Requirements

Python 3.6+

Django 3;

Availability of tests;

any third-party packages if necessary;

pipenv

It will be a plus, but not required:

Working annotation types. By working is meant the absence of errors when starting `pipenv run mypy .` in the root of the project and the following mypy configuration: https://pastebin.com/0zBHNj48. If you haven’t encountered type annotations before, this optional task can take a lot of time and probably should not be spent on it.

Development through TDD and pytest integration;

Availability of configurations and integration with linter / code formatters.

Site functionality

The frontend does not play a role, the ability to perform these actions is important. How the functional will look in this case is not important.

Standard login

The user must be able to login. There are no login requirements, using a ready-made solution from Django is permissible.

Registration is not needed, it is assumed that all users are created through the admin panel or shell

This page does not need testing.

"Basket"

Available only to logged in user.

The user has the opportunity to write the name of the product, indicate the price and send data to the server.

Data must be validated:

Price is a positive number

Name greater than or equal to 2 characters

In the presence of incorrect data in the form: the user should see errors. Appearance does not play a role, but they should be displayed.

With the correct data entry, the user is redirected to the “Statistics” page

Data is stored in a database.

"Statistics"

Available only to logged in user.

The user on this page sees the following data:

Total number of products entered by user

The total quantity of goods that was entered in the system

The maximum price that the user entered

The average price of all products of all users

The sum of the prices of all products that the user entered

The sum of all products that the user entered AND whose name is longer than 3 characters OR whose price is more than 50, regardless of who created them

The user also sees the “Raise the price” button here. When you click on this button, 1 is added to all prices of all products created by the user.