Software Requirements Specification

Doctoral Student Progress Tracker

Version 1.0

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Group-10

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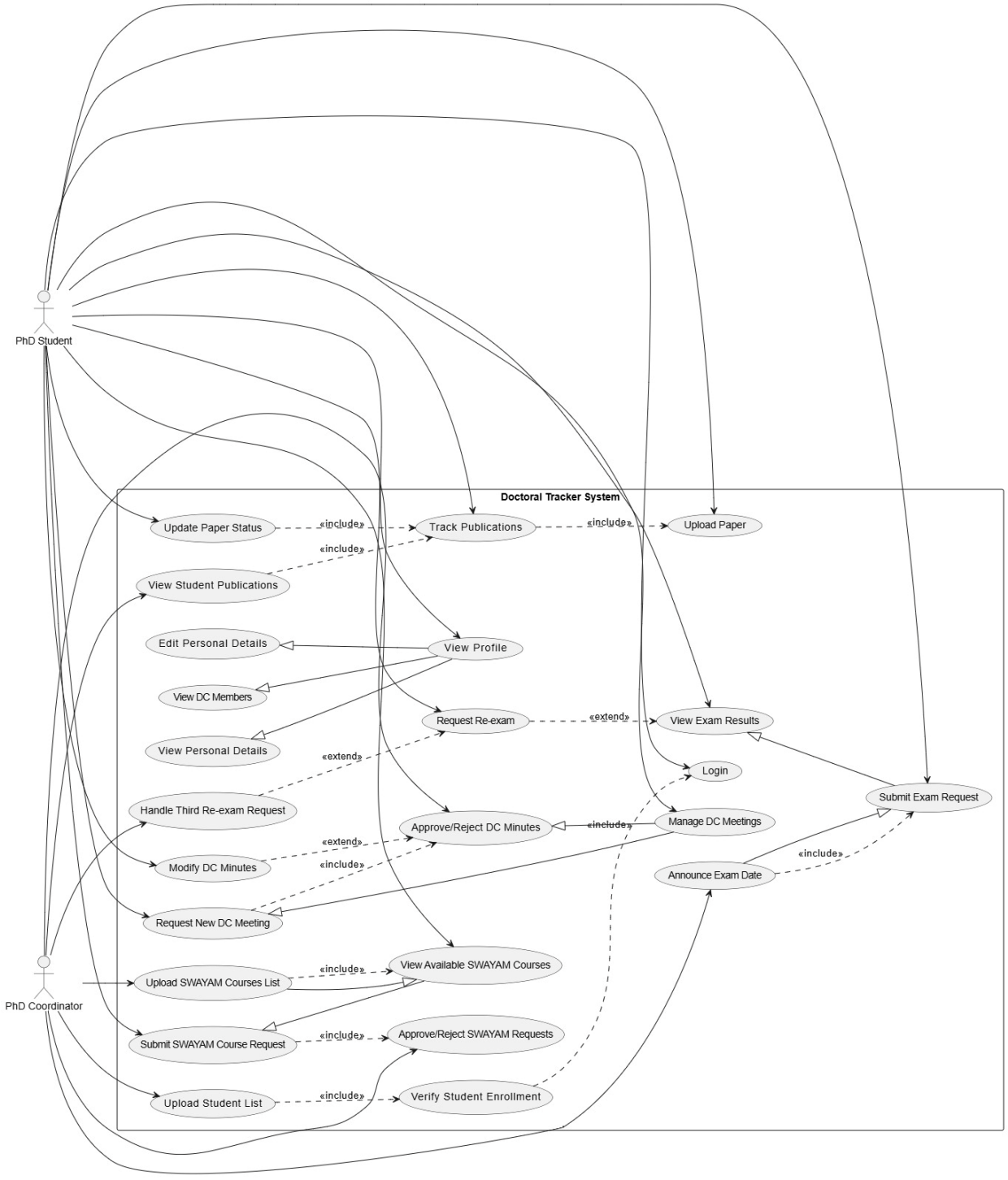
Revisions

Version	Primary Author(s)	Description of Version	Date Completed
Initial Draft - 1	Maakhish Sai NBS Manhaas Deeraj	The first version of SRS is prepared.	18-02-2025

Use Case Diagram:



Use Case Descriptions and Steps

1. Upload Student List (U0)

Description: The **PhD Coordinator** uploads the list of PhD students into the system in excel format. This list is used to verify student enrollment before login.

