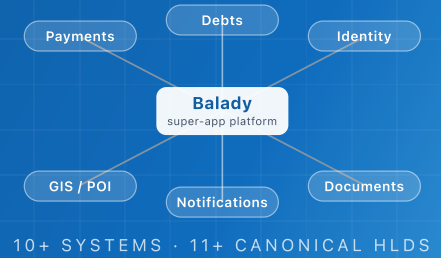




Ahmed Shalabi

SENIOR SOLUTIONS ARCHITECT

Multi-Cloud · Domain-Driven Design · Event-Driven Architecture



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01 CORE SKILLS

Architecture & design

C4 modelling · DDD · event-driven architecture · saga / outbox / CDC · Strangler Fig · BFF · multi-tenant, multi-region · ADRs as living artefacts

Cloud & containers

Kubernetes · OpenShift · OCI Object Storage · AWS · Azure · IBM Cloud · Apigee · service mesh · Helm · GitOps

Backend

Java 17 (Spring Boot, MicroProfile) · Node.js (Express, NestJS) · Python · ASP.NET Core

Data & messaging

PostgreSQL · Oracle 19c · MongoDB · Redis Cluster · Elasticsearch · ArcGIS/Esri · RabbitMQ Streams · Kafka · Airbyte

Workflow & rules

Camunda BPMN/DMN (Self-Managed) · saga compensation · custom rule engines

Observability & quality

Sentry · ELK · Prometheus · Grafana · OpenTelemetry · SonarQube · image scanning · Elastic APM

Identity & compliance

OAuth 2.0 / OIDC · JWT · high-assurance SSO · government SSO · PCI DSS · GDPR · PDPL masking

02 CERTIFICATIONS

- **AWS Certified Solutions Architect** — Associate
- **Red Hat App Development II** — Microservices
- **Java SE 8 Programmer I** — 1Z0-808
- **Oracle Certified Professional** — OCP

In progress: Arcitura DT-SA · AWS SA Professional

03 PROFILE

Senior Solutions Architect with **12+ years** delivering cloud-native, microservices-based platforms across government, banking, retail, and healthcare — including **6+ years as a software / solutions architect**. Currently leading architecture at **NHCI (National Housing Company Innovation): 10+ systems** designed in the Balady citizen super-app ecosystem (payments, debts, notifications, mini-apps, identity, GIS, document management, BNPL) and **11+ canonical High-Level Designs** that serve as the agreed architecture across engineering teams.

12+
YEARS EXPERIENCE

10+
SYSTEMS
ARCHITECTED

11+
CANONICAL HLDS

12
CASE STUDIES

04 EXPERIENCE

Raya
2014

IBM
2016

NHCI
2024 – now

Senior Solutions Architect NHCI · Riyadh

2024 – Present

- **Led the DDD decomposition of the Commercial License monolith** into several bounded contexts on Camunda BPMN/DMN — now the agreed target architecture, validated on a staging cluster sized for thousands of requests per minute.
- **Authored 11+ canonical HLDs** spanning Billing, Debts Hub, Commercial License Revamp + Dashboard, RDM, BNPL, POI + Event Distribution, Building License Revamp, and Centralized DB Decomposition.
- **Designed the event-driven Debts Hub** gating Balady service issuance on debt resolution; replaced REST callbacks with event-driven messaging for reliable, replayable delivery.
- **Authored the hybrid-cloud DMS Migration HLD** — multi-terabyte, multi-million-record move from on-prem file storage to cloud object storage over a secure tunnel; Strangler Fig with per-document flags for a zero-downtime cutover.
- **Architected the Balady+ Mini-Apps Platform** — permission-bridge runtime, multi-stage CI/CD security gate, two-tier identity (basic OTP / high-assurance SSO) with per-app, mini-app-scoped encryption keys.
- **Designed RDM and the Commercial Licenses Dashboard** — transactional outbox + RabbitMQ Streams, MongoDB/Redis read-through, real-time Elasticsearch + ArcGIS replication with a multi-day replay window.
- **Co-architected the Notification Hub** (persist-before-dispatch, bounded retry, per-channel queue isolation) and led platform-wide Camunda BPM adoption.
- **Drove observability & governance** — Unified Logging Framework across Java/.NET/Angular/Apigee; self-managed Sentry on K8s with full PT evidence chain; two governance frameworks; K8s cluster sizing for staging, DevOps, and IoT workloads.

