CSE311 Project

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Introduction

Our project aims to develop an all-in-one e-commerce site which will connect sellers with customers. User Friendly interface and seamless experience will be our top notch priority. Customers don't have to go to several shops to buy different products. All kinds of products will be served from our site.

Project Overview

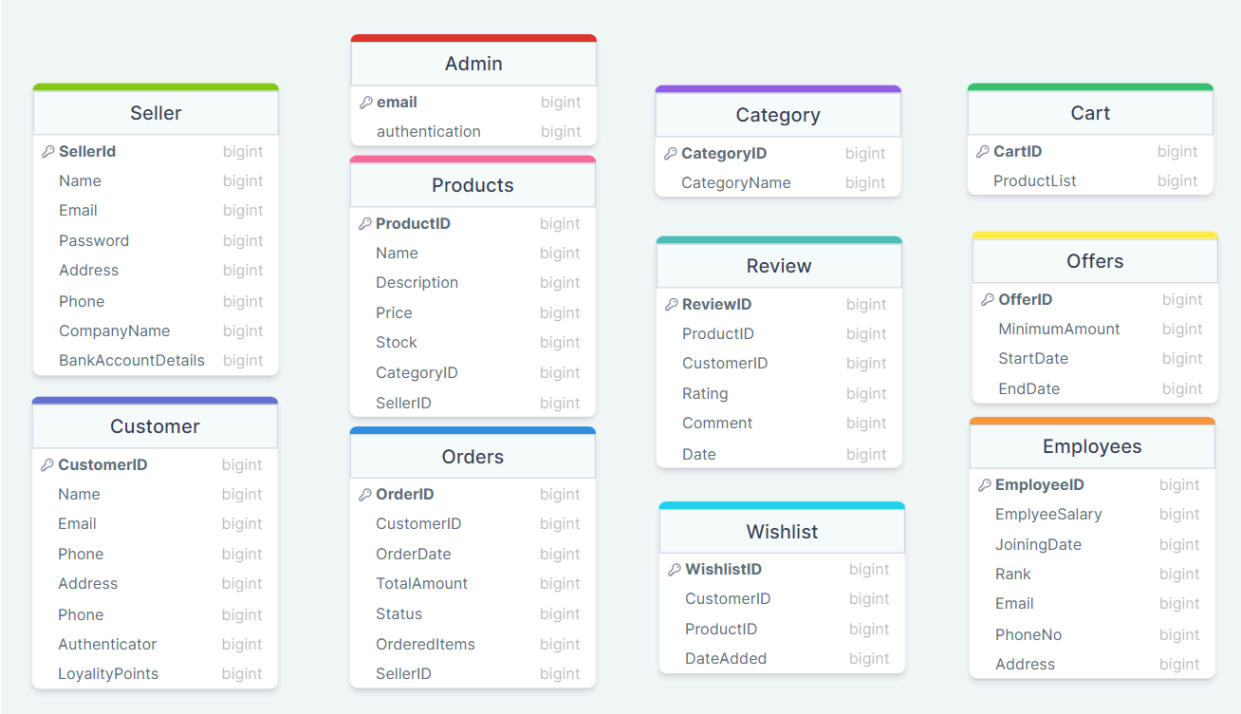
Our database project will ensure a structured data storage of a vast number of customers and sellers.There will be a huge inventory for the product information in category with reviews .The project will also manage the data of the orders and offers on products with cart and wishlist..We will also have an internal employees and admin data set who will manage this e-commerce site.

Features

1. User Registration and Authentication : Customers will be able to register their accounts. It will allow them to save products to their wishlist, save orders for reordering and get offers based on their purchase history.
2. Product Management: Sellers can add, update and manage their products. Products will be categorized for easy navigation and users can filter products based on their preferences.
3. Ease of Shopping and Checkouts : Customers can add products from multiple sellers and proceed to a secure checkout process. Customers can choose from different payment options such as mobile banking, Cash on Delivery, Card payment etc.
4. Order Management : Sellers will have access to their dashboard where they can manage their incoming orders and process them for on time delivery. Customers will be able to track their order status in real time.
5. Customer Reviews and Ratings: Customers will be able to leave reviews and ratings for the products they have purchased. These reviews will be displayed on the product pages to enhance transparency and trust. Products will be ranked based on customer reviews.

Database Design

The backbone of our project is the database. So, we've tried to design such a database which will be cohesive with every other entity and works well.



Our *key entities* are:

- Products Table:
  - It contains id, name, description, price, stock, categoryID
- Sellers Table:
  - It contains id, name, email, phone no, Bank account details
- Customers Table:
  - It contains id, name, email, phone no, Loyalty points
- Orders Table:
  - It contains the information of the orders with customerID ,name ,email ,phone ,address ,Loyalty points
- Cart Table
  - It will contain the productID.
- Employees Table
  - It has id, salary, rank, job type and other details

These are the key entities. Our project has entities other than these. But these tables will play a key role contributing to data integration.

Technology Stack

Frontend: React.js with TailwindCSS
Backend: Node.js
Database: PostgresQL
Server: HTTP server with Express.js

Conclusion

We have prepared an initial design and plan for the whole project. As time goes, we may add some little to big changes as per the project requires. Our utmost concentration would be to utilize the database to fullest to ensure seamless experience throughout the whole website.

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