NoteX – Collaborative Learning System

Project Proposal

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1 Problem Analysis and Motivation

In the modern academic environment, students often face difficulties in organizing and sharing their notes.

- Notes are usually stored in different formats and locations.
- Files may get lost, and repeated sharing becomes inefficient.
- There is no central system dedicated to note sharing and searching.

Therefore, we propose **NoteX – Collaborative Learning System**, where students can upload, search, download, and delete their notes in an organized platform. This will enhance collaborative learning among students.

2 Literature Review

There are existing platforms such as Google Drive, Dropbox, and OneDrive which allow file storage and sharing. However, these are generic platforms, not specifically designed for student note sharing. Learning Management Systems (LMS) like Moodle and Blackboard provide advanced functionalities but are often too complex for simple note sharing. Hence, a lightweight, student-friendly system is necessary, focusing solely on **note sharing and collaborative learning**.

3 Methodology

The proposed system will consist of the following modules:

- **Login System:** Students log in with a username and password.
- **Upload Notes:** Students upload PDF or text files into a dedicated directory.
- **Search Notes:** Search functionality based on filenames or keywords.
- **Download Notes:** Students can download existing notes.
- **Delete Notes:** Students can delete their own uploaded notes.

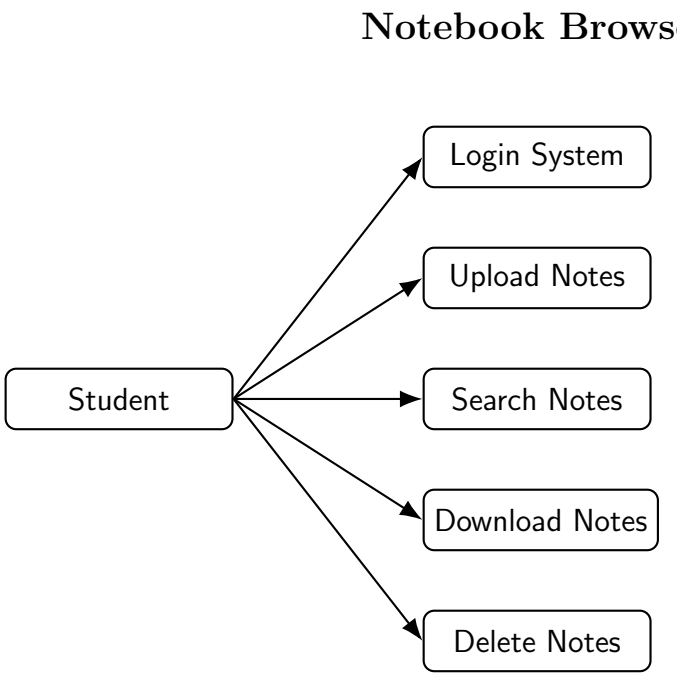

Figure 1: Use Case Diagram of the Proposed System

4 Feasibility Study

4.1 Economic Feasibility

The system requires no additional cost since free tools (Java, SQLite) will be used.

4.2 Technical Feasibility

- Frontend: Java Swing (for GUI).
- Backend: File System / SQLite database.
- Easily expandable and beginner-friendly.

4.3 Operational Feasibility

- Simple dashboard with intuitive buttons.
- Easy to learn and use for students.

5 Main Phases

1. Requirement specification.
2. System design (DFD and UML diagrams).
3. Implementation in Java.
4. Testing and debugging.
5. Deployment and report preparation.

SL	Task	Required Week	Responsible Person	Phase
1	Requirement Specification and Data Collection	week 1	Project Manager and Team Members	Research and Planning
2	Finalize Requirements	week 2	Project Manager and Team Members	Analysis
3	System Design , Use Case Diagram, Sequence Diagram	week 3	System Designer and Project Manager	Design
4	System Development	Week 4–5	Developers	Implementation
5	Beta Release for Users (students , teachers test system)	Week 6	Project Manager and Developers	Testing
6	Feedback Analysis and Requirement Update	Week 7	Project Manager and Team Members	Testing
7	Final Deployment and Documentation	Week 8	All Team Members	Deployment and Maintenance

