CADT Software and Drafting

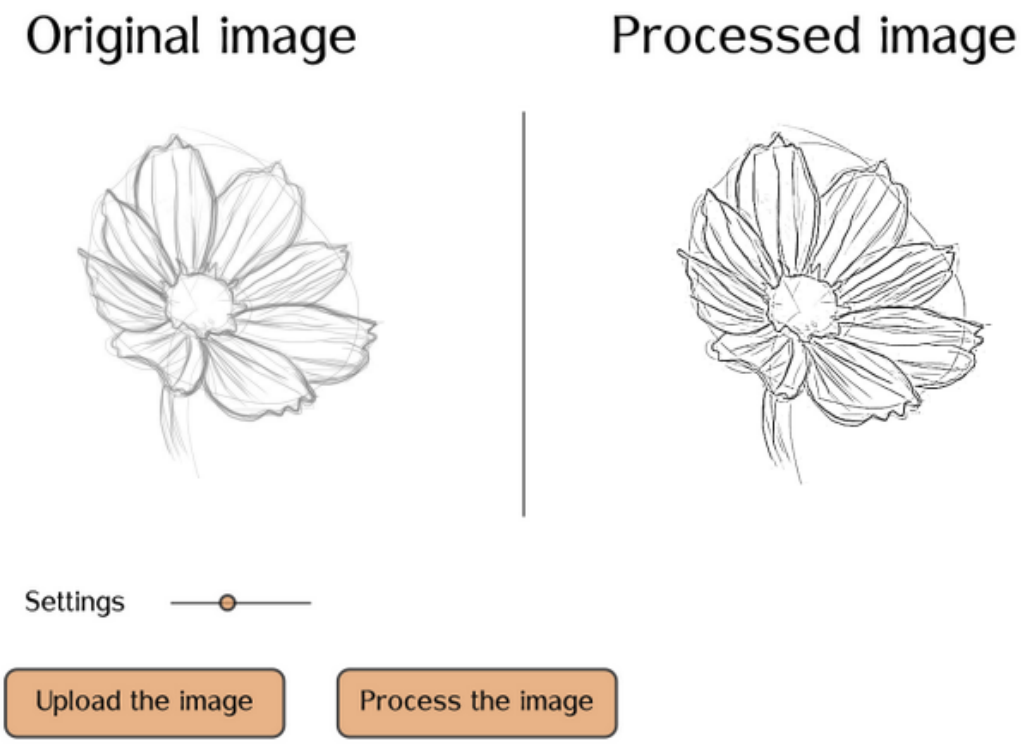
Backend test

Exercise 1

The Aim
Let the user of a webpage the possibility to apply an image filtering algorithm of the provided image by a server computation process.

The way
You're asked to create a system made of:
- a flask backend server (no database needed)
- a javascript frontend

The UI
Write the React code that shows this interface:



It is mandatory to have:

- two section to show the images (the image shown is only a sample)
- a button to upload the image
- a button to process the image and refresh the result.

Please use the image filtering algorithm of your choice with default values.

Bonus:

- implement an UI to customize the image filtering.

Required technologies

The technologies you have to use are:

- React
- Python 3
- Flask
- CSS

Features:

- the accepted format of the images are jpg and png

Exercise 2.

Create a program in python that creates a list of 30 elements transforming the input array:

```
[3, 5, 7, 9, 11, 12, 15, 20, 25]
```

into:

```
[0,0,0,1,0,2,0,3,0,4,0,5,6,0,0,7,0,0,0,0,8,0,0,0,0,9,0,0,0,0,0]
```

Good Luck