Steps:

1. **PhD Coordinator selects** a file containing student details (e.g., CSV or Excel format) and uploads it to the system.

2. Verify Student Enrollment (U0A)

Description: Before a student can log in, the system checks if their name exists in the uploaded student list.

Steps:

1. A **PhD Student** enters their credentials on the login page.
2. The system checks if their name exists in the uploaded student list.
3. If the student is found, they proceed to the login process.
4. If not found, an error message is displayed, and login is denied leading to another use – case meant to deal with this exception.

3. Login (U1)

Description: A **PhD Student** logs into the **Doctoral Tracker System** after enrollment verification.

Steps:

1. The student logs in to the system using NITC Google Mail Address.

4. View Profile (U2)

Description: A **PhD Student** views their personal details, DC members, and other profile-related information.

Steps:

1. Students after successful login can view their profile pages.
2. It is a generalized use case for U2A, U2B, U2C.

5. View DC Members (U2A)

Description: A student can see the list of Doctoral Committee (DC) members assigned to them.

Steps:

1. Students can view the details of DC Members to the committee they belong to.

6. View Personal Details (U2B)

Description: A student can see their personal details (name, email, registration date, etc.).

Steps:

1. Students can see their “**Personal Details"**.

7. Edit Personal Details (U2C)

Description: A student can update their contact details and other editable fields.

Steps:

1. Students can update their personal details.
2. After updating they can save it.

8. Manage DC Meetings (U3)

Description: Students and coordinators manage DC meetings, including scheduling and modifications.

Steps:

1. Student/coordinator accesses **"Manage DC Meetings"**.
2. Views scheduled meetings.
3. Can request a **new meeting** (U4) or **modify minutes** (U5A).

9. Request New DC Meeting (U4)

Description: A student submits a request for a new DC meeting.

Steps:

1. Students click on **"Request New DC Meeting"**.
2. A computer-generated mail is sent to DC Committee Members.

10. Approve/Reject DC Minutes (U5)

Description: The **PhD Coordinator** reviews and approves or rejects DC meeting minutes.

Steps:

1. Coordinator reviews meeting minutes.
2. Approves or rejects them.

11. Modify DC Minutes (U5A)

Description: Allows **PhD Students** to modify DC meeting minutes before approval.

Steps:

1. Student modifies the DC Minutes.
2. The student then saves it and sends another request to PhD Co-Ordinator.

12. Announce Exam Date (U6)

Description: The **PhD Coordinator** announces the exam date.

Steps:

1. Coordinator selects the date and confirms.
2. Students receive notifications.

13. Submit Exam Request (U7)

Description: A student submits a request to appear for an exam.

Steps:

1. Student fills out required details.
2. Students submit the request.

14. View Exam Results (U8)

Description: Students can check their exam results.

Steps:

1. Students can see their results posted by the PhD Co-Ordinator.

15. Request Re-exam (U9)

Description: If a student fails the comprehensive exam for the first two attempts, they can request a re-exam.

Steps:

1. Students view the results.
2. Student submits a Re-Examination request to PhD Co-Ordinator.

16. Handle Third Re-exam Request (U9A)

Description: If a student requests to attempt the comprehensive exam third time, then a error message is displayed to student.

Steps:

1. An Error Message is displayed to the student.

17. Track Publications (U10)

Description: A student can track the status of their research publications.

