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**NETHWINLK - TEAM MODULES DOCUMENTATION**

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Project: E-commerce & Print Services Platform

Date: 23rd September 2025

Status: 75% Complete (Members 2-5), 100% Complete (Member 1)

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TEAM MEMBER ROLES & RESPONSIBILITIES

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**MEMBER 1 - USER HANDLING MODULE (100% COMPLETE)**

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Developer: P.L. Rathnayaka

Functionality: User Registration, Authentication, Profile Management

DATABASE MODELS:

- username: String

- email: String

- password: String (hashed)

- fullName: String

- phoneNumber: String

- address: String

- province: String

- district: String

- city: String

- zipCode: String

- role: String (customer/admin)

- customerType: String (online/instore)

- status: String (active/inactive)

- createdAt: Date

- updatedAt: Date

BACKEND API ROUTES:

POST /api/auth/register

POST /api/auth/login

GET /api/me

PUT /api/me

GET /api/users

POST /api/users

PUT /api/users/:id

DELETE /api/users/:id

FRONTEND COMPONENTS:

- Signup Page (signup.html) - Complete registration form with validation

- Login Page (login.html) - User authentication

- Profile Page (profile.html) - User profile management with modern UI

- Admin Users (admin-users.html) - User management for admins

KEY FEATURES IMPLEMENTED:

- User Registration with validation

- User Authentication (JWT tokens)

- Profile Management with phone validation

- Admin User Management (CRUD operations)

- Sri Lankan phone number validation

- Role-based access control

- Password security (bcrypt hashing)

- Mobile-responsive design

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**MEMBER 2 - BOOK LISTING & SEARCH MODULE (75% COMPLETE)**

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Developer: T.D. Hewage

Functionality: Product Catalog, Search & Filtering, Book Management

DATABASE MODELS:

- name: String

- description: String

- price: Number

- category: String

- author: String

- isbn: String

- stock: Number

- imageUrl: String

- status: String (active/inactive)

- createdAt: Date

- updatedAt: Date

BACKEND API ROUTES:

GET /api/products

POST /api/products

PUT /api/products/:id

DELETE /api/products/:id

GET /api/products/search

GET /api/products/category/:category

FRONTEND COMPONENTS:

- Bookshop Page (bookshop.html) - Product catalog display

- Search Page (search.html) - Product search functionality

- Admin Products (admin-products.html) - Product management

COMPLETED FEATURES:

- Product catalog display

- Basic search functionality

- Product CRUD operations

- Image upload system

- Category management

- Stock management

REMAINING 25% - TO IMPLEMENT:

- Advanced search filters (price range, author, category)

- Product pagination (load more/next page)

- Product reviews system

- Wishlist/favorites functionality

- Product comparison feature

- Advanced product image galleries

- Product recommendations

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**MEMBER 3 - CART & CHECKOUT MODULE (75% COMPLETE)**

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Developer: K.W.T. Geethanjaya

Functionality: Shopping Cart, Order Processing, Payment Integration

DATABASE MODELS:

- userId: ObjectId

- items: [productId, quantity, price]

- totalAmount: Number

- status: String (pending/processing/completed/cancelled)

- shippingAddress: Object

- paymentMethod: String

- createdAt: Date

- updatedAt: Date

BACKEND API ROUTES:

GET /api/cart

POST /api/cart/add

PUT /api/cart/update

DELETE /api/cart/remove

POST /api/orders

GET /api/my-orders

PUT /api/orders/:id/status

FRONTEND COMPONENTS:

- Cart Page (cart.html) - Shopping cart management

- Checkout Page (checkout.html) - Order processing

- Cart Utils (cart-utils.js) - Cart functionality

COMPLETED FEATURES:

- Add/remove items from cart

- Cart quantity management

- Order creation and history

- Order status tracking

- Cart persistence (localStorage)

REMAINING 25% - TO IMPLEMENT:

- Payment integration (Stripe/PayPal)

- Real-time order status updates

- Shipping cost calculator

- Coupon/discount system

- Guest checkout option

- Order modification before processing

- Inventory management during checkout

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**MEMBER 4 - PRINT ON DEMAND MODULE (75% COMPLETE)**

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Developer: P.P.S.N.T. Perera

Functionality: Custom Printing Services, Print Job Management, File Upload

DATABASE MODELS:

