



Phased Development & Backend Implementation Checklist for Your IT-Services Agency Website

Before diving into construction, it helps to see the whole road ahead. The roadmap below breaks the project into eight logical phases, details every backend and DevOps requirement, and includes task-level check-boxes you can paste into your project-tracker (Jira, Trello, Notion, etc.) to monitor progress.

Key insight: treat the website as a **software product**—with CI/CD, automated testing, observability and post-launch optimization—rather than as a one-off “marketing page.” That discipline pays continual dividends in reliability, security and ease-of-extension.^[1]^[2]

Phase 1 – Discovery & Requirements (Week 1–2)

Checklist item	Rationale
<input type="checkbox"/> Identify primary goals (lead generation, credibility, portfolio hub).	Clarifies scope before design ^[1] .
<input type="checkbox"/> Define target personas (SMB owners, tech leads, HR managers).	Drives UX/content decisions ^[1] ^[3] .
<input type="checkbox"/> Benchmark competitor sites; note gaps.	Sets aspiration baseline ^[4] .
<input type="checkbox"/> Select technology stack (e.g., Next.js + Node.js API, PostgreSQL, AWS/Azure hosting).	Avoids later re-work ^[2] .
<input type="checkbox"/> Decide CMS vs. headless (e.g., Strapi, Sanity) for blog/updates.	Future content agility ^[5] .
<input type="checkbox"/> Document compliance needs (GDPR, WCAG 2.2).	Legal & accessibility guard-rails ^[6] ^[7] .

Phase 2 – Information Architecture & Planning (Week 3–4)

Checklist item	Rationale
<input type="checkbox"/> Produce sitemap & navigation model.	Guides UX wireframes ^[8] .
<input type="checkbox"/> Draft data model (Team, Services, CaseStudies, BlogPosts, Leads).	Foundation for database schema ^[5] .
<input type="checkbox"/> Establish backlog & sprint cadence; tag tickets by phase.	Agile visibility ^[2] .
<input type="checkbox"/> Create high-level CI/CD pipeline diagram.	Aligns DevOps early ^[9] .
<input type="checkbox"/> Select monitoring stack (Datadog/Site24x7/Nagios).	Enables observability from day 1 ^[10] ^[11] .

Phase 3 – UX/UI Design (Week 5–7)

Checklist item	Rationale
<input type="checkbox"/> Wireframe key templates (Home, Services, About, Blog, Contact).	Validates content flow ^[12] .
<input type="checkbox"/> Produce responsive prototypes; test on real devices.	Catches layout issues early ^[13] .
<input type="checkbox"/> Design component library (buttons, cards, modals) in Figma.	Promotes UI consistency ^[14] .
<input type="checkbox"/> Verify color contrast & alt-text placeholders (WCAG 2.2 AA).	Accessibility compliance ^[6] ^[15] .

Phase 4 – Front-End Development (Week 8–11)

Checklist item	Rationale
<input type="checkbox"/> Scaffold project with ESLint, Prettier, Husky pre-commit hooks.	Enforces code quality ^[16] .
<input type="checkbox"/> Implement static pages with Next.js & TypeScript.	Performance + type safety.
<input type="checkbox"/> Integrate headless CMS content via GraphQL/REST.	Dynamic updates for non-developers ^[5] .
<input type="checkbox"/> Add Lighthouse CI to pipeline for performance budgets (<2.5 s LCP).	Guards against regressions ^[17] .
<input type="checkbox"/> Write component unit tests (React Testing Library).	Shift-left quality ^[18] .

Phase 5 – Back-End & DevOps (Week 8–11, parallel)

Checklist item	Rationale
<input type="checkbox"/> Stand-up database in managed service (RDS/Azure DB).	Reduces ops overhead ^[19] .
<input type="checkbox"/> Build REST/GraphQL API (Node.js + Express/NestJS).	Decouples front & back ends.
<input type="checkbox"/> Implement authentication (JWT + refresh tokens, optional OAuth).	Secures client portal ^[20] ^[21] .
<input type="checkbox"/> Role-based access control for admin dashboard.	Least-privilege principle ^[22] .
<input type="checkbox"/> Validate & sanitize all inputs (express-validator, OWASP cheats).	Blocks injection/XSS ^[23] ^[24] .
<input type="checkbox"/> Add Swagger/OpenAPI docs; enable versioning (/v1/).	Future-proof APIs ^[19] ^[25] .
<input type="checkbox"/> Configure CI pipeline (GitHub Actions/Azure Pipelines): - lint → unit tests → build → Docker image → Snyk scan → push to registry.	Automated quality gate ^[9] ^[26] .
<input type="checkbox"/> Define CD workflow: - deploy to staging → Cypress E2E → manual approval → prod.	Safe releases ^[27] .
<input type="checkbox"/> Instrument logs (Winston/Pino) & traces (OpenTelemetry).	Observability & debug speed ^[28] .
<input type="checkbox"/> Encrypt secrets with vault (AWS Secrets Manager/Azure Key Vault).	Secret hygiene ^[29] ^[30] .

