Computer Vision HW3 Report

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Execution

> Using Python 3.7

```
$ python hw3.py
```
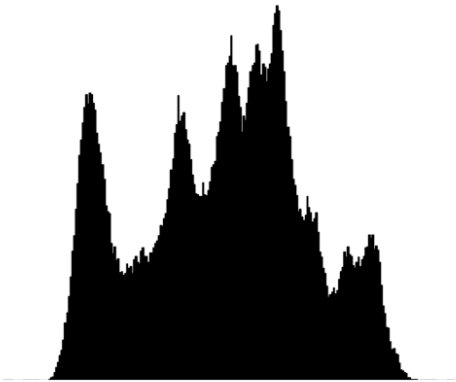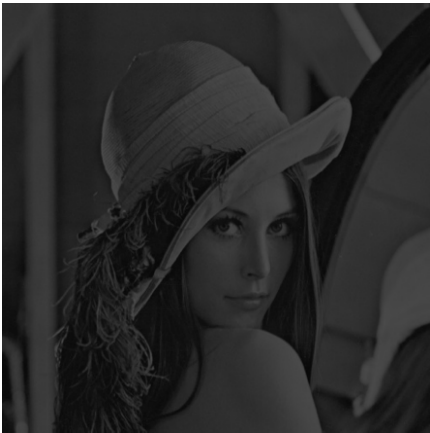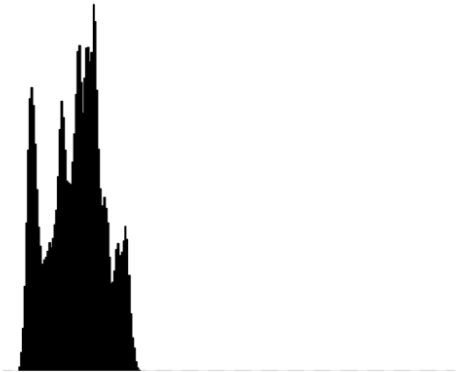
Code Explanation

- For all image processing (including read and write Images, accessing each pixels), I use the following libraries:

  - **Python OpenCV library** `cv2`

  - **Python numpy library** `numpy`

- For calculating histogram datas, I choose:

  - ~~**Python OpenCV** `cv2.calcHist` function~~

  - 10/3 Update: Counting all values pixel by pixel.
    (Since I have seen the updated Q&A Announcement)

- For generating histogram graphs, I use the following library:

  - **Python matplot Library** `matplotlib.pyplot`

References

- **Python 與 OpenCV 繪製直方圖，分析影像亮度分佈教學**
  (https://blog.gtwang.org/programming/python-opencv-matplotlib-plot-histogram-tutorial/)

- **Jason Chen:【影像處理】灰階直方圖均化 Histogram Equalization**
  (https://jason-chen-1992.weebly.com/home/-histogram-equalization)

Results

Subtask	Image	Histogram
(a)		
(b)		
(c)		