transparency, and foster greater civic engagement within the university community.

## 1.1 Background and Importance:

The University of Malakand (UoM) strives to provide a high-quality educational environment where students feel supported and empowered. However, the current system for reporting complaints and concerns falls short of achieving this objective. The existing system is characterized by its complexity, inefficiency, and lack of transparency, leading to:

**Under-reporting:** Students are discouraged from reporting issues due to the cumbersome and time-consuming process, hindering the university's ability to identify and address systemic problems.

**Delayed resolution:** Complaints often get lost in the bureaucratic maze, leading to frustration and dissatisfaction among students.

**Erosion of trust:** The lack of transparency and communication leads to a perception that the university is not genuinely interested in addressing student concerns.

**Limited civic engagement:** The current system does not facilitate dialogue or collaboration, hindering constructive feedback and active student participation in university governance.

This inadequate system poses a significant challenge to UoM's mission of providing a robust learning environment and fostering a vibrant university community. Addressing these shortcomings requires a transformative approach to complaint resolution.

## 1.2 Motivation for the Project:

This final-year project aims to develop a new web-based complaint portal to revolutionize UoM's complaint handling system. This innovative solution is driven by the following motivations:

**Empowering students:** The portal will empower students to report concerns easily and efficiently, providing a platform for their voices to be heard.

**Enhancing transparency:** The system will offer real-time updates on the progress of complaints, fostering trust and accountability within the university community.

**Promoting efficiency:** Streamlined workflows and automated processes will expedite the complaint resolution process, ensuring timely and effective outcomes.

**Encouraging civic engagement:** The portal will provide avenues for dialogue and collaboration, allowing students to actively participate in shaping the university environment.

**Data-driven decision making:** The system will collect valuable data on student concerns, enabling evidence-based decision-making for future improvement initiatives.

The development of this web-based complaint portal aligns with UoM's commitment to providing a student-centric and responsive learning environment. By addressing the shortcomings of the current system, this project will foster a more inclusive and engaged university community, ultimately contributing to the academic success and overall well-being of students.

## 2 Problem Statement

Current complaint reporting mechanisms at UoM face several limitations:

**Accessibility:** The current system is only available during office hours and requires students to travel to the registrar's office to submit complaints, making it inconvenient and inaccessible for many students.

**Inefficiency:** The manual, paper-based system is time-consuming and prone to errors, leading to delays in resolving complaints and hindering timely responses to student concerns.

**Lack of Transparency:** Students lack access to real-time information about the status of their complaints, creating uncertainty and frustration.

## 3 Objectives of the Project

The objectives of this research/project are to:

The development of the University of Malakand Complaint Portal aims to achieve the following objectives:

- **To Empower Students' Voices:**
  - Provide a user-friendly platform that encourages students to report their concerns easily, ensuring their voices are heard and addressed promptly.
- **To Facilitate Communication:**
  - Improve communication between students and university administration, promoting dialogue and collaboration to resolve issues effectively.
- **To Promote Trust and Accountability:**
  - Build trust within the university community by ensuring complaints are handled transparently and efficiently, demonstrating the administration's commitment to addressing student concerns.
- **To Ensure Fairness and Equity:**
  - Establish a fair and equitable complaint handling process, ensuring that all student complaints are treated with impartiality and resolved in a timely manner.
- **To Enable Data-Driven Decision Making:**
  - Collect and analyze data on student complaints to identify trends and systemic issues, enabling the university to make informed decisions and implement continuous

## **4 Literature review**

We have conducted a detailed study on the similar systems, research articles and journals related to the area of this research paper. This provides a deeper insight into the chosen area of interest and provides an overview of how others have carried out their work in the same field.

The University of Queensland is Australia's top leading research and teaching institution. Their complaints management system is very effective in improving the students' services. It assists in identifying the systemic and reoccurring administrative problems. Complaints related to discrimination, un-satisfaction, misconduct, personal information and privacy breaches can also be issued using the online system. [1]

The Arab Open University (AOU) is a pioneer when it comes to new concepts in the delivery of university education at the highest standards. The Student Complaint System for Arab Open University is an online system administered by the Online Student Services department to enrich the student experience. [2]

The National University of Singapore (NUS) is recognized as one of the best in Asia, and the world. The online Lost & Found System allows the students to post a report of the item which they lost on campus. To access the online lost and found system they have to log into the system using their NUSNET ID and password. [3]

Scottsdale Community College offers a great college experience for students of all ages and aspirations. They have an online Suggestion Box where you can submit your suggestions. This system also asks the user which college employee need be informed about their suggestion and if they would like to have a personal response to their suggestion. [4]

## **5 Features**

The UOM Complaint Portal will include the following key features:

- 1 User Registration and Authentication
- 2 Complaint Registration and management
- 3 Report Generations
- 4 Statistical Analysis
- 5 View complaint status

## 6 Research Methodology

The research/project will use an agile scrum methodology. This means it is flexible, iterative, and collaborative. It encourages transparency, accountability, and trust with the community. It is a proven methodology for complex software systems with uncertainty. It contains the following phases.

