

BizNex: Platform Enabling Simplified Digitalization of Small-Scale Businesses

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Introduction

- Small-scale businesses often struggle to establish an online presence due to lack of technical expertise and resources.
- The BiZNex platform is designed to simplify e-commerce for such businesses by providing an easy-to-use online interface.
- The platform enables product listing, stock management, and online purchasing with minimal effort from the business owner.
- Additionally, it offers job listing features, allowing businesses to connect with potential employees in their locality.
- With a focus on automation and cloud integration, the platform ensures that businesses can expand digitally without requiring significant technical knowledge.

Problem Statement

- Online presence limited due to lack of resources/technical expertise
- Inefficient inventory management
- Customer access challenges
- High complexity in digital solutions
- Lack of job opportunity visibility

Project Objectives

- Simplify E-commerce for small scale
- Enable seamless customer interaction
- Automate finance and inventory management
- Promote local job opportunities
- Ensure secure and easy online transactions

Purpose and Need of the Project

Purpose

- provide small-scale businesses with an easy-to-use platform
- Facilitate smooth business operations

Need

- Address the lack of digital tools
- Minimize customer waiting times and operational hassles for businesses and technical dependencies
- Providing job opportunities

Scope of the Project

Target users

- Small scale business owners
- Customers
- Job seekers

Features

- Personalized web space for each business
- Stock updates recommendation
- Order placement and pickup system
- A feature for customers to discover nearby businesses with job openings
- Integration with payment systems
- Tools and features to enhance functionality and provide flexibility

Social Relevance of the Project

- Enhanced Business Accessibility
- Efficient Resource Use
- Job Creation
- Community Empowerment

Software Requirement Specification

- The platform should support product listing and stock management.
- Secure authentication for business owners and customers.
- Integration with cloud services for hosting and data storage.
- Responsive design for accessibility on various devices.

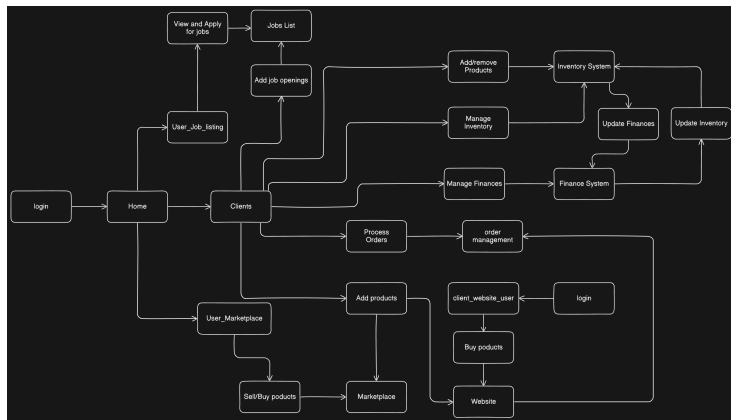
Functional Requirements

- User authentication and authorization system.
- Ability to list, update, and manage products.
- Customer order placement and tracking.
- Job listing feature for local business employment opportunities.

Non-Functional Requirements

- High availability and uptime through cloud hosting.
- Secure data storage and encrypted transactions.
- Optimized performance for a seamless user experience.
- Scalable infrastructure to accommodate growing user base.

