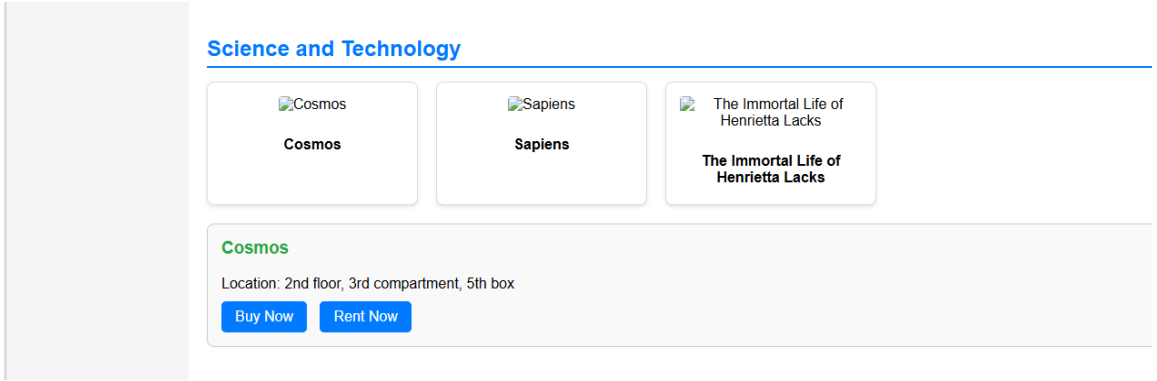
MyBook Web Application

Project Presentation

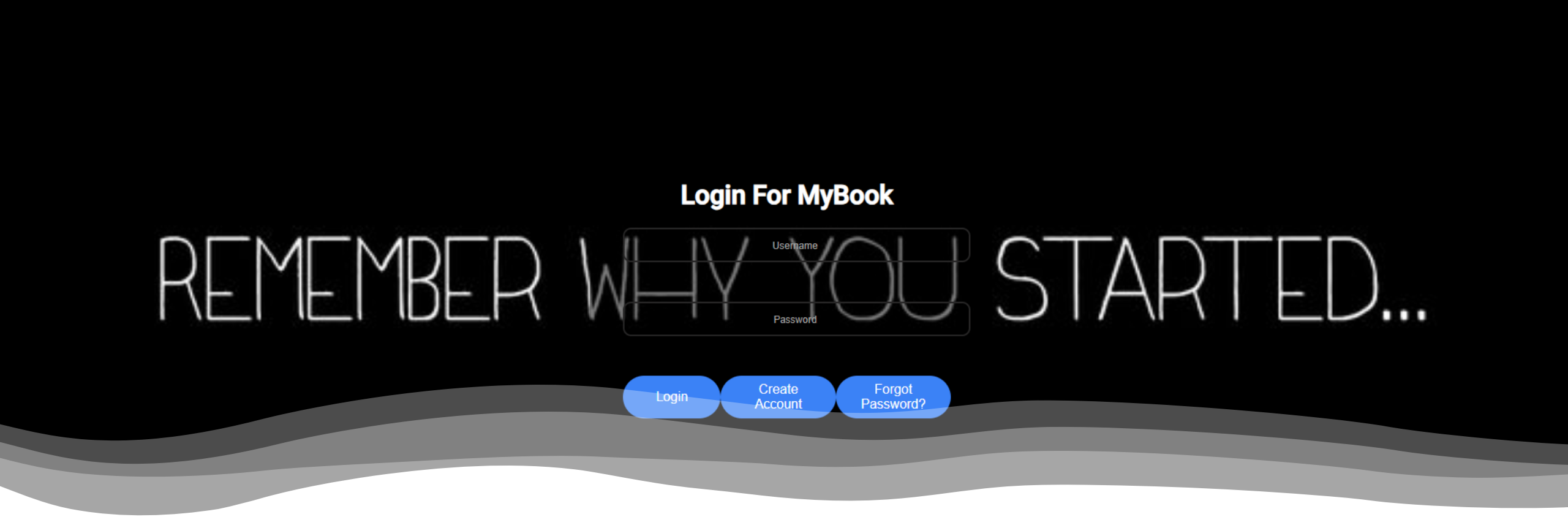


Project Overview

- A Django-based web app to help users:
  - 🔍 **Locate books** in specific sections/compartments
  - 🛒 **Buy or rent** books
- Designed for **libraries, book archives, or academic centers**

