MAT 116E Advanced Scientific and Engineering Computing

Lab-6 / CRN : 12852

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1 Question 1

Write a function named BMIClassify that accepts person's weight in kg and height in cm and returns the person's obesity class.

Body Mass Index (BMI) is compıuted as following formulas and obesity classification is done with respect to the following table:

$$BMI = 10^4 \times \frac{\text{Weight}}{\text{Height}^2}$$

BMI	**Classification**
Below 18.5	Underweigh
18.5 to 24.9	Normal
25 to 29.9	Overweight
30 and above	Obese

2 Question 2

An **image histogram** is a type of histogram that acts as a graphical representation of the tonal distribution in a digital image. Write a Matlab function that takes an gray scale image as a parameter and plots the histogram of it using **bar()** command. Compare your result with the following figure.

(NOTE: Use lena.pgm given in the ninova.)

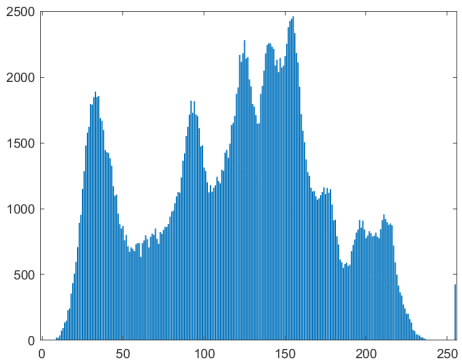

Figure 1: Histogram of lena.pgm