05 EDUCATION

- Bachelor's Degree in Accounting
Mansoura University · 2008 – 2012
- AWS Web Services Boot Camp
- Oracle Developer Diploma
- Java SE Programming & ADF I

06 EARLIER ENGAGEMENTS

Banking — First Abu Dhabi Bank

PCI-compliant user-data handling, DataPower integration scripts, CI/CD service pipelines for the KSA backend.

Healthcare — Dubai Health Authority

Microservices transformation; self-assessment service with a custom rule engine for dynamic configuration.

Retail — Nike

Feature delivery to PI goals, root-cause production fixes, high-capacity load optimisation.

Telecom — Orange

Oracle E-Business Suite ERP implementation — financials and system integrations.

SaaS / HR — Panorama, L2C, I-Estimate

Monolith-to-microservices on OpenShift; shared components published to Nexus (npm + Maven).

07 TOOLING

Azure DevOps · Jenkins · GitHub Actions · F5 · NGINX · PlantUML · Structurizr · draw.io

08 LANGUAGES

Arabic — native English — very good

09 LINKS

Portfolio ahmed-shalabi.com

LinkedIn

linkedin.com/in/ahmedmshalaby

Credly

credly.com/users/ahmedmoshalaby

10 EXPERIENCE (CONTINUED)

Cloud Solution Architect / Tech Lead **IBM · KSA & Egypt** 2016 – 2024

- Designed cloud-native microservices for clients across banking, retail, and healthcare, plus an Oracle ERP implementation for a telecom operator; led monolith-to-microservices transformations on OpenShift.
- Integrated ERP systems with IBM Watson through SOA Suite; optimised production performance for high-capacity loads.
- Facilitated agile ceremonies, led development teams to sprint/PI goals, and mentored junior engineers in cloud-native practice.

Technical Consultant **Raya International Service (RIS) · Cairo** 2014 – 2016

- Oracle EBS R11 → R12 upgrades, including Letter-of-Guarantee and Letter-of-Credit modules; Java + Oracle DB integration and financial reporting.

11 SELECTED PROJECTS — BALADY ECOSYSTEM

Balady Billing System 01

Canonical microservices payments ensemble — saga compensation, dual verification on every gateway callback, circuit breakers on all external dependencies.

Apigee Spring Boot Kafka Oracle 19c
Redis

Debts Hub 02

Centralized debts substrate gating service issuance; event-driven consumption replaced REST callbacks via a self-healing reconciler.

RabbitMQ PostgreSQL BI/ETL

Balady+ Mini-Apps Platform 03

Sandboxed third-party mini-apps: permission bridge, multi-stage delivery gate, per-app mini-app-scoped encryption keys.

Kubernetes Image scanning
High-assurance SSO

DMS Migration (Hybrid-Cloud) 04

Multi-terabyte zero-downtime migration, on-prem file storage → cloud object storage; Strangler Fig with per-document backend flags.

Cloud storage Secure tunnel API gateway

Reference Data Management 05

Governed source of truth for translations and code mappings; outbox + RabbitMQ Streams, read-through caching, offline bundle.

MongoDB Redis BFF

BNPL Integration 06

Signed-webhook security stack — HMAC-SHA256, IP allow-list, replay protection, idempotency — with encrypted single-use presigned URLs.

ASP.NET Core Redis HA Apigee

Commercial Licenses Dashboard 07

Real-time monitoring across Saudi municipalities; event replication into Elasticsearch + ArcGIS with a multi-day replay window.

Elasticsearch ArcGIS RabbitMQ Streams

POI Platform & Event Distribution 08

Geohash + Redis geospatial cache over Esri Geodatabase; PDPL filtering, consent validation, and redaction at the gateway.

Redis Geo Esri Apigee

12 SECTORS DELIVERED

