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MongoDB Atlas Database

Introduction

For our project we are using a MongoDB Atlas database. This is basically a cloud MongoDB DaaS.

https://www.mongodb.com/cloud/atlas

All the code for interacting with the database can be found in the "models.py" file.

In order to connect to the database through your command line you can use the connection string found in the very beginning of the file. At the moment the credentials are part of the string, these will soon be moved and stored in a secure fashion.

Collections

Users

There is a single users database storing all users of our service. Every user has an associated type (Producer/Consumer).

This database also holds the login credentials of the users which are hashed before storage.

Producers

For each producer we collected the email, username, password, first_name, last_name, farm, description, userType, and image. This information is collected in the user login. Each user selects whether to login as consumer or producer.

Consumers

For each consumer we collected the email, username, password, first_name, last_name, and userType. Like the producers, the consumer information is collected in the user login where each user selects whether to login as consumer or producer

Products

This collection holds all products sold through the website. The products are added through the "Farm manager" page, available to every user registered as a "Producer". Each product a farmer/farm offers on nearfarms is stored in the products collection where we collect the producerID, product, productType, units, quantity, price, image, marketID.

Shopping Cart

The shopping cart collection holds all products that a user has added to his cart. Each user has a single object representing his shopping cart in the database. A user's shopping cart is populated by adding products to it through the "shop_produce" page.

A user can add products of multiple products to his shopping cart. When a user selects produce to buy, we add the username, product_id, ProducerID, product, productType, units, price, quantity, marketID, totalPrice to the shopping cart collection.

Reservations

Upon reserving the produce in his shopping cart, a user's shopping cart entry is deleted. The contents of the shopping cart are then split into multiple entries in the reservations database. One reservation is made for every producer involved. In the reservations collection we collect the username, ProducerID, product, productType, units, price, marketID, totalPrice, and quantity will be stored in the reservations collection.

Static Image Files

There is also a directory used to store image files that users upload. This directory is found under the "static" folder and is named "file_uploads". In there exists a folder for each user that is created for him upon registration and is used to store his profile pic and all his produce pics. At the moment "Producer" type users can change their profile picture and produce pictures through the "Farm Manager" menu.

This system is of course planned to be replaced with a CDN in the future.