**Project Proposal: Nuka POS System**

**1. Project Title:**  
**Nuka: A Smart POS System with ZRA Smart Invoicing Integration**

**2. Student Details:**  
**Name:** Adam Musakabantu Muyobo  
**Student ID:** 202104060  
**Department:** Computer Science

**3. Project Supervisor:**  
Masizana

**4. Project Overview:**  
**Nuka** is a **Point of Sale (POS) system** designed for **small businesses and enterprises** in Zambia. It aims to **simplify sales processing, ensure tax compliance, and eliminate double entry errors** by integrating with the **Zambia Revenue Authority (ZRA) Smart Invoicing API**. The system will be built using **Flutter (frontend) and Spring Boot (backend)**, ensuring **cross-platform compatibility** and scalability.

**5. Problem Statement:**  
Many businesses in Zambia **struggle with unreliable POS systems, manual double entry, and compliance with ZRA tax regulations**. This results in **financial losses, incorrect tax returns, and operational inefficiencies**. Current systems are either too expensive or lack essential features such as **barcode scanning and seamless tax reporting**.

**6. Proposed Solution:**  
**Nuka** will provide an **affordable, reliable, and user-friendly** POS system that integrates with the **ZRA Smart Invoicing API** to automate tax-compliant invoicing. Key features include:

* **Barcode scanning using a phone camera** for easy product identification.
* **Support for mobile money, bank transfers, and e-wallet payments**.
* **Automated sales tracking and reporting** to improve financial transparency.
* **Offline functionality with cloud syncing** for uninterrupted operations.
* **Customizable for small businesses and scalable for larger enterprises**.

**7. Objectives:**

* Develop a **robust and user-friendly POS system** with tax compliance features.
* **Eliminate manual double entry** by integrating with existing accounting tools.
* Ensure **cross-platform functionality** through Flutter and Spring Boot.
* Provide businesses with **real-time sales analytics** and financial reporting.
* Offer an **affordable solution** for SMEs and an **integrateble** version for large businesses.

**8. Project Scope:**

* **In-Scope:** POS development, ZRA Smart Invoicing integration, barcode scanning, multi-payment support, offline mode, reporting & analytics.
* **Out-of-Scope:** Advanced ERP features, international expansion, marketing strategies.

**9. Expected Outcomes:**

* A functional **POS system prototype** with real-time tax compliance.
* A system that **simplifies sales processes and reduces financial errors**.
* A scalable solution that can be **adopted commercially** and partially open-sourced for research.

**10. Conclusion:**  
Nuka aims to **revolutionize sales processing** for businesses in Zambia by **providing a modern, tax-compliant, and scalable POS solution**. With its user-friendly approach and **seamless ZRA integration**, it has the potential to become a **game-changer in financial management for SMEs and large enterprises alike**.

**11 Contact Information:**  
Email: 202104060@ub.ac.bw or muyoboadam@gmail.com  
Phone: +26777558138