### Phase 1: Project Initiation and Planning

#### a. Team Formation:

Assemble a cross-functional Scrum team that includes developers, UX/UI designers, a product owner (representing the officials of university), and a Scrum Master (Supervisor).

#### b. Product Backlog:

Create a product backlog that contains all the features, functionalities, and user stories related to the complaint portal. The product owner prioritizes these items based on their importance.

### Phase 2: Execution and Implementation

#### a. Sprint Planning:

Conduct sprint planning meetings at the beginning of each sprint (e.g., 2 to 4 weeks). During the planning meeting, the team selects a set of items from the product backlog to work on during the sprint. Define the sprint goal, which could be focused on improving specific aspects of the portal or addressing particular community concerns.

#### b. Sprint Execution:

The Scrum team works on the selected backlog items, including developing new features, enhancing existing ones, and ensuring the portal's usability and accessibility. Daily Scrum meetings are held to monitor progress, discuss challenges, and adjust the plan as needed. Collaboration between team members is crucial during this phase to ensure that user needs are met.

#### c. Sprint Review:

At the end of each sprint, hold a sprint review meeting with stakeholders, including community representatives. Demonstrate the completed work, showcasing new features or improvements made during the sprint. Gather feedback from the community and

stakeholders about the portal's usability and whether it effectively addresses community complaints.

### **Phase 3: Monitoring and Feedback:**

#### **a. Product Backlog Refinement (Ongoing):**

Continuously refine the product backlog by adding, modifying, or reprioritizing items based on evolving needs and feedback. Engage with members to gather their input on portal features and usability.

### **Phase 4: Deployment and Launch**

#### **a. Release Planning:**

Plan for portal releases based on the achieved milestones. Ensure that releases are well communicated to the community and stakeholders.

## **7 Contribution to the Field /Utilization of Results**

The successful implementation of the University of Malakand Complaint Portal will contribute significantly to the field of public service delivery by providing a practical model for enhancing citizen engagement and improving complaint handling within educational institutions. The project's outcomes will be disseminated through presentations, publications, and workshops, sharing best practices and encouraging the adoption of similar initiatives in other universities.

### **Sustainable Development Goals:**

The project aligns with the following Sustainable Development Goals (SDGs) outlined by the United Nations:

**Goal 16: Peace, Justice and Strong Institutions:** The portal promotes peace and justice by providing a platform for students to voice their concerns, facilitating conflict resolution and fostering a more equitable and just learning environment.

**Goal 17: Partnerships for the Goals:** The project promotes partnerships between the university administration and its student body by establishing a direct channel of communication, collaboration, and trust.

## 8 Work Plan

The research/project will be completed over a period of 8 months in 2 cycles. The following is a tentative work plan:

Phase	Schedule
<b>Phase 1: Project Initiation and Planning</b>	10 weeks
<b>Phase 2: Execution and Implementation</b>	12 weeks (Cycle 1- 6 weeks) (Cycle 2- 6 weeks)
<b>Phase 3: Monitoring and Feedback</b>	6 weeks (Cycle 1- 3 weeks) (Cycle 2- 3 weeks)
<b>Phase 4: Deployment and Launch</b>	4 weeks



## 9 References

- [1] University of Queensland, U., 2017. Complaint Management System.

<https://complaints.uq.edu.au/cms/CreateCaseForUq.do> [Accessed 24 April 2017].

- [2] Arab Open University, A., 2017. Student Complaint System.

<https://sisonline.arabou.edu.kw/omneng/> [Accessed 25 April 2017].

- [3] National University of Singapore, N., 2016. Lost and Found System.

<https://myaces.nus.edu.sg/prjvlf/login.do> [Accessed 24 April 2017].

- [4] Scottsdale, 2016. Scottsdale Community College Online Suggestion.

<https://www.scottsdalecc.edu/about-scottsdale/suggestionbox>