**Image processing & Machine Vision**

**Assignment Report**

**Assignment - I**

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**Content**

1. Question 01
2. Question 02
3. Question 03
4. Question 04
5. Question 05
6. Question 06
7. Question 07
8. Question 08
9. GitHub link

**Question 01A screenshot of a computer program

Description automatically generated**

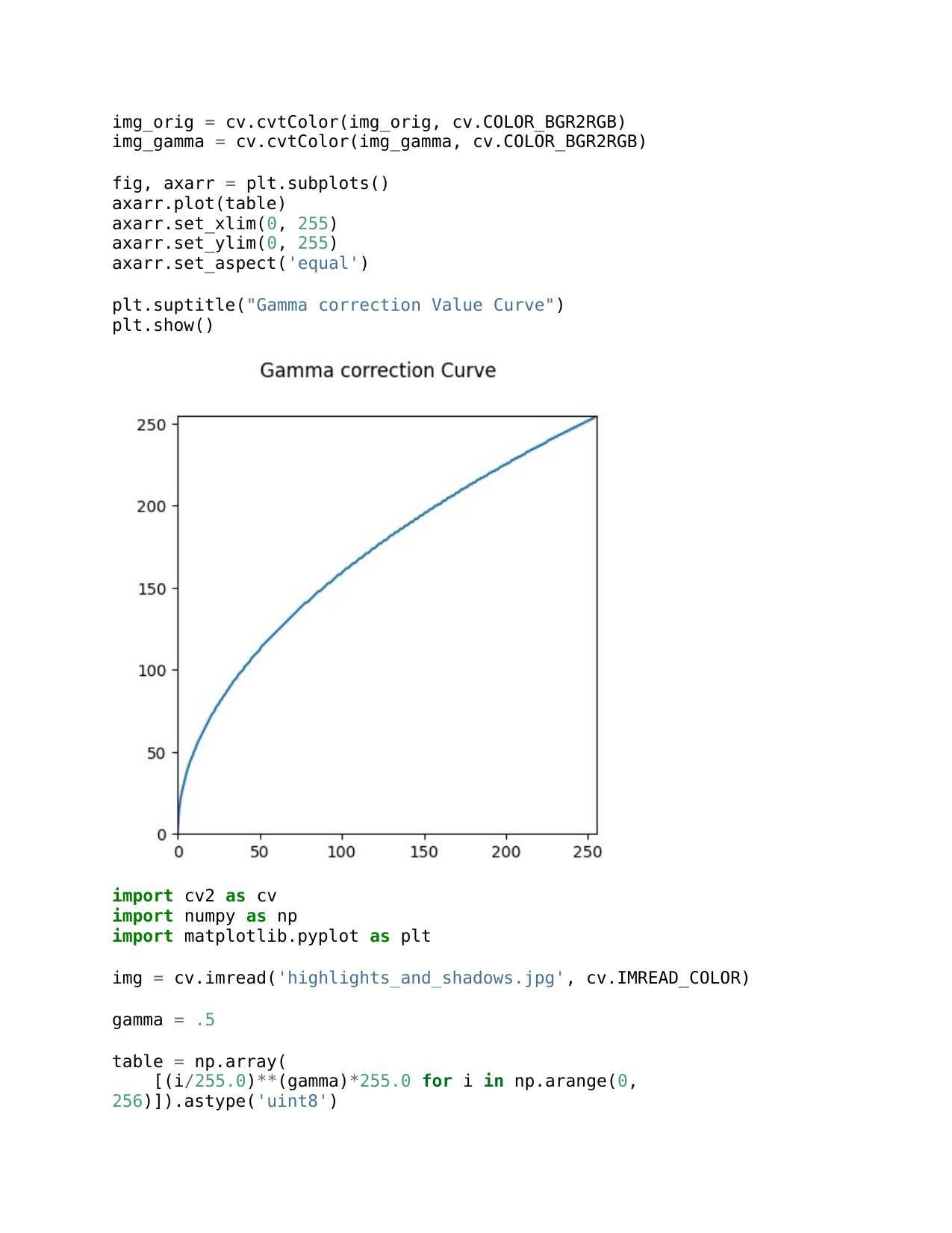
**A person smiling and a graph

Description automatically generated**

**Question 02**

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a.

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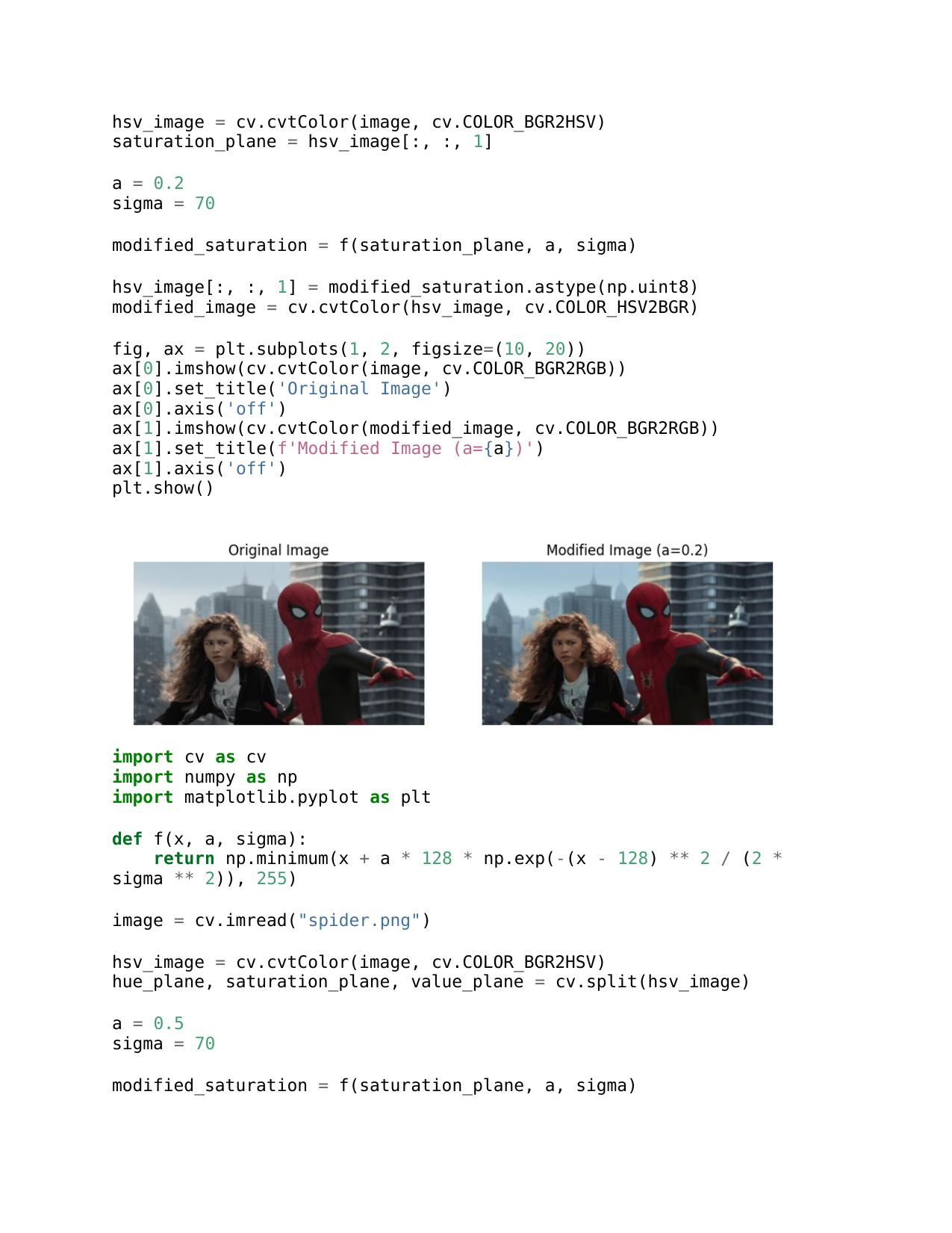
b...

