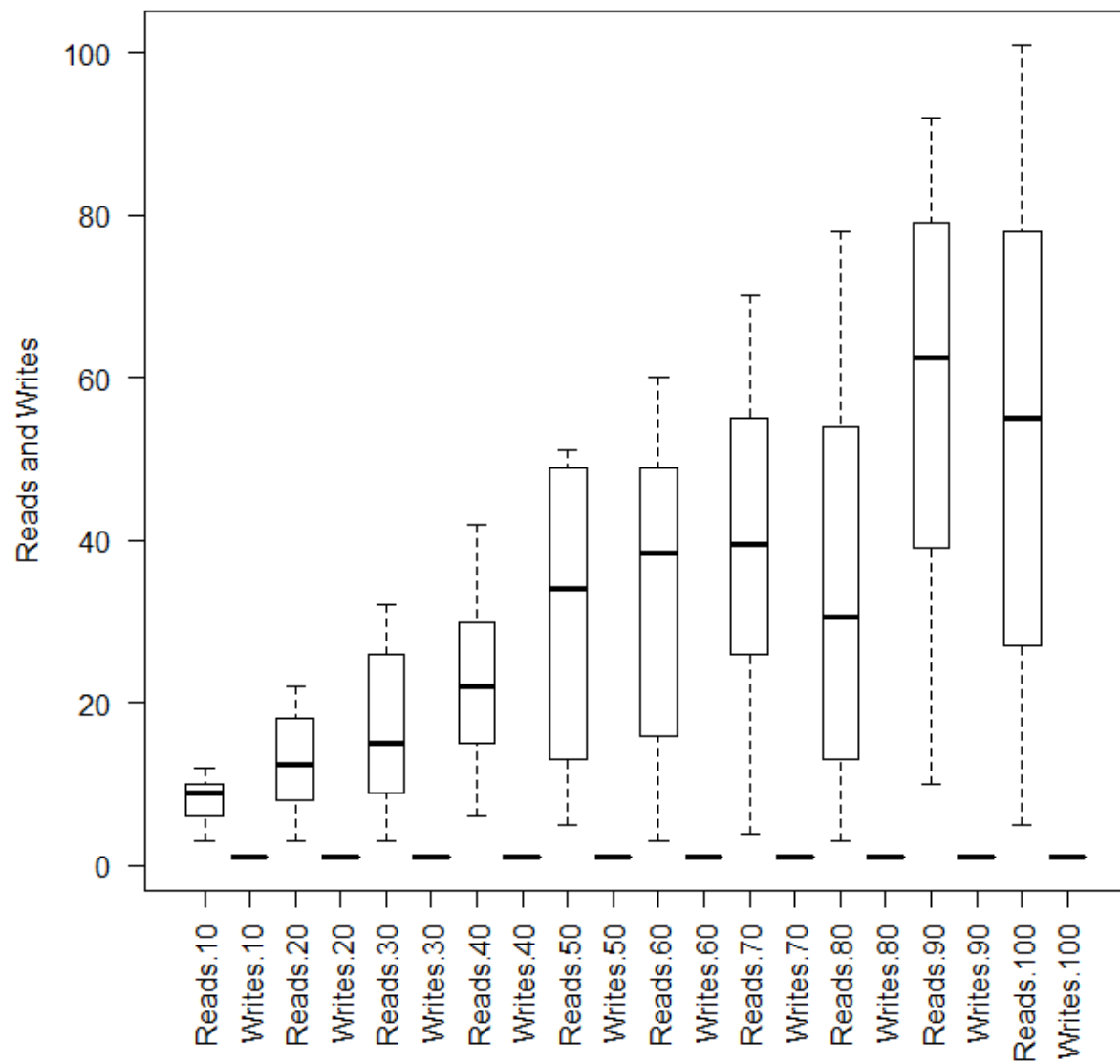
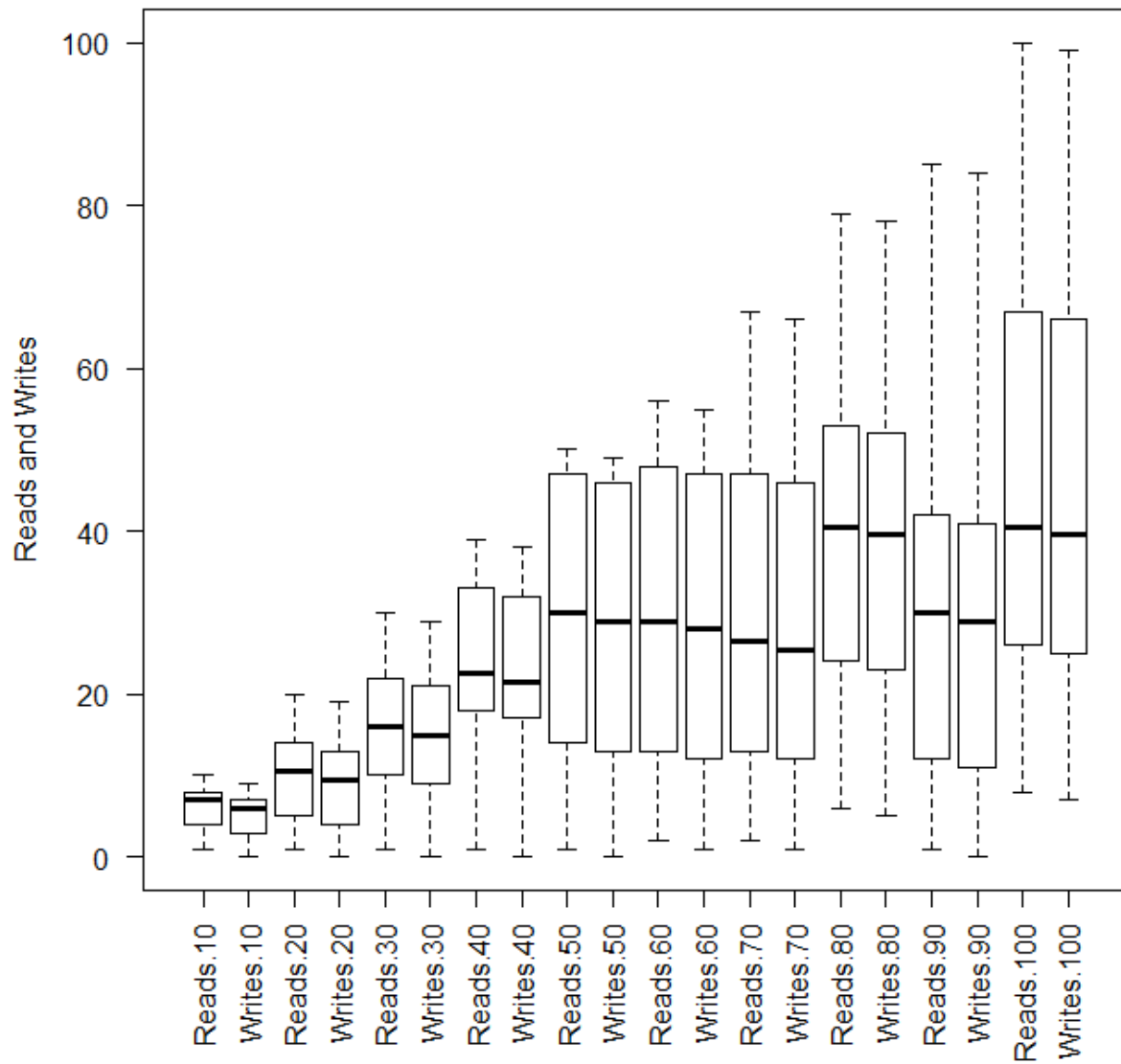


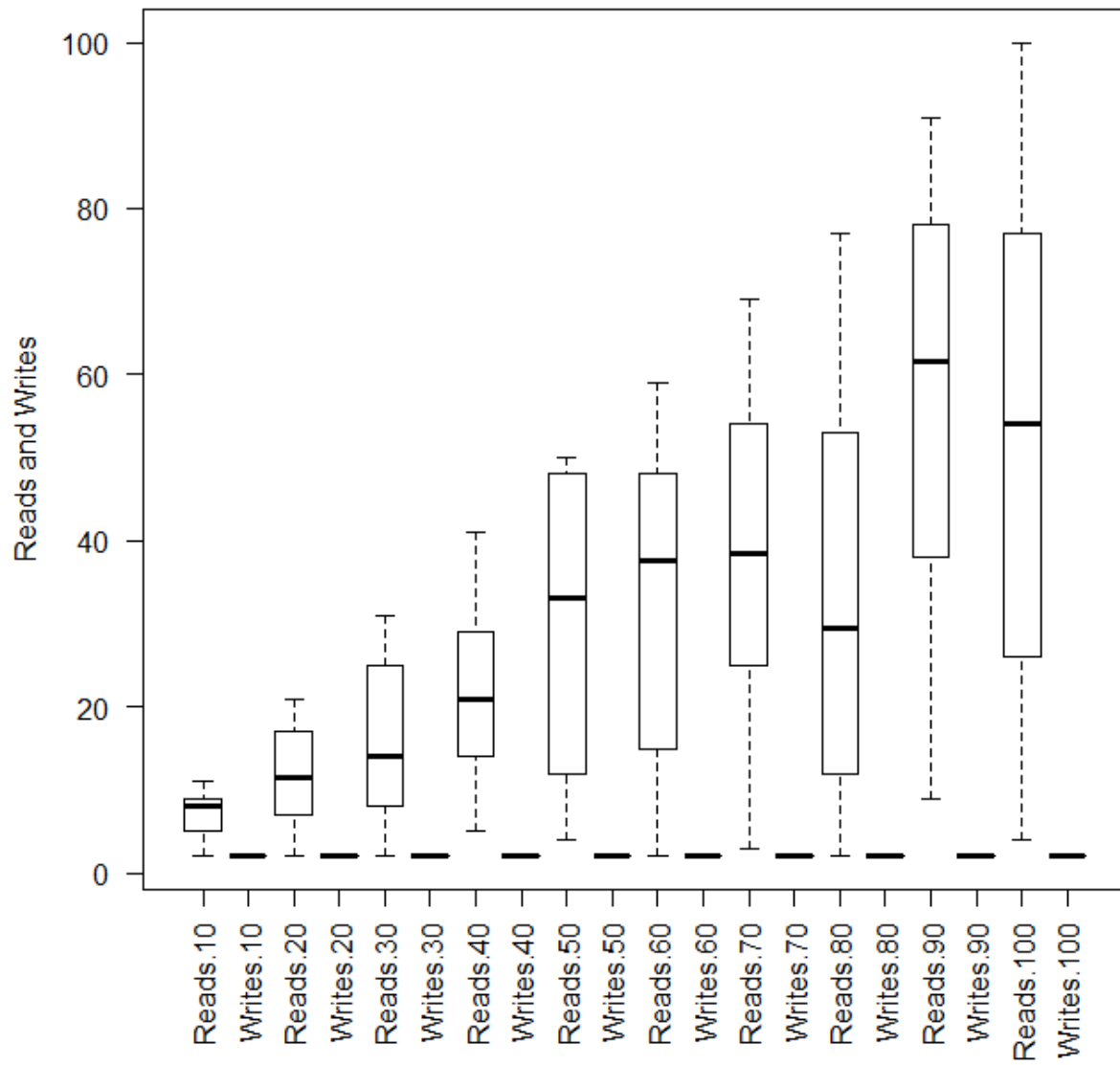
### Analysis