Wrapping R packages demonstration

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Introduction

This is a demonstration of an R package `library(myPackage)` that I am in the process of developing. The purpose of this package was two-fold:

1. To demonstrate how to develop a package to undergraduate students at University of Toronto.
2. To facilitate the ease in transform variables for grades as an course instructor for several undergraduate statistics. courses.

myPackage

For each course I teach my syllabus states that for those absences that are documented, the student will receive a value of "-1" as a place holder grader. This is to avoid the confusion of assigning a grade between 0 to 100. For students without a noted absence their cell remains empty, and when transcribed into R, it is read as "NA."

When I process the grades for the final exam the first thing I do is convert "-1" to "NA" and "NA" to "0" in order to remove the exempt students from the assessment and assign a grade of 0 to those who did not have a noted absence. Therefore myPackage contains two things:

1. A function `new.grades` that takes a vector of length n and returns another vector of length n that translates "NA" to "0" and "-1" to "NA."
2. A data set called `Grades` of term test grades from a past statistics course that is stripped of any identifiable information.
3. Upcoming: A function called `reweighted` that will re-weighted the grading scheme for "NA" cases based on the remaining components in the course.

Demonstration

```r
library(myPackage)
head(Grades)
#>    Term Test 1 (/505) Term Test 1 Adjust (/50) Term Test 2 (/57)
#> 1                 34                        36                40
#> 2                 36                        38                42
#> 3                 26                        28                29
#> 4                 45                        47                48
#> 5                 18                        20                -1
#> 6                 34                        36                40
#>    Term Test 2 Adjust (/55)
#> 1                        40
#> 2                        42
#> 3                        29
#> 4                        48
#> 5                        -1
#> 6                        40
attach(Grades)
```