Al-Kitab University Website Optimization & Management Plan

1. **Hosting & Server Stack**

- Hosting Type: Cloud Enterprise Hosting (Hostinger)

- Frontend Stack:

  - HTML5, CSS3, JS (Minified & Optimized)

- Backend Stack:

  - MySQL Database – optimized and maintained

  - PHP (OOP-based) – as used by WordPress and most of its plugins

- Server Technologies:

  - LiteSpeed Web Server – used for page caching, image optimization, and delivery

  - Cloudflare CDN – protects and accelerates DNS, static, and dynamic content

  - QUIC.cloud – works with LiteSpeed to cache both static and dynamic pages

- The combination of Cloudflare + QUIC.cloud ensures:

  - Static content caching (CSS, JS, images)

  - Dynamic page caching (HTML, personalized content)

  - DDoS protection and smart edge delivery

2. **Core Performance Optimization**

- CSS & JS Optimization
  All features are handled via LiteSpeed Cache:

- CSS:
  - CSS Minify
  - Generate UCSS
  - CSS Combine External and Inline
  - Load CSS Asynchronously (currently disabled for debugging one section)
  - Critical CSS per URL
  - Inline CSS Async Library
  - Font Display Optimization: swap
- JS:
  - JS Minify
  - Combine External and Inline
  - Defer JavaScript
- HTML Minify
- Image & Lazy Load
  - Lazy Load (images, background images)
  - Generate LQIP (Low Quality Image Placeholder) in background
  - Viewport Images
  - Viewport Images Cron
  - Convert images to WebP format

3. **Caching & CDN**

- LiteSpeed Cache Settings
  - Public Cache TTL: 604800 seconds (1 week)
  - Private Cache TTL: 1800 seconds (30 min)

- REST API & Feed Cache TTL: 604800 seconds

- Cache Purging Hierarchy:

    1. Elementor change → Regenerate files if needed

    2. Purge LiteSpeed cache

    3. Purge Cloudflare cache

    4. (Optional) Clear file-level cache in Hostinger

- Cloudflare Configuration

    - DNS Protection:

        - DDoS Protection: ON

        - IP obfuscation: Enabled

    - Caching & Acceleration:

        - HTTP/2

        - HTTP/3

        - HTTP/2 to Origin

        - 0-RTT Connection Resumption

        - Always Use HTTPS

        - TLS 1.3

        - SSL/TLS Encryption: Full (Strict)

        - Early Hints

    - Bot & Firewall Protection:

        - Bot Fight Mode: ON

        - Custom firewall rules (blocking suspicious regions, VPNs, and known bots)

4. Cron & Scheduled Tasks

- Default WordPress Cron: Disabled in wp-config.php

- Manual Cron via hPanel:

  o Schedule: Every 30 minutes

- Reliable task execution for:

  o Plugin schedules (LiteSpeed CSS queue, backups, etc.)

  o Prevents delays from visitor-based cron triggering

5. Database Optimization

- Database Engine: MySQL

- LiteSpeed Cache Database Optimization: ON

  o Removes post revisions, auto-drafts, trashed items, spam comments, transients, etc.

  o Keeps tables clean and query time fast

6. Security Measures

- Server Security:

  o TLS 1.3 with Full (Strict) encryption

  o DDoS protection at Cloudflare level

  o Custom Cloudflare firewall rules

- Bot Management:

  o Allowed bots only (Googlebot, Bingbot, etc.)

  o Block unknown bots & crawlers

- HTTPS Everywhere:

- o Enforced site-wide via Cloudflare and WordPress

- Sensitive Area Protection:

  - o wp-login and wp-admin rate limited or challenged by Cloudflare

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7. Maintenance & Monitoring

- Weekly:

  - o Review cron jobs queue and task completion

  - o Monitor CPU, RAM, and load from hPanel

- Monthly:

  - o Purge cache fully and re-optimize via LiteSpeed if changes are made

  - o Backup full site

  - o Security audit via Cloudflare Firewall Events

- As Needed:

  - o Monitor Elementor compatibility when regenerating CSS/JS