2021 Database Documentation

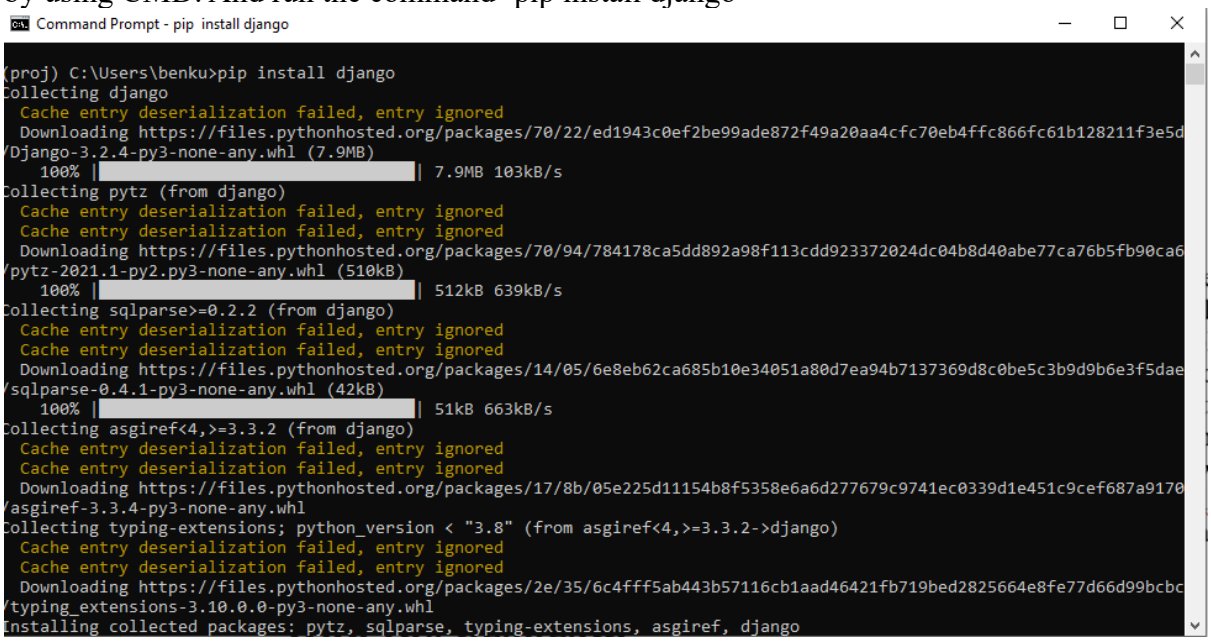
Project Title	English	Library-blog website

Overview

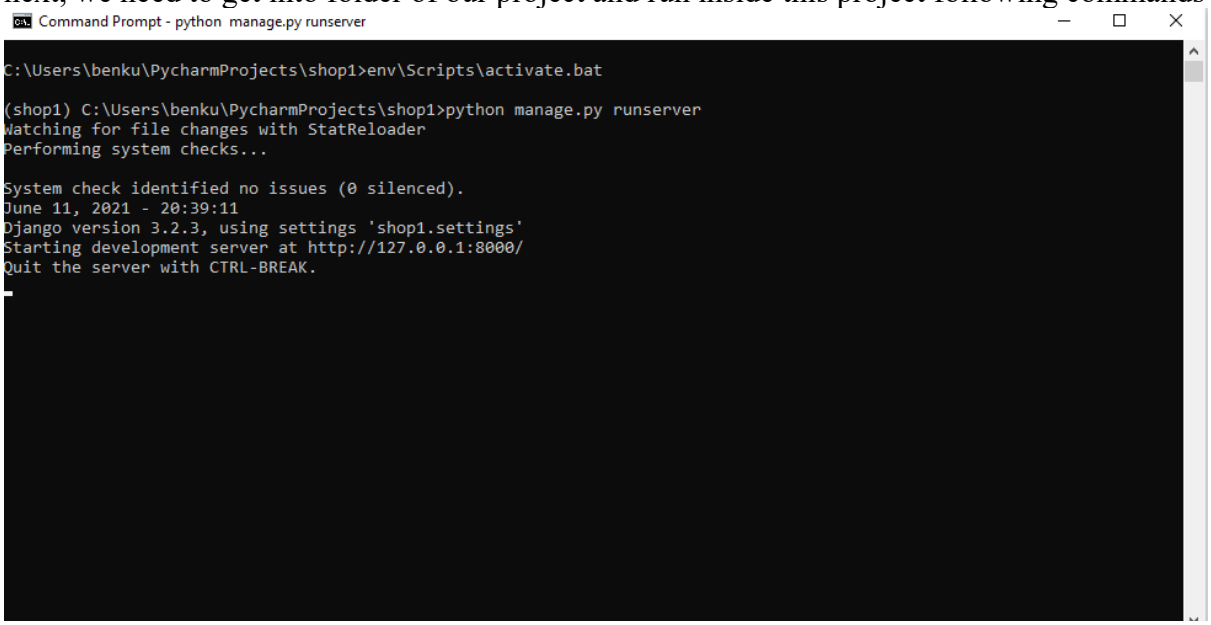
The implementation of my program divided into two categories. First categories, where the back-end I made in Django by using ORM and second I translates my ORM implementation in SQL tables and insertion I used for a person who is aware of SQL, but have not idea about Django. During this course I understood a lot of materials and understood that using knowledge from database and sql, I can try other database and that is why I used sqlite3, because it is simple and not for big projects. I made a blog-library where members can create, read, update, delete the discussion about a book and other can comment, like and view a book, but they need to login first. Most of my logic is made in python such as creating tables, making queries. Inserting new records in database is done by using Django framework which has an ORM, which interacts with database by using python script. Currently the website works from my PC with the address 127.0.0.01 is the standard address for IPv4. I have two sql files, they are for the viewer who is trying to understand what kinds of tables I added to my database and insertion.sql is for values that I added to my database.

