Explianation:

The color difference arises because OpenCV uses BGR as its default color format, whereas Matplotlib expects RGB. The solution is to convert the image from BGR to RGB before displaying it with Matplotlib.

**OpenCV**, by default, reads images in BGR order, which means that:

* The first channel represents **Blue**.
* The second channel represents **Green**
* The third channel represents **Red**

**Matplotlib**, on the other hand, expects images in **RGB** format:

* The first channel represents **Red**.
* The second channel represents **Green**.
* The third channel represents **Blue**

If you load an image with OpenCV (in BGR format) and directly plot it using Matplotlib (which expects RGB), the colors will be mixed up:

* What should be **Red** (R) will appear as **Blue** (B).
* What should be **Blue** (B) will appear as **Red** (R).

**Solution:** Converting from **BGR** to **RGB**

* To fix the color issue, you need to **convert the image from BGR to RGB** before displaying it with Matplotlib. This can be done using the cv2.cvtColor function in OpenCV.