Table 1: Main Phases and Work Distribution

6 Work Plan

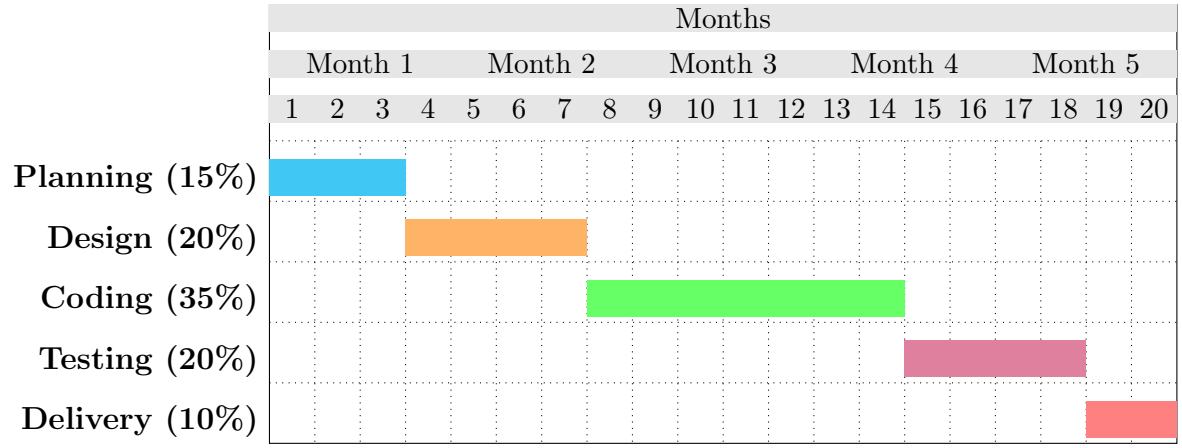

Figure 2: Work Plan of the Project (NoteX – Collaborative Learning System)

7 Budget

SL	Category	Item	Existing (Tk)	New (Tk)
1	Human Resources	Developer	20,000	20,000
2		Designer	20,000	20,000
3		Software Engineer	35,000	35,000
4	Hardware	Laptops	100,000	80,000
5	Software	Design Tools	4,000	3,000
6		Collaboration Tools	5,000	3,000
7	Training	Sessions	3,000	2,000
8	Promotion	Social Media Ads	2,000	1,000
9	**Total Cost**		**189,000**	**164,000**

Table 2: Compact Budget Overview for NoteX System

8 Conclusion

The proposed system **NoteX – Collaborative Learning System** aims to provide a simple, user-friendly, and effective way for students to share and manage their notes. With functionalities such as login, upload, search, download, and delete, the system will significantly improve collaborative learning.

References

[1] A. Venkatesan and S. Nageshwaran, "Online Notes Sharing," *International Journal of Recent Advances in Multidisciplinary Topics*, vol. 3, no. 4, pp. 12–13, Apr. 2022.

[2] R. Kumar and P. Sharma, "A Study on Cloud-based E-learning Platforms," *International Journal of Computer Applications*, vol. 175, no. 20, pp. 25–30, Sep. 2022.

Contribution of Team Members

The development of the project **"NoteX – Collaborative Learning System"** was completed collaboratively by two team members. Both members actively participated in different phases of the project as follows:

NASHSHA ISLAM

- Took the responsibility of preparing the Work Plan and Budget Estimation.
- Designed the Gantt chart showing project timeline.
- Ensured that the cost estimation and scheduling of different phases were properly addressed.

RAHMATUL ISLAM

- Contributed to the Problem Analysis, Literature Review, Methodology, Feasibility Study, System Design, Coding, Testing, and Documentation.
- Worked on writing the main body of the project proposal.
- Implemented the functional details of the system (login, upload, search, download, delete).

Summary

- **NASHSHA ISLAM:** Mainly focused on project planning and budgeting (50% of total work).
- **RAHMATUL ISLAM:** Mainly focused on system development, design, and documentation (50% of total work).

Thus, the project outcome was achieved successfully by combining the planning expertise of **NASHSHA ISLAM** with the development and implementation efforts of **RAHMATUL ISLAM**.