

Malek Mohammed Al-Edresi

Sana'a, Yemen — Ready to relocate immediately

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Oracle ACE Associate

Professional Summary

Software Engineer specialized in Oracle APEX and database-driven enterprise systems on the Oracle stack. Recognised as an Oracle ACE Associate for technical community contributions. Architected a multi-module medical platform with Oracle APEX, advanced PL/SQL, and real-time mobile integration. Focused on scalable APEX architecture, query optimization, and Oracle Cloud Infrastructure (OCI). Holder of 6 Oracle Cloud certifications, including Oracle APEX Cloud Developer Certified Professional.

Technical Skills

DB & Backend: Oracle DB (21c, 26ai, Autonomous), PL/SQL, SQL, Data Modeling, Query Tuning, Indexing, MVs, Business Logic
APEX & Ecosystem: APEX 24.x/26.x, ORDS REST APIs
Reporting Tools: Jaspersoft Studio, JasperReports Server
Programming: Python, JavaScript, Dart
Mobile & Frontend: HTML5, CSS3, REST APIs, Flutter, Clean Arch, BLoC/Cubit
Cloud & DevOps: OCI, Autonomous DB, Docker, Git, Linux, CI/CD, Deploy Automation
AI Tools: ChatGPT, Gemini, Claude, Cursor, DeepSeek (code gen, debug, docs)
AI & Vector: Oracle AI Vector Search, Vector Embeddings, Semantic Search, RAG, LLM Integration, Prompt Engineering
Soft Skills: Problem Solving, Communication, Teamwork, Critical Thinking, Time Mgmt, Adaptability

Professional Experience

Lead System Engineer – Medical Center Platform
Independent Project

Sana'a, Yemen — 🌐 Project Website
Jun 2025 – Present

- Architected and delivered a multi-module healthcare platform on **Oracle APEX 26.1**, designing **170+** screens and a normalized schema of **150+** relational tables for patients, appointments, billing, clinical records, inventory, and pharmacy.
- Engineered **150+** **PL/SQL** business logic program units (packages, procedures, functions, and triggers) implementing centralized error logging (`SEC_READLOG_ERRORS`), dynamic discount processing, and rule-based validation to enforce cross-module data integrity.
- Designed and exposed **20+ ORDS REST APIs** for synchronization with a **Flutter** mobile application; implemented error-handling and retry mechanisms; under controlled network disruption tests, achieved a **70%** improvement in successful API delivery.
- Optimized query execution through index selection, **materialized views** (`ALL_DEPARTMENTS_MV_SALES`), and query refactoring; load testing showed average query latency reduction of **35%** for analytics dashboards.
- Integrated an **AI Vector Search** system (`AI_SEC_RAG_SYSTEM`) enabling semantic search across patient medical histories and reports using **Oracle native vector search**.
- Containerized Oracle APEX, JasperReports, and supporting services using **Docker** and **Docker Compose**, enabling consistent development environments and simplified deployment workflows.
- Automated database backup operations using **PL/SQL** scripts to export schema objects (tables, constraints, packages) and commit to a private GitHub repository, establishing version control for development artifacts.
- Designed 24 **JasperReports** reports and built `APEX_MAIL` for automated notifications.

Flutter Mobile Developer – Medical Center Patient App
Independent Project

Sana’a, Yemen —  Project Website
Jun 2025 – Present

- Built a **Flutter** mobile application serving as the patient interface to the Oracle APEX backend, providing access to medical records, appointments, diagnoses, and laboratory reports.
 - Structured the application using **Clean Architecture** with **BLoC (Cubit)** pattern, maintaining separation between presentation, domain, and data layers.
 - Integrated **20+ ORDS REST APIs** (defined in the backend) to deliver patient data including lab results with abnormal value highlighting, radiology reports, diagnoses, and treatment plans.
 - Profiling showed average data load time reduction of **40%** through **Cubit**-based state management and optimized API call scheduling.
 - **Tech Stack:** Flutter 3.x, Dart, **BLoC/Cubit**, HTTP, PDF generation, flutter_localization, GetWidget, Glassmorphism.
- Oracle APEX Developer
Demo Project – Public Telecommunications Corp
- Sana’a, Yemen —  Project Highlight
Jul 2024 – May 2025

- Rebuilt a Fuel Tracking System from **Oracle Forms 6i** to **APEX 24.2**, delivering a bilingual interface and dashboards for **50+** concurrent users.
 - Refactored **PL/SQL** packages and revised SQL queries, reducing data processing time by **40%** and decreasing manual entry errors by an estimated **25%** in user acceptance testing.
- Oracle Database Developer
Graduation Project – Queen Arwa University
- Sana’a, Yemen
Jul 2023 – May 2024

- Designed a normalized database schema for a Fuel Tracking System, reducing data redundancy by **30%** and improving query performance by **25%** through **index implementation** in development tests.
 - Developed the system using **Oracle Forms 6i**, decreasing data entry time by **40%** for end-users while maintaining data integrity.
- Flutter Developer – E-Wallet App
Independent Project
- Sana’a, Yemen —  Repository
Jun 2021 – Aug 2021
- Built a digital wallet prototype with **Firebase** authentication and transaction history views, applying **clean architecture** and **provider** state management patterns.

Education

B.Sc. in Information Systems and Computer Technology
Queen Arwa University
GPA: 3.7 / 4.0

Sana’a, Yemen
2020 – 2024

Certifications

- Oracle APEX Cloud Developer Certified Professional — 2025
- Oracle Autonomous DB Cloud Certified Professional — 2025
- Oracle AI Vector Search Certified Professional — 2025
- Oracle MySQL HeatWave Implementation Associate — 2025
- Oracle Cloud Infrastructure Foundations Associate — 2025
- Oracle Cloud AI Foundations Associate — 2025
- Agile Methodology — Edraak, 2023
- UX Design — Edraak, 2023

Languages

- Arabic: Native
- English: B2 (Upper Intermediate)