- userId: ObjectId

- fileName: String

- filePath: String

- specifications: {paperSize, paperType, colorMode, quantity, binding}

- totalPrice: Number

- status: String (pending/processing/completed/cancelled)

- createdAt: Date

- updatedAt: Date

BACKEND API ROUTES:

POST /api/print-orders

GET /api/print-orders

GET /api/users/:userId/print-orders

PUT /api/print-orders/:id/status

DELETE /api/print-orders/:id

POST /api/print-orders/upload

FRONTEND COMPONENTS:

- Print Page (print.html) - Print service interface

- Admin Print Orders (admin-print-orders.html) - Print job management

COMPLETED FEATURES:

- File upload system

- Print specifications form

- Print order creation

- Order status tracking

- Admin print job management

REMAINING 25% - TO IMPLEMENT:

- File preview system

- Dynamic pricing calculator

- Print job queue management

- Multiple file format support

- Print quality options

- Bulk print orders

- Real-time progress tracking

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**MEMBER 5 - ADMIN DASHBOARD MODULE (75% COMPLETE)**

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Developer: S.G.N. Oneka

Functionality: Administrative Interface, Analytics, System Management

DATABASE MODELS:

- userCount: Number

- productCount: Number

- orderCount: Number

- revenue: Number

- systemLogs: Array

- settings: Object

BACKEND API ROUTES:

GET /api/admin/dashboard

GET /api/admin/analytics

GET /api/admin/logs

PUT /api/admin/settings

GET /api/admin/reports

POST /api/admin/backup

FRONTEND COMPONENTS:

- Admin Dashboard (admin-dashboard.html) - Main admin interface

- Admin Settings (admin-settings.html) - System configuration

- Admin Messages (admin-messages.html) - Contact message management

COMPLETED FEATURES:

- User management interface

- Basic system statistics

- Settings configuration

- Message management

- Hero image management

REMAINING 25% - TO IMPLEMENT:

- Analytics dashboard with charts

- Advanced system settings

- Email notification system

- Database backup/restore

- System logs viewer

- Bulk operations interface

- Report generation (PDF/Excel)

- Advanced user activity tracking

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PRIORITY ORDER FOR COMPLETION

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Phase 1 - Critical Features (Week 1-2):

1. Member 3 - Payment integration (Stripe/PayPal)

2. Member 5 - Analytics dashboard

3. Member 2 - Advanced search filters

Phase 2 - Enhanced Features (Week 3-4):

4. Member 4 - Print job queue management

5. Member 2 - Product reviews system

6. Member 3 - Order tracking improvements

Phase 3 - Advanced Features (Week 5-6):

7. Member 5 - Report generation

8. Member 4 - File preview system

9. Member 2 - Wishlist functionality

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CURRENT PROJECT STATUS

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| --- | --- | --- | --- |
| **Module** | **Completion** | **Status** | **Priority** |
| User Handling | 100% | Complete | - |
| Book Listing & Search | 75% | In Progress | High |
| Cart & Checkout | 75% | In Progress | Critical |
| Print On Demand | 75% | In Progress | Medium |
| Admin Dashboard | 75% | In Progress | High |

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TECHNICAL STACK

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Backend:

- Node.js + Express.js

- MongoDB + Mongoose

- JWT Authentication

- Multer (file uploads)

- Cloudinary (image storage)

- bcrypt (password hashing)

Frontend:

- HTML5 + CSS3

- JavaScript (Vanilla)

- Tailwind CSS

- Responsive Design

- Local Storage

Key Features:

- RESTful API Architecture

- JWT-based Authentication

- File Upload System

- Real-time Updates

- Mobile Responsive Design

- Sri Lankan Phone Validation

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DEVELOPMENT NOTES

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Completed Recently:

- User profile form redesigned with modern UI

- Phone number validation for Sri Lankan numbers

- Admin user creation with role-based fields

- MongoDB Atlas connection established

- Hero image upload system with local fallback

Next Steps:

1. Implement payment integration for checkout

2. Add analytics dashboard with charts

3. Enhance search functionality with filters

4. Improve print job management system

5. Add comprehensive admin reporting

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CONTACT & SUPPORT

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For questions about specific modules or technical implementation, refer to the respective team member or check the codebase documentation in each module's folder.

Last Updated: September 2025

Document Version: 1.0