Tech Stack

Layer	Tech Used
Frontend	HTML, CSS, Bootstrap
Backend	Django (Python)
Database	SQLite / PostgreSQL
AI/NLP	Sentence-BERT, OpenAI, spaCy
Deployment	Heroku / PythonAnywhere

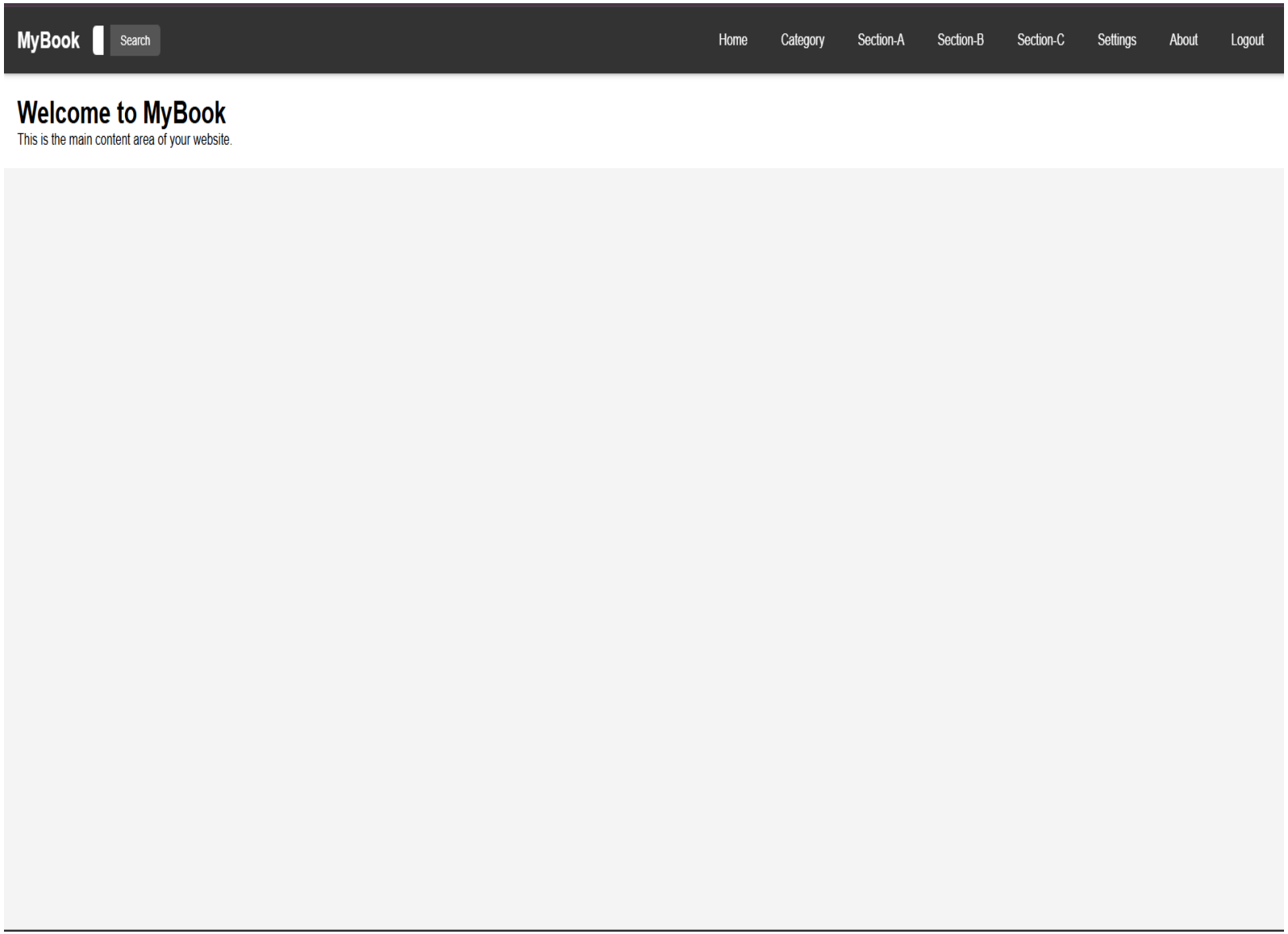


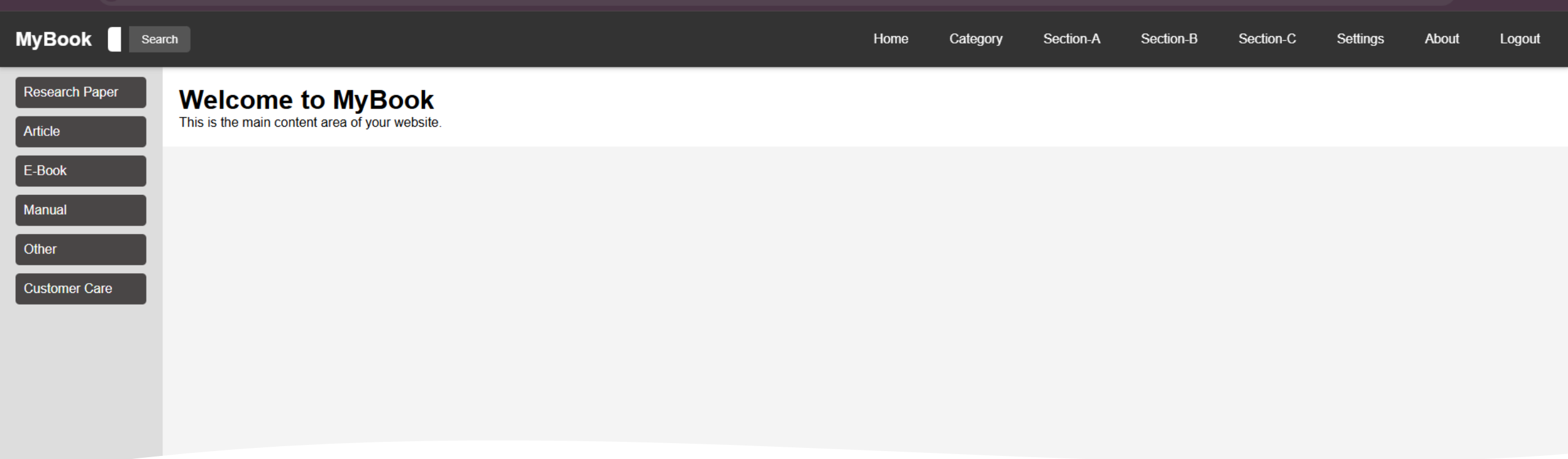
User Authentication

- **Login Page**
- Secure login with validation
- **Logout Functionality**
- Session management with auto redirect

Navigation Bar

- Includes:
- Home
- Category
- Section-A / B / C
- Settings
- About
- Logout
- **Search bar with suggestions**
- Styled with Bootstrap – responsive and clean.





Category Page

- **Categories:**
- Research Paper
- Article
- E-Book
- Manual
- Other
- Customer Care
- Each category dynamically loads book lists.