**Question 03A screenshot of a computer program

Description automatically generated**

a.

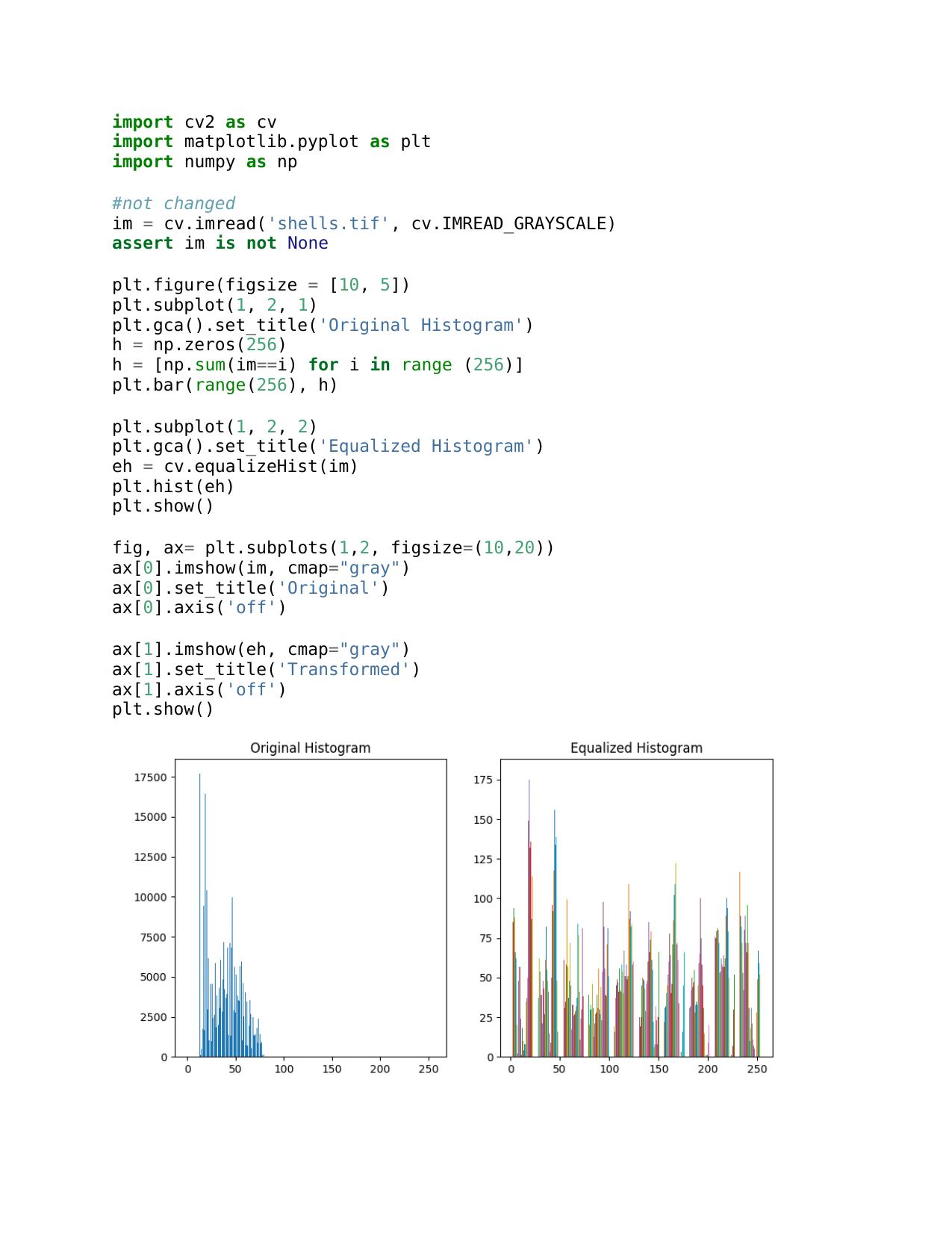
b...