Steps:

1. Students can see their papers and can see their status.

18. Upload Paper (U11)

Description: A student uploads their research paper to the system.

Steps:

1. Student selects a file and uploads it.

19. Update Paper Status (U12)

Description: The student updates the publication status (e.g., "Under Review", "Published").

Steps:

1. Student selects a paper and updates the status of it.

20. View Student Publications (U13)

Description: The **PhD Coordinator** can see the list of all student publications.

Steps:

1. Coordinator can access all student's publications.
2. Coordinator can then select each student and can see each student's publications.

21. Upload SWAYAM Courses List (U14)

Description: The **PhD Coordinator** uploads a list of available SWAYAM courses as an excel sheet.

Steps:

1. Coordinator u**p**loads SWAYAM courses as a file.

22. View Available SWAYAM Courses (U15)

Description: Students can view a list of available SWAYAM courses.

Steps:

1. Student accesses **"View Available SWAYAM Courses"**.

23. Submit SWAYAM Course Request (U16)

Description: Students request registration for SWAYAM courses.

Steps:

1. Students select their courses that align their interest.
2. Students then request for approval from the PhD Coordinator.

24. Approve/Reject SWAYAM Requests (U17)

Description: The **PhD Coordinator** approves or rejects SWAYAM course registrations.

Steps:

1. Coordinator accesses **"Approve/Reject SWAYAM Requests"**.
2. Reviews requests and decides.

Actors:

1. **Ph.D Students**
2. **Ph.D Co-Ordinator**

Functional requirements

1. User Authentication and Role Management

- **Student Login**: Students log in using their Google accounts.
- **Ph.D. Coordinator Login**: Coordinators log in using a username and password.
- **Admin Registration**: The Ph.D. Coordinator uploads a list of enrolled students, enabling them to log in without registration.

2. Functionalities for Ph.D. Students

2.1 Profile & DC Committee Management

- View and update personal profiles.
- Add and manage details of Doctoral Committee (DC) members.

2.2 Research Paper Publication Tracking

- Upload and update research publications.
- Attach PDFs or DOI Links to published papers.
- Update publication progress (Submitted, Under Review, Accepted, Published).

2.3 DC Meeting Workflow

- Initiate and schedule DC meetings.
- Submit meeting minutes, writeup for approval.
- Receive approval/rejection of DC Minutes and resubmit if necessary.

2.4 Comprehensive Exam Management

- View scheduled comprehensive exam dates.
- View results and past attempts.
- Submit requests for re-examinations.

2.5 SWAYAM Course Registration

- View available SWAYAM courses.
- Submit registration requests.
- Track approval status and enrolled courses.

3. Functionalities for Ph.D. Coordinators

3.1 Student & Exam Management

- Announce comprehensive exam and oral exam dates.
- Upload and manage exam results.
- Manage re-examination requests.

3.2 DC Meeting Approval

- Receive and review DC meeting minutes.
- Approve or request edits for the meeting minutes.

3.3 Research Paper Tracking

- View and track students' research publications.

3.4 SWAYAM Course Management

- View and manage student registration requests.

Non-Functional Requirements

1. **Performance**
    a. The system should handle multiple concurrent logins without delays.
    b. The response time for retrieving exam results should be under 15-20 seconds.
2. **Scalability**
    a. The platform should support an increasing number of Ph.D. students.
    b. It should be capable of handling additional features in the future.
3. **Security**
    a. User authentication should be done via OAuth for Google login.
    b. Passwords for Ph.D. Coordinators should be stored securely.
    c. Role-based access control should be implemented.
4. **Reliability**
    a. The system should ensure no data loss in case of a server failure.
5. **Usability**
    a. The interface should be simple and intuitive for both students and coordinators.
    b. Mobile compatibility should be ensured for ease of access.
6. **Maintainability**

a. The codebase should follow best practices to allow easy debugging and updates.
b. API documentation should be available for future integrations.