

# Kenya Payroll System (2025)

Academic Project Presentation

Student: Inyasio Mwoca Waweru | Software Development

Institution: Power Learn Project Africa |

inyasiomwoca84@gmail.com

# Problem Statement

Small and medium enterprises in Kenya struggle with accurate payroll

calculations due to changing tax rules and manual computation errors.

This project automates payroll calculation using Kenya's 2025 rules.

# Objectives

- Implement a multi-employee payroll system with accurate PAYE calculations.
- Support Gross-to-Net and Net-to-Gross conversions.
- Provide export and payslip features for academic demonstration.

# System Design & Architecture

- Language: Python 3
- GUI: Tkinter
- Data: CSV/Excel exports, JSON for company info
- Key modules: tax calculation, GUI, export, payslip generation

# Implementation Highlights

- Progressive PAYE calculation with reliefs and caps.
- NSSF tiers, SHIF minimum, Housing Levy applied to gross.
- Binary search method for Net→Gross conversion.

## Kenya Payroll – Multi-Employee (2025)

### Employee Input

Payroll No:	<input type="text"/>
Employee Name:	<input type="text"/>
Gross Pay:	<input type="text"/>
Target Net Pay:	<input type="text"/>
Other Benefits:	<input type="text"/>
Other Deductions:	<input type="text"/>

### Payroll Table (sample rows)

No	Name	Gross	NSSF	SHIF	PAYE	Net
1	Alice K	80,000	4,800	2,200	14,000	56,500
2	Bob L	45,000	2,700	1,237	6,500	33,063
3	Cathy M	30,000	1,800	825	3,200	24,175

Add EmployeeRemove SelectedClear FormEdit Payroll NoPrint PayslipExport CSV

# Screenshots - Payslip

Sample payslip generated by the app. Includes company header and breakdown.

Company Name: Example Co. Ltd

Payslip

Payroll No	1
Name	Inyasio M Waweru
Gross	80,000.00
Benefits	5,000.00
NSSF	4,800.00
SHIF	2,200.00
Housing Levy	1,200.00
PAYE	14,000.00
Other Deductions	0.00
Net Pay	62,800.00

Generated by Kenya Payroll App (2025 rules).

# Key Features

- Multi-employee management with payroll numbers
- PAYE, NSSF, SHIF, Housing Levy calculations
- Export to CSV/Excel and printable payslips
- Apply pension, mortgage, and medical allowances

# Results & Testing

The system was tested with sample inputs to verify tax calculations, NSSF tiers, and Net/Gross conversions. Outputs match expected values for

Kenya Payroll – Multi-Employee (2025)

Employee Input

Payroll No:

Employee Name:

Gross Pay:

Target Net Pay:

Other Benefits:

Other Deductions:

Payroll Table (sample rows)

No	Name	Gross	NSSF	SHIF	PAYE	Net
1	Alice K	80,000	4,800	2,200	14,000	56,500
2	Bob L	45,000	2,700	1,237	6,500	33,063
3	Cathy M	30,000	1,800	825	3,200	24,175

Add Employee

Remove Selected

Clear Form

Edit Payroll No

Print Payslip

Export CSV



# Conclusion & Recommendations

The Kenya Payroll System (2025) provides an academic-quality implementation

for accurate payroll calculations. Recommended extensions:

database backend,

unit tests, and UI polish for production use.

# Acknowledgements & Contact

Student: Inyasio Mwoca Waweru

Email: [inyasiomwoca84@gmail.com](mailto:inyasiomwoca84@gmail.com)

Institution: Power Learn Project Africa