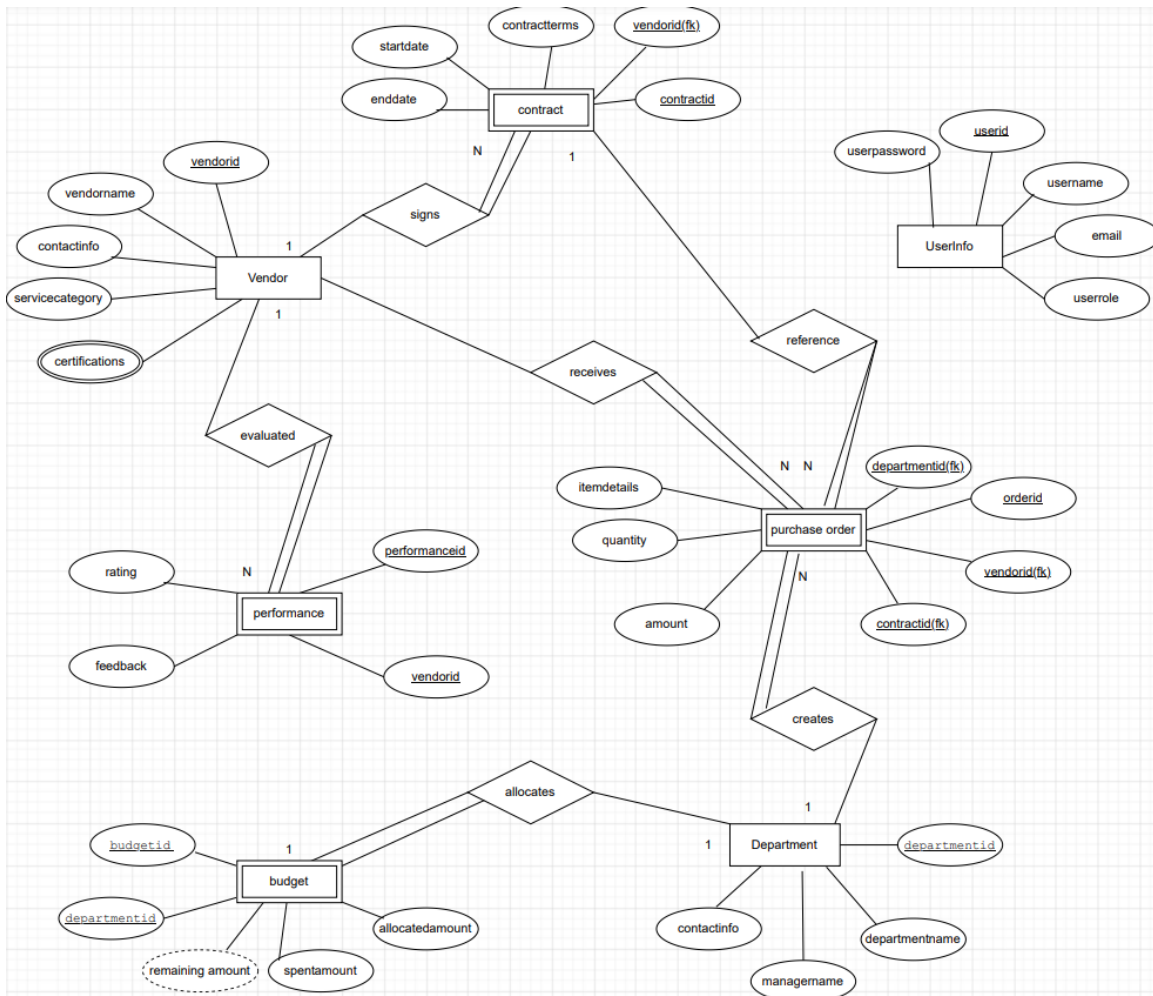


Report

Project Report: Corporate Vendor and Contract Management System

Overview

The Corporate Vendor and Contract Management System is a web-based platform designed to streamline the management of vendor relationships, contract lifecycles, and procurement workflows. It ensures compliance, enhances efficiency, and provides robust tools for tracking budgets and evaluating vendor performance.