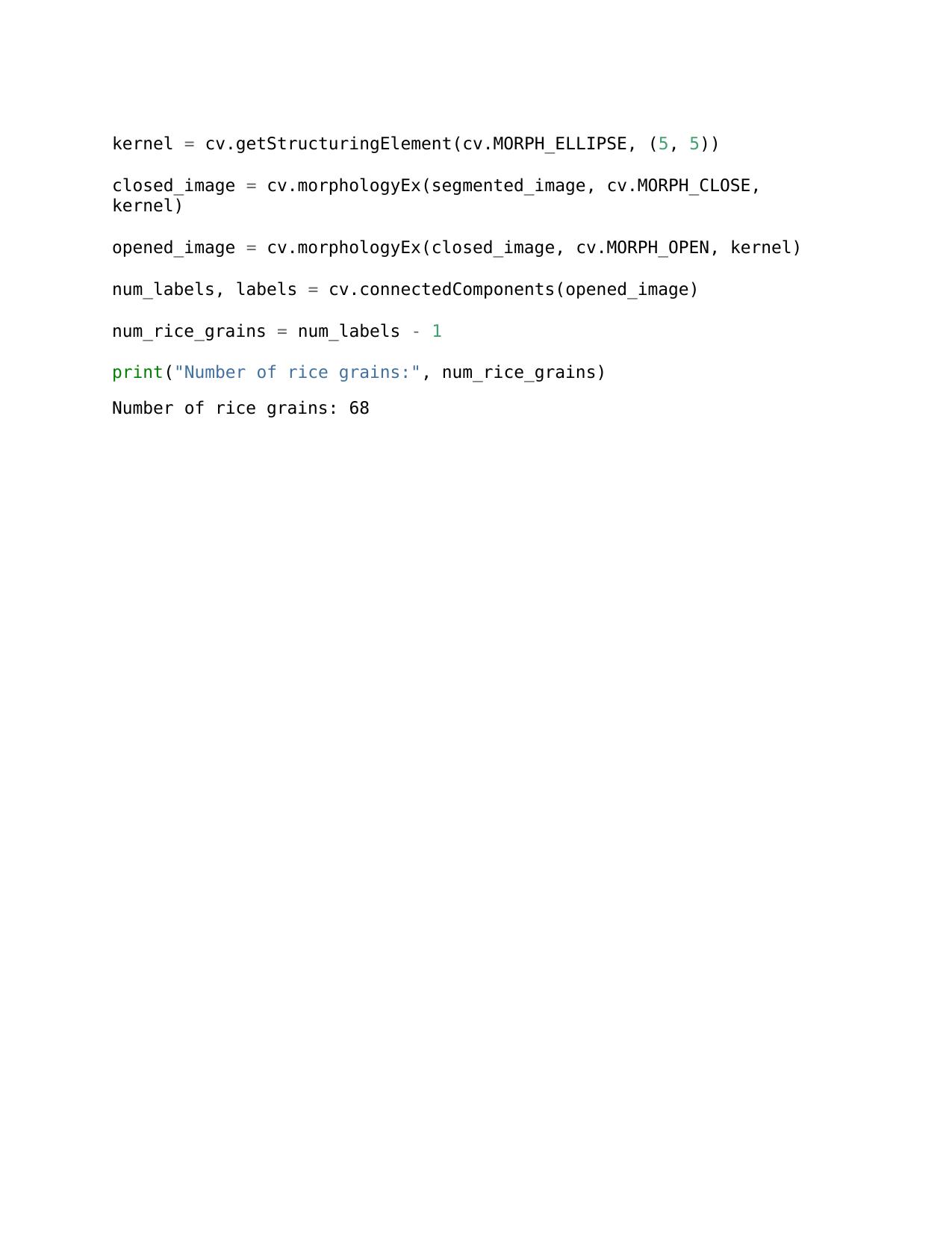
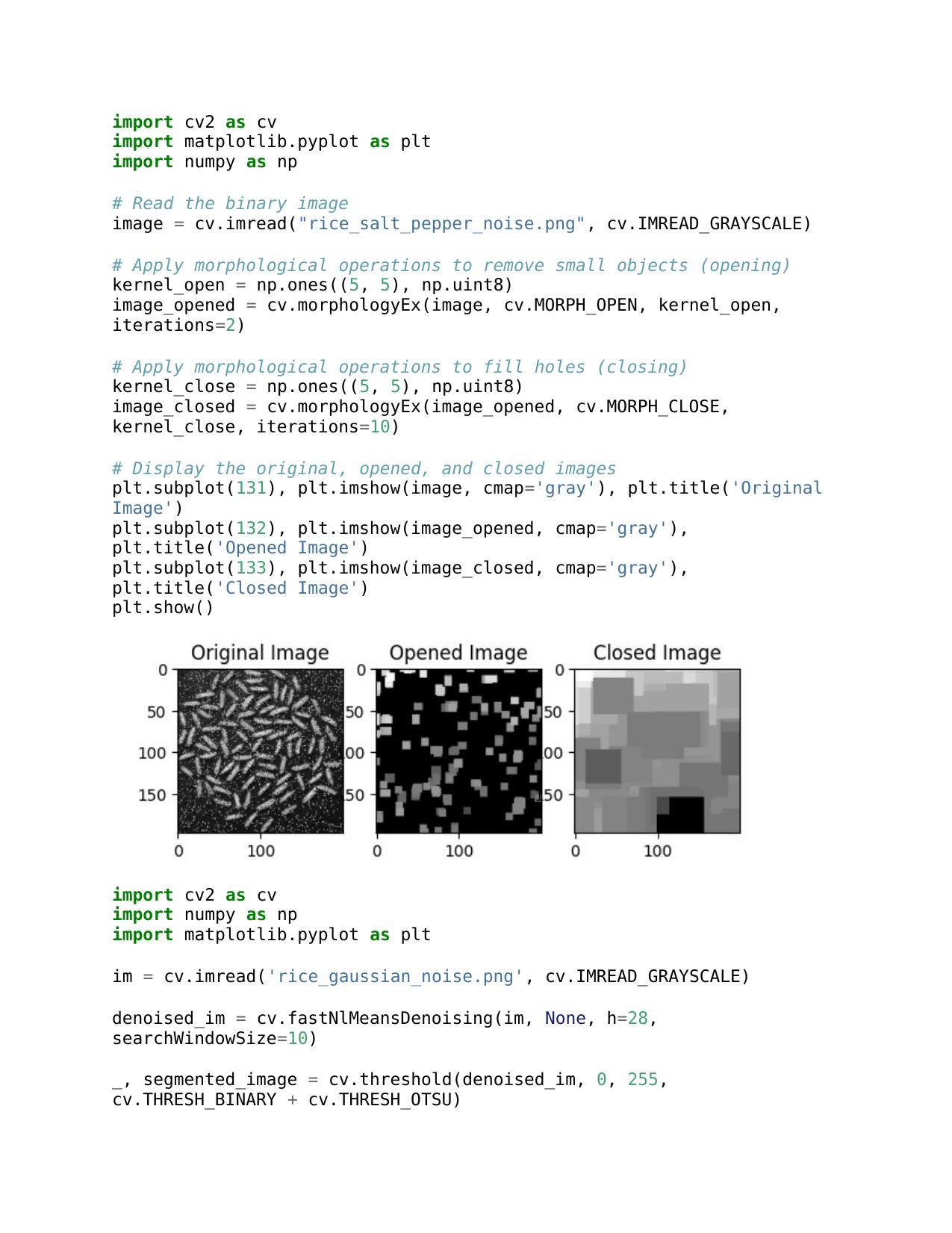
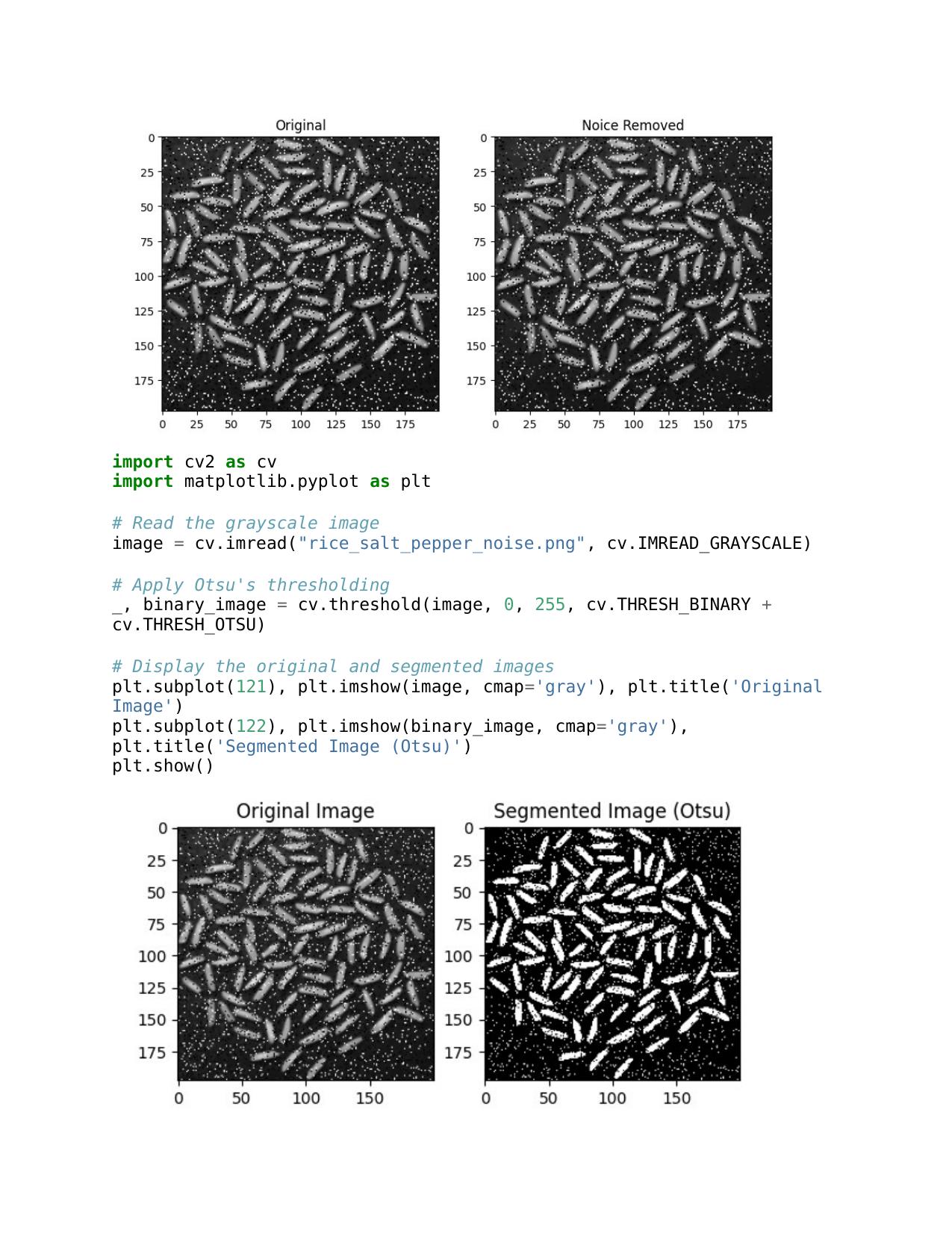
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c.