Run the program

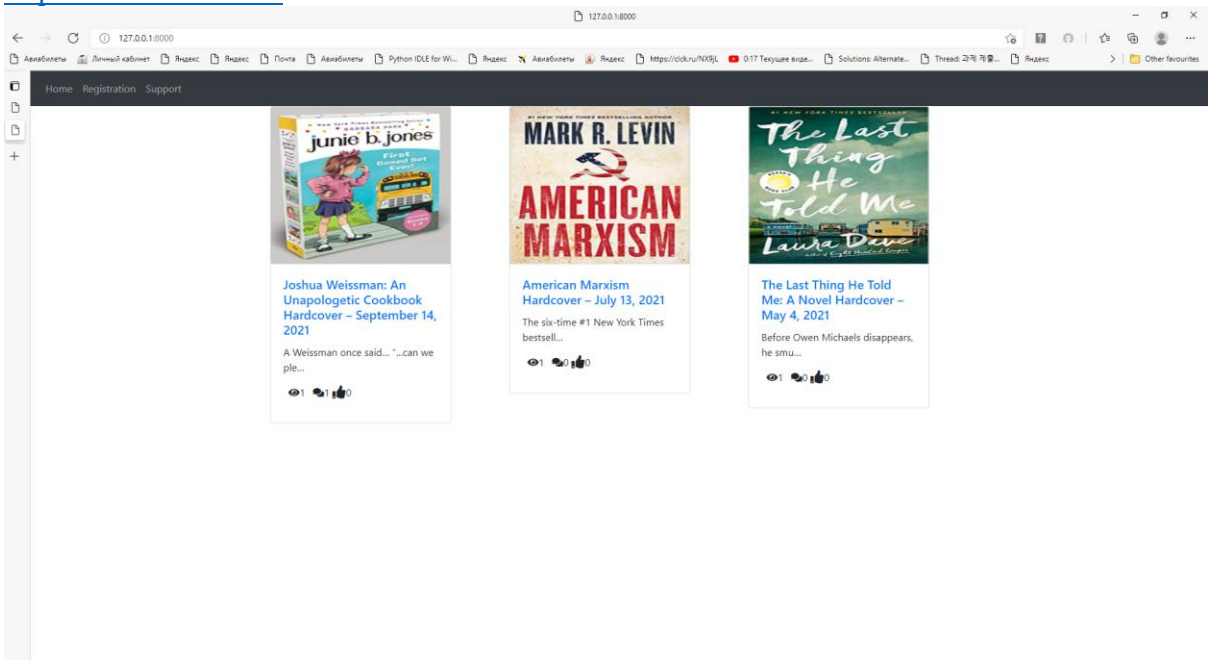
First of all, to run the website, we need to install the interpreter of python 3.6 in the official website https://python.org/, then we need to install the framework that can be easily installed by using CMD. And run the command ‘pip install django’



next, we need to get into folder of our project and run inside this project following commands



Now we can type in browser and see the website.
http://127.0.0.1:8000/



For the sake of simplicity, I will add a video demonstration how my program works.

