Negative & Logarithmic Transformation Images

In [2]: img_lenna = cv2.cvtColor(cv2.imread('../images/lenna.png'), cv2.COLOR BGR2RGB)

Collaborator:

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Import Modules

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import cv2

import matplotlib.pyplot as plt

Display all original image Lenna Image

plt.imshow(img lenna)

```
plt.title('Lenna')
plt.show()
print(f'Height : {img_lenna.shape[0]} pixels')
print(f'Width : {img_lenna.shape[1]} pixels')
print(f'Color Channel : {img lenna.shape[2]} (RGB))')
```

```
0
```

Lenna 100 200 300

400 500 100 200 300 500 Height : 512 pixels : 512 pixels Width Color Channel : 3 (RGB))

 Cameraman Image img_cameraman = cv2.cvtColor(cv2.imread('../images/cameraman.png'), cv2.COLOR_BGR2RGB) plt.imshow(img_cameraman) plt.title('Cameraman') plt.show()

Cameraman

150

: 256 pixels

: 256 pixels

print(f'Height : {img_cameraman.shape[0]} pixels')
print(f'Width : {img_cameraman.shape[1]} pixels') print(f'Color Channel : {img_cameraman.shape[2]} (RGB))')

img lung = cv2.cvtColor(cv2.imread('../images/lung.png'), cv2.COLOR BGR2RGB)

: {img_lung.shape[0]} pixels')

: {img_lung.shape[1]} pixels')

250 100 Height Width

- Lung Image

Color Channel : 3 (RGB))

plt.imshow(img_lung) plt.title('Cameraman')

0

50

100

150

200

In [4]:

print(f'Width print(f'Color Channel : {img_lung.shape[2]} (RGB))')

700

0 Height

Width

plt.show()

print(f'Height

Cameraman 0 100 200 300 400 500 600

200

Color Channel : 3 (RGB))

- Edin Castle Image

plt.imshow(img_edin_castle)

400

: 793 pixels

: 722 pixels

Edin Castle

600

plt.title('Edin Castle') plt.show() print(f'Height print(f'Width print(f'Color Channel : {img_edin_castle.shape[2]} (RGB))')

100

300

400

Height Width

- Bowl Fruit Image img bowl fruit = cv2.cvtColor(cv2.imread('../images/bowl fruit.png'), cv2.COLOR BGR2R(

plt.show()

0 200

print(f'Height

print(f'Width

100

Color Channel : 3 (RGB))

plt.imshow(img_bowl_fruit) plt.title('Bowl Fruit')

200

300

: 480 pixels

: 640 pixels

400 600 800 1000 1200 1400 1600 500 750 1000 1250 1500 1750 : 1729 pixels Height : 1921 pixels Color Channel : 3 (RGB))

Bowl Fruit

plt.show() print(f'Height print(f'Width print(f'Color Channel : {img peppers.shape[2]} (RGB))')

0

50

100

150

200

250

300

In [8]:

Peppers Image

plt.imshow(img peppers) plt.title('Peppers')

- Map Spain Image

plt.imshow(img_map_spain) plt.title('Map Spain')

Spain

100 150 200 250 300 350

print(f'Height print(f'Width print(f'Color Channel : {img_map_spain.shape[2]} (RGB))')

plt.show()

50

Height

Width

Color Channel : 3 (RGB))

350 0 100 200 Height : 384 pixels Width : 512 pixels Color Channel : 3 (RGB))

: {img_map_spain.shape[0]} pixels')

img edin castle = cv2.cvtColor(cv2.imread('../images/edin castle.png'), cv2.COLOR BGR2

: {img_edin_castle.shape[0]} pixels') : {img_edin_castle.shape[1]} pixels')

> 500 600

: {img_bowl_fruit.shape[0]} pixels') : {img bowl fruit.shape[1]} pixels')

print(f'Color Channel : {img_bowl_fruit.shape[2]} (RGB))')

In [7]: img peppers = cv2.cvtColor(cv2.imread('../images/peppers.png'), cv2.COLOR BGR2RGB) : {img peppers.shape[0]} pixels') : {img_peppers.shape[1]} pixels')

> 400 500

img map spain = cv2.cvtColor(cv2.imread('../images/map_of_spain.png'), cv2.COLOR_BGR2RGB)

: {img_map_spain.shape[1]} pixels') Map Spain

200 : 375 pixels : 487 pixels