

NittanyBusiness Phase II

Project Overview

NittanyBusiness is a prototype web platform designed to streamline the procurement process for small and medium-sized enterprises (SMEs). It allows businesses to browse product listings, manage purchases, and interact with suppliers securely and efficiently.

The prototype implements key functionalities including user login, product browsing, order placement, reviews and ratings, and database management. The prototype utilizes HTML/CSS, Python, VSCode, Flask, and SQLite.

Directory

- webapp/
 - templates/ # HTML templates
 - A bunch of templates are stored in here: refer to app.py to see function
 - app.py # code for all functionality
 - README.pdf # this file
- CSV Dataset/
 - database_population.py # code for converting CSV files into SQLite file
 - A bunch of csv files for all the starter info

Implemented Features and Functionalities

- **User Registration and Login**
 - Secure registration for Buyers, Sellers, and HelpDesk staff.
 - Passwords stored using hashing.
 - Role-based login redirecting to respective dashboards.
- **Category Hierarchy Browsing**
 - Dynamic traversal of categories and subcategories.
 - Product listings linked to categories.
- **Product Listing Management (Sellers)**
 - Sellers can publish, edit, and remove product listings.
 - Product status management: Active, Inactive, Sold.
- **Order Management (Buyers)**
 - Secure checkout and immediate payment after order.
 - Inventory updates and seller account balance management.
- **Product/Seller Reviews**
 - Buyers can review and rate products and sellers after purchases.
 - Seller ratings updated automatically.
- **Product Search**
 - Searchable by keywords in title, description, category, or seller name.
 - Supports filtering based on price ranges.
- **User Profile Update**
 - Users can update profile information securely.
 - Email changes require HelpDesk request approval.
- **Database Management**
 - SQL database populated from provided CSV files.

- Scripts for easy recreation and updates.

Additional Features (Optional, Bonus)

- **HelpDesk Support System:** Buyers and sellers can submit "Add Category" requests, and HelpDesk staff can process them via a dedicated admin panel.

Reflection

Our team set early goals to fully implement core functionality and extend NittanyBusiness with at least one new feature. We successfully implemented all core requirements and added a HelpDesk Support system as an optional feature. Key challenges included integrating secure login and ensuring dynamic category loading without hardcoding. In future projects, we would start backend testing earlier to streamline later integration phases and produce a thorough plan for fabrication of code.

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