Date 02-07-2021

Blending and Pasting Images Part-2 (Masks)

In [1]:
```
import numpy as np
import matplotlib.pyplot as plt
import cv2
```

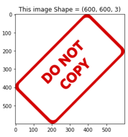
In [2]:
```
img_1=cv2.imread('dog_backpack.jpg')
img_2=cv2.imread('watermark_no_copy.png')
img_1=cv2.cvtColor(img_1,cv2.COLOR_BGR2RGB)
img_2=cv2.cvtColor(img_2,cv2.COLOR_BGR2RGB)
```

In [3]:
```
plt.title(f"This image Shape = {img_1.shape}")
plt.imshow(img_1)
```

Out[3]: <matplotlib.image.AxesImage at 0x211888b31370>

In [4]:
```
img_2 = cv2.resize(img_2, (600,600))
plt.title(f"This image Shape = {img_2.shape}")
plt.imshow(img_2)
```

Out[4]: <matplotlib.image.AxesImage at 0x2118989b2b80>



In [5]:
```
x_offset = img_1.shape[1] - img_2.shape[1]
y_offset = img_1.shape[0] - img_2.shape[0]
```

In [6]:
```
rows, cols, channels = img_2.shape
```

In [7]:
```
rows
```

Out[7]: 600

In [8]:
```
cols
```

Out[8]: 600

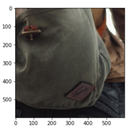
In [9]:
```
channels
```

Out[9]: 3

In [10]:
```
regin_of_intrest = img_1[y_offset:, x_offset:]
```

In [11]:
```
plt.imshow(regin_of_intrest)
```

Out[11]: <matplotlib.image.AxesImage at 0x211890bed90>



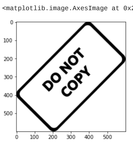
In [12]:
```
img_2_gray = cv2.cvtColor(img_2, cv2.COLOR_RGB2GRAY)
```

In [13]:
```
plt.imshow(img_2_gray)
```

Out[13]: <matplotlib.image.AxesImage at 0x21189238730>

In [14]:
```
plt.imshow(img_2_gray, cmap='gray')
```

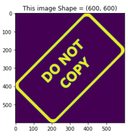
Out[14]: <matplotlib.image.AxesImage at 0x21189291520>



In [15]:
```
img_2_gray_inverse = cv2.bitwise_not(img_2_gray)
```

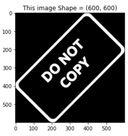
In [16]:
```
plt.title(f"This image Shape = {img_2_gray_inverse.shape}")
plt.imshow(img_2_gray_inverse)
```

Out[16]: <matplotlib.image.AxesImage at 0x211892d4850>



In [17]:
```
plt.title(f"This image Shape = {img_2_gray_inverse.shape}")
plt.imshow(img_2_gray_inverse, cmap='gray')
```

Out[17]: <matplotlib.image.AxesImage at 0x2118932d100>

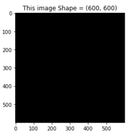


In [18]:
```
img_2_gray_inverse_with_white_background = np.full(img_2_gray_inverse.shape,
                                                   255,
                                                   dtype=np.uint8)
img_2_gray_inverse_with_white_background
```

Out[18]:
```
array([[255, 255, 255, ..., 255, 255, 255],
       [255, 255, 255, ..., 255, 255, 255],
       [255, 255, 255, ..., 255, 255, 255],
       ...,
       [255, 255, 255, ..., 255, 255, 255],
       [255, 255, 255, ..., 255, 255, 255],
       [255, 255, 255, ..., 255, 255, 255]], dtype=uint8)
```

In [19]:
```
plt.title(f"This image Shape = {img_2_gray_inverse_with_white_background.shape}")
plt.imshow(img_2_gray_inverse_with_white_background, cmap='gray')
```

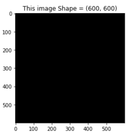
Out[19]: <matplotlib.image.AxesImage at 0x21189360580>



In [20]:
```
img_2_gray_inverse_with_all_three_channels = cv2.bitwise_or(img_2_gray_inverse_with_white_background,
                                                            img_2_gray_inverse_with_white_background,
                                                            img_2_gray_inverse)
```

In [21]:
```
plt.title(f"This image Shape = {img_2_gray_inverse_with_all_three_channels.shape}")
plt.imshow(img_2_gray_inverse_with_all_three_channels, cmap='gray')
```

Out[21]: <matplotlib.image.AxesImage at 0x211893dc550>



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