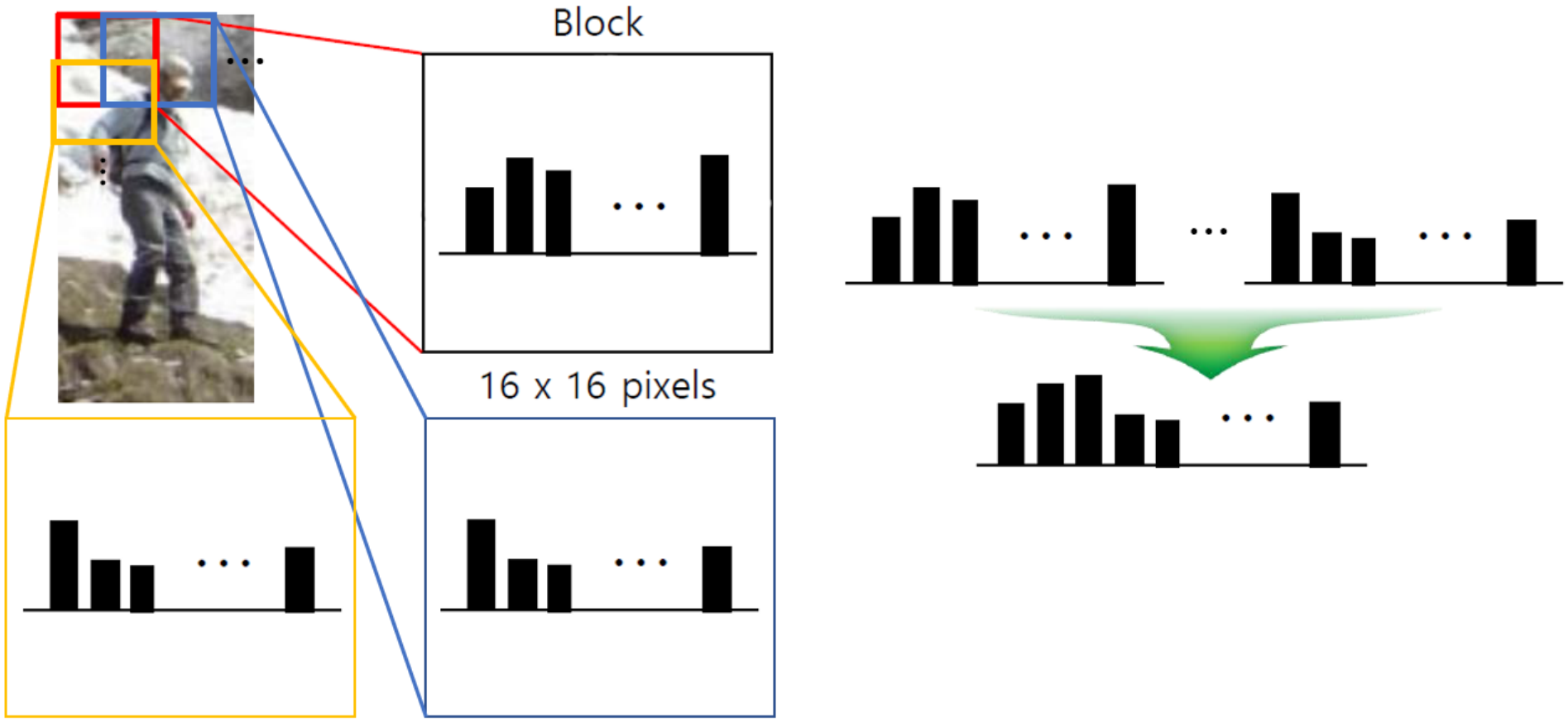
Detail of HOG descriptor (1/2)



Detail of HOG descriptor (2/2)

- **Compare the Euclidean Distance between the histogram of each image (**assignment2.bmp/compare1.bmp/compare2.bmp**)**
- **If you want to improvement the performace…**
  - Apply the L-2 normalization

※ L-2 normalization

$$h_k = \frac{N_k}{\sqrt{\sum_{q=1}^{36} N_q^2 + \delta}}, \quad \text{where } N_k = \sum_{D(x,y)\in k} M(x,y)$$

(x,y) : pixel index in each cell
D(x,y) : quantized degree
M(x,y) : edge magnitude

  - Use the 36-bin histogram instead of the 9-bin histogram