System Architecture



Database Design



Figure 1: Master DB

Database Design

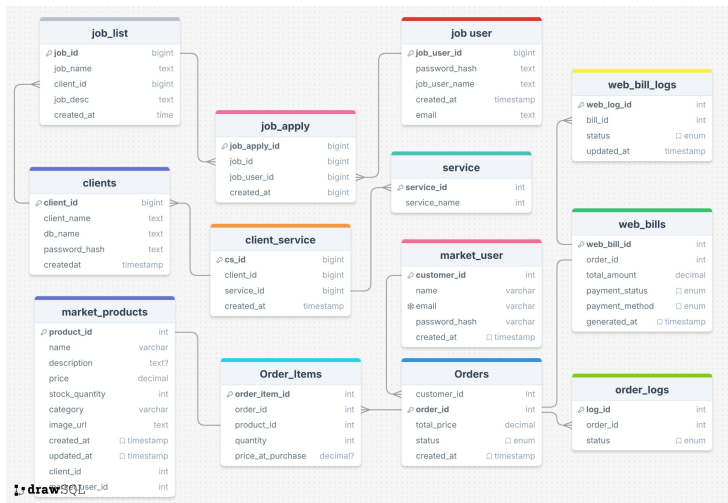


Figure 2: client DB

Frontend

- HTML
- CSS
- React JS

Backend

- Express JS
- Node JS

Cloud Hosting

- Amazon Web Services

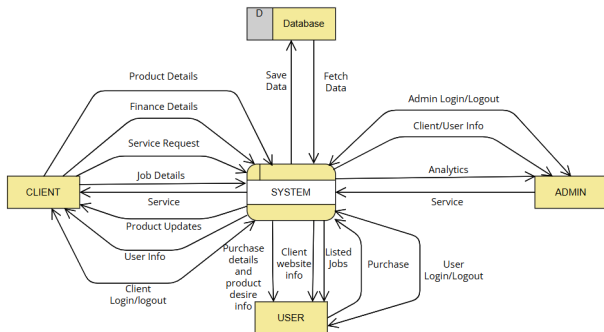
Database

- PostgreSQL

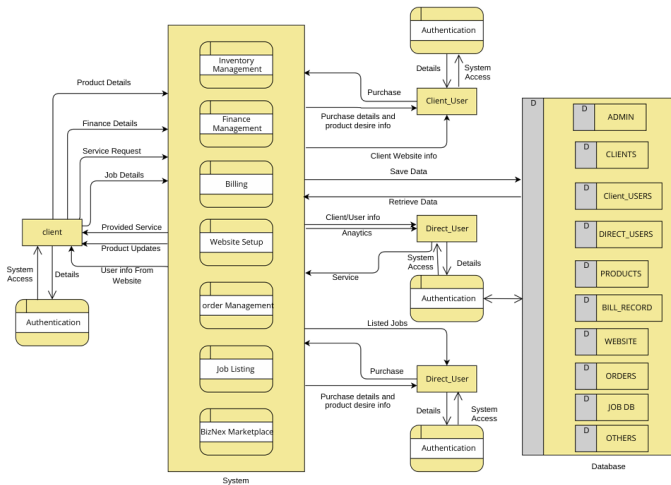
Authentication

- OAuth 2.0

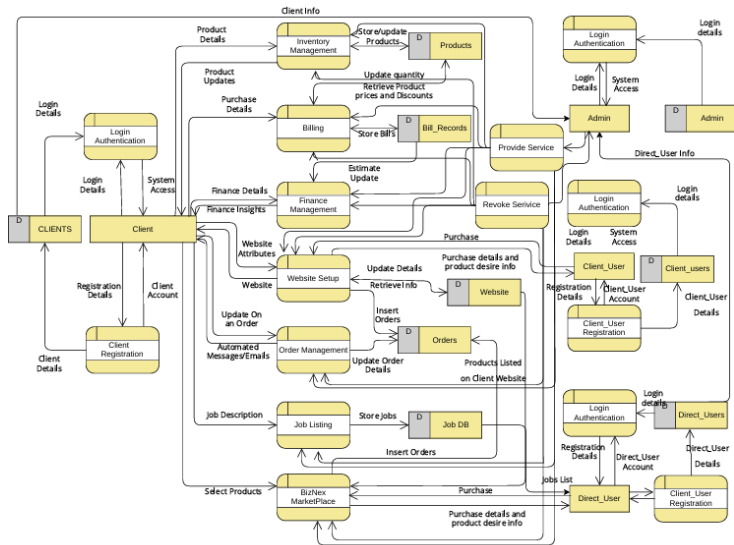
DFD Level-1



DFD Level-2



DFD Level-3



Project Images

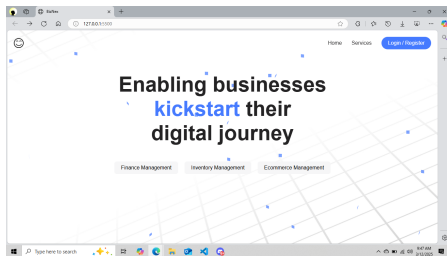


Figure 1: Homepage

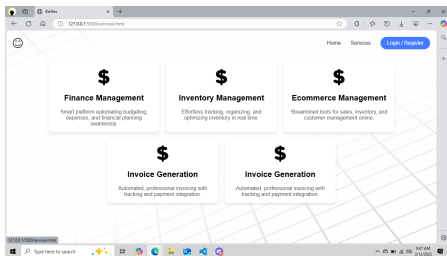


Figure 2: Dashboard

Project Images

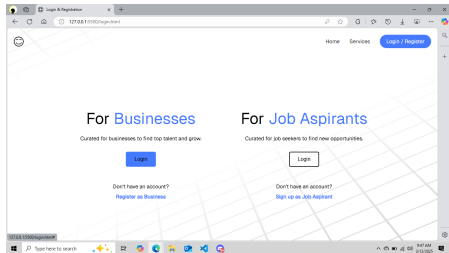


Figure 3: Login/Sign-up page

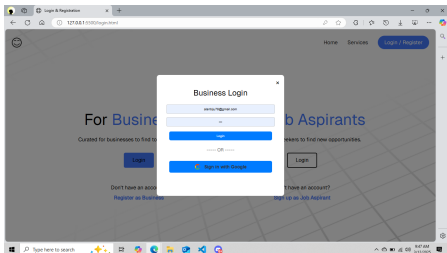


Figure 4: Business Login

Project Images

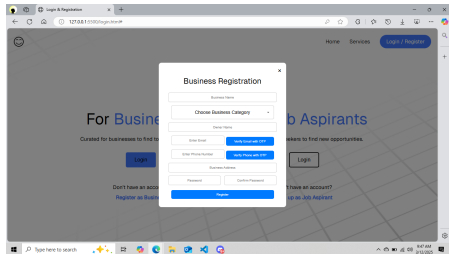


Figure 5: Business Reg

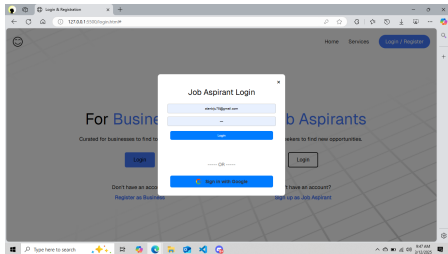


Figure 6: Job Seeker's Login

Project Images

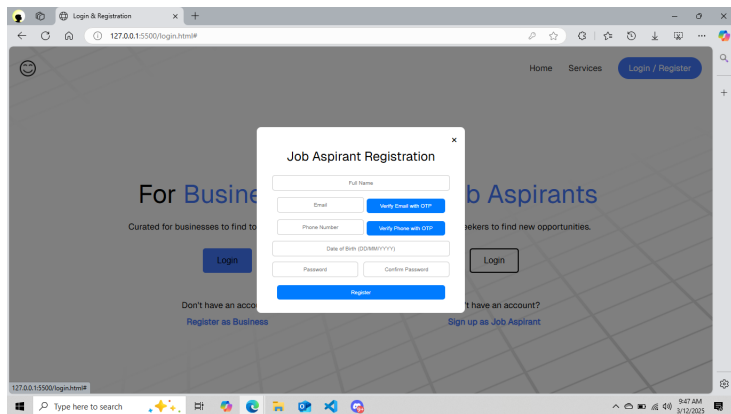


Figure 7: Job Aspirant Registration

Conclusion

- The BizNex platform provides small businesses with an easy-to-use digital marketplace.
- It addresses challenges such as technical complexity, inventory management, and job visibility.
- By offering automation, cloud integration, and job listing functionalities, it enhances business efficiency.
- The project aims to bridge the digital gap for small-scale businesses, ensuring a seamless transition into the online market.
- Future enhancements may include AI-driven recommendations, expanded payment integrations, and enhanced customer engagement features.