Implementation

How it was written earlier the concept of creating tables was derived from SQL

```
class author(models.Model):
    familyName = models.CharField(max_length=20)
    FirstName = models.CharField(max_length=20)
    email = models.CharField(max_length=50)
```

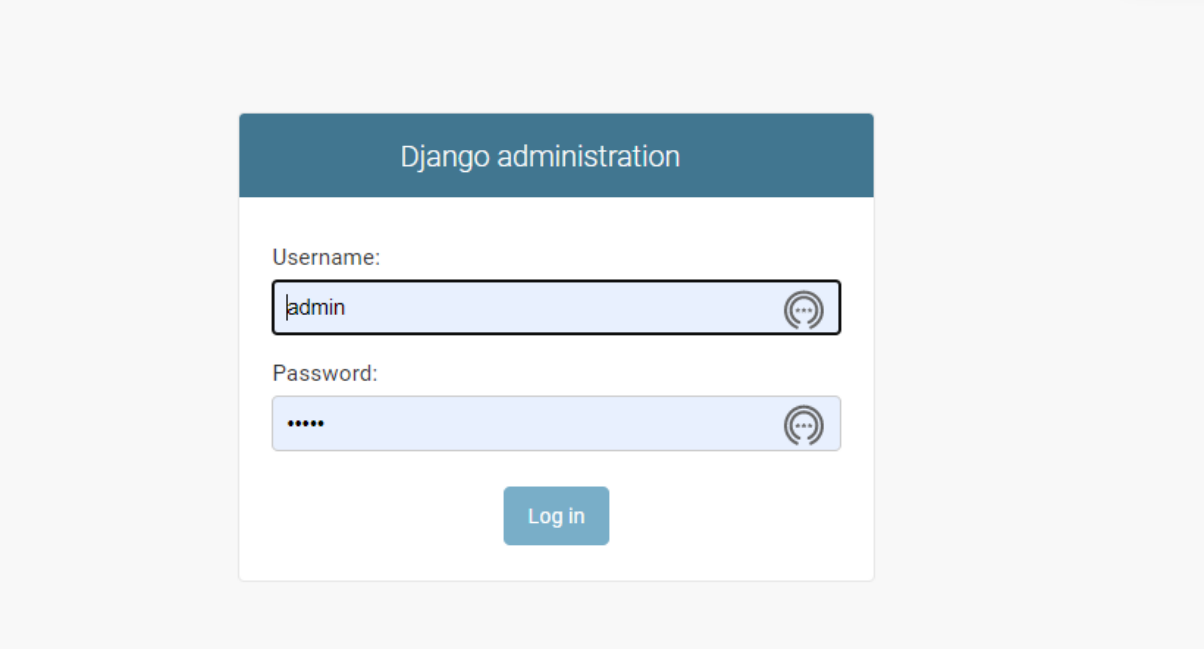
```
create table author(
    id int primary key identity not null,
    familyName char(20) not null,
    firstName char(20) not null,
    Email varchar(50),
);
```

One code is written in Python and another code in sql. As you can see the syntax is the same and the logic also.

