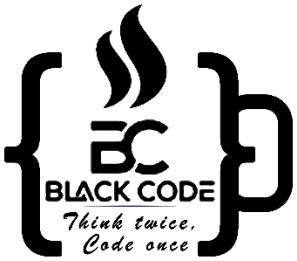

Thesis Tracking System Software

Software Requirements Specification

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Advance Software Development ICTW482 - Final Year Project

Introduction

1.1 Purpose

This Software Requirements Specification (SRS) document specifies the requirements for the Thesis Tracking System. The purpose of this system is to track the progress of thesis submissions and evaluations without handling the actual file submissions.

1.2 Scope

The Thesis Tracking System will be a web-based application that facilitates the tracking of thesis proposal and chapter submissions from students to their assigned lecturers. The system will allow students to submit comments regarding their thesis work, and lecturers will be able to provide feedback, approve or reject submissions. The system will also provide visibility to the Head of Department (HOD), Dean of Faculty, and Admin for monitoring and managing the overall progress.

1.3. Definitions, Acronyms, and Abbreviations

SRS: Software Requirements Specification
HOD: Head of Department
Admin: System Administrator

1.4. References

- IEEE Std 830-1998: IEEE Recommended Practice for Software Requirements Specifications

1.5. Overview The remainder of this document is organized as follows: Section 2 provides an overall description of the product; Section 3 specifies the specific requirements; and Section 4 includes appendices with additional information.

Overall Description

2.1. Product Perspective

The Thesis Tracking System is a standalone web application that will be developed using PHP, HTML, CSS, and MySQL database. It will provide a centralized platform for tracking the progress of thesis submissions between students and their assigned lecturers.

2.2. Product Functions

The main functions of the Thesis Tracking System include:

- User management (students, lecturers, HODs, Dean of Faculty, Admin)
- Thesis proposal and chapter submission tracking
- Commenting and feedback system for lecturers and students
- Progress monitoring and reporting for HODs, Dean of Faculty, and Admin

2.3. User Characteristics

The system will have the following user roles:

- Student: Can submit thesis proposals and chapters, view feedback from lecturers.
- Lecturer: Can view student submissions, provide feedback, approve or reject submissions.
- HOD: Can assign lecturers to supervise students, view progress of all students and lecturers in the department.
- Dean of Faculty: Can view progress of all departments and their students.
- Admin: Can manage user accounts, set up departments, and configure thesis chapters.

2.4. Constraints

- The system will be web-based and accessible through a web browser.
- The system will not store actual thesis files; only submission details and comments will be stored.
- The system will be developed using PHP, HTML, CSS, and MySQL database.

2.5. Assumptions and Dependencies

- Users will have access to a web browser and an internet connection.
- The system will be hosted on a web server with PHP and MySQL support.

3.Specific Requirements

3.1. External Interface Requirements 3.1.1. User Interfaces The system will have a web-based user interface accessible through a web browser. The interface will be responsive and optimized for different devices (desktop, tablet, mobile).

3.1.2. Hardware Interfaces The system will not have any direct hardware interfaces. It will be accessed through web browsers on various devices (desktops, laptops, tablets, smartphones).

3.1.3. Software Interfaces The system will interface with a MySQL database for data storage and retrieval.

3.1.4. Communication Interfaces The system will communicate over the internet using the HTTP/HTTPS protocol.

3.2. Functional Requirements 3.2.1. User Management - The Admin will be responsible for creating and managing user accounts for students, lecturers, HODs, and the Dean of Faculty. - Users will be able to log in to the system using their credentials. - Users will be able to reset their default passwords provided by the Admin.

3.2.2. Thesis Tracking - Students will be able to submit thesis proposals and chapters with comments. - Lecturers will be able to view submissions from their assigned students. - Lecturers will be able to provide feedback, approve or reject submissions. - The system will track the submission dates and times for each proposal and chapter.

3.2.3. Notifications and Comments - Students will receive notifications when their submissions are approved, rejected, or commented on by lecturers. - Lecturers will receive notifications when students submit new proposals or chapters. - Users will be able to view and add comments related to thesis submissions.

3.2.4. Reporting and Progress Tracking - HODs will be able to view the progress of all students and lecturers in their department. - The Dean of Faculty will be able to view the progress of all departments and their students. - The system will generate reports on submission statistics, approval rates, and overall progress.

3.3. Performance Requirements

The system should be responsive and provide a smooth user experience.
The system should be able to handle a reasonable number of concurrent users without significant performance degradation.
The system should have appropriate measures in place to handle potential load spikes during peak usage times.

