

# SANDRA KAWOMBE

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## DATABASE DEVELOPER

Experienced and results-driven Database Developer with over 6 years of expertise in designing, optimizing, and managing enterprise-level data applications. Proficient in SQL, PL/SQL, Oracle, MySQL, and PostgreSQL, with backend development skills in Java and Spring Framework. Strong background in performance tuning, query optimization, ETL processes, and scalable architectures. Passionate about FinTech, TaxTech, and HealthTech, building secure, compliant data solutions. Adept at data modeling, API integration, and bridging technical and business teams to drive efficiency and innovation.

- Database Architecture & Schema Design • API design • Testing and Quality Assurance
- Version Control • Microservice • Messaging Service • Cloud Computing

**Languages:** Java, SQL, PL/SQL

**Web:** HTML

**Web Services:** SOAP, RestAPI

**Web/App Servers:** Weblogic, Tomcat

**Frameworks:** Spring Boot, Spring Data, JPA, Hibernate

**Databases:** Oracle, MySQL, SQL server

**Design Patterns:** Singleton, Factory Method

**SDLC:** Agile Development

**Tools:** IntelliJ, Git, ActiveMQ, GitHub, Jira, Slack, AWS, JMS, Oracle APEX, SQL Developer

**Platforms:** Linux, Windows, Mac OS

**Application/Software:** Oracle E-Business Suite

## PROFESSIONAL EXPERIENCE

**CAREER NOTE:** Completed on-campus studies and currently taking distance education courses to complete a **master's degree in computer science** (Available for full-time, W-2 employment).

### NATIONAL MEDICAL STORES, Kampala, Uganda • 11/2023 – 08/2024

A government agency mandated to procure, store and distribute essential medicines and medical supplies and vaccines to all Government health facilities, Uganda Police and Ugandan Army throughout the country.

#### Oracle Database Developer

Responsible for designing, developing, and maintaining software solutions that digitize the health supply chain.

- Designed and implemented robust database integration between external enterprise systems and Oracle E-Business Suite using Oracle APEX, PL/SQL, Java, and RESTful Web Services, ensuring seamless data exchange. This reduced manual intervention by 60%, improved system efficiency, and maintained cross-system data integrity.
- Developed and optimized user access management by designing an automated user rights management application using Java, Spring Boot, and Oracle DB, fully integrated with Active Directory. This eliminated paperwork inefficiencies, enforced role-based access control (RBAC), and reduced user onboarding time by 90%.
- Enhanced stock management database performance by redesigning inventory encoding logic with Oracle SQL, Hibernate, and indexing techniques, enabling real-time inventory tracking. This reduced stock discrepancies, optimized warehouse operations, and improved stock availability visibility for strategic decision-making.
- Engineered a real-time staff attendance synchronization solution by integrating Oracle E-Business Suite with Spring Boot, Oracle DB Link, and MySQL Connector, automating data flow between systems. This eliminated manual data transfers, increased payroll processing accuracy by 25%, and ensured compliance with workforce policies.
- Led database patch management and optimization efforts by conducting end-to-end testing of Oracle patches, proactively identifying and resolving performance bottlenecks before deployment. This resulted in a 35% reduction in system downtime, ensuring high availability and uninterrupted business operations.
- Designed and developed complex PL/SQL reports tailored to business needs using Oracle Forms, Reports, and Spring Boot, providing real-time analytics and actionable insights to department heads. These reports accelerated decision-making processes, improved operational efficiency, and facilitated compliance reporting.

**Technologies Used:** Java, Oracle, SQL, PL/SQL, MSSQL, Oracle APEX.

## **PRIDE MICROFINANCE LIMITED, Kampala, Uganda • 08/2018 – 10/2023**

A financial bank with over 35 branches countrywide.

### **Database developer**

Developed and maintained enterprise applications. Managed database systems and microfinance systems.

- Developed customer-facing banking applications using Java, Spring Boot, Hibernate, and REST APIs, optimizing transaction latency and data consistency.
- Engineered an automated reconciliation application for bank transaction validation using Spring Boot, Oracle PL/SQL, and Apache, enabling real-time transaction validation, cutting reconciliation time from hours to minutes.
- Integrated third-party payment APIs for bill payments using Java, Spring Boot, increasing revenue streams, ensuring 99.9% API uptime, and improving transaction success rate by 25%.
- Led the Oracle database upgrade from 12c to 19c for the core banking system, using Spring Data JPA for schema migration, ensuring zero data loss, 50% faster queries, and minimal downtime.
- Migrated financial reporting services for internal banking reports from Crystal Reports to JasperReports, leveraging PL/SQL, reducing report generation time by 50% and enhancing real-time data accessibility.
- Automated key database management tasks for system performance optimization using Spring Boot, Quartz Scheduler, JPA Criteria API, cutting manual DBA workload, reducing downtime, and improving database response time.

**Technologies Used:** Java, Oracle, SQL, PL/SQL.

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## **INTERNSHIP EXPERIENCE**

### **UGANDA REVENUE AUTHORITY, KAMPALA, UGANDA • 06/2016 – 08/2016**

A government revenue collection agency.

#### **APPLICATION AND DATABASE ADMINISTRATOR**

Assisted in the development, testing, and maintenance of software applications and databases.

- Developed an ETL tool using Apache Kafka, Spring Batch, and Apache Spark for data extraction, validation, and analysis, reducing processing time by 50%.
- Tested application and database patches for the eTax system with JUnit and Oracle SQL Developer, ensuring stability and minimizing downtime.
- Troubleshoot application and database issues for eTax and ERP systems using Java and Oracle PL/SQL, resolving critical bugs and optimizing performance in collaboration with senior developers.

**Technologies Used:** Java, Oracle, SQL.

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## **ACADEMIC PROJECTS**

### **Maharishi International University (2025)**

- **DentalTech:** Developed a Spring Boot-based Dental Hospital Management System with enterprise features like Spring Security, JMS messaging, AOP, and concurrency control. Designed RESTful APIs to manage dentists, patients, appointments, and treatments while ensuring secure authentication and authorization.
  - **MyPetCare:** Developed MyPetCare Management System, a Java Spring Boot application for managing pets, vets, schedules, and appointments. Implemented RBAC for veterinarians, pet owners, and administrators, enabling secure tracking of medical records, vet assignments, and automated reminders. Utilized Hibernate, MySQL, and RESTful APIs for seamless operations.
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## **EDUCATION**

### **Master of Science in Computer Science**

*(In progress via distance education; expected completion 04/2027)*

Maharishi International University, Fairfield, Iowa

**Key Courses:** Enterprise Architecture, Database Management System, Cloud computing, Data Structures and Algorithm

### **Bachelor of Computer Science in Software Engineering**

Makerere University, Kampala, Uganda (12/2017)

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## **CERTIFICATIONS**

[AWS Certified Cloud Practitioner](#) (01/2025)