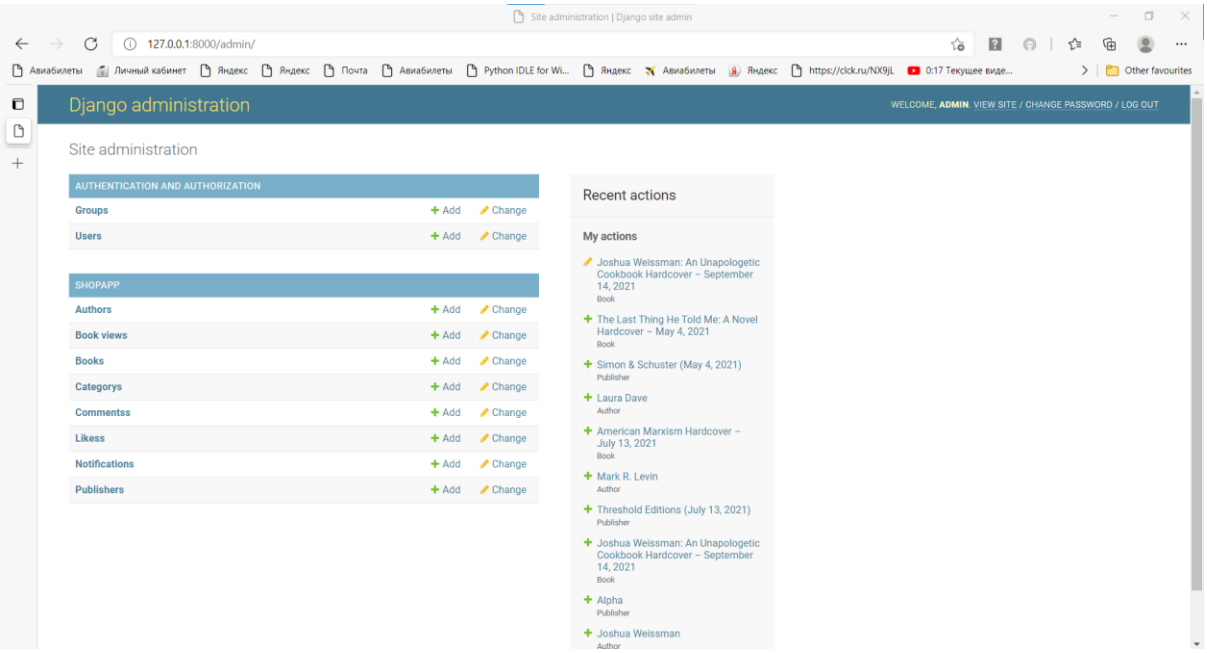
Admin Panel

We can either add values with insertion.sql in SQL SERVER or with using sqlitie3 using database and webpage. However, the main difference between both of them is simplicity in viewing tables as well as insertion new values because of the Html, css, javascripts. I created a super user or admin panel, and if we login as a super user we will have an access to the all tables and values and we have all rights to do what we want to do.

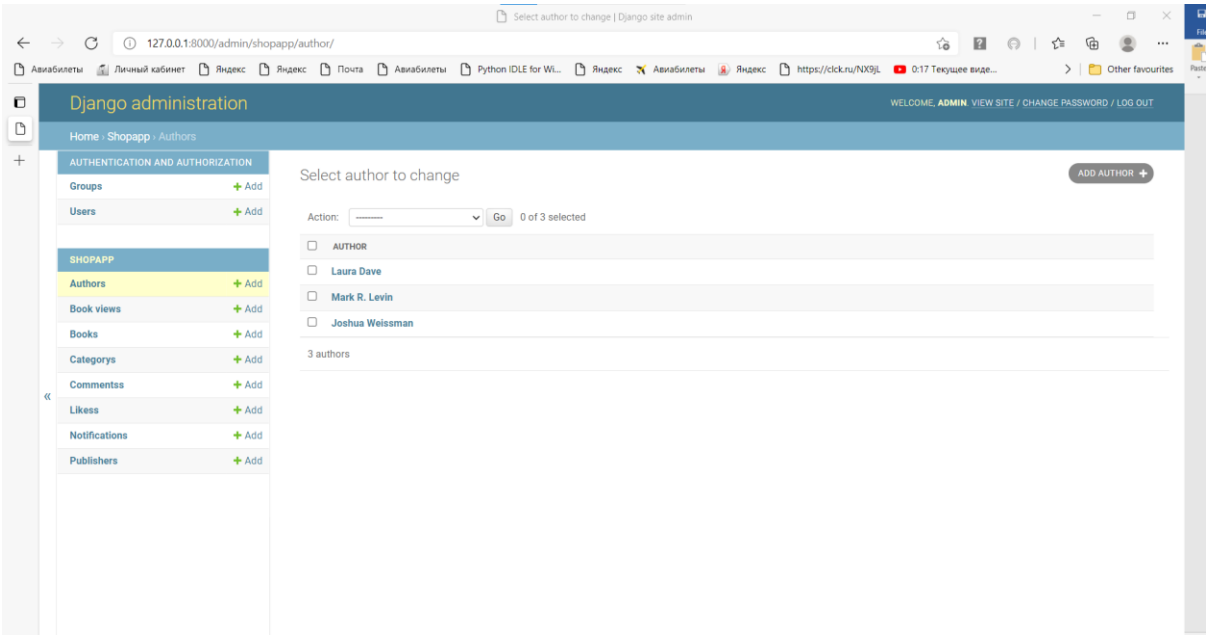
To open an admin panel, we need to write following numbers in search bar
127.0.0.1:8000/admin
and login as an admin that I created.