d.

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**Question 04**

**Question 05**

b.

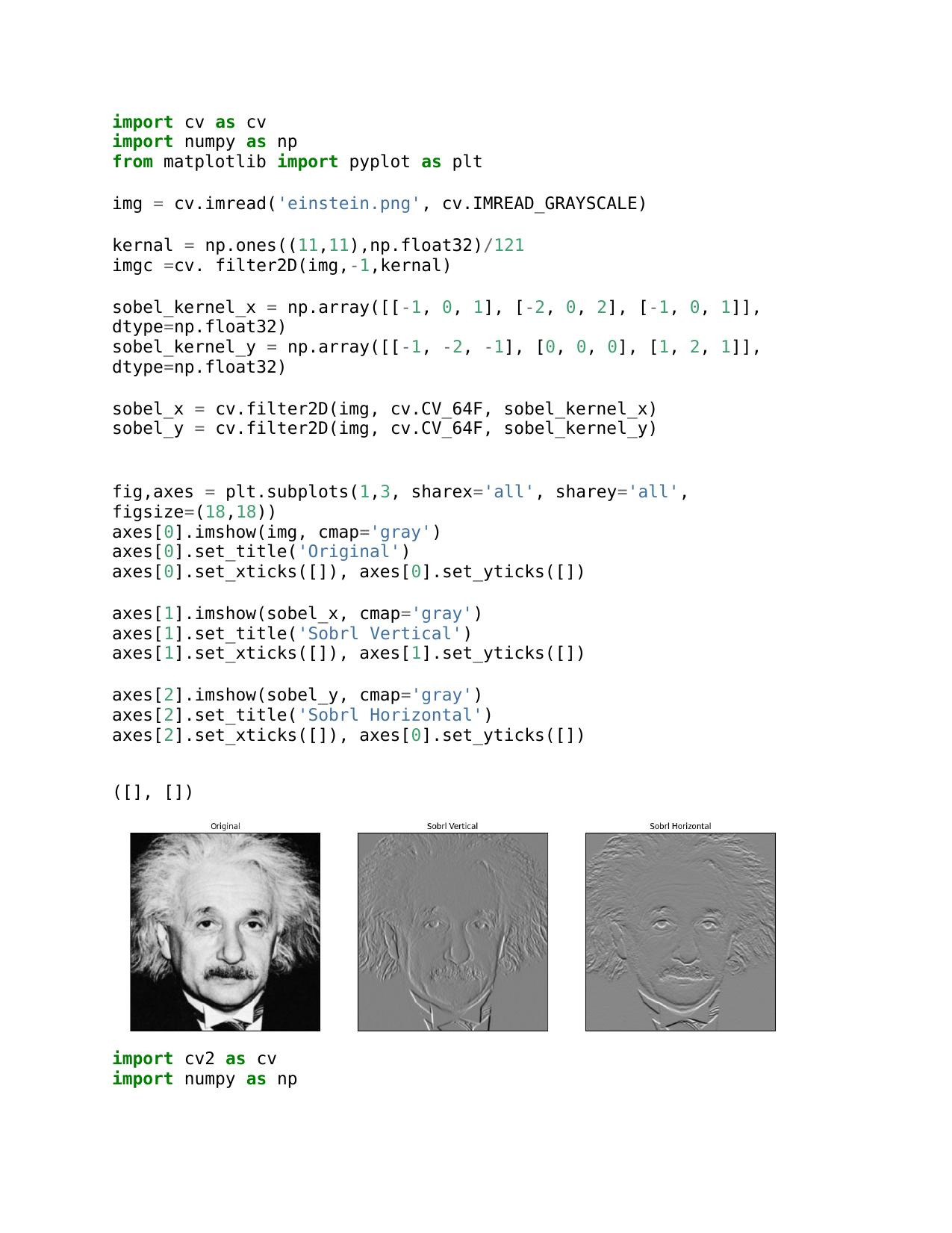
a.

