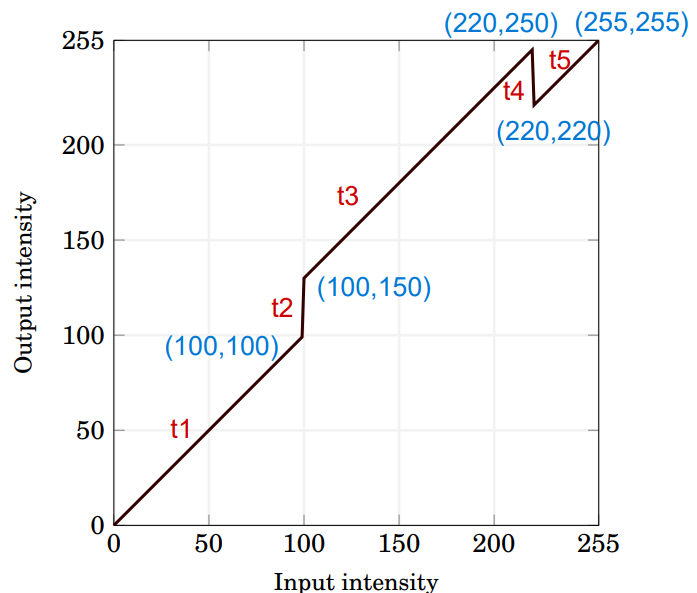
**Assignment 1 – Image Processing and Machine Vision**

