**Project registration form**

**Course:** BSc (Hons) Computer Science (Software Engineer) – TOP UP

**Student Name:** M.W.M.M Zaheer **Esoft ID Number:** E171743

**Project Title:** Retail Management System for Ruby Hardware

**Overview**: (350 words max)

Ruby Hardware sells a wide range of products to customers in both retail and wholesale (example: hardware tools, construction materials, home improvement products, and automotive parts.) The store currently maintains sales records, inventory stock records, and customer records manage manually, using paper-based systems. leading to inefficiency, errors, and difficulty in maintaining accurate and up-to-date records. Separate registers are used to record product, supplier, and sales information, which results in stock mismanagement, billing errors, time-consuming record-keeping, and security risks due to the handling of sensitive data. Additionally, tracking purchase history and generating reports is challenging, as it requires manually referencing physical records.

To address these issues, a comprehensive Enterprise Resource Planning (ERP) system will be developed to streamline Ruby Hardware’s business operations. This web-based ERP system will replace the manual processes currently used by Ruby Hardware and improve efficiency in sales, inventory management, purchasing management, customer management, employee management, and billing.

The web-based ERP system id developed for using a combination of technologies. The front-end will be developed with HTML, CSS, JavaScript, and Bootstrap. The back-end will be developed by PHP. The MySQL will be used for the database to manage and store data.

The features of system point-of-sale (POS) interface for sales transactions, integrated inventory management for real-time stock updates, and purchase management to handle supplier and stock details. Additionally, it includes customer and employee management to maintain detailed records, billing and invoicing capabilities for automated receipts, and a dashboard to provide a centralized view of business metrics such as sales statistics and stock levels. With a role-based login system, the ERP will ensure secure access for different users with appropriate permissions. The system will also generate detailed reporting and analytics to provide insights into business performance.

**Aims and Objectives**: (About 100 words)

**Aim**

The aim of this project is to develop a web-based Enterprise Resource Planning (ERP) system for Ruby Hardware to enhance operational efficiency by automating key business processes. The system will replace manual operations with a streamlined, digital solution for sales, inventory, purchases, customer and employee management, and billing.

**Objectives**

* Develop a dashboard module to provide a centralized view of key business metrics such as sales statistics, stock levels, and performance indicators.
* Develop a Point of Sale (POS)
* Develop an Inventory management module that tracks stock levels in real-time and stock updates.
* Develop a Purchase Management module to manage supplier information, purchase orders, and incoming stock to ensure accurate inventory records.
* Develop Customer and Employee Management modules to manage client and employee details, enabling better service and administrative control.
* Develop automated billing and invoicing modules to simplify transactions and ensure accurate receipts.
* Develop reporting and analytics modules to generate actionable insights on sales, inventory, purchases, and employee performance.
* Develop a secure access with role-based login for different user levels (Example: Admin, Manager, Sales Staff), restricting access to sensitive information based on roles.

**Supervisor’s Name: . .. . . . . . . . . . . . . . . . .**

**(continues overleaf)**

Member of staff only

**The above project topic is approved and I agree to supervise this project.**

***……………………………….. …………………………..***

*Supervisor’s Signature**Date*

**Remarks :**