c.

e.

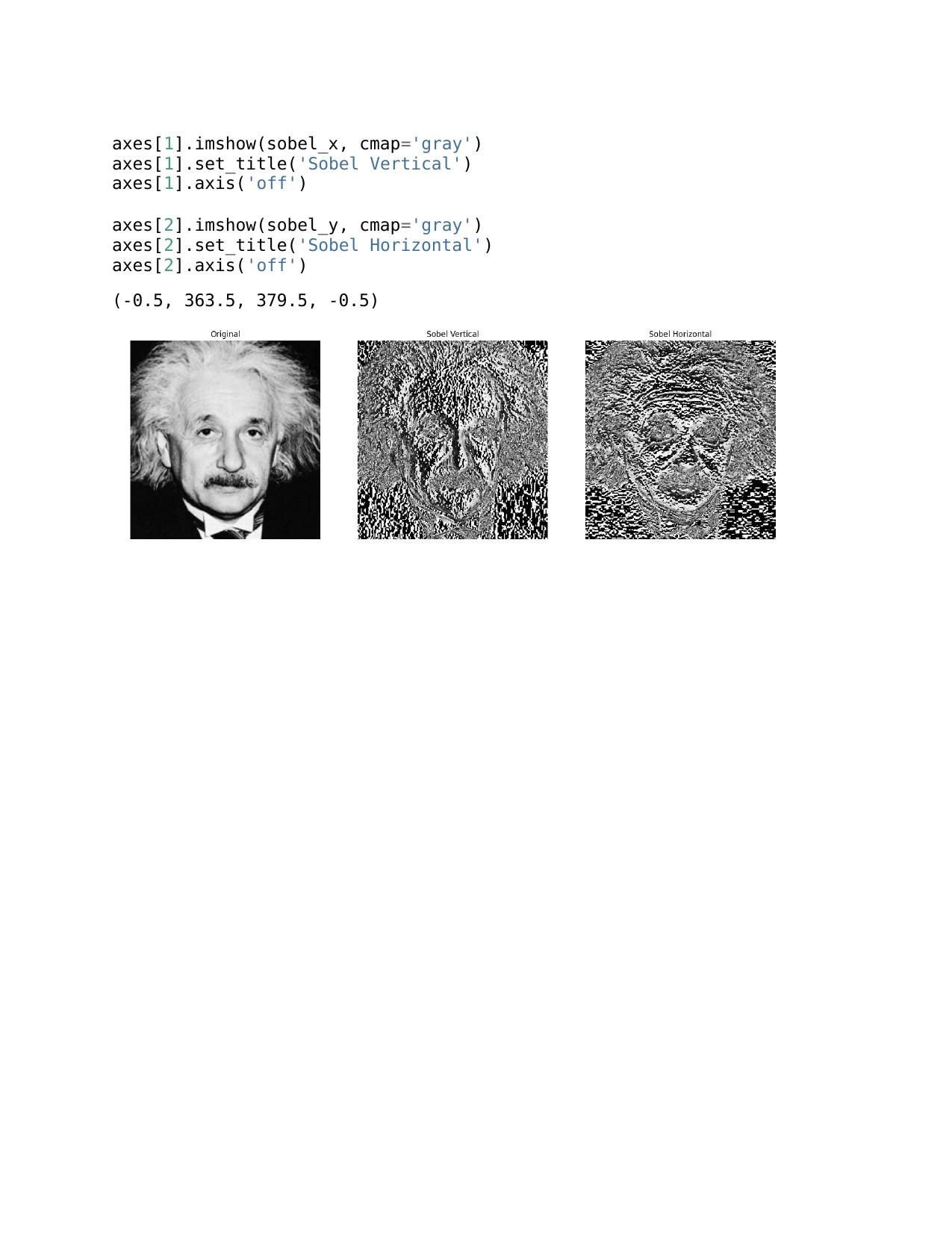
