In [8]:
```
!pip install opencv-python==4.8.0.74
```

```
Collecting opencv-python==4.8.0.74
  Downloading opencv_python-4.8.0.74-cp37-abi3-win_amd64.whl (38.1 MB)
     ---------------------------------------- 38.1/38.1 MB 5.3 MB/s eta 0:
00:00
Requirement already satisfied: numpy>=1.17.3 in c:\users\hp\anaconda3\lib
\site-packages (from opencv-python==4.8.0.74) (1.21.5)
Installing collected packages: opencv-python
  Attempting uninstall: opencv-python
    Found existing installation: opencv-python 4.8.1.78
    Uninstalling opencv-python-4.8.1.78:
      Successfully uninstalled opencv-python-4.8.1.78

ERROR: Could not install packages due to an OSError: [WinError 5] Access i
s denied: 'C:\\Users\\Hp\\anaconda3\\Lib\\site-packages\\~v2\\cv2.pyd'
Consider using the `--user` option or check the permissions.
```

In [14]:
```
import matplotlib.pyplot as plt
import numpy as np
import cv2
```

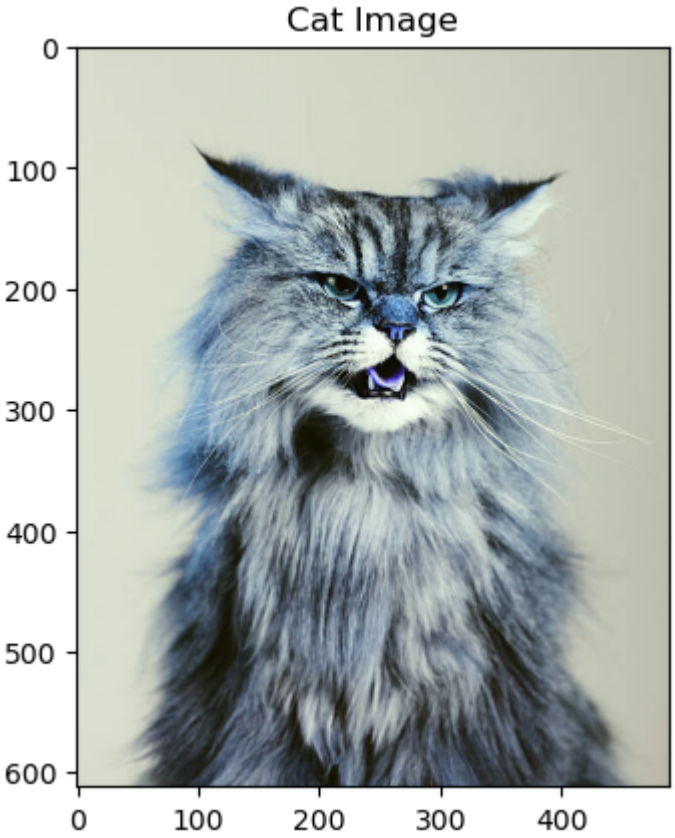
In [21]:
```
import os
print(os.path.exists(r"C:\Users\Hp\OneDrive\Pictures\Saved Pictures\cat.jpg
```

```
True
```

In [22]:
```
Picture = cv2.imread(r"C:\Users\Hp\OneDrive\Pictures\Saved Pictures\cat.jpg
```