**ET31122023**

**PM Yakupiyiyage D/ENG/21/0068/EE**

1. Implement the intensity transformation depicted in Fig. 1a on the natasha\_grayscale image.



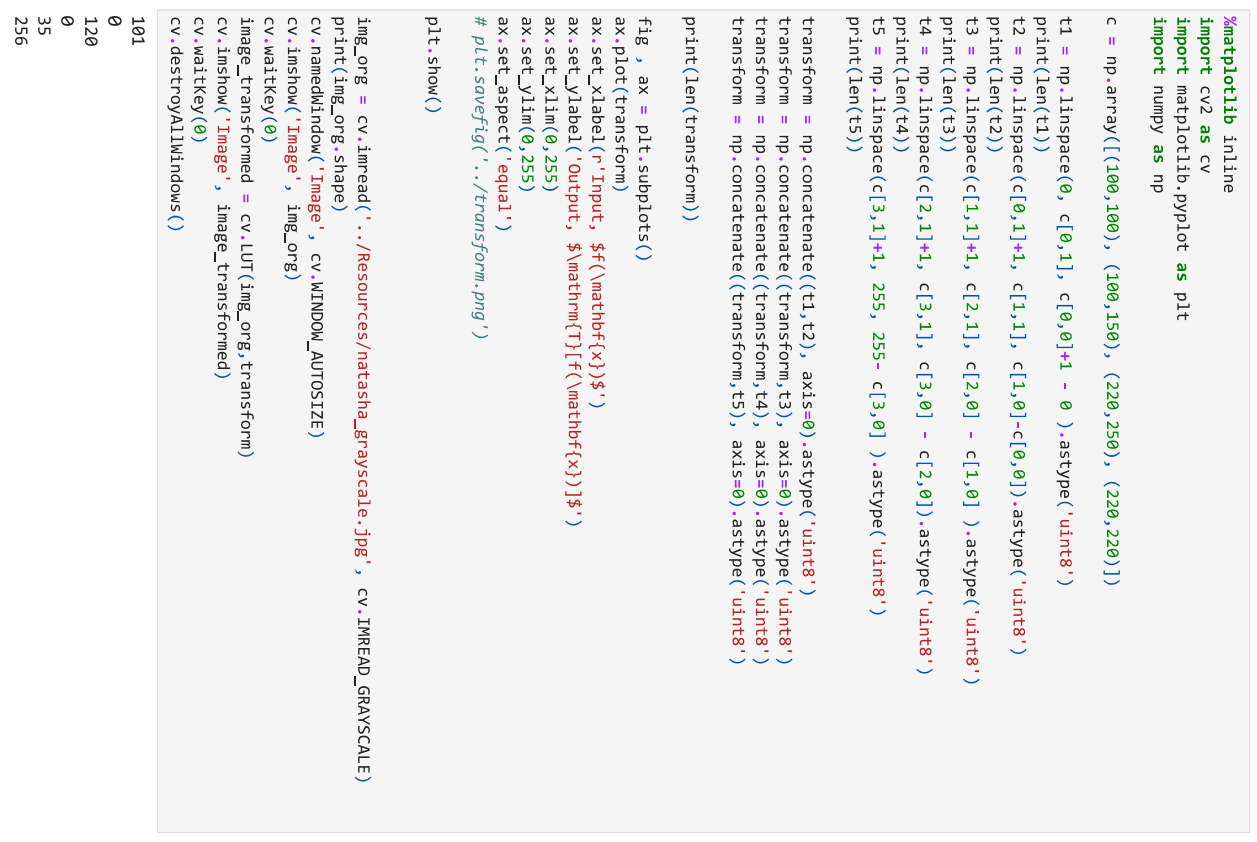
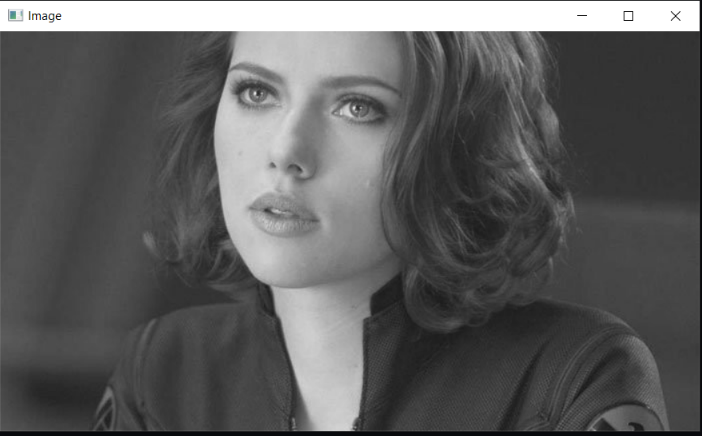
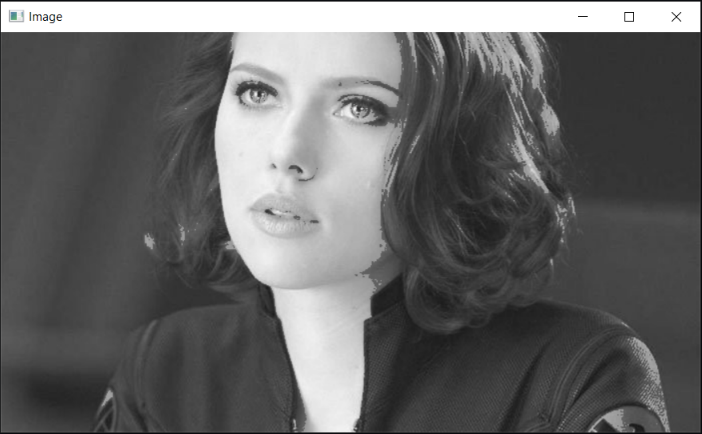
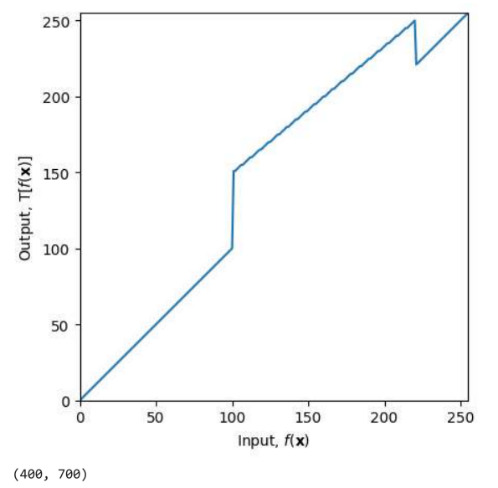