Features

1. Vendor Registration and Management

Vendors can register with the system by providing essential details such as service categories, contact information, and certifications. Admins can manage vendor profiles, including viewing performance metrics like delivery timeliness and adherence to service quality standards.

2. Contract Lifecycle Management

The system supports contract creation, negotiation, and renewal tracking. Authorized users can edit and annotate contracts, while automated notifications alert stakeholders about upcoming renewals.

3. Purchase Order Management

Departments can create purchase orders using predefined templates to ensure alignment with vendor agreements. The system tracks order statuses and validates them against budget constraints.

4. Budget Management

This feature allows tracking of expenditures for contracts and purchase orders, alerting users of potential overspending. It also provides tools for budget allocation and monitoring across departments.

5. Vendor Performance Tracking

Vendor performance is evaluated based on quality, timeliness, and pricing adherence. The system generates detailed reports summarizing vendor ratings for informed decision-making.

Use Cases

1. Vendor Management: Add, view, and edit vendor information, ensuring compliance through certification tracking.
2. Contract Management: Initiate, update, and renew contracts with automated notifications for expiring contracts.
3. Purchase Orders: Create and track purchase orders while validating them against departmental budgets.
4. Budget Monitoring: Review allocated and spent amounts, and manage alerts for potential overspending.
5. Vendor Evaluation: Collect feedback, assign ratings, and generate performance reports.

Implementation

Database Design

The system employs a robust relational schema with tables for Departments, Vendors, Contracts, Purchase Orders, Budgets, and Performance. It ensures data integrity through foreign key constraints and implements triggers for key events like contract renewals and budget checks.

Frontend

The frontend is designed using HTML and CSS, offering a user-friendly interface. Separate dashboards are provided for admins, vendors, and department heads to cater to their specific needs.

Backend

The backend is developed using Node.js and Express.js, enabling smooth integration with the MySQL database. It features RESTful APIs for managing data and business logic.