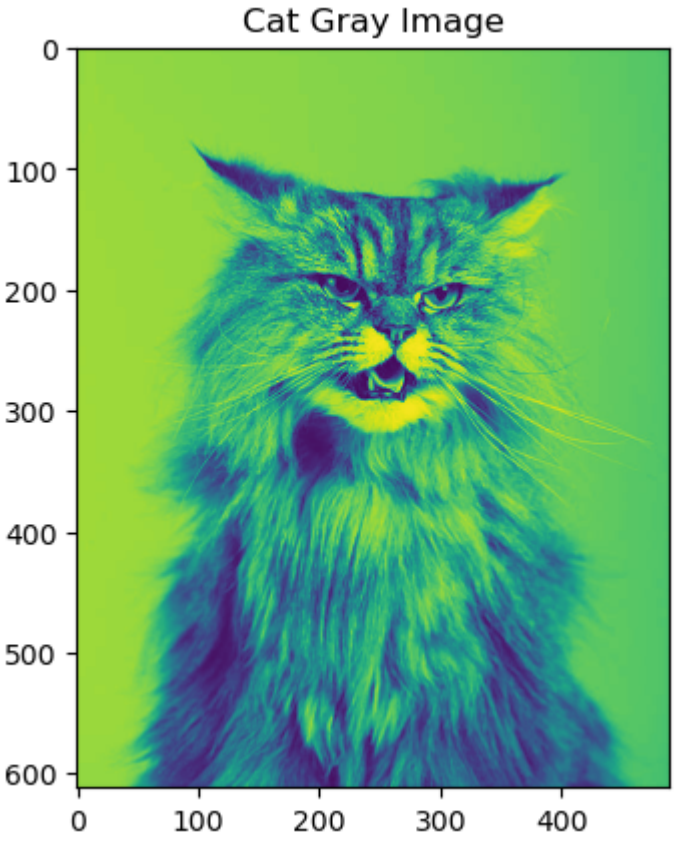
Plotting the image of cat

In [33]:
```
plt.title("Cat Image")
plt.imshow(Picture)
plt.show()
```



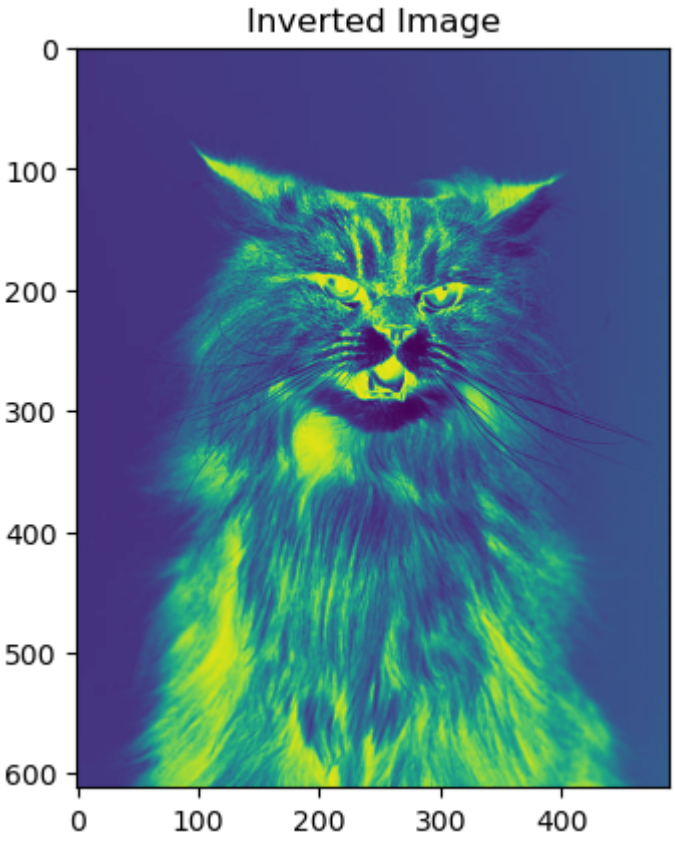
Gray Image

In [24]:
```
gray_Picture = cv2.cvtColor(Picture,cv2.COLOR_BGR2GRAY)
plt.title("Cat Gray Image")
plt.imshow(gray_Picture)
plt.show()
```