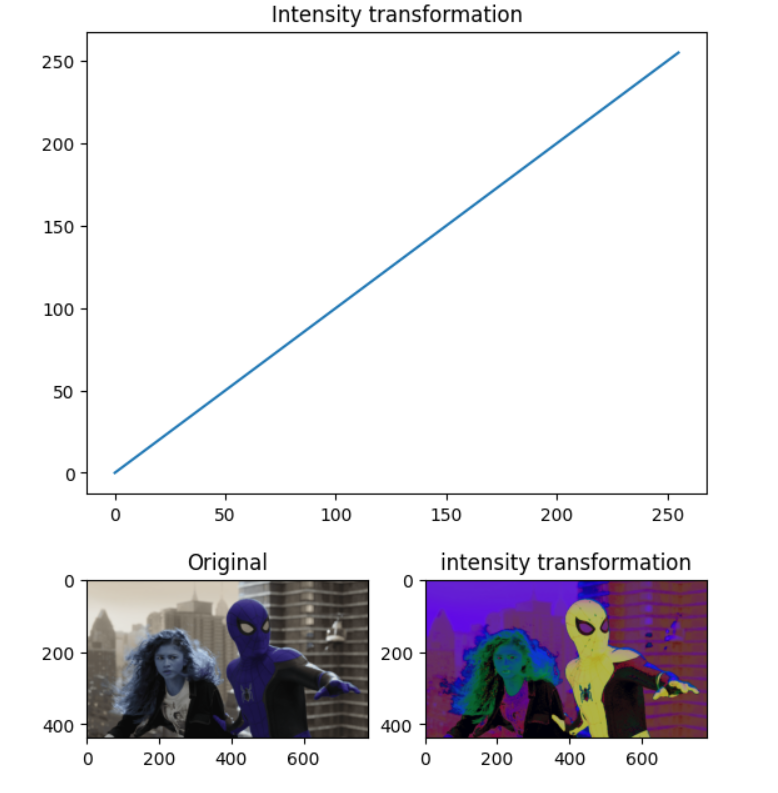
Fig. 1a

Given image

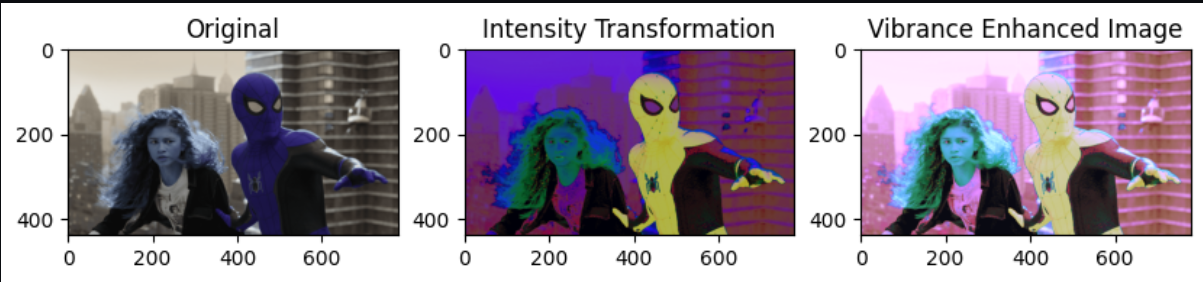
After intensity transformation



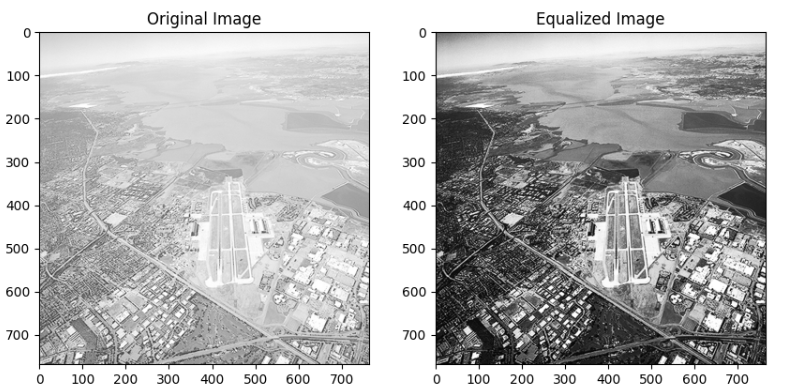