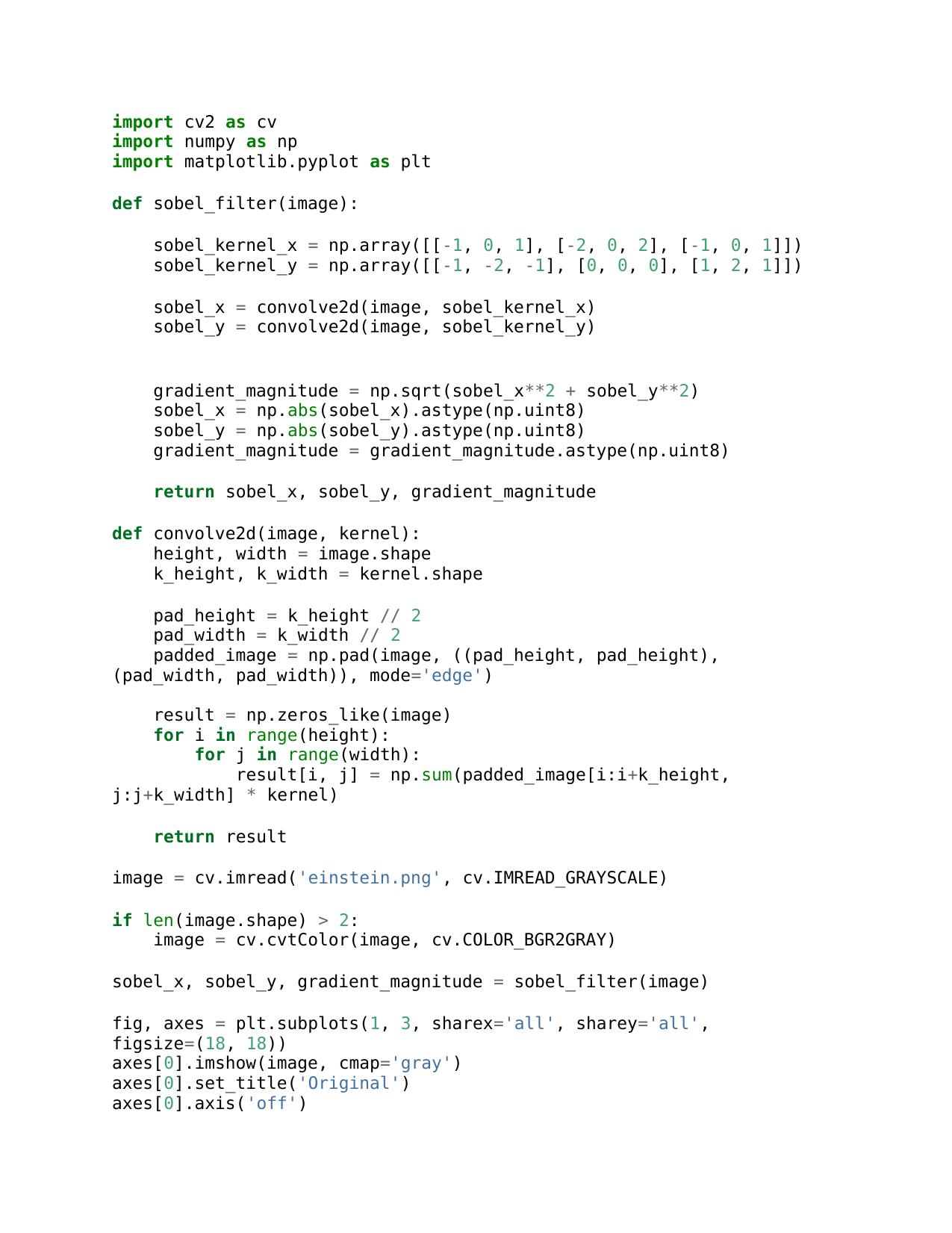
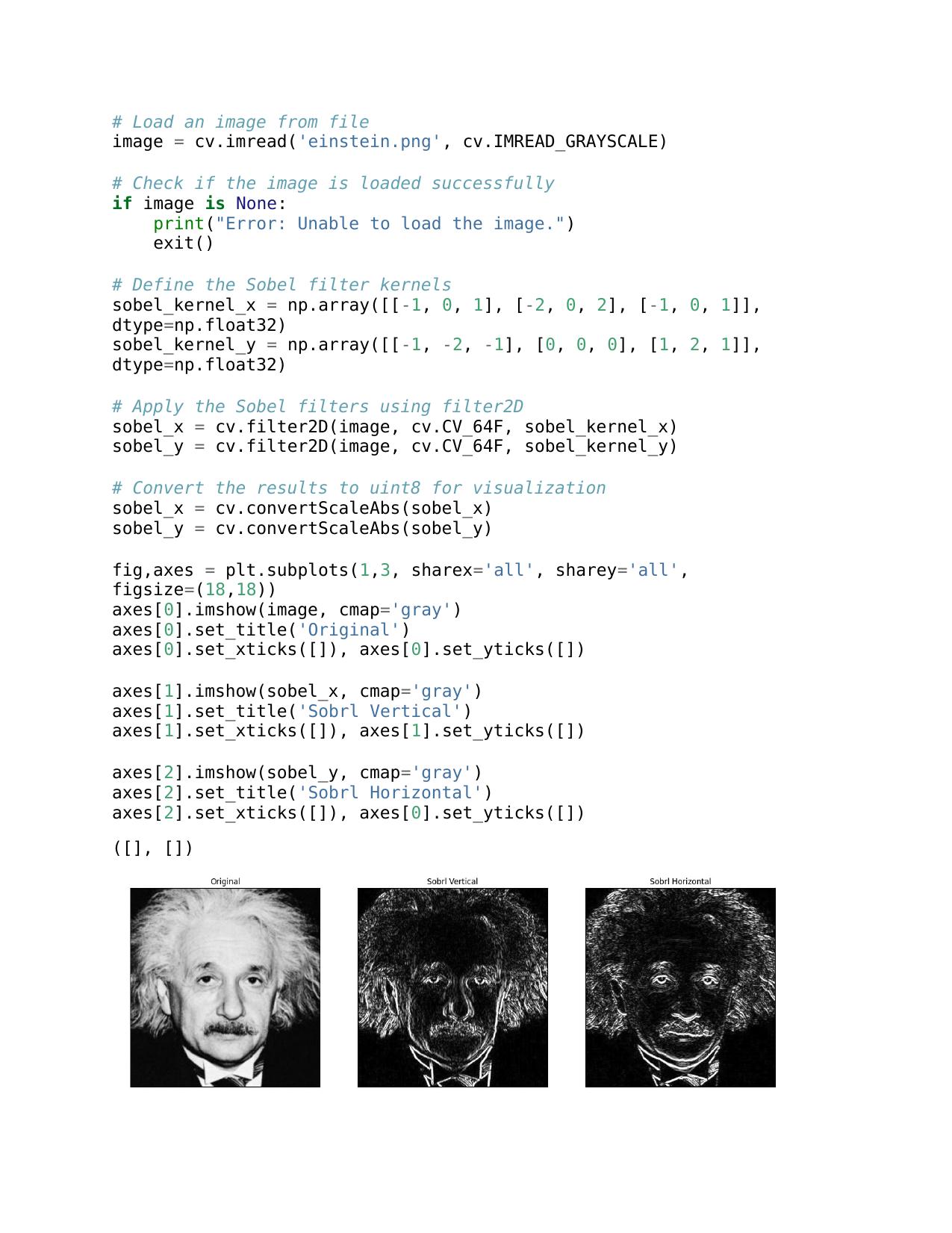
d.

