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title: "Project"

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output: html\_document

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``set working directory

``imported training and testing data

```{setwd("~/Desktop/project");pml.training <- read.csv("~/Desktop/project/pml-training.csv");pml.testing <- read.csv("~/Desktop/project/pml-testing.csv")}

```

``remove obvious non-predictor varialbles

```{remove = c("X", "user\_name", "raw\_timestamp\_part\_1", "raw\_timestamp\_part\_2", "cvtd\_timestamp", "new\_window", "num\_window")}

```

``Cross Validation

```{inTrain<-createDataPartition(training$classe,p=0.7, list=FALSE);training1<-training[inTrain,];testing1<-training[-inTrain,]}

```

``create CART model using "rpart" from the Caret package

```{modFit <- train(classe ~ .,method="rpart",data=training1)}

```

``view results

```{print(modFit$finalModel)}

```

n= 406

node), split, n, loss, yval, (yprob)

\* denotes terminal node

1) root 406 297 A (0.27 0.19 0.17 0.17 0.19)

2) stddev\_roll\_belt< 1.35 332 224 A (0.33 0.23 0.21 0.17 0.054)

4) var\_accel\_dumbbell>=3.1528 67 20 B (0.12 0.7 0.045 0.015 0.12) \*

5) var\_accel\_dumbbell< 3.1528 265 165 A (0.38 0.12 0.25 0.22 0.038) \*

3) stddev\_roll\_belt>=1.35 74 13 E (0.014 0.014 0 0.15 0.82) \*

``fancyplot

```{fancyRpartPlot(modFit$finalModel)}

```

``

``predict using testing data

```{predict(modFit,newdata=testing1)}

```

```can not get the predictions to come up in the format expected.