

AI Product Recommendation Platform - Learning & Build Roadmap

Phase 1: Basic Web Foundations (1-2 weeks)

Skills to Learn:

- HTML/CSS basics (tags, layout, forms)
- JavaScript ES6+ (arrow functions, promises, fetch API, array methods)
- Bootstrap basics (containers, grid, cards, navbar)

Tasks:

- Build a simple landing page with Bootstrap (logo, product cards, navbar)
- Create a basic form with input fields (email, name, feedback)
- Add interactivity: Alert on form submit using JavaScript

Phase 2: React Frontend (2-3 weeks)

Skills to Learn:

- React Basics (components, props, state)
- React Hooks (useState, useEffect)
- React Router (multi-page app)

Tasks:

- Build Product List Page with React
- Build Product Detail Page with dynamic routing
- Create login/register forms
- Optional: Protect Profile page (visible only if user is "logged in")

Phase 3: Backend API with Node.js + MongoDB (2 weeks)

Skills to Learn:

- Node.js basics
- Express.js (routing, middleware)
- MongoDB & Mongoose

Tasks:

- Build REST API: GET /products, POST /users, POST /login
- Save and fetch reviews
- Implement JWT authentication

Phase 4: Python AI Microservice (2 weeks)

Skills to Learn:

- Python basics (functions, APIs)
- Flask or FastAPI
- Recommender systems (cosine similarity, pandas)
- Sentiment analysis (TextBlob, HuggingFace)

Tasks:

- Build recommend endpoint: /recommend
- Build sentiment endpoint: /sentiment

Phase 5: Connect MERN to Python AI (1 week)

Skills to Learn:

- Axios
- CORS

Tasks:

- Backend calls Python AI
- React sends/receives data to/from backend & AI

Phase 6: PDF Export (Optional, 1 week)

Skills to Learn:

- html-pdf-node OR react-to-pdf

Tasks:

- Add 'Download Recommendations' button
- Export HTML content as PDF

Phase 7: UI Polish + Mobile-Friendly (1 week)

Skills to Learn:

- Bootstrap Grid + Utility Classes
- Mobile-first design

Tasks:

- Improve styling and responsiveness
- Add mobile navbar, UI polish

Phase 8: Deployment (1 week)

Skills to Learn:

- Vercel, Render, Railway
- .env files

Tasks:

- Deploy frontend (Vercel)
- Deploy backend (Render)
- Deploy Python AI (Render)

Phase 9: Sellable Polish (Optional)

Skills to Learn:

- Stripe integration
- i18next for multilingual
- Admin dashboard

Tasks:

- Add payments, multi-language, admin dashboard