Bachelor of Science in Computer Science and Engineering
CSE 410 (Fall 2025): Project Proposal

# LearnCycle – Smart Online Bookshop & Reuse Community

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# 1. Project Title

**LearnCycle – Smart Online Bookshop & Reuse Community**

# 2. Introduction

**LearnCycle** is a modern online bookshop and community platform where users can easily buy, sell, and donate new and used books. Users can also create **Book Request Posts** for unavailable books, allowing other users or sellers to fulfill these requests. The platform features **AI/ML-based personalized recommendations**, **digital content access**, and **online chat support**, making the user experience faster, interactive, and convenient. Users earn **Book Points** for donations, which can be redeemed for future discounts or rewards.

# 3. Features

## User Features

- User Account (Registration, Login, Profile, Dashboard) with social login support (Facebook, Instagram, LinkedIn, etc.)
- Smart Search & Filters (Category, Author, Price, Condition, etc.)
- Shopping Cart & Secure Checkout
- Wishlist & Alerts (Price Drop, New Edition Alerts)
- Book Donation Portal + **Donation Reward Points System**
- Delivery Tracking (Real-time Status & Map)
- AI Recommendation Engine (Personalized Suggestions, Related Books Suggestions)
- Digital Library (eBooks, PDFs, Notes, etc.)
- Book Request Post System (Request for Unavailable books & Fulfillment)
- Online Chat Support (User-Seller/Support Communication)
- Starmark Leaderboard: Earn coins by selling, buying, or donating books and rank on the leaderboard.

## Admin Features

- Book, Category & Tag Management
- Donation Approval & Quality Check
- Donation Points & Reward Management
- Order & Delivery Management
- User Management & Feedback Moderation
- Analytics Dashboard (Sales, Donations, User Activity)

# 4. Tools & Technologies

- **Backend**: Django (Python)
- **Frontend**: HTML, CSS, JavaScript
- **Framework**: React.js *(optional- for advanced UI)*
- **Database**: MySQL
- **Others**: REST API, WebSocket (for chat), Payment Gateway Integration, Git, GitHub, VS Code, etc.

# 5. Conclusion

**LearnCycle** is not just an online bookshop, but a community-driven smart platform. Our motto is ***Reuse, Read, Repeat***. Users can buy, sell, donate books, access digital content, and communicate via online chat. The **Donation Points System** encourages more contributions, while the **Book Request Post** feature ensures users can find desired books. Students can access books at a lower cost, and old books are reused, promoting sustainability. A community-based book donation culture will flourish, and the project is fully applicable in real-life settings. Overall, LearnCycle provides a practical, tech-driven, and socially beneficial solution for book enthusiasts.