

Human Activity Recognition Project

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Synopsis

The purpose of this analysis is to predict the manner in which people did weight lifting exercises, meaning quantify how well they do it.

The model is built with data from accelerometers on the belt, forearm, arm, and dumbbell of 6 participants.

Six young health participants were asked to perform one set of 10 repetitions of the Unilateral Dumbbell Biceps Curl in five different fashions: exactly according to the specification (Class A), throwing the elbows to the front (Class B), lifting the dumbbell only halfway (Class C), lowering the dumbbell only halfway (Class D) and throwing the hips to the front (Class E).

These information come from the website : <http://groupware.les.inf.puc-rio.br/har>

Loading and preprocessing the data

Training data: <https://d396qusza40orc.cloudfront.net/predmachlearn/pml-training.csv>

Testing data: <https://d396qusza40orc.cloudfront.net/predmachlearn/pml-testing.csv>

Data come from the website : <http://groupware.les.inf.puc-rio.br/har>

Exploratory data analyses

Build a model

Prediction & Cross validation