

INSTANT ASSIGNMENT HELP — MIGRATION DOCUMENTATION

Complete Technical Architecture & End-to-End Data Conversion Guide: Joomla (PHP/MySQL) to Next.js 14+ (App Router)

Target Framework: Next.js 14+ (App Router)	Language: TypeScript (Strict)
Styling: Tailwind CSS & Google Fonts	Icons: Lucide Icons (lucide-react)
Source DB: MySQL (joomla_IAH)	API Bridge: PHP REST JSON Endpoints
Status: Production Ready & Verified	Sync Mode: 100% Dynamic Revalidation

1. Executive Summary & Migration Objectives

This document details the architectural migration of **Instant Assignment Help** from a legacy Joomla PHP monolith to a high-performance **Next.js 14+ App Router** web application. The primary requirement achieved is **100% dynamic data synchronization**: any menu added in Joomla Admin or content edited in Joomla articles (such as index Article ID 11) is dynamically fetched and rendered on the Next.js frontend without requiring application rebuilds.

2. End-to-End Data Conversion & Flow Architecture

How data moves from the Joomla Admin panel into Next.js React Server Components:

Step	Layer	Description & Data Transformation
1	Joomla Admin	Administrator edits Article Text (e.g. ID 11 'index') or creates new Menu in Joomla Manager.
2	MySQL Database	Joomla saves record in database joomla_IAH (tables JM_content for articles, JM_menu for navigation).
3	PHP JSON Bridge	PHP scripts in /var/www/html/websites/api/ (navigation.php, home.php, article.php) query MySQL directly and return formatted JSON.
4	Next.js Service	services/joomlaService.ts performs HTTP fetch to PHP JSON bridge with 60-second revalidation tag.
5	Next.js Route API	Internal Next.js Route Handlers (/api/navigation, /api/home) normalize raw Joomla entities.
6	Server Components	Next.js Layout & Pages (app/layout.tsx, app/page.tsx, app/[...slug]/page.tsx) render HTML.

3. Joomla PHP Backend JSON API Bridge

Three high-speed JSON endpoints were created directly in the local Apache web root (/var/www/html/websites/api/) to query MySQL database joomla_IAH:

Endpoint File	Database Table Queried	Function & Response Structure
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navigation.php	JM_menu	Queries published main menu items (menutype IN ('main', 'mainmenu', 'us')). Recursively builds a 3-level tree structure (parent_id) for Header Dropdowns and Mega Menus.
home.php	JM_content	Queries article ID 11 or alias 'index' (escaping reserved keyword `fulltext`). Returns articleTitle, introtext, fulltext, metadesc, and metakey for the homepage.
article.php	JM_content	Prepared SQL statement searching by slug or ID. Returns full article HTML content (introtext + fulltext) and SEO tags for dynamic route rendering.

4. Next.js Service Layer & TypeScript Schemas

The client service **services/joomlaService.ts** manages API calls and provides dynamic fallback when the local backend is offline:

```
// Key Service Functions in services/joomlaService.ts:
1. getNavigation(): NavigationResponse - Fetches /navigation.php -> converts raw menu tree into MenuItem[] with MegaMenu support.
2. getHomePage(): HomePageResponse - Fetches /home.php -> loads Article ID 11 ('index') text + Order Calculator configuration.
3. getArticleBySlug(slug: string): JoomlaArticle | null - Fetches /article.php?slug=${slug} -> returns full HTML body and metadata for dynamic pages.
```

5. UI Components & Front-End Architecture

Component	Path	Role & Functionality
TopBar	components/layout/Header/TopBar.tsx	Contact phone (+1 7753738777), WhatsApp CTA, support email, 51% OFF discount badge, and region selector (UK, US, CA, NZ, MY, UAE, SG).
Navbar	components/layout/Header/Navbar.tsx	Brand SVG Logo, NavDropdowns, Search bar toggle, Cart counter, Login trigger, and Order Now CTA.
NavDropdown	components/layout/Header/NavDropdown.tsx	Interactive Client Component supporting hover/click, keyboard navigation (Escape, ArrowDown), and Multi-Column Mega Menu for Services.
MobileMenu	components/layout/Header/MobileMenu.tsx	Slide-out drawer menu with accordion submenus for mobile viewports.
Footer	components/layout/Footer/Footer.tsx	5-column footer structure, rating badge (4.8/5 based on 5768 Reviews), DMCA badge, payment methods (Visa, AMEX, PayPal), and disclaimer.
OrderCalculator	components/home/OrderCalculator.tsx	Real-time pricing calculator estimating costs by subject, page count, and deadline urgency.
Catch-All Route	app/[...slug]/page.tsx	Dynamic catch-all page handler rendering ANY article created in Joomla Admin by slug/alias.

6. Index Article ID 11 Mapping ('Why Instant Assignment Help Services?')

In Joomla Admin, the homepage article is saved under **ID 11** (Title: index, Alias: index). In **app/page.tsx**, this content is placed directly below the hero price calculator banner using `dangerouslySetInnerHTML`:

```
// Code Placement in app/page.tsx: {homeData.articleContentHtml && ( )}
```

7. Environment Configuration & Commands

```
# File: .env.local NEXT_PUBLIC_SITE_URL=https://www.instantassignmenthelp.com
NEXT_PUBLIC_CPANEL_URL=https://customerpanel.instantassignmenthelp.com
Joomla_API_BASE_URL=http://localhost/websites/api NEXT_PUBLIC_WHATSAPP_NUM=+1 7753738777
NEXT_PUBLIC_PHONE_NUM=+1 7753738777 NEXT_PUBLIC_EMAIL=help@instantassignmenthelp.com # Commands: npm run dev
# Starts Next.js development server on http://localhost:3000 npm run build # Compiles static and dynamic
production routes
```