## 1 plyr:

plyr is a set of tools for a common set of problems: you need to split up a big data structure into homogeneous pieces, apply a function to each piece and then combine all the results back together. For example, you might want to:

- fit the same model to subsets of a data frame
- quickly calculate summary statistics for each group
- perform group-wise transformations like scaling or standardising

Its already possible to do this with base R functions (like split and the apply family of functions), but plyr makes it all a bit easier with:

- totally consistent names, arguments and outputs
- convenient parallelisation through the foreach package
- input from and output to data.frames, matrices and lists
- progress bars to keep track of long running operations
- built-in error recovery, and informative error messages
- labels that are maintained across all transformations