Key Functionalities

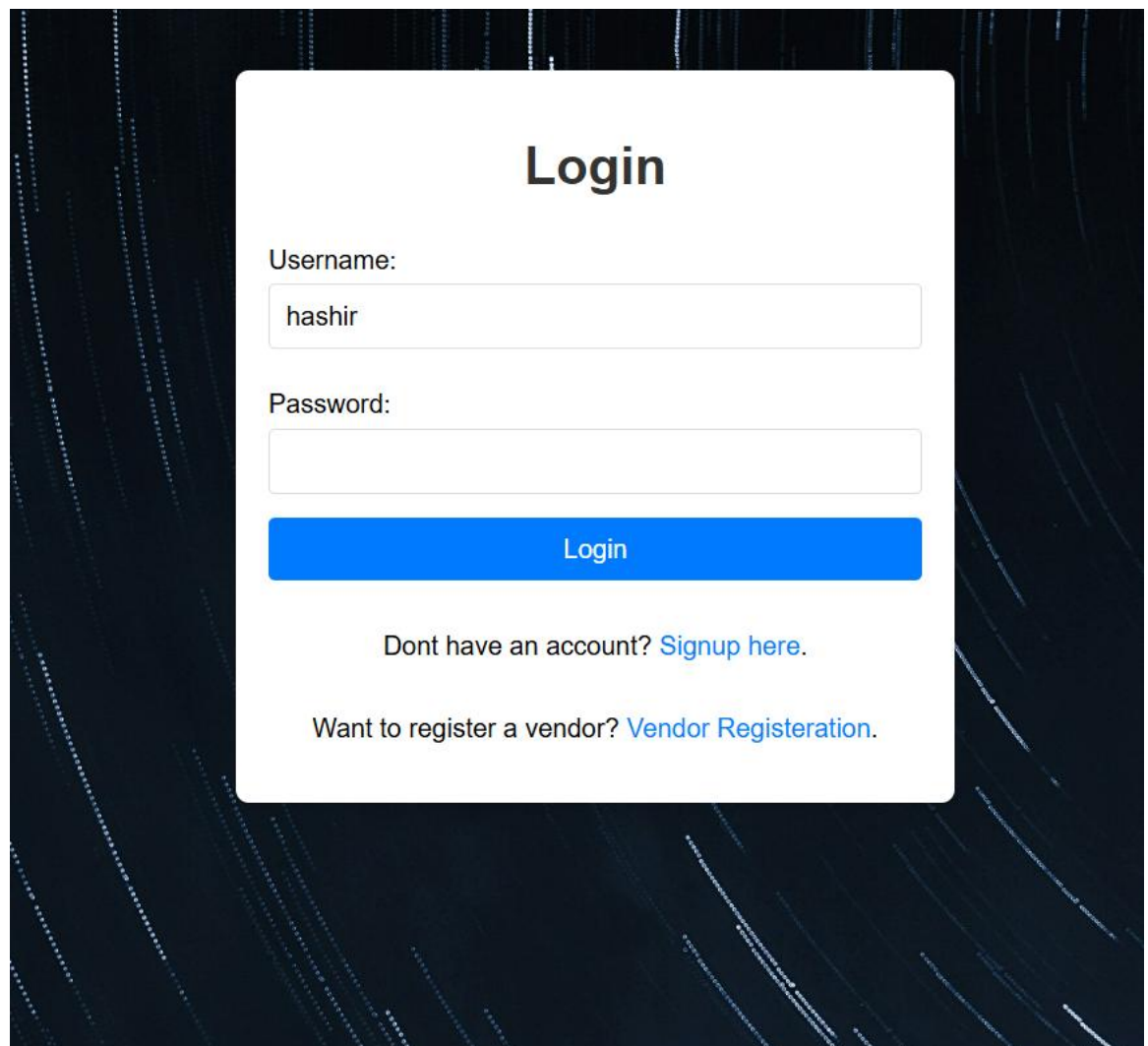
1. Vendor and user authentication.
2. Vendor registration and profile management.
3. Real-time alerts for contract renewals and budget violations.
4. APIs for vendor performance and department budget tracking.

Technologies Used

1. Frontend: HTML, CSS
2. Backend: Node.js, Express.js
3. Database: MySQL
4. API Integration: RESTful APIs

Challenges and Solutions

1. **Data Validation:** Implemented robust server-side validation to ensure data consistency and completeness.
2. **Budget Overspending:** Designed backend triggers to alert users of overspending and maintain budget limits.
3. **Scalability:** Developed modular APIs to support future scalability and additional features.

A login form is centered on a dark background with a digital, data-stream aesthetic. The form is a white rounded rectangle containing the title 'Login', input fields for 'Username' (with 'hashir' entered) and 'Password', a blue 'Login' button, and two links: 'Signup here' and 'Vendor Registration'.

Login

Username:

Password:

Login

Dont have an account? [Signup here](#).

Want to register a vendor? [Vendor Registration](#).

User Management

User ID	Username	Email	Role	Action
1	hashir	hashirahmed@gmail.com	<div>Admin</div>	<div>Update Role</div>
2	Abdurrehman	abd@gmail.com	<div>Admin</div>	<div>Update Role</div>
3	hashir	abcd@gmail.com	<div>Vendor</div>	<div>Update Role</div>
4	ahm	asg@gmail.com	<div>Admin</div>	<div>Update Role</div>
5	hashirsdfjdsi	dssaa@gmail.com	<div>Vendor</div>	<div>Update Role</div>
6	ahm	ahm@gmail.com	<div>Department Head</div>	<div>Update Role</div>

Admin Dashboard

Welcome, Admin! Select an option below:

Vendor Management

Customer Lifecycle Management

User Management

Department Data

Logout

Signup

Username:

Email:

Password:

Signup

Already have an account? [Login here.](#)