**Question 06**

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b..

a.

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c.

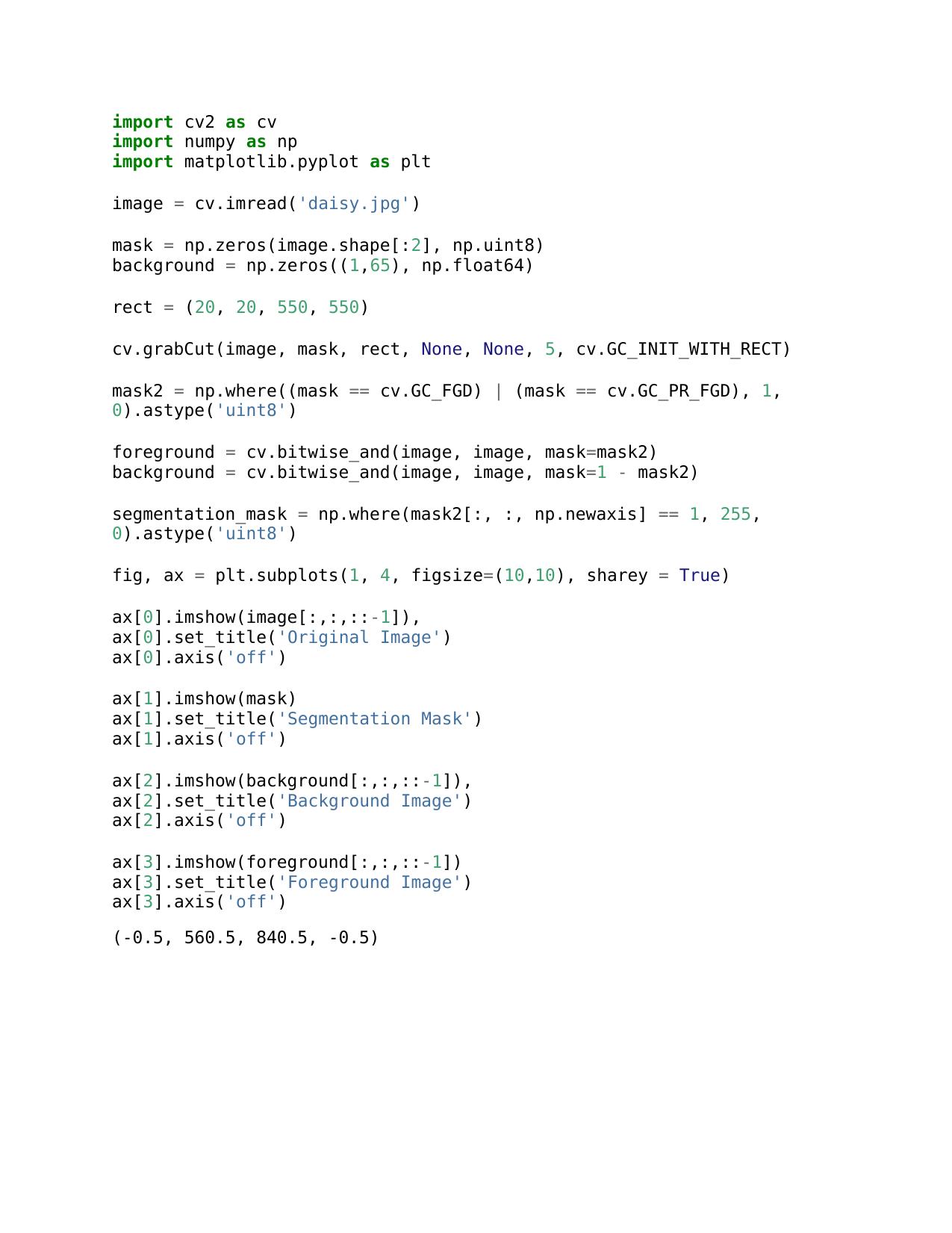
**Question 07**

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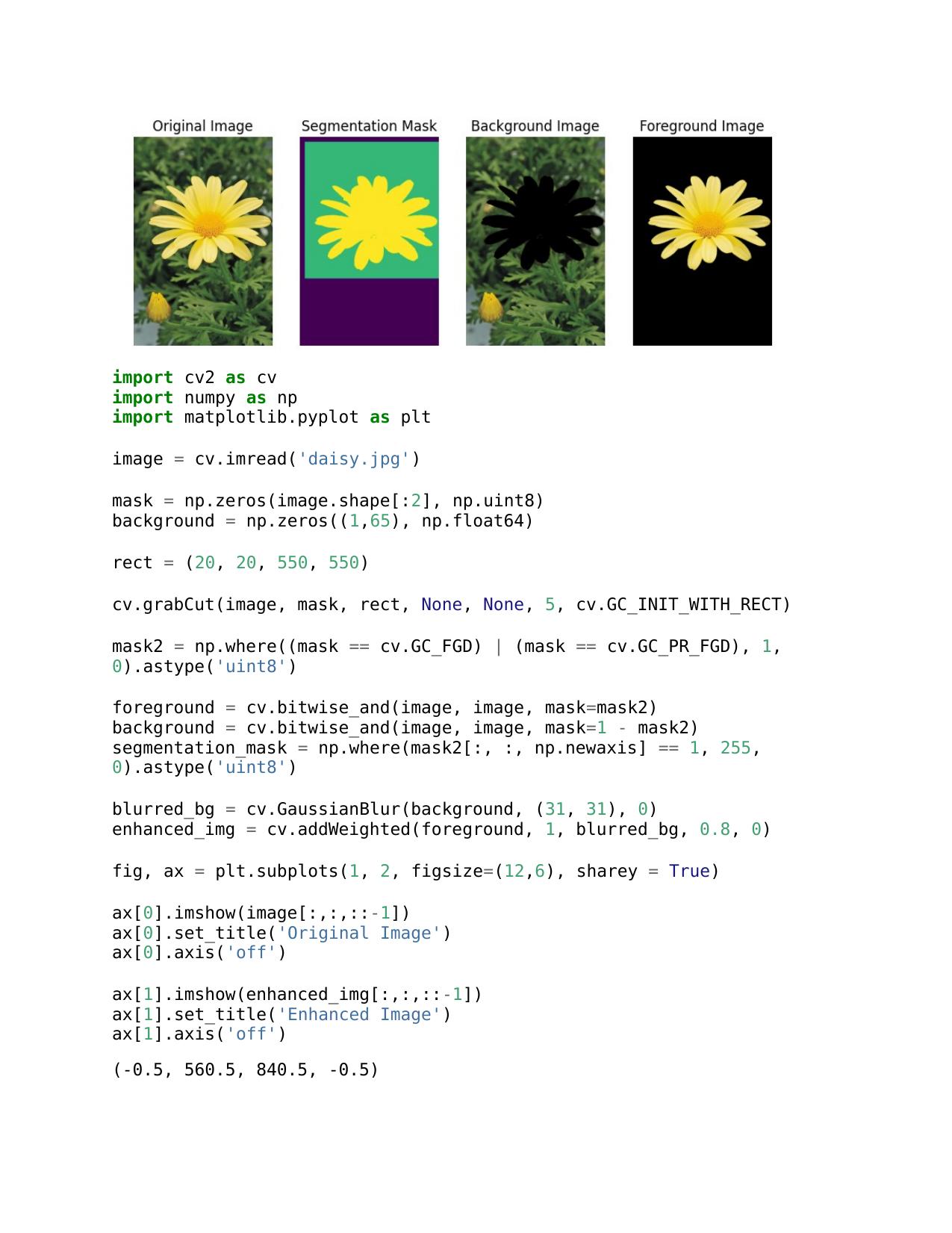
a.

