Machine Learning Project

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This project serves as the final project for the Coursera Practical Machine Learning Course.

Background

This project seeks to predict the manner in which they users of the fitness device did the exercise. Devices such as *Jawbone Up*, *Nike FuelBand*, and *FitBit* are able to collect vast amounts of data about the way in which people perform exercise. Using this data, enthusiasts are trying to predict (originally) how much exercise they did, while now we can predict how well we did the exercise.

Intro

Using machine learning techniques, this project builds a machine learning model, cross validation and the choices that led to the final prediction. This prediction was done by training a large dataset and then testing these methods on the 20 different test cases.

The Data

The data used in this proejct comes from Ugulino, W.; Cardador, D.; Vega, K.; Velloso, E.; Milidiu, R.; Fuks, H. Wearable Computing: Accelerometers' Data Classification of Body Postures and Movements"

This includes two datasets, a training set and a testing set.

Data Processing

```
pml_training <- read.csv("Data/pml-training.csv")
pml_testing <- read.csv("Data/pml-testing.csv")
```

```
summary(cars)
```

```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example: