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About:I am currently dedicated to a dual educational path, pursuing a BS degree in Data Science and Programming at IITM, while simultaneously engaging in a BSc degree in Electronics from DU. Fueled by youthful enthusiasm, I am committed to expanding my knowledge and skills in these domains.

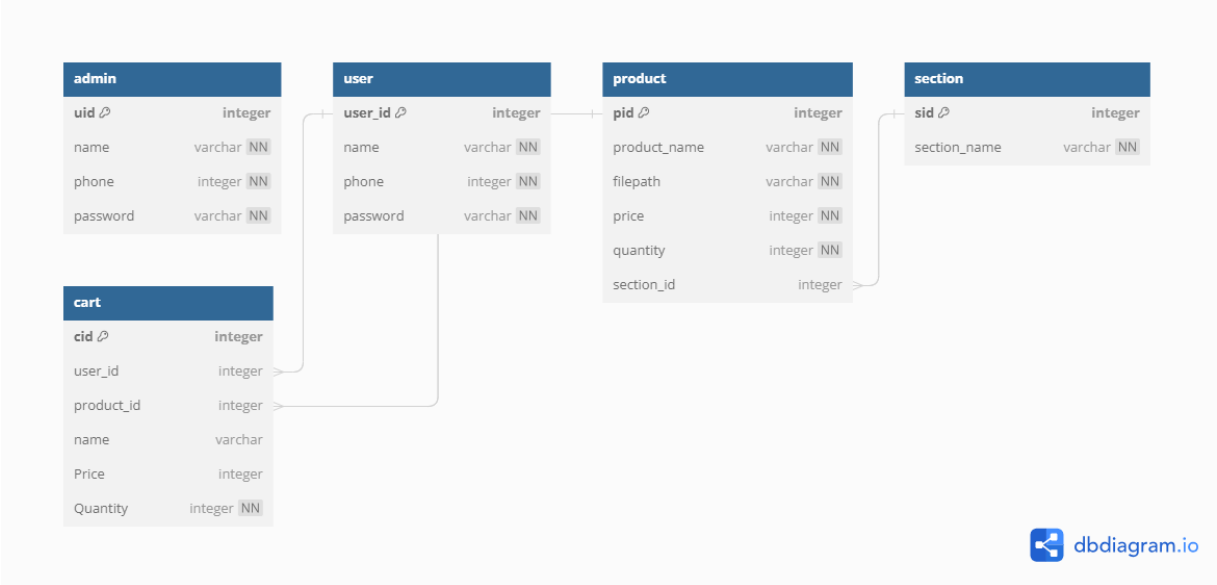
Description

The application is an online grocery store that enables users to effortlessly browse and purchase a wide array of essential products. Our platform offers a user-friendly search functionality, allowing customers to easily find specific items or explore categories. Additionally, the store's administration has the capability to manage product listings, update inventory, and ensure a seamless shopping experience for all users.

Technologies used

- Python (Used for creating the backend)
  - Flask (Used to create the web application)
  - Flask-SQLAlchemy (Used for interacting with the SQLite database)
  - Jinja2 (Used for templating in Flask)
- SQLite (Used for storing data)
- HTML5 (Used to create a structure for the front end)
- CSS3 (Used for custom styling)
- Bootstrap (Used for basic styling of the webpages)

Database Schema Design



The database was designed to scale,taking a vague inspiration from Blinkit. There are three main entities: Admin, User and Product.These are related to each other via one-to-many relationships, as shown in the diagram above. The `users` and `admin` table share similarities but have different levels of access within the backend.

Architecture and Features

The project follows an iteration of the MVC model and follows the fundamental idea of separation of concerns.
The models for each of the tables are defined in the `models` folder, the controllers which contain the functional
methods with respect to the models are stored in the `controller` folder, the files which control the UI. Additionally, there are some configurations which are stored in the `utils` folder. All these folders are collectively part of the `app` folder. The SQLite database is stored in the folder called `instance`. The folder named `docs` contains a document file of the application.
The `static` and `templates` folder contain the static assets, like CSS files needed for styling the appearance, and the design templates respectively.
Features implemented in the application are:

- Admin/Store Manager login and User login
- Category Management
- Product Management
- Buy products from one or multiple Categories
- Search for Category/Product