**Digital World Store Web Application by Nezan Khan**

**Background**

Application is developed to provide a solution to businesses for their inventory management and e-commerce needs. The application will serve as a e-commerce site and inventory & sales management system.

**E-commerce**

The applications provides the business a platform to list their products, and allow customers to provide feedback on their purchase experience. Simple interface will allow customers to place orders or contact sales agent quickly and make smooth purchases

**Backend inventory & sales management system**

Application offers great solution to the business for managing their products, sales, employees and supplier information’s. Application has a staff portal which is only accessible to current staff. Staff portal provides stakeholders with updated information’s on:

* Inventory stock level
* Current customers
* Employees
* Current orders

Furthermore the application can be easily adjusted to provide more custom information based on stakeholders’ needs.

**Challenges**

* Integrating relational database with frontend technology
* Designing security to ensure only authorized users have access to database
* Performing custom queries and displaying information in a presentable manner
* Allowing stakeholders to smoothly interreact with the database
* Version control

**Technologies Utilized**

* Django – web framework for python. Powerful tool for developing backend of the web application. Django made it easier to integrate backend with the frontend allowing me to focus on the backend programming. Furthermore this will also allow me to scale the application easily based on stakeholders’ needs.
* PostgresSQL – relational database that integrates with Django models smoothly
* Bootstrap – Powerful frontend tool to design a presentable website
* Docker – Containerizing the whole application allowed me to move between systems for testing easily.
* Github – Efficient tool to keep track of changes made to application

**The following is the entity relationship diagram for the sample database used in the application**

Diagram

Description automatically generated

**Docker**

**I have containerized the application using docker technology. Anyon can download the docker image. “nkhan233/digitalworldstore”.**

**Files are saved in github as well : https://github.com/nezankhan/digitalworld**