MAT 116E Advanced Scientific and Engineering Computing

Lab-4 / CRN : 12852

Instructor: Assoc. Prof. Dr. Burcu Tunga Lab Assistant: Res. Asst. Ahmet Topal

---

1 Question 1

Write a MATLAB program that reads **exampleImage.png** given in ninova and accomplish the following task:

- Divide your image into 3 parts as given in Figure 1.
  $\Big(|AB| = |BC| = |CD| = |DE| = |AG| = |GF| = |GH| = |HD| = |BH|\Big)$
- Calculate the mean value of each part.
- Assign the computed mean value of a part to all pixels in the corresponding part.
- Plot the mean image.

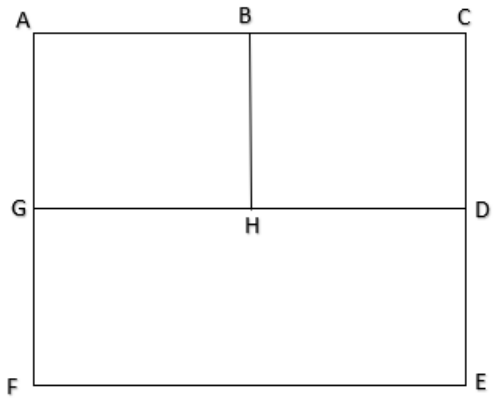

Figure 1: Final Image Draft

2 Question 2

We want the input image channels to have two values respect to a certain threshold value. This situation are describe below.To find related indexes, use built-in function find(). (You can use MATLAB demo images such as 'peppers.png' etc.)

- If the red channel value is below 127, you will set it to 0, otherwise set it to 255.
- If the green channel value is below 127, you will set it to 0, otherwise set it to 255.
- If the blue channel value is below 127, you will set it to 0, otherwise set it to 255.