Smart Search with NLP & LLM

Search Suggestions:
“All” → Suggest “Attention All You Need”
Tech Used:
Sentence Embeddings (BERT/SBERT)
FAISS for fast retrieval
OpenAI/LLM for smart suggestions

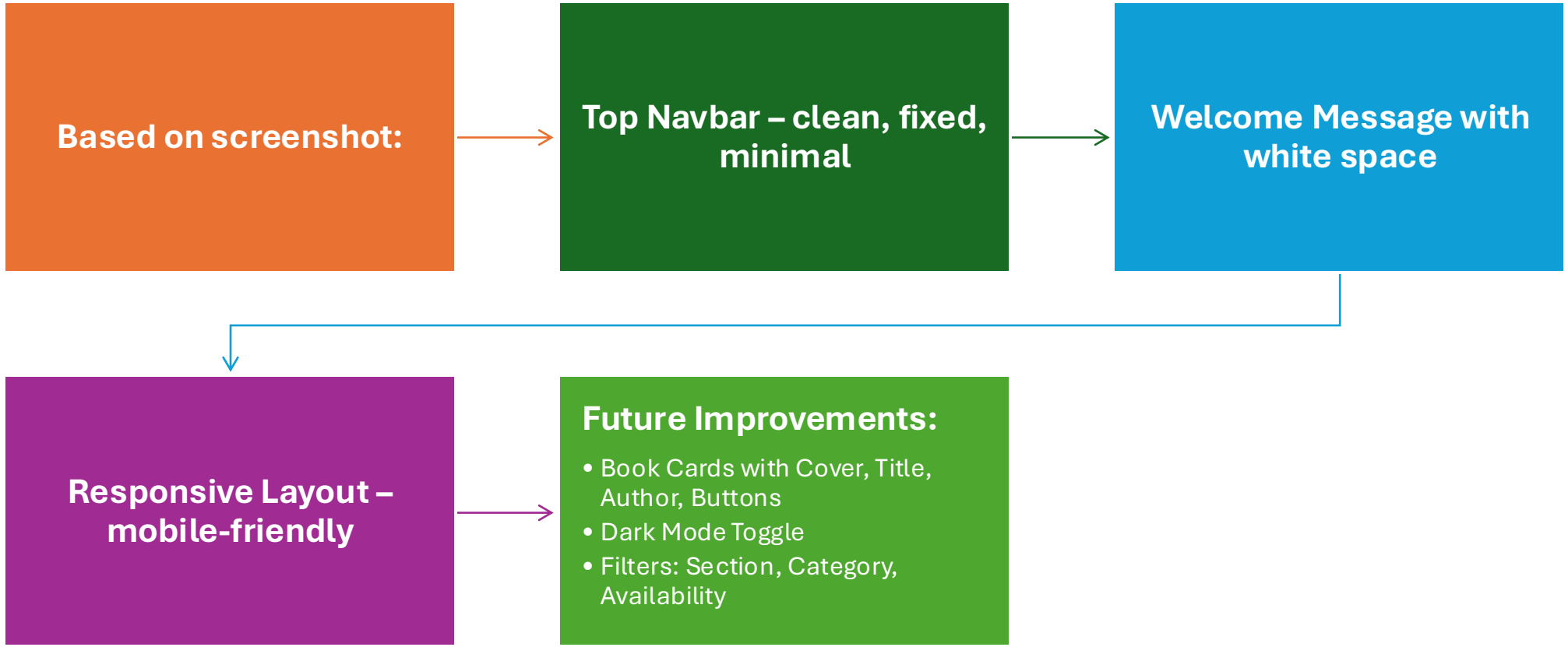
AI Search Workflow

- User types query
- Autocomplete + LLM Suggestions
- Semantic search (Embedding-based)
- Results returned with ranking
- Context-aware filters (e.g., author, section)

