cachematrix.R

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## These two functions can cache the inverse of a matrix.  
  
## makeCacheMatrix creates a special "matrix" object that can cache its inverse.  
## This function returns a list with the next functions:  
## set the value of the matrix  
## get the value of the matrix  
## set the value of solve  
## get the value of solve  
  
makeCacheMatrix <- function(x = matrix()) {  
 s <- NULL  
 set <- function(y) {  
 x <<- y  
 s <<- NULL  
 }  
 get <- function() x  
 setsolve <- function(solve) s <<- solve  
 getsolve <- function() s  
 list(set = set, get = get,  
 setsolve = setsolve,  
 getsolve = getsolve)  
}  
  
## cacheSolve is a function that computes the inverse of the "special matrix"   
## returned by makeCacheMatrix function. If the inverse has already been   
## calculated, then the cacheSolve should retrieve the inverse from the cache.  
  
cacheSolve <- function(x, ...) {  
 s <- x$getsolve()  
 if(!is.null(s)) {  
 message("getting cached data")  
 return(s)  
 }  
 data <- x$get()  
 s <- solve(data, ...)  
 x$setsolve(s)  
 s  
 ## Return a matrix that is the inverse of 'x'  
}