```
!pip install opencv-python
```

```
Requirement already satisfied: opencv-python in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: numpy>=1.21.2 in /usr/local/lib/python3.10/dist-packages
```

Loads image in **Coloured mode**

```
from google.colab.patches import cv2_imshow
import cv2


path = r'/Iron man.jpg'

image_1 = cv2.imread(path,1)
cv2_imshow(image_1)
cv2.destroyAllWindows()
print(image_1)
```


```
[[[ 16   7   3]
  [ 16   7   3]
  [ 16   7   3]
  ...
  [ 26  16   6]
  [ 26  16   6]
  [ 26  16   6]]

 [[ 16   7   3]
  [ 16   7   3]
  [ 16   7   3]
  ...
  [ 26  16   6]
  [ 26  16   6]
  [ 26  16   6]]

 [[ 17   8   4]
  [ 17   8   4]
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  ...
  [ 26  16   6]
  [ 26  16   6]
  [ 26  16   6]]

 ...

 [[ 18  15  10]
  [ 18  15  10]
  [ 18  15  10]
  ...
  [ 97  92  77]
  [ 97  92  77]
  [ 96  91  76]]

 [[ 17  14   9]
  [ 17  14   9]
  [ 17  14   9]
  ...
  [ 99  94  79]
  [ 98  93  78]
  [ 98  93  78]]
```

```
[[ 16  13   8]
 [ 16  13   8]
 [ 16  13   8]
 ...
 [101  96  81]
 [100  95  80]
 [100  95  80]]]
```

Loads image in **Grayscale mode**

Start coding or generate with AI.

```
image_2 = cv2.imread(path,0)
cv2_imshow(image_2)
cv2.destroyAllWindows()
print(image_2)
```


```
[[ 7  7  7 ... 14 14 14]
 [ 7  7  7 ... 14 14 14]
 [ 8  8  8 ... 14 14 14]
 ...
 [14 14 14 ... 88 88 87]
 [13 13 13 ... 90 89 89]
 [12 12 12 ... 92 91 91]]
```

Loads image as **Unchanged**

```
image_3 = cv2.imread(path,1)
image_3 = cv2.resize(image_3,(500,500))
cv2_imshow(image_3)
cv2.destroyAllWindows()
print(image_2)
```


```
[[ 7  7  7 ... 14 14 14]
 [ 7  7  7 ... 14 14 14]
 [ 8  8  8 ... 14 14 14]
 ...
 [14 14 14 ... 88 88 87]
 [13 13 13 ... 90 89 89]
 [12 12 12 ... 92 91 91]]
```

Image **Resizing**

```
image_4 = cv2.imread(path,-1)
image_4 = cv2.resize(image_3,(1280,700))
cv2_imshow(image_4)
cv2.destroyAllWindows()
print(image_4)
```


```
[[[ 16   7   3]
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  [ 16   7   3]
  ...
  [ 26  16   6]
  [ 26  16   6]
  [ 26  16   6]]

 [[ 16   8   4]
  [ 16   8   4]
  [ 16   8   4]
  ...
  [ 26  16   6]
  [ 26  16   6]
  [ 26  16   6]]

 [[ 16   8   4]
  [ 16   8   4]
  [ 16   8   4]
  ...
  [ 26  16   6]
  [ 26  16   6]
  [ 26  16   6]]

 ...

 [[ 18  15  10]
  [ 18  15  10]
  [ 18  15  10]
  ...
  [ 98  93  79]
  [ 97  92  78]
  [ 97  91  77]]

 [[ 17  13   9]
```

```
        [ 17  13   9]
        [ 17  13   9]
        ...
        [100  95  80]
        [ 98  94  79]
        [ 98  93  79]]

       [[ 16  13   8]
        [ 16  13   8]
        [ 16  13   8]
        ...
        [101  96  81]
        [100  95  80]
        [100  95  80]]]
```

Image conversion project **colored image into grayscale**

```
path = input("Enter the Path and name of an image===")
print("You Enter this===",path)

path_1 = r'/Iron man.jpg'
#Now read image
img_5 = cv2.imread(path_1,0) #convert image into grayscale
img_5 = cv2.resize(img_5,(560,700))
img_5 = cv2.flip(img_5,0)#it accept 3 parameters 0,-1,1
cv2_imshow(img_5)
k = cv2.waitKey(0) & 0xFF
if k == ord("q"):
```