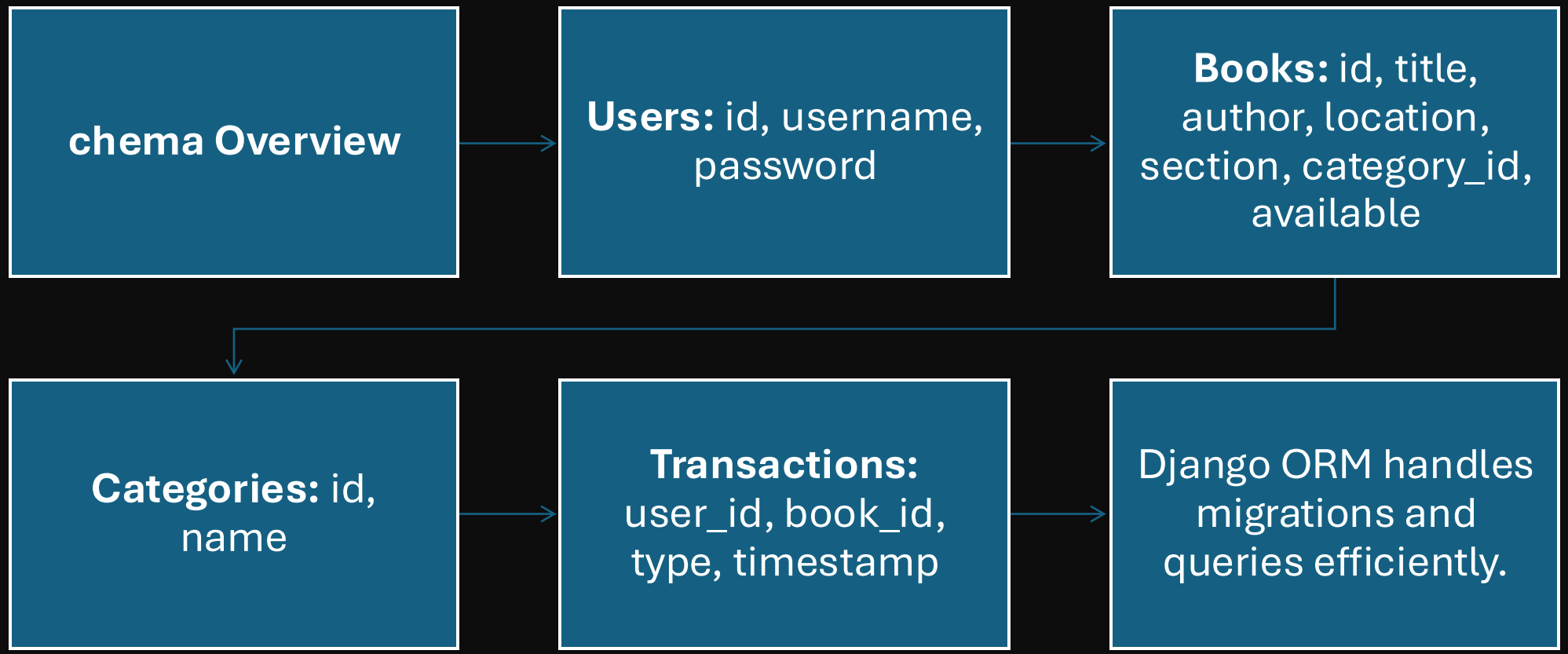
AI/ML & Deep Learning Integration in MyBook

- **LLMs (GPT, BERT):** Smart search, autocomplete, query expansion
- **NER (spaCy, BERT):** Detect book names, categories from input
- **TextGAN / SeqGAN:** Generate synthetic queries & suggestions
- **Clustering (KMeans):** Group similar books/topics
- **Recommendation Models:** Personalized suggestions based on behavior
- **Transformers / RNNs:** Predict next keywords or search phrases
- **OCR + CNN:** Scan and auto-tag book covers
- **Voice Search & Summarization:** AI voice input & auto-summary (future)

UI/UX Design


Based on screenshot:
Top Navbar – clean, fixed, minimal
Welcome Message with white space
Responsive Layout – mobile-friendly
Future Improvements:
• Book Cards with Cover, Title, Author, Buttons
• Dark Mode Toggle
• Filters: Section, Category, Availability

Database Design



Future Enhancements

- 📦 Admin panel for managing books
- 💳 Payment integration (Stripe, Razorpay)
- ⭐ Book ratings/reviews
- 🔁 Real-time availability status
- 🤖 Chatbot for help and discovery

Conclusion

- **MyBook** simplifies finding and accessing books
- Combines Django’s robustness with AI-powered search
- Scalable for institutions, colleges, and digital libraries