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Data Analytics Tasks

NAME : M.NIVETHITHAA

TASK 2 - Image to Pencil Sketch

DATA AUDIT

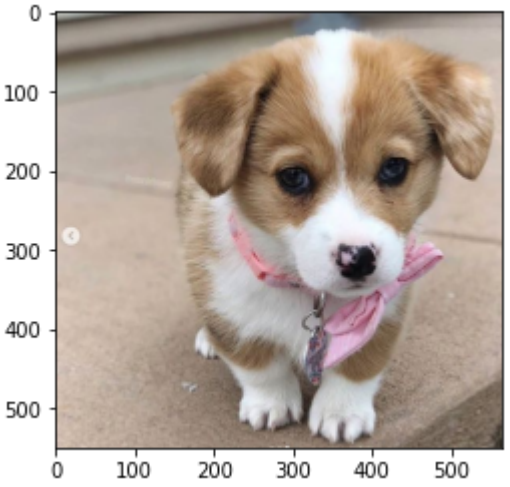
Importing Libraries

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

Reading Original Image

In [2]:
```
image = cv2.imread("Puppy.jpg")
plt.imshow(image[:,:,::-1])
```

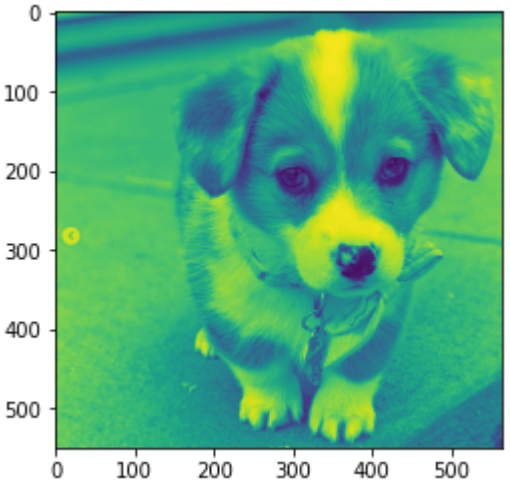
Out[2]: <matplotlib.image.AxesImage at 0x23c4ec060a0>



Converting original image to grayscale

In [3]:
```
gray_image = cv2.cvtColor(image,cv2.COLOR_BGR2GRAY)
plt.imshow(gray_image)
```

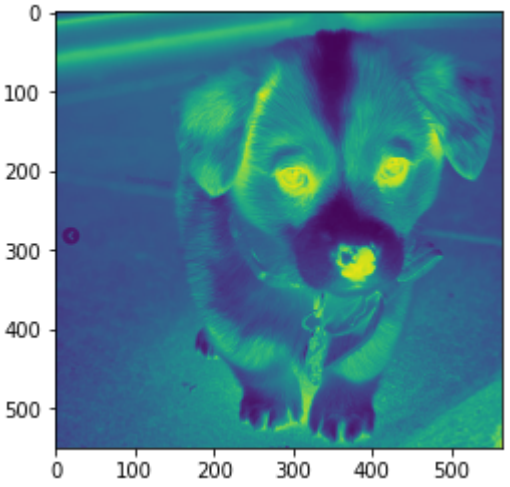
Out[3]: <matplotlib.image.AxesImage at 0x23c4ed022e0>



Inverting the grayscale image

In [4]:
```
inverted_image = cv2.bitwise_not(gray_image)
plt.imshow(inverted_image)
```

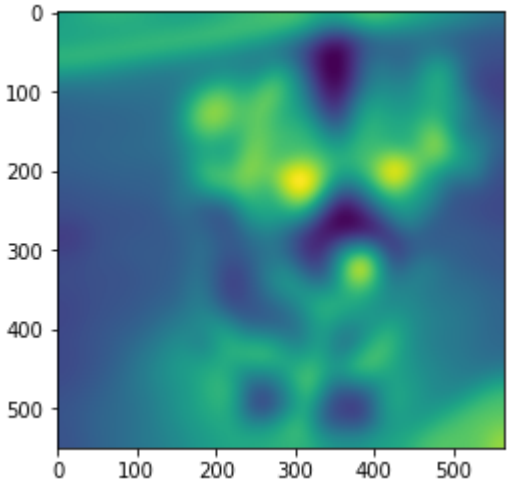
Out[4]: <matplotlib.image.AxesImage at 0x23c4ed6b220>



Blurring the image using Gaussian function

In [5]:
```
blurred = cv2.GaussianBlur(inverted_image, (111,111),0)
plt.imshow(blurred)
```

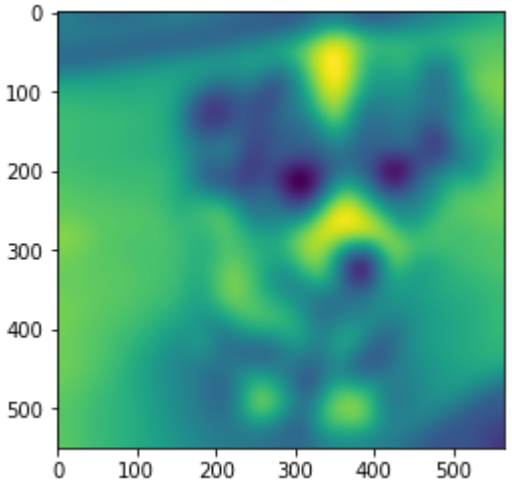
Out[5]: <matplotlib.image.AxesImage at 0x23c4edc5070>



Inverting the blurred image

In [6]:
```
inverted_blurred=cv2.bitwise_not(blurred)
plt.imshow(inverted_blurred)
```

Out[6]: <matplotlib.image.AxesImage at 0x23c4ee192e0>



Pencil Sketch

In [7]:
```
sketch_image=cv2.divide(gray_image,inverted_blurred, scale=256.0)
pencil_sketch=cv2.cvtColor(sketch_image, cv2.COLOR_BGR2RGB)
plt.imshow(pencil_sketch)
plt.axis('off')
plt.show()
```