Inverted image

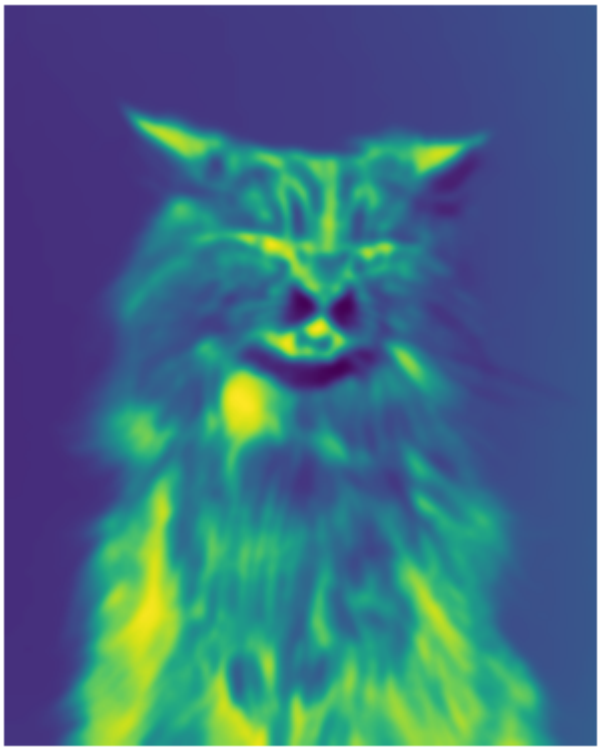
In [30]:
```
inverted_image = 255- gray_Picture
plt.title("Inverted Image")
plt.imshow(inverted_image)
plt.show()
```



Converting Image to blur Image

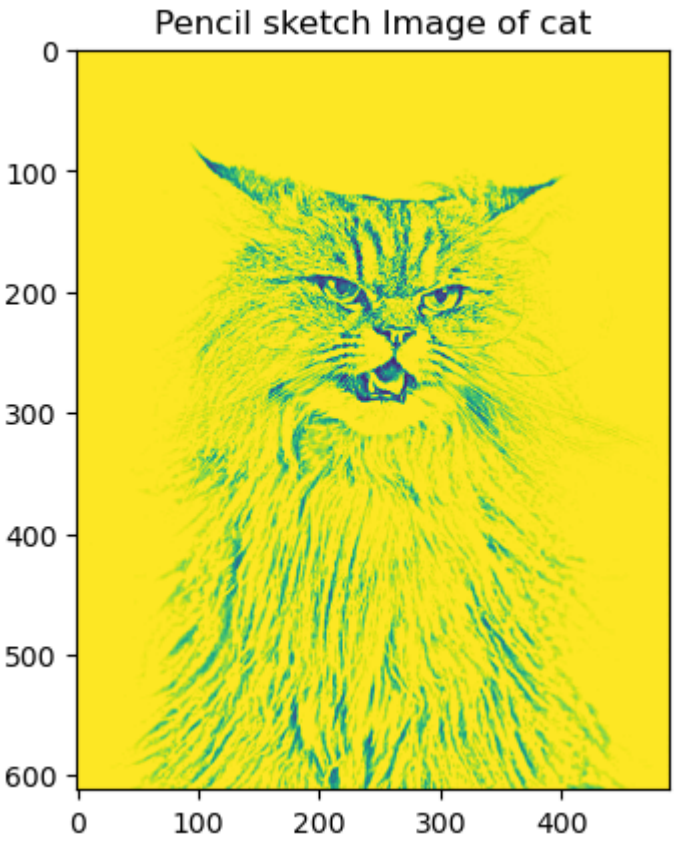
In [34]:
```
blurred = cv2.GaussianBlur(inverted_image, (21,21), 0)
```

In [39]:
```
plt.imshow(blurred)
plt.axis(False)
plt.show()
```



Invert the blur image and converting it into pencil sketch

In [37]:
```
inverted_blurred = 255 - blurred
pencil_sketch = cv2.divide(gray_Picture,inverted_blurred,scale=256.0)
plt.title("Pencil sketch Image of cat")
plt.imshow(pencil_sketch)
plt.show()
```



In [47]:
```
plt.figure(figsize=(14,8))
plt.subplot(1,2,1)
plt.title('original image',size=25)
plt.imshow(Picture)
plt.axis('off')
plt.subplot(1,2,2)
plt.title('sketch',size=25)
rgb_sketch=cv2.divide(gray_Picture,inverted_blurred,scale=256.0)
plt.imshow(rgb_sketch)
plt.axis('off')
plt.show()
```