

# Project Proposal

**Project Title:** *Zanzibar Road Transport Safety Authority Digital System (ZARTSA)*

## 1. INTRODUCTION

### 1.1 Purpose of the Document:

The purpose of this document is to propose the development of a digital system for the Zanzibar Road Transport and Safety Authority (ZARTSA). The system aims to streamline operations related to driving school registration, learner's permit issuance, and driving test administration. This proposal follows the IEEE standard for software project documentation.

### 1.2 Scope of the Project:

The system will consist of three role-based dashboards:

- **ZARTSA Officer Dashboard:** For managing school registrations, instructor licenses, learner permits, test schedules, and reports.
- **Driving School Admin Dashboard:** For registering students, requesting permits, scheduling tests, and tracking student progress.
- **Student Dashboard:** For checking registration status, test schedules, results, and downloading permits.

### 1.3 Intended Audience

- ZARTSA Officers
- Driving School Administrators
- Student Drivers
- Software Developers
- Project Stakeholders

## 2. OVERALL DESCRIPTION

### 2.1 Product Perspective

The proposed system is a web-based application using modern technologies. It will integrate into ZARTSA's operations, replacing manual paper-based processes.

### 2.2 Product Functions

- Register and approve driving schools
- Process instructor applications
- Submit and track learner's permits

- Schedule and record theory/practical tests
- Provide real-time updates and reports

## 2.3 User Classes and Characteristics

- **ZARTSA Officers:** Administrative users who require full control of the system
- **Driving School Admins:** Authorized personnel managing student registrations
- **Students:** End users with limited access to personal status and notifications

## 2.4 Operating Environment

- Frontend: React.js
- Backend: Spring-boot (Java)
- Database: PostgreSQL

## 2.5 Constraints

- Must comply with Zanzibar data protection laws
- Accessible via internet browsers
- System training and documentation must be provided

# 3. SPECIFIC REQUIREMENTS

## 3.1 Functional Requirements

- FR1: ZARTSA officers shall be able to approve/reject driving school registrations
- FR2: Driving schools shall register students and upload documents
- FR3: Students shall view their permit status and receive notifications
- FR4: The system shall send automated email notifications
- FR5: Users shall log in based on roles with different access rights

## 3.2 Non-Functional Requirements

- NFR1: The system shall ensure data security and role-based access
- NFR2: The system shall be responsive across all devices
- NFR3: The system shall maintain availability 89% uptime monthly
- NFR4: System data shall be backed up daily

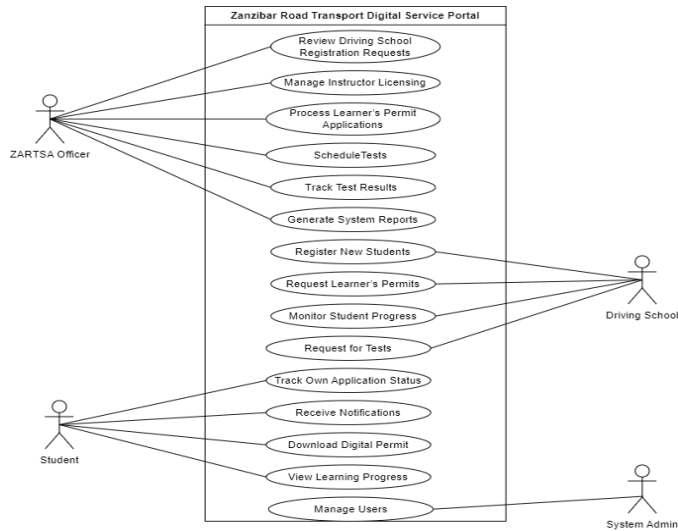
# 4. FEASIBILITY STUDY

- ✓ Technical Feasibility Technologies like React and Spring-boot are mature, scalable, and suitable for the project.
- ✓ Economic Feasibility Initial costs are minimal compared to long-term savings from automation.

- ✓ Operational Feasibility ZARTSA staff can be trained to use the system effectively. The system supports current workflows digitally.

## 5. APPENDICES

### • Use Case Diagrams



### • Class Diagrams

