Daffodil International University

SRS REPORT

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Submitted By:
Abu Hasnat Tamim | 221-15-5458

CSE236 | SOFTWARE PROJECT - 2

Submitted to: Mr. Golam Rabbany
Dept. of CSE, Daffodil International University.

Dept. of CSE | 61_U

Lyte

“Lyte for All”

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1. Introduction:

1.1: Purpose of the project: There are a lot of times in the life of a student/learner when they might need notes, information, tips, etc. about certain topics and subjects. But, to find actually helpful resources is easier said than done. That's why we feel the need for a hub to easily share, find, and manage notes on topics of the user's choice. Our solution to this problem is 'Lyte', a platform where students and academics can create, share, find, and manage notes, lectures, study materials, etc. on different topics and subjects.

1.2: Intended Audience: Our platform would be accessible to people of all ages and identities, and would be beneficial to any learner on any educational level.

1.3: Project Scope: We aim to achieve the following goals with this project:

- User Profiling
- Notes Creation & Management
- Connectivity & Social Features
- Search & Discovery
- User Collaboration
- Features to incentivize user engagement
- Security & Privacy
- Mobile Accessibility
- User Support & Moderation
- Maintenance & Scalability

2. Overview:

2.1: Features: Users of 'Lyte' will be provided with the following features:

- Create, edit, share, and manage notes
- Content searching and AI-driven recommendation
- Engagement features (Rating, Comment, and Reshare notes) • Direct message and private note-sharing
- Badges, awards, and, leaderboards.
- Contests and challenges
- Customizable user-profiles
- Privacy & security options
- Reporting & Moderation
- Monetization from subscriptions and ads

- Accessibility features for people with disabilities and/or different languages
- Account verification and authentication
- Data export and Backup
- User support & feedback

2.2: Platform: ‘Lyte’ will be accessible through our website and Android/IOS apps.

3. Interface Requirements:

3.1: User Interface:

- Front-end software
- Back-end software

3.2: Hardware Interface:

- Server Infrastructure
- Storage System
- Load Balancing
- Security Hardware

3.3: Software Interface:

- Operating Systems
- Browsers
- Database management systems
- Messaging services
- Security Software

4. Non-functional attributes:

4.1: Performance:

- **Response Time:** Ensure that the platform responds to user actions within a reasonable timeframe.

- **Scalability:** The platform should be able to handle increased user activity and data growth without significant performance degradation.
- **Load Testing:** Perform load testing to determine the maximum concurrent user capacity and optimize system resources accordingly.

4.2: Security:

- **Data Encryption:** Encrypt sensitive data both in transit and at rest to protect user privacy.
- **Authentication and Authorization:** Ensure secure user authentication and role-based access control to prevent unauthorized access.
- **Data Backup:** Regularly back up user data and implement data recovery procedures in case of data loss or corruption.

4.3: Reliability:

- **Error Handling:** Implement robust error handling and reporting mechanisms to gracefully handle unexpected errors without service disruption.
- **System Redundancy:** Use redundant servers, databases, and components to minimize single points of failure.

4.4: Usability:

- **User Experience (UX):** Create an intuitive, user-friendly interface to maximize user satisfaction.
- **Accessibility:** Ensure the platform is accessible to users with disabilities by complying with accessibility standards (e.g., WCAG).

4.5: Compatibility:

- **Cross-Browser Compatibility:** Ensure the platform works consistently across a range of web browsers and mobile devices.

- **Mobile Responsiveness:** Optimize the user experience for mobile users, including native mobile apps for iOS and Android.

4.6: Maintenance & Support:

- **Regular Updates:** Commit to regular software updates to address bugs, security vulnerabilities, and feature enhancements.
- **Customer Support:** Offer responsive customer support channels (e.g., email, chat) to assist users with issues and inquiries.

4.7: Backup & Recovery:

- **Data Backup:** Implement automated data backup procedures and maintain backup copies in secure locations.
- **Recovery Testing:** Regularly test data recovery procedures to ensure data integrity.