Username:**admin**
Password:**admin**

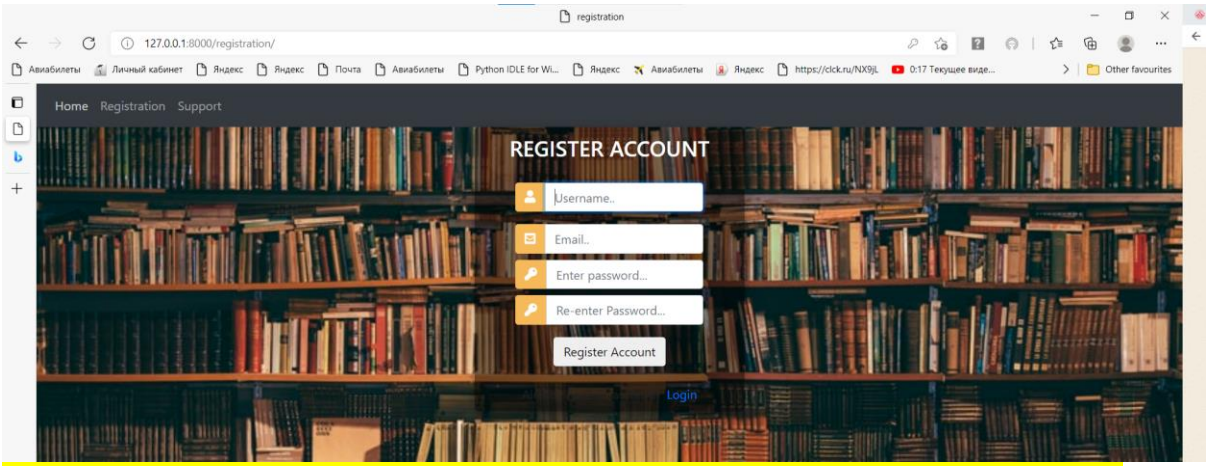


After login as admin, we will have an access to all database and records inside tables. As you can see, we have 10 tables, but we should take into consideration 'Group' table, because it is provided by default. If we want to access Author table, we just click and we can see all the values that are inserted.



Registration

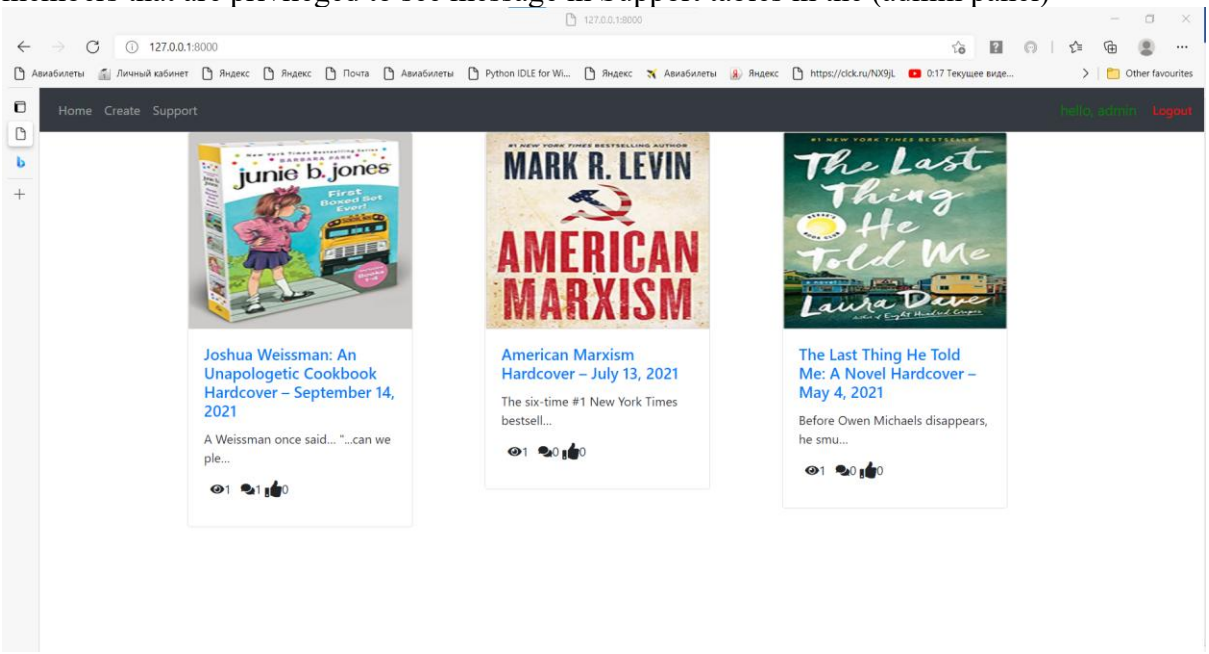
Registrations is needed to create a discussion forms, leave comments and more if a user is not authenticated he is not able to add values in tables.



