**Hands-On Exercise**

The dataset *Human Activity Recognition Using Smartphones DataSet*[[1]](#footnote-1)is provided. This dataset contains several features extracted from accelerometer time windows. It is composed:

* Features.csv Features characterizing each time window
* Labels.txt Label of each time window (numerical value)

The meaning of each numerical label is given below:

|  |
| --- |
| 1 WALKING  2 WALKING\_UPSTAIRS  3 WALKING\_DOWNSTAIRS  4 SITTING  5 STANDING  6 LAYING |

We ask you to:

1. Provide a classifier able to distinguish walking from the remaining actions (consider labels 2 to 6 as a single class) and the metrics obtained.
2. Provide a classifier able to distinguish the six activities and the metrics obtained.

Also, we are interested in how you arrive to the solution. So,

1. Remember to add comments explaining, briefly, the main steps that you are taking. We are interested in why you choose to apply each technique, algorithm, etc.
2. Do not fear to submit and explain your failed attempts, why you did it and why they failed.

1. <https://archive.ics.uci.edu/ml/datasets/human+activity+recognition+using+smartphones> [↑](#footnote-ref-1)