5. Diagrams:

5.1: UML Diagram:

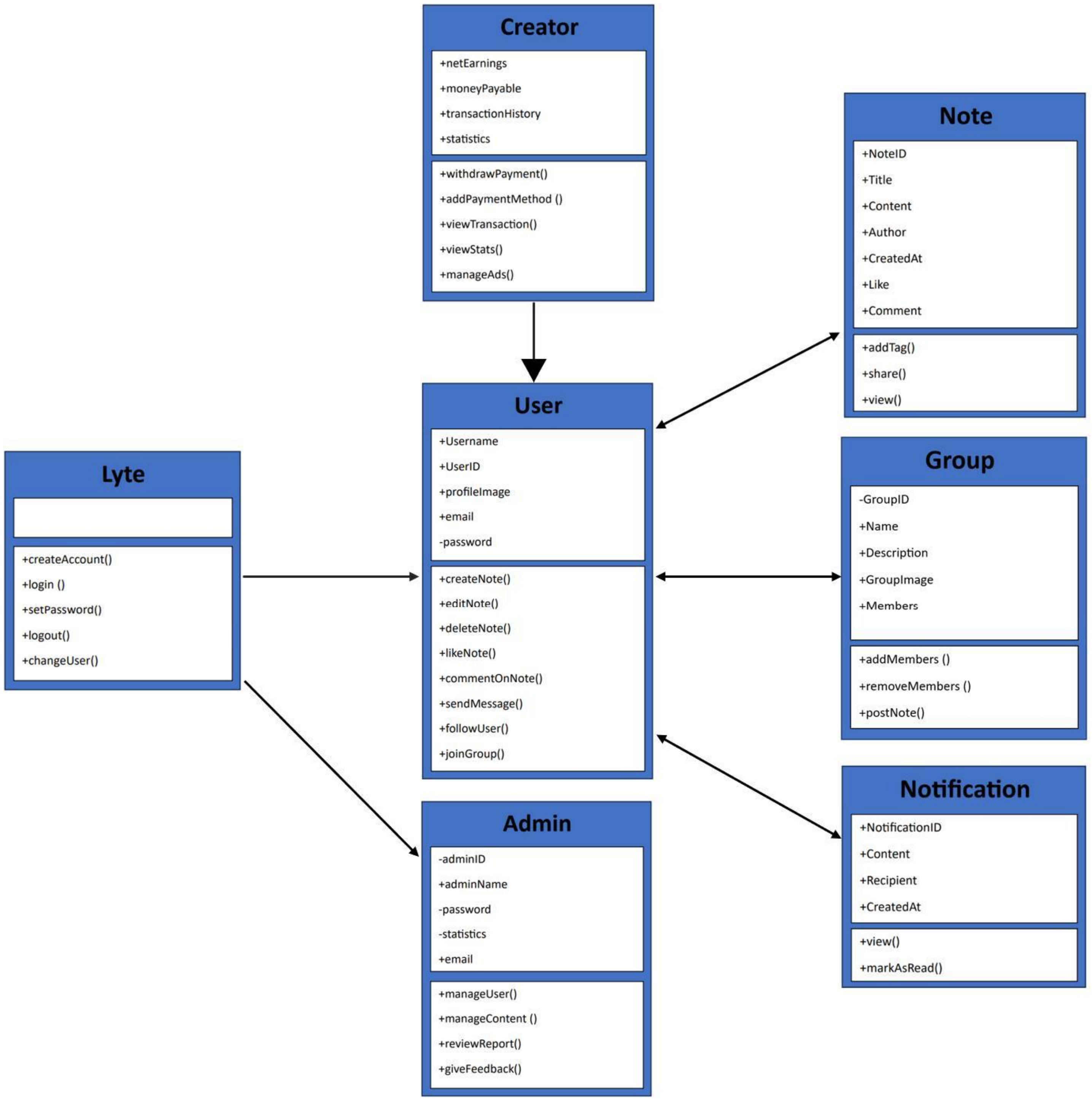

Fig: UML Diagram for our projected platform

5.2: Use-Case Diagram:

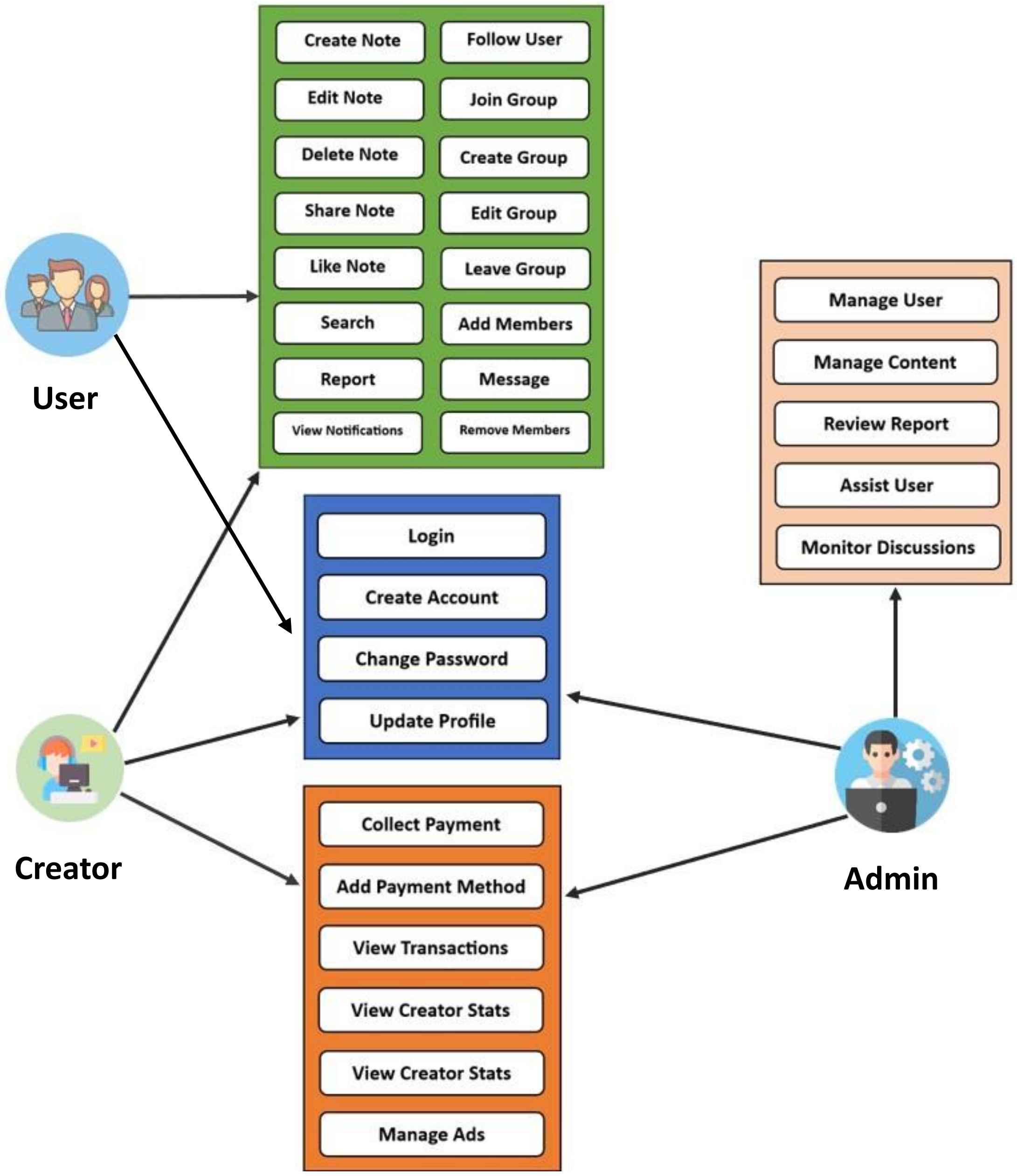

Fig: Use-Case Diagram for our projected platform

6. Conclusion:

Work on the project can be started as soon as all the necessary resources are acquired, and the entire team has been assembled and briefed.

THE END