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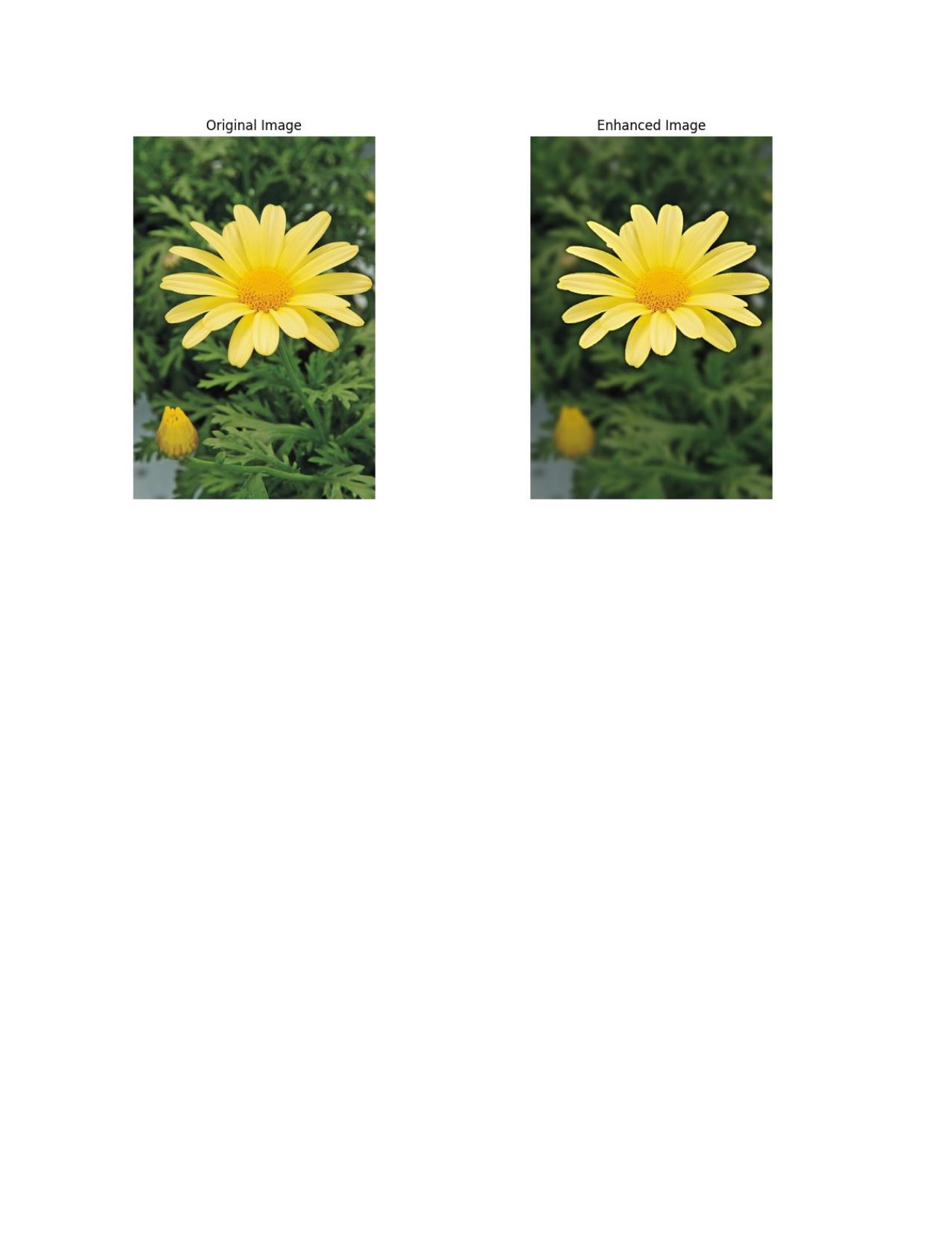
b.

**Question 08**

a.

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b.

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**c.** The improved image's darker backdrop, which extends over the margin of the flower, is mostly the outcome of a Gaussian blur applied to the background. The image is first divided into foreground (flower) and background using Grab Cut. The background is then smoothed using a Gaussian blur with a (15, 15) kernel. The backdrop appears darker because of this smoothing effect, which averages pixel values. The final improved image is produced by combining the sharp foreground with the blurred backdrop. The degree of blurring and the ensuing darkness in the backdrop can be altered by varying certain parameters, such as the kernel size.

**GitHub Link**

<https://github.com/Sandeepa0/Image-Processing.git>