**Note:** All my work, I implemented by MATLAB, and I pushed them to my private repository on [Github](https://github.com/PengyuW007/CPSC5416), and [A1](https://github.com/PengyuW007/CPSC5416/tree/master/A1) under this repository to do version control. If there is any issue of assignment, I can give marker access to check my versions.

Q1. Implemented this by MATLAB code.

图表, 直方图

描述已自动生成

图表, 直方图

描述已自动生成

Q2. Histograms of input image, normalized image and output image are shown below.

图表

描述已自动生成

图表, 条形图, 直方图

描述已自动生成

图表, 条形图

描述已自动生成

**Table of output image**

表格

描述已自动生成

Q3. Specified histogram, Histogram of input image and Histogram of output image by equalization as shown below. However, I didn’t figure out how to do specification by MATLAB. I tried my best to implement.

图表, 条形图

描述已自动生成 图表, 条形图, 直方图

描述已自动生成

图表, 条形图

描述已自动生成表格

描述已自动生成

Q4. Livingroom and woman\_darkhair images and histograms are shown below. I have no clue histograms are different by two functions.

图片包含 图表

描述已自动生成图表

描述已自动生成

图形用户界面

描述已自动生成 图形用户界面

描述已自动生成

Q5. Comparison of 15 images in one figure, then I extracted and compared them in 3 groups by different densities. Based on the results of 3 groups, Median filter can filte more noise than average filter. 5 \* 5 can filte more than 3 \* 3, I think it is because the filter is smoother, by levels are changing. The changing is not sharp as 3\*3. Thirdly, in the same filter with the same size the ability of filter noise is different, higher densities, less noise can be filtered.

图片包含 文本

描述已自动生成

**5 %**

文本

描述已自动生成

**10%**

文本

描述已自动生成

**20 %**

文本

描述已自动生成