**🚀 ERP System – Full-Stack Web Application with Source Code**

A powerful, modular, and modern Enterprise Resource Planning (ERP) system built with a clean architecture and scalable technology stack. Designed for small to medium-sized businesses with full source code access.

**🛠️ Tech Stack**

**Backend**

* .NET 8
* ASP.NET Core Web API
* Entity Framework Core
* JWT Authentication
* Swagger / Postman

**Frontend**

* React.js (Latest)
* React Router

**Database**

* Microsoft SQL Server

**📦 Features Overview**

**🔐 Authentication & User Management**

* JWT-based secure authentication
* User registration and login
* Role-based access control (RBAC)
* Password reset / change

**🧑‍💼 Custom Roles & Permissions (Advanced RBAC)**

* Admin can create custom roles
* Assign fine-grained permissions (CRUD) to specific ERP features
* Feature matrix with checkboxes for access control
* Middleware and frontend-based permission enforcement

**📊 Dashboard**

* KPIs and statistics (sales, inventory, HR metrics)
* Graphs/charts for monthly trends
* Quick-access summaries

**🏷️ Product & Inventory Management**

* Add, update, delete products
* Product categories and suppliers
* Stock tracking and low-stock alerts
* Inventory reports

**🧾 Sales Management**

* Create and manage sales orders
* Invoice generation and printing
* Payment status tracking
* Sales reporting and analytics
* Delivery tracking with deadlines
* Update order status and receive alerts for overdue deliveries

**📦 Purchase Management**

* Purchase orders from vendors
* Supplier profiles and contact info
* Order tracking
* Expected delivery scheduling
* Late delivery logs and escalation alerts
* Expense linking

**👥 Customer & Vendor Management**

* CRM-like profiles with contact history
* Vendor and customer databases
* Communication logs

**🧮 Accounting & Finance**

* Income and expense tracking
* Basic general ledger
* Profit & loss reporting
* Tax and discount configuration

**🧑‍💼 Human Resource Management (HRM)**

* Employee records
* Department & position management
* Attendance tracking
* Basic payroll generation

**📈 Reports & Analytics**

* Filterable and exportable reports (PDF/Excel)
* Module-wise reporting (Inventory, Sales, Finance)
* Chart and table-based views

**🔔 Notifications & Logs**

* System-wide activity logs
* Email notifications for transactions or events
* Audit logs for sensitive changes

**⚙️ Settings & Configuration**

* Company profile settings (logo, tax info, currency)
* System-wide configuration (timezone, locale)
* Theme and branding options (optional)

**📁 Additional Features**

* Export/import database backups
* Multi-language support (optional)
* RESTful API with full Swagger documentation
* CI/CD ready codebase
* Modular code architecture for easy scaling

**👥 User Roles**

| **Role** | **Description** |
| --- | --- |
| Admin | Full control of system and users |
| Manager | Manages modules like HR, sales, inventory |
| Employee | Limited access based on assigned permissions |
| Accountant | Financial and transaction modules |
| HR Officer | Manages employees, payroll, attendance |
| Sales Agent | Handles sales orders and customers |
| Inventory Manager | Oversees stock and products |
| Vendor / Supplier | Portal access (optional) |
| Customer | Can view invoices, orders (optional) |

**📄 Licensing Options (if selling)**

* **Standard License** – $999
* **Extended License (White Label / SaaS)** – $1999+
* **Custom Feature Development** – Available on request

**🧪 Future Enhancements (Optional)**

* Multi-tenancy (for SaaS)
* Payment gateway integration (Stripe/PayPal)
* AI-powered analytics and forecasting
* Mobile app (React Native or Flutter)

**🚀 Deployment**

* Docker + Docker Compose
* SQL Server (Local or Azure)
* Deployable to IIS, Azure App Services, or Linux VMs

**📎 Documentation**

* API Reference (Swagger included)
* Installation & Deployment Guide
* Database Schema Diagram
* UI/UX Wireframes (optional)