Simple-Run

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```
library(tidyverse)
library(usethis)
library(devtools)
devtools::install_github("TranscriptionFactory/LassoReg", force = F,
                         dependencies = F, quiet = T)

library(LassoReg, attach.required = T)
library(Matrix)
```

Load data

First note: alpha here refers to a multiplier on the lambda chosen through cross validation.

Second note: some values of alpha may be too stringent for your data and result in no features being selected and a resulting error in calculating the svm. If this happens, try using a smaller value. You can test multiple values for alpha during a run. Here's some ideas for values to try (I usually increase/decrease in increments of 0.25) 1. 0.75, 1.0, 1.25 2. 0.5, 0.75, 1.0

If you're getting good classification, use larger values

In general, # Larger alpha/lambda values = fewer features selected and vice versa

```
df = as.data.frame(LassoReg::example_data)

alphaValues = c(0.75)

# usually use
#alphaValues = c(0.75, 1.0, 1.25)
```

Run Lasso

```
results = LassoReg::LASSO_Grid(df, alphaValues = alphaValues)
```

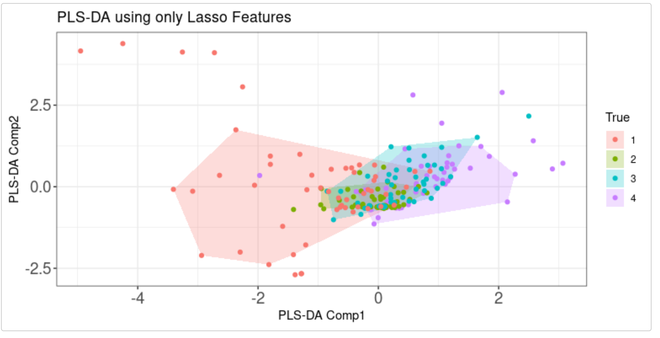
Analyze features

```
chosen_vars = LassoReg::extractVars(results)

head(chosen_vars)
#> [[1]]
#> [[1]]$chosen_vars
#>  [1] "8"   "9"   "10" "19" "20" "37" "64" "75" "16" "32" "21"
#>
#> [[1]]$chosen_vars_freq
#>    vars_across_folds Freq
#> 1                 16   10
#> 2                 19   10
#> 3                 20    8
#> 4                 32    8
#> 5                 10    6
#> 6                 37    6
#> 7                 64    6
#> 8                 75    5
#> 9                  9    5
#> 10                21    4
#> 11                 8    1
```

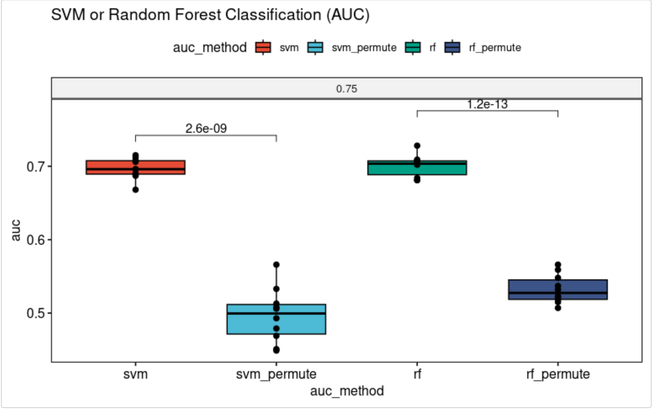
Analyse Results

```
plots = LassoReg::plotResults(results, df)

# multiple plots get returned
```

```
plots[[1]]
```




```
plots[[2]]
```




```
plots[[3]]
```