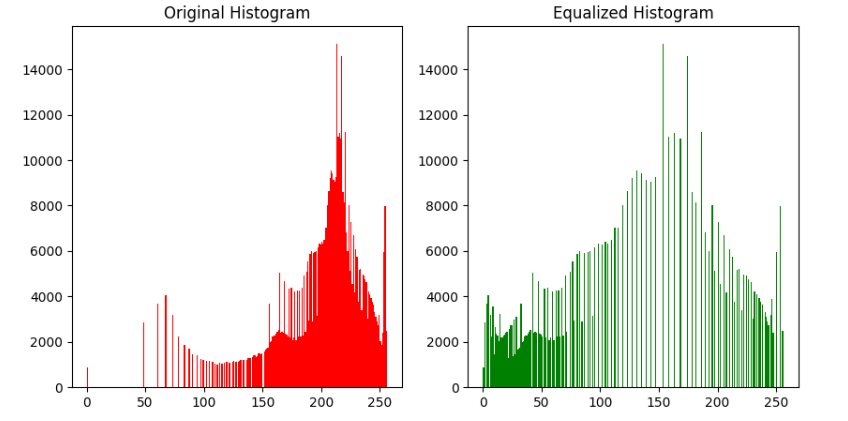
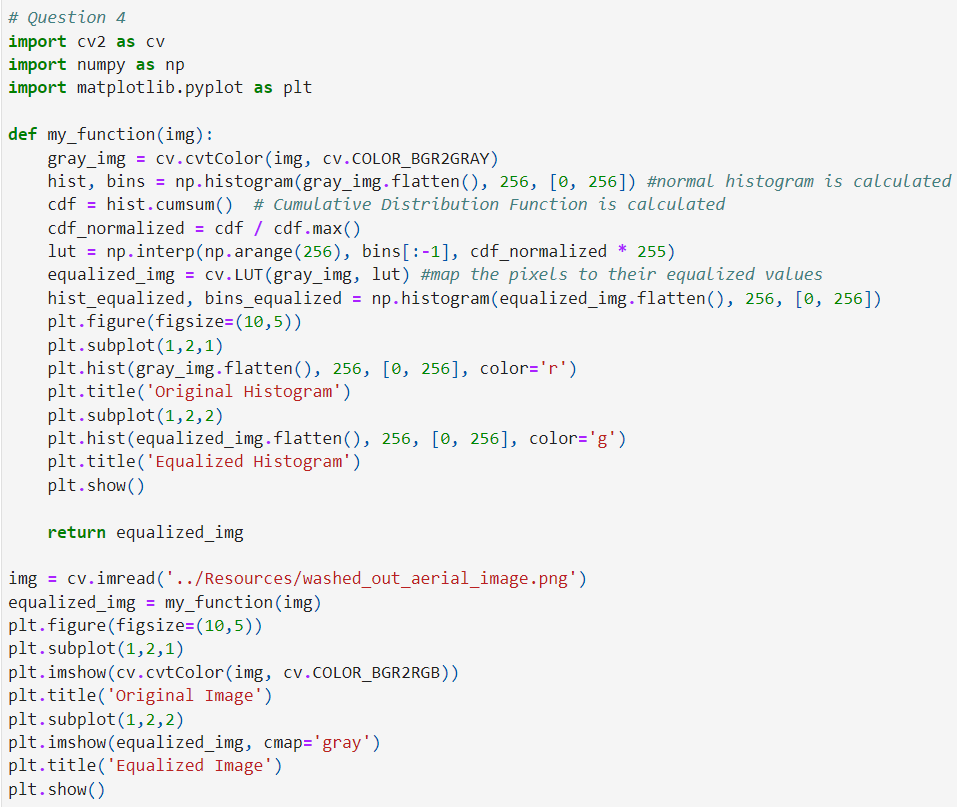
Question 2

* 1. Splitting image
  2.  Apply transform to saturation plane c. Value of ‘a’