After filling the form, ‘user’ will be redirected to a login page, where ‘user’ can sign in.

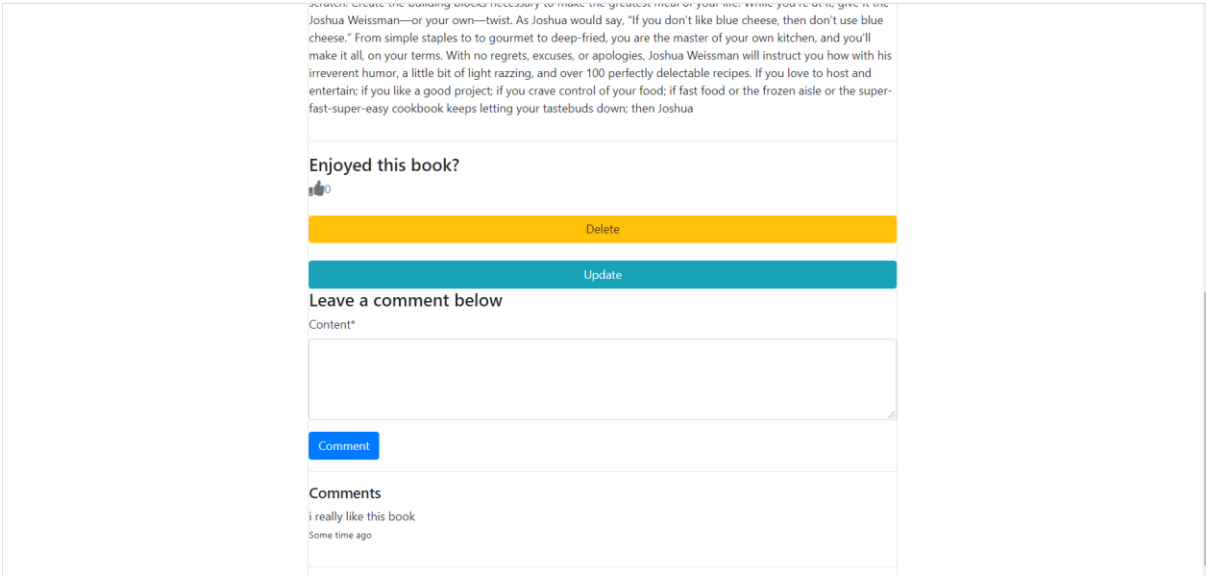
Home page

In the main page or home page we can see a list of books that are stored in our database. We can see in the left top corner (‘Create’) it is a link to the new page, where we can add a book description in ‘book’ table and (‘Support’) is for connecting with administrators or staff members that are privileged to see message in Support tables in the (admin panel)



Book Detail

If we want to know more about certain book and comments of a book, we can view it

