



# TA Management System

Deliverable-2 1st Iteration

## Non-Functional Requirements

16.03.2025

**Course:** CS 319

**Section:** 01

**Group No.:** 7

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Here are 6 key non-functional requirements for our TA Management System:

### 1. Security and Access Control:

- The system must implement role-based access control for different user types (TAs, Faculty, Department Staff, Department Chair, Dean, Admin)
- User authentication must be secure and prevent unauthorized access
- Sensitive data (like personal information of students and staff) must be protected
- All actions in the system should be logged for audit purposes

### 2. Performance and Scalability:

- The system should handle multiple users concurrently (particularly during peak times like exam scheduling periods)
- Database queries should execute efficiently, especially for the automatic assignment algorithm
- The system should be able to scale to accommodate all departments and TAs at the University
- Response time for regular operations should not exceed more than few seconds (ideally 3)

### 3. Reliability and Availability:

- Like any other mid-scale system, our system should be available 24/7 with minimal downtime
- Regular backups of the database should be performed to prevent data loss
- Handle errors properly and provide meaningful error messages

### 4. Usability and User Experience:

- The interface should be intuitive and easy to navigate for all user types
- The system should be responsive and work well on different devices and screen sizes
- Notification systems should be clear and timely

### 5. Interoperability and Compatibility:

- The system must be compatible with the specified infrastructure (Linux, Apache2, MySQL)
- Data import/export functionality should work smoothly with Excel spreadsheets
- The system should integrate with email services for notifications
- It should be compatible with standard web browsers (Chrome, Firefox, Safari, Edge)

## 6. Maintainability:

- The codebase should follow software engineering best practices for readability and maintainability
- The system should be flexible enough to allow for future enhancements and modifications
- The system should be designed to accommodate changes in academic policies or procedures

These non-functional requirements address the quality attributes that are crucial for our TA Management System's success beyond just the functional features described in previous documentation.