



Backend Exercise v4.1

What is the goal?

The topics covered by this exercise are the basics of backend development. Completing this exercise will prepare you for Hipo. Having a decent knowledge on these topics will allow you to easily join the team and learn new skills faster.

Basic topics covered by this exercise are:

- Version control (GIT)
- Basic HTTP commands and usage (GET, POST)
- Python
- Django
- ORM

What should you build?

We want you to make additions to an existing [Django](#) project. Don't worry, it's quite simple. We have an Instagram clone named Hipogram©. You can download the codebase from its [Github repository](#). Here is a mockup of what we want.


Homepage

Hipogram

Share a Photo

turkan

admin




Heartwarming hippos.

#funny #nature

Like (1)

17:41 - 29.03.2021

furkan



Trend Tags


- #nature (3)
- #funny (2)
- #design (1)
- #food (1)
- #coffee (1)

Hipogram

Share a Photo

admin

admin



A baby hippo.

#funny #nature

Update / Delete

Like (0)

14:15 - 11.03.2021

Previous

1

2

Next

Share a Photo

Hipogram

Share a Photo

furkan

Image*

Choose File funny_cow.jpg

Text*

That's hilarious!

Tags

funny
design
nature
food
...

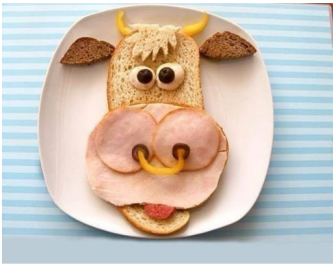
Share

Update / Delete Photo

Hipogram

Share a Photo

furkan



Text*

That's hilarious!

Tags

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nature
food
...

Update Delete Cancel

Since we don't want to make you lose time, we prepared some features of the project. As a preparation;

- Download the project
- Setup your local development environment by following the instructions at the project Readme file.
- Run the project.

You should confirm that the system is working as expected. We prepared the authentication system and a list view that lists photos.

Task 1: Create post creation page

Although we have an amazing system, our users are not able to post new images. We expect you to:

- Create a page that lets people upload their photos.
- Add a link from the list view to the upload page.
- Prevent unauthenticated users from posting.

Task 2: Add pagination to the list page

Since the users are able to create new posts now, we expect a huge increase in the count of photos in the system. The list view currently lists all the photos in the system at once. Please add a pagination system to this page.

- The system should return 5 posts per page.
- Users should be able to go between different pages.

Task 3: Add tags to posts

Posts should have tags such as **#family #food** to categorize them.

- Tags should be created through the admin panel.
- When creating a new post, users should be able to add tags by selecting as much as they want from the existing tags.

Task 4: Filtered posts

Users should be able to filter posts by user or their favorite tags.

- Usernames and tags in posts should be clickable and go to the filtered version of the posts list view by the user or tag.

Task 5: Edit/Delete posts

We would not want users to think twice when sharing a post. Users should be able to edit their posts or delete them easily.

- Users should be able to edit or delete only their own posts.

Task 6: Trend tags

Users may want to explore the trends. It would be nice to show trending tags in a sidebar.

- Most used top 5 tags of the current day should be listed in a sidebar in the posts listing pages.
- Tags in the sidebar should be clickable and go to a list of posts the tag used.

Timing

You should complete this exercise in one week or so. However if you have exams, or school projects, you can send back the exercise up to 2 weeks. Even if you cannot complete the whole exercise, do not hesitate to submit it. We are going to review every application carefully and provide feedback. Please **send** the exercise as a **zip file**. **Do not share your GIT repository publicly**. Design elements are not important for the scope of this exercise. Do not worry about designs.

Questions?

If you are stuck at some point, or if you have questions about the scope, we are always here to help you. You can message internship@hipolabs.com anytime for help.

Hints

Use [Django Forms](#) and [Generic Views](#).

Bonus Points

Additional features and improvements on the basic requirements are welcome. A few ideas:

- Implement Like functionality
- Deploy this project somewhere (Heroku, PythonAnywhere, AWS, Google Cloud, etc...)