



Technical Design Doc

ez-Read Online Library

Programming Language: Python

Web Services:

- **Tools:** Flask
- **Web Service APIs:**
 - Add book (bookId)
 - Remove book (bookId)
 - Update book (bookId, update)
 - Find books by author (authorId)
 - Find books by date range (start date, end date)
 - Find books by genre (genre)
 - Create lists (listName)
 - Group book into a list (bookIds, listId)
 - Advanced search(searchOptions)
 - Create loan record(bookId, loanerId, loan date)
 - Check book availability
 - Remind remind loaner (bookId, loanerId, return date)
 - Add notes for book (bookId, notes)
 - Remove notes for book (bookId)
 - Update notes for book (bookId, notes)
 - Get all loan records() -- loan records

Data Storage:

- **Tools:** PostgreSQL + SQLAlchemy
- **Tables:**
 - Books
 - Authors

- Subject/Genre
 - Personal Book List
 - Loaners
 - Loan Records
- **Database APIs:**
 - Books CRUD
 - Loaners CRUD
 - Loan Records CRUD

Next Steps:

1. Get familiar with Flask and SQLAlchemy
2. Create UML/ER diagrams for database models