3.4. Design Constraints

The system will be developed using PHP, HTML, CSS, and MySQL database.
The system will follow best practices for web development and database design.
The system will be designed with scalability and maintainability in mind.

3.5. Software System Attributes 3.5.1. Reliability - The system should be available and operational during regular business hours and peak usage times. - Appropriate measures should be taken to ensure data integrity and prevent data loss.

3.5.2. Availability - The system should have a high uptime and be accessible to users at all times, except during scheduled maintenance periods. - Appropriate measures should be taken to ensure system redundancy and failover mechanisms.

3.5.3. Security - The system should implement appropriate security measures to protect user data and prevent unauthorized access. - User authentication and authorization mechanisms should be in place. - Data transmission should be encrypted using industry-standard protocols (e.g., HTTPS).

3.5.4. Maintainability - The system should be designed with a modular architecture to facilitate future updates and enhancements. - Proper documentation and coding standards should be followed to ensure maintainability.

3.5.5. Portability - The system should be compatible with different web browsers and devices (desktops, laptops, tablets, smartphones). - The system should be designed to be easily deployable on different web servers and hosting environments.

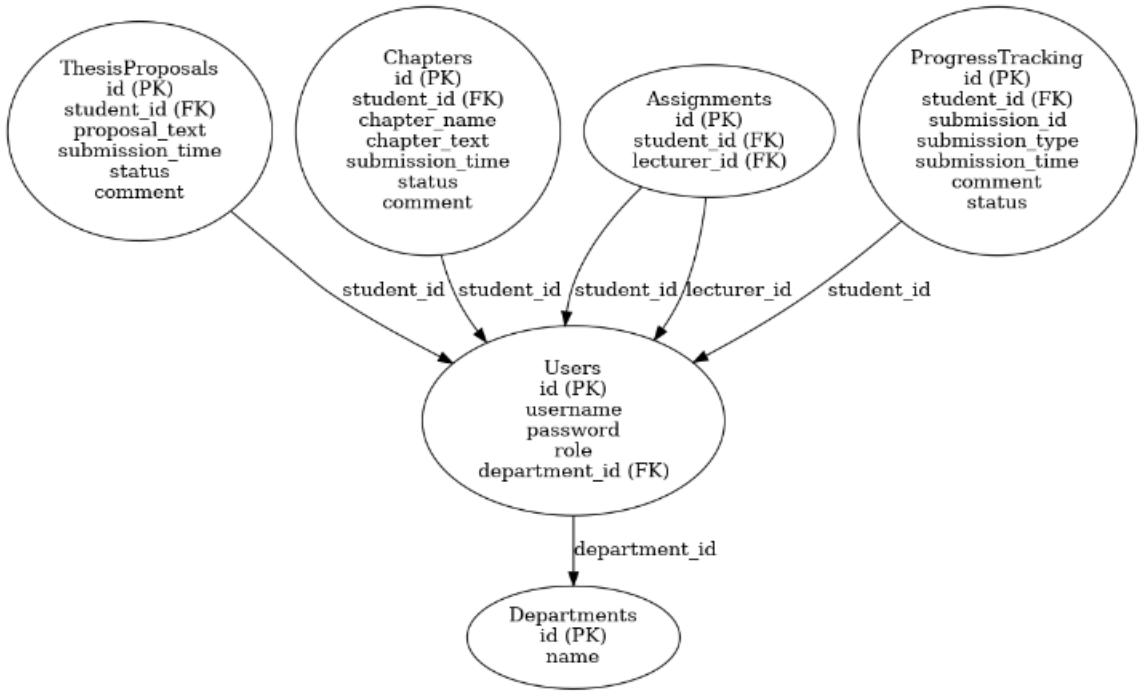
Appendices

4.1. Glossary

Thesis: A long essay or dissertation involving personal research, written by a candidate for a university degree.
Proposal: A plan or suggestion for a thesis topic, outlining the research objectives and methodology.

Chapter: A main division of a thesis, typically covering a specific aspect of the research.

4.2. Database Models/Schema



Here is the Entity-Relationship Diagram (ERD) for the Thesis Tracking System, displaying the relationships among the tables:

- **Users**: Stores information about all users including students, lecturers, HOD, Dean, and admin.
- **Departments**: Stores department details.
- **ThesisProposals**: Tracks thesis proposal submissions by students.
- **Chapters**: Tracks chapter submissions by students.

- **Assignments**: Manages the assignment of students to lecturers.
- **ProgressTracking**: Tracks the progress of submissions, including proposals and chapters.

The relationships are as follows:

- Each user is optionally associated with a department.
- Thesis proposals and chapters are linked to students in the Users table.
- Assignments link students and lecturers in the Users table.
- Progress tracking records are linked to students in the Users table.