# Tutorial 3

The height.txt file (please download from week 3, Datasets Zip link and unzip the file) contains heights of 100 men and 100 women measured in meters. There is another file called newHeight.txt which contains additional heights of 10 men and 10 women.

(1) Create an R markdown file, read in height.txt data and generate histogram to summarise and visualise height variable.
(2) Apply kernel density estimation methods to estimate height density. Try different kernel functions and bandwidths.
(3) Use BCV methods to select for optimal bandwidth for each kernel of choice.
(4) Apply cubic spline density estimation with different number of knots and compare these results to those from using kernel functions.
(5) Read in newHight.txt data. Is it possible to classify each of these new samples in newHight.txt dataset based on density estimation results from height.txt? Try to perform such classification.