of ds\_delete function for a linked list



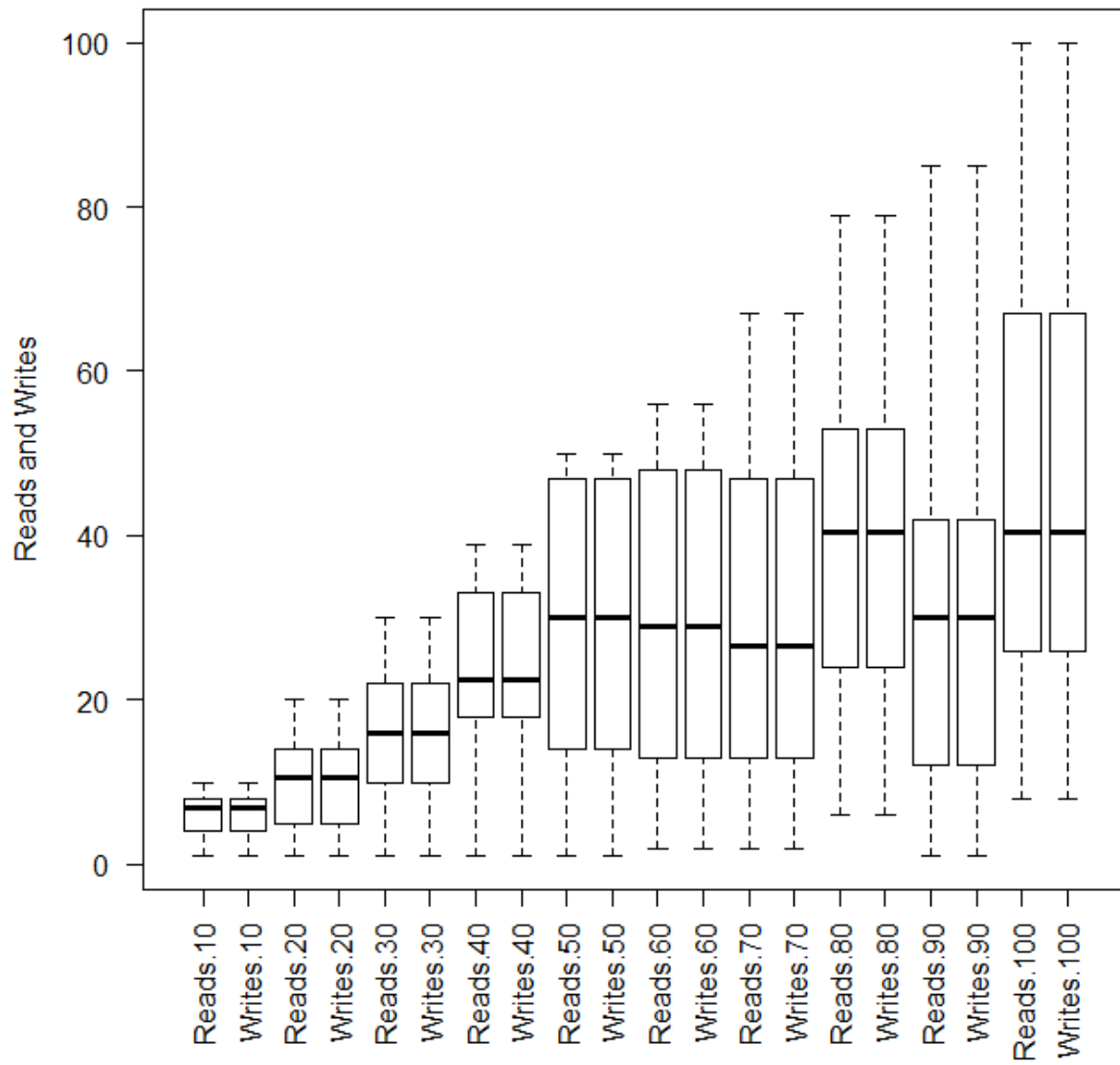
### Analysis of ds\_delete function for an array



