

task1_1

October 31, 2023

0.1 Task 1.1 Import your own dataset into Jupyter environment

```
[ ]: import numpy as np
import PIL.Image
import matplotlib.pyplot as plt
import os
```

```
[ ]: def get_images() -> list:
    image_folder_path = "./images"

    image_paths = []
    for _, _, files in os.walk(image_folder_path):
        image_paths = files
        break

    images_list = []

    for img_file in image_paths:
        # Open the image
        img_path = os.path.join(image_folder_path, img_file)
        with PIL.Image.open(img_path) as img:
            # Convert to RGB (in case it's a different mode like RGBA or
            ↪ grayscale)
            img = img.convert('RGB')

            x = y = 512
            # Resize to desired resolution (x,y)
            img = img.resize((x, y))

            # Convert to numpy array
            img_array = np.array(img)

            # Append to the list
            images_list.append(img_array)

    dataset_array = np.stack(images_list, axis=0)
    # set of numpy arrays (n, x, y, 3)
```

```
return dataset_array
```

```
[ ]: def PlotSample(sample_image):  
    plt.imshow(sample_image)  
    plt.axis('off') # Hide axes  
    plt.show()
```

```
[ ]: x = get_images()  
PlotSample(x[2])
```