Phase 6 – QA, Security Hardening & Accessibility Audit (Week 12–14)

Checklist item	Rationale
<input type="checkbox"/> Run functional, integration & regression test suites (≥ 90% pass).	Confidence to ship ^[2] .
<input type="checkbox"/> Perform OWASP ZAP or Burp scan; remediate findings (A01 – A10).	Blocks common vulns ^[31] ^[24] .
<input type="checkbox"/> Validate SSL/TLS config, HSTS, secure cookies, SameSite & CSP headers.	Defense-in-depth ^[21] ^[15] .
<input type="checkbox"/> Cross-browser/device smoke tests (BrowserStack).	Real-world coverage ^[13] .
<input type="checkbox"/> Accessibility audit with axe-core; fix contrast, focus order, ARIA.	Inclusive UX ^[6] .

Phase 7 – Launch Preparation (Week 15)

Checklist item	Rationale
<input type="checkbox"/> Create fallback 404 & 500 pages; set up 301 redirects.	Polished UX + SEO ^[32] .
<input type="checkbox"/> Generate XML sitemap & robots.txt; submit to Google Search Console.	Indexing readiness ^[33] .
<input type="checkbox"/> Enable CDN & image optimization (Next.js Image/Azure FrontDoor).	Global performance ^[34] .
<input type="checkbox"/> Configure uptime, SSL-expiry & transaction monitors.	Rapid incident alerting ^[28] ^[35] .
<input type="checkbox"/> Perform blue-green or canary deploy; monitor error budget.	Low-risk cut-over ^[36] .
<input type="checkbox"/> Announce go-live window to stakeholders; freeze code 24 h prior.	Smooth rollout.

Phase 8 – Post-Launch Optimization & Maintenance (Ongoing)

Checklist item	Frequency	Rationale
<input type="checkbox"/> Automated nightly backups & monthly restore test	Daily/Monthly	Disaster readiness ^[37] .
<input type="checkbox"/> Patch dependencies & container base images	Weekly	Reduce CVEs ^[20] ^[26] .
<input type="checkbox"/> Review Core Web Vitals & Lighthouse scores	Monthly	UX/SEO health ^[17] .
<input type="checkbox"/> Content/WP-CMS updates; publish case studies & blog posts	Weekly	Thought-leadership & SEO.
<input type="checkbox"/> Analyze GA4 & Hotjar funnels; A/B-test CTAs	Monthly	Conversion lift ^[38] .
<input type="checkbox"/> Security scan (OWASP ZAP) & WAF rule review	Quarterly	Proactive defense ^[39] ^[30] .
<input type="checkbox"/> Full accessibility re-audit (axe/Deque)	Annually	Regulatory compliance ^[6] .
<input type="checkbox"/> Infrastructure cost & performance review	Quarterly	Budget optimization.

CI/CD & Observability Stack at a Glance

- **Repo & Issue Tracking:** GitHub + Projects
- **CI:** GitHub Actions runners (Linux)
- **CD:** Azure Pipelines → Azure App Service or AWS Elastic Beanstalk
- **Container Registry:** GHCR / ECR / ACR

- **laC:** Terraform modules version-controlled & peer-reviewed
- **Monitoring:** Datadog (APM + RUM) or Site24x7 synthetics^[28] ^[35]
- **Alerting:** PagerDuty, Slack channels, email fallback
- **Secrets:** AWS Secrets Manager or Azure Key Vault^[29]
- **Security Scans:** Snyk Open-Source, Trivy, OWASP ZAP

Using the Checklist

1. **Import tasks** into your PM tool.
2. **Tag by phase, component and owner** (Design, Front-end, DevOps, etc.).
3. **Set due dates** relative to the eight-phase calendar above.
4. **Enable automation:** have the CI pipeline update ticket status for build/test outcomes.
5. **Hold a phase-exit review;** migrate unfinished tasks to the next sprint only with explicit sign-off.

Following this phased document keeps every stakeholder—designers, developers, DevOps, security, content editors, and leadership—on the same page, while the granular check-boxes ensure nothing slips through the cracks on your path to a fast, secure and future-proof agency website.

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