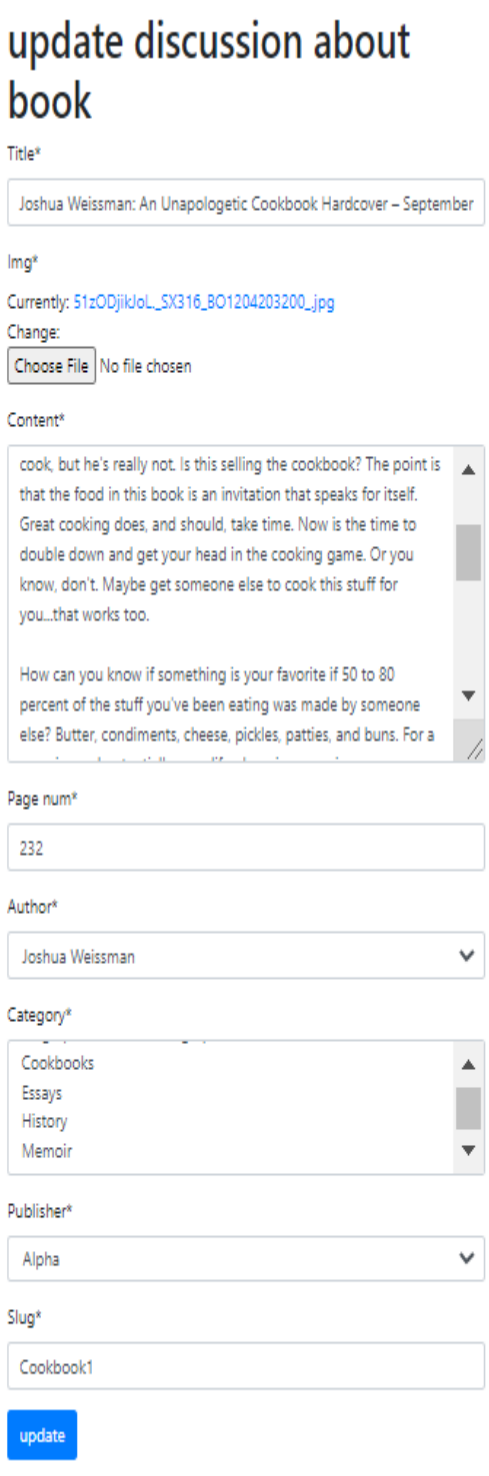
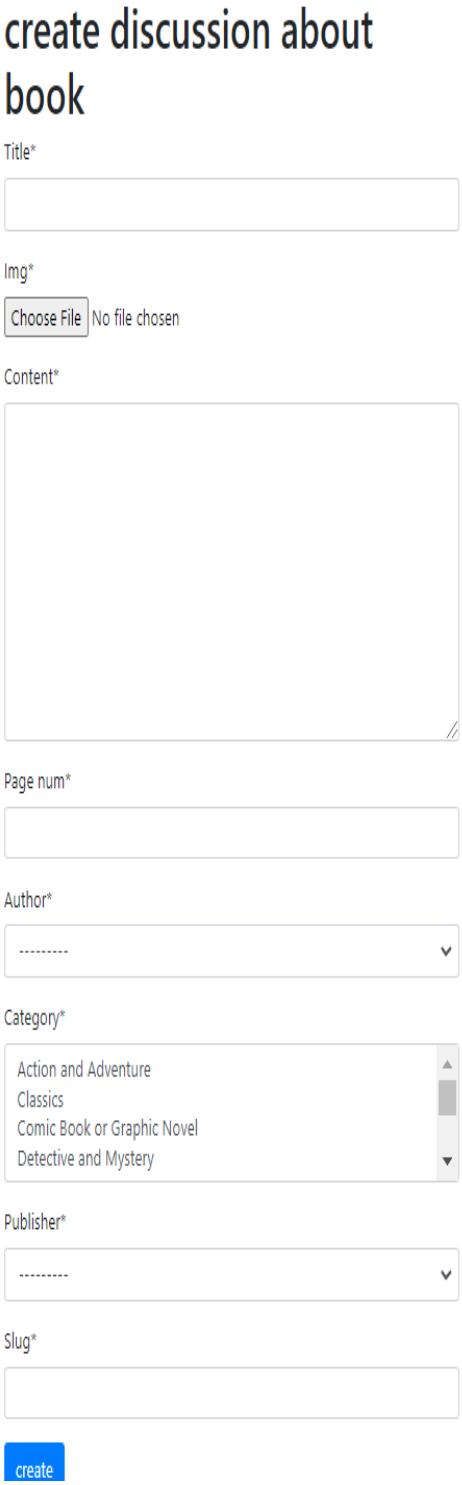


As we already login, we can update, delete a record from a table, but if we log out we do not have rights.

Icons

Overall we have three icons in each book and every icon has their own functionality.

If we click in the same book every time, the ‘eye icon’ increases by one, but only with every new user. If we clicked sever times in book with the same user, ‘eye icon’ increases by one and do not go further, but if login as an another ‘user’ and click the book, the ‘eye icon’ will increase by one. ‘Comment icon’ increases by one every times we add a new comment and ‘like’ also adds every time when we like a post with the same user. In brief, the functionality is pretty much the same as we can see in other websites.

Create/Update Form

When we want to add new values in book table, we can do it with special pages.