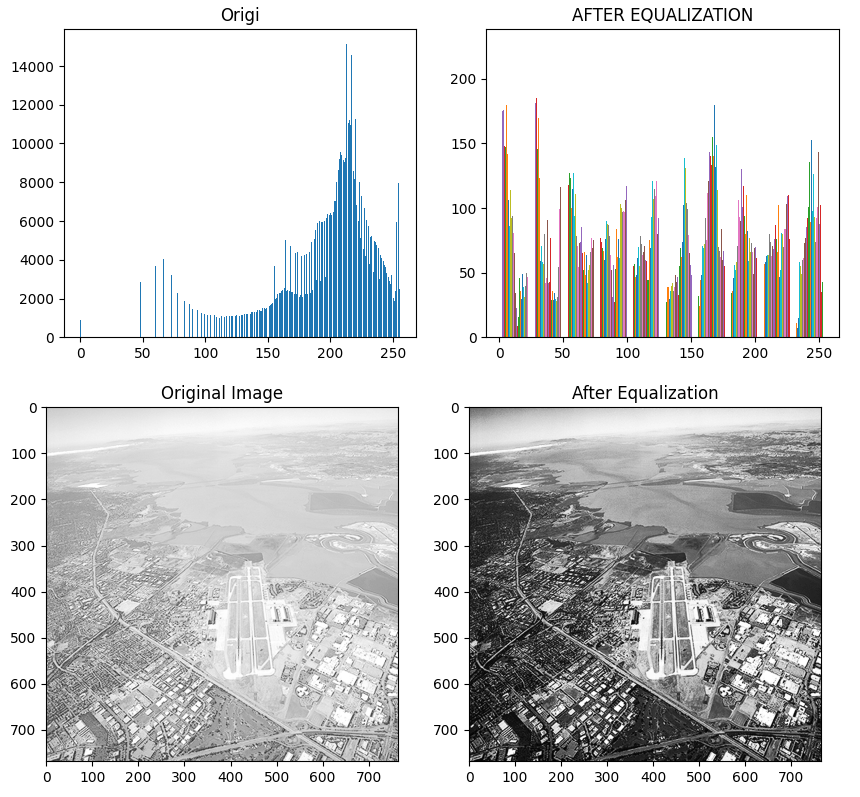
value of a = 0.1

* 1. Original vs Intensity transformed vs Vibrance Enhanced

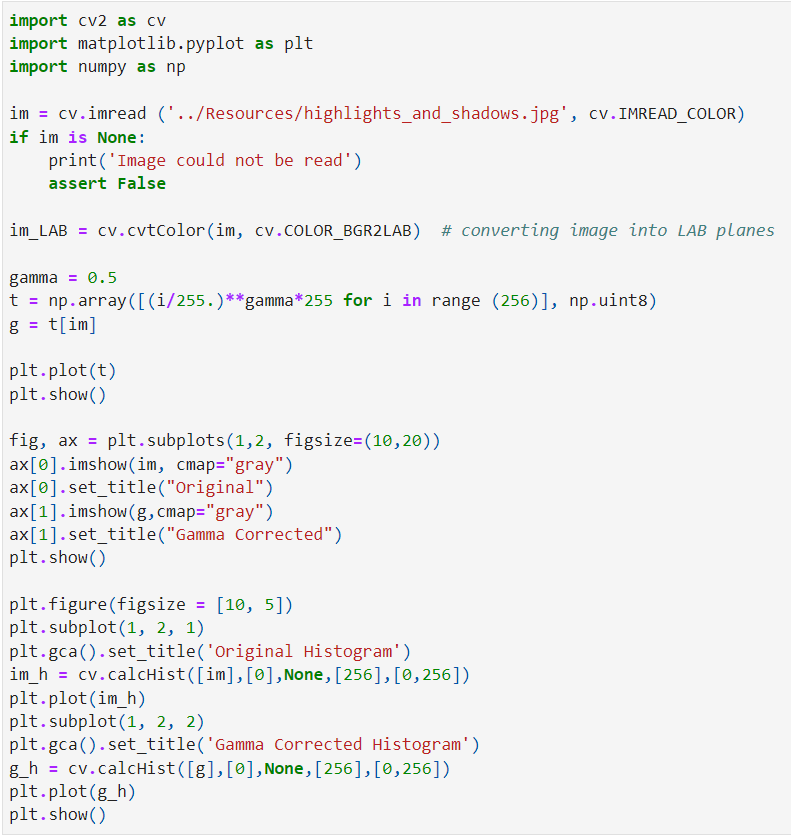
Question 4

