Project

**library**(caret)

training <- read.csv("~/pml-training.csv", header=TRUE, na.strings=c("NA","#DIV/0!",""))

testing <- read.csv("~/pml-testing.csv", header=TRUE, na.strings=c("NA","#DIV/0!",""))

str(training)

head(training[,1:10])

tail(training[,1:10])

training <- training[,colSums(is.na(training)) == 0]

testing <- testing[,colSums(is.na(testing)) == 0]

training <- training[c(8:60)]

testing <- testing[c(8:60)]

set.seed(13563)

subValid <- createDataPartition(y=training$classe, p=0.7, list=FALSE)

training <- training[subValid,]

validation <- training[-subValid,]

modFitRF <- train(classe ~., method = "rf", data = training)

predFitRF <- predict(modFitRF, validation)

confusionMatrix(predFitRF, as.factor(validation$classe))

plot(modFitRF$finalModel, main = "Random Forest Model")

predFinal <- predict(modFitRF, testing)

predFinal