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Features Implemented for Phase 1

• Feature 1.1: Create New User Profile

• Feature 2.1: Create Listings

• Feature 3.1: View All Listings

Persistent Storage Design

We are using SQLite database to persist our data, located in the db.sqlite3 file in the outer course_project folder. Our database includes the tables shown in Figure 1. It contains 2 tables. The User table can be found as 'auth_user' in the db.sqlite3 file and is implemented using Django's built-in User class (from django.contrib.auth.models, documentation here: https://docs.djangoproject.com/en/5.1/ref/contrib/auth/).

We only use the attributes name, username, email, and password fields required for Feature 1.1. The 'first_name' built-in Django field acts as the 'name' field. Each user can have zero or many listings. The Listing table, which models each listing a user can make, can be found as 'campusmart_listing' in the db.sqlite3 file and is implemented using a custom model we made, which is a subclass of the Model class inside the models module from django. It includes the following attributes: created_by (a foreign key of the user who created the listing), title, description, price, condition (with choices New, Like New, Used, or Fair), photo, and status (with choices Available or Unavailable).

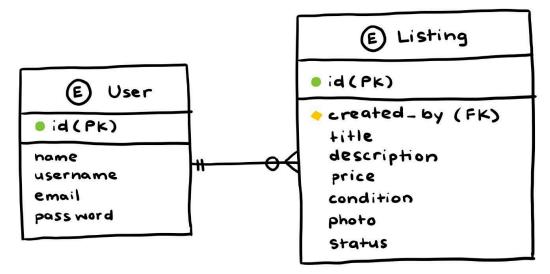


Figure 1. Database Schema with User and Listing Tables

Demonstration of the Features Implemented for Phase 1

Feature 1.1 Create New User Profile

Figure 2 demonstrates the user Register page (/campusmart/register/) where registered users can enter their name, email, username, and password to create a new account with those specified credentials. You can reach this page by clicking 'Register' in the navigation bar. In our backend, we used django.contrib.auth.models API to create a user profile with their name, email, username, and password as displayed in Figure 2 for new users. When the user clicks the blue 'Register' button, a new user profile will be created and stored in the SQLite database, and the user is redirected to the 'Browse' page, where all of the available listings are shown.

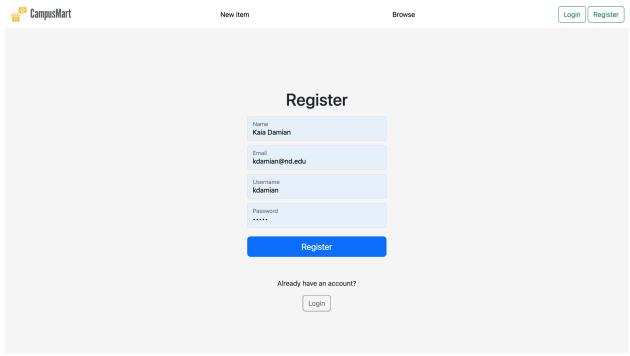


Figure 2. Screenshot for Feature 1.1 showing how to create a new user profile

Feature 2.1 Create Listings

Figure 3 demonstrates how a logged in user creates a listing on the Create Listing page (/campusmart/create_listing/). You can reach this page if you are logged in and click 'New Item' in the navigation bar. The user will enter title, description of the listing product, price, and product condition (New, Like New, Used, Fair). The user will also upload an image file to display their product. The data will be stored in sqlite database based on our Listing class created inside the models.py of our campusmart app folder in Django.

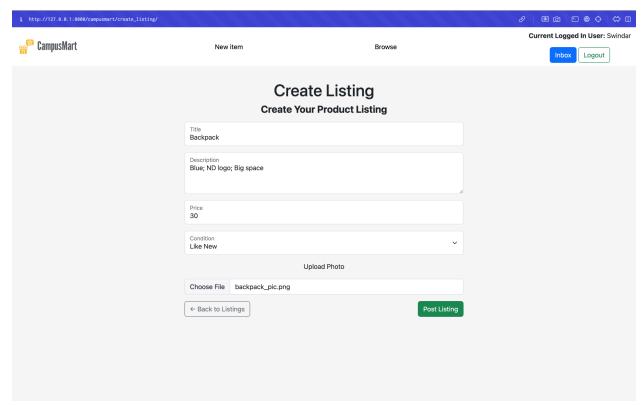


Figure 3. Create Listing (by clicking 'New item' on the Navigation Bar)

Figure 4 on the next page shows what happens when the user attempts to create a listing when they have already reached their daily limit. After pressing the green 'Post Listing' button shown in Figure 3, the user will be redirected to the 'Browse' page and an error message saying 'You have reached your daily limit of 3 listings' will be displayed.

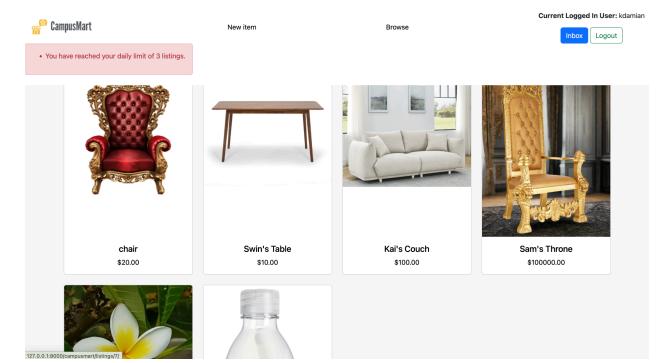


Figure 4. Screenshot for Feature 2.1 showing how daily listing limit is handled

Feature 3.1 View All Listings

Figure 5 shows a screenshot of the implementation of Feature 3.1, showing how users can browse available listings by clicking on 'Browse' in the navigation bar, which will redirect them to /campusmart/listings/. This feature takes all the listings with the status 'Available' and renders a snapshot of them to the user. It shows the user the listing's title, price, and thumbnail image. If the page were to have more than twenty listings, the user would be able to navigate through the pages by using 'Next' and 'Previous' buttons at the bottom of the screen. While not part of Feature 3.1, these listings are also clickable, taking the user to a detailed view of the listing with additional information like a description and its condition. Also while not part of Feature 3.1, there is a search bar the user can use to search an item based on its description.

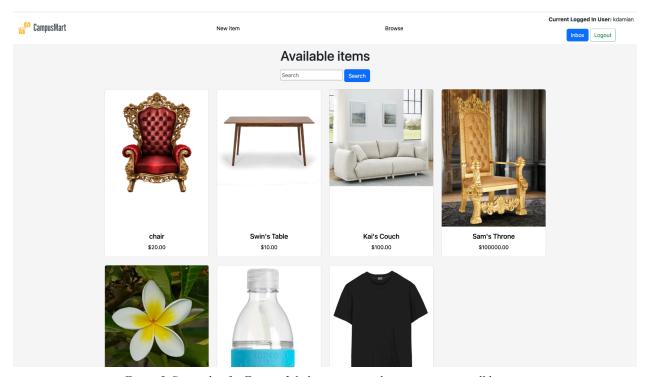


Figure 5. Screenshot for Feature 3.1 showing page where user can view all listings