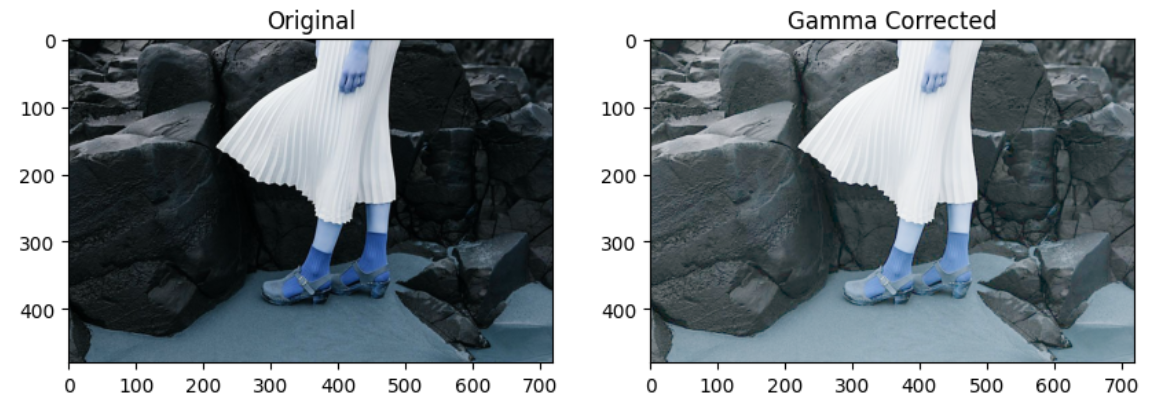
1. Manual method
2. Using an inbuilt function

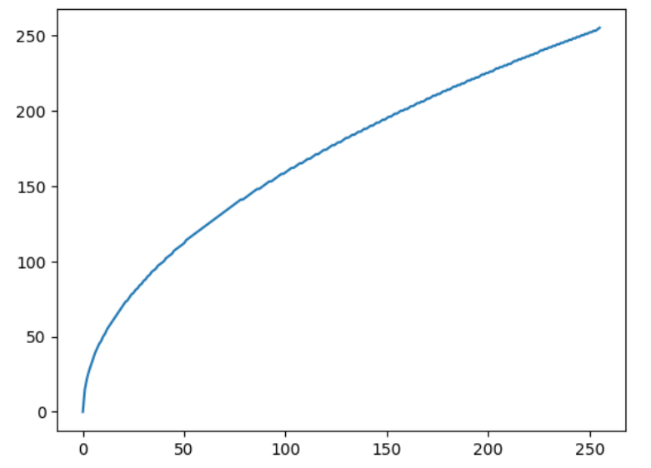
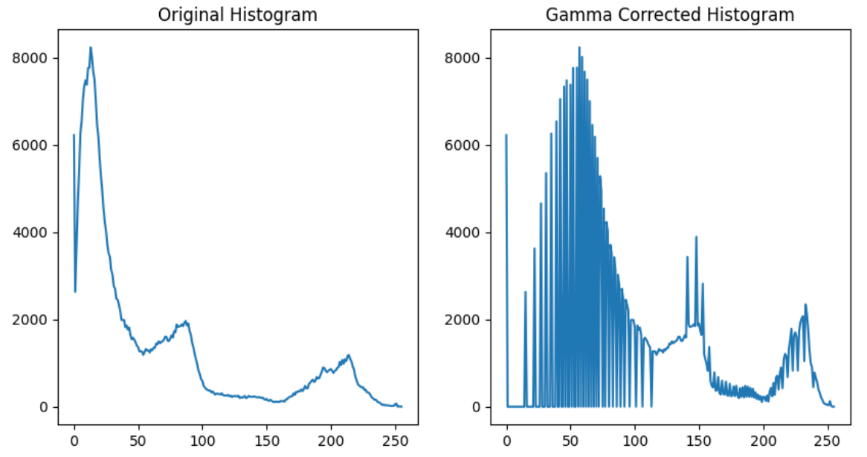




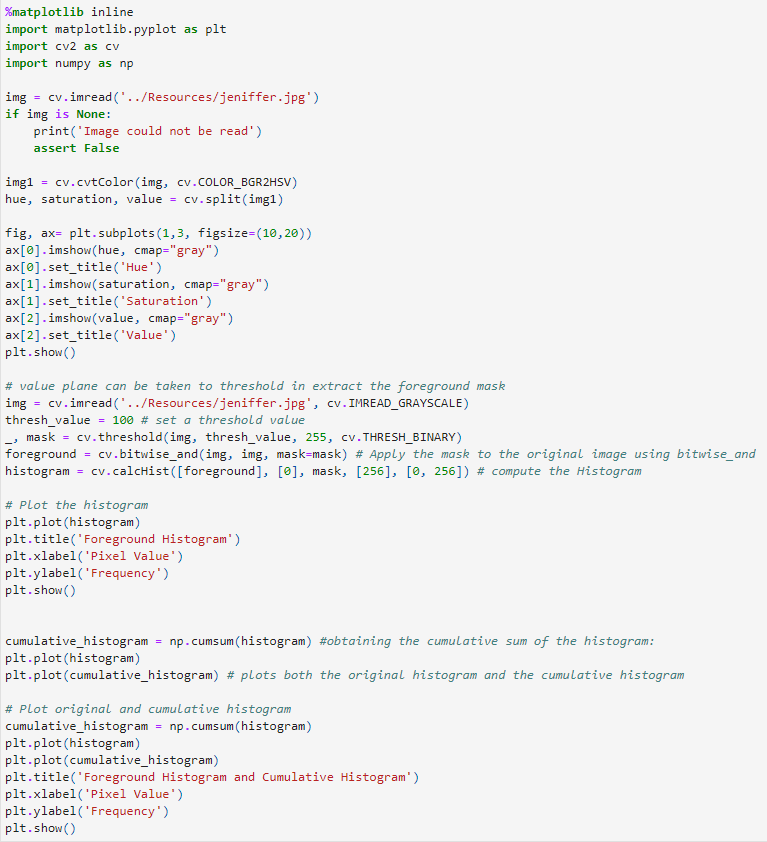
Question 3

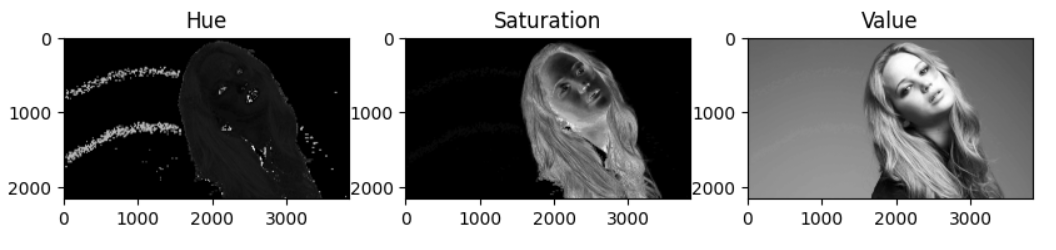
γ value = 0.5

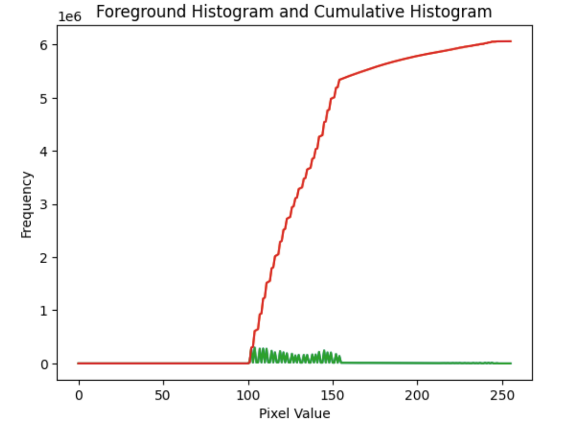


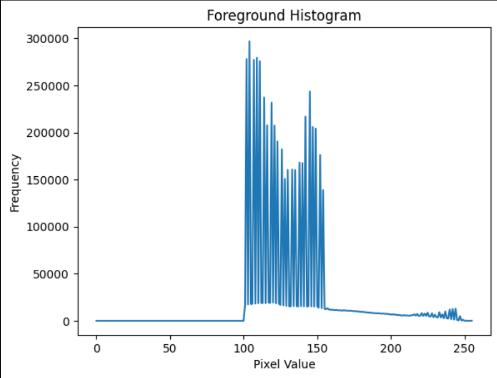


Question 5



a.

b. value plane can be taken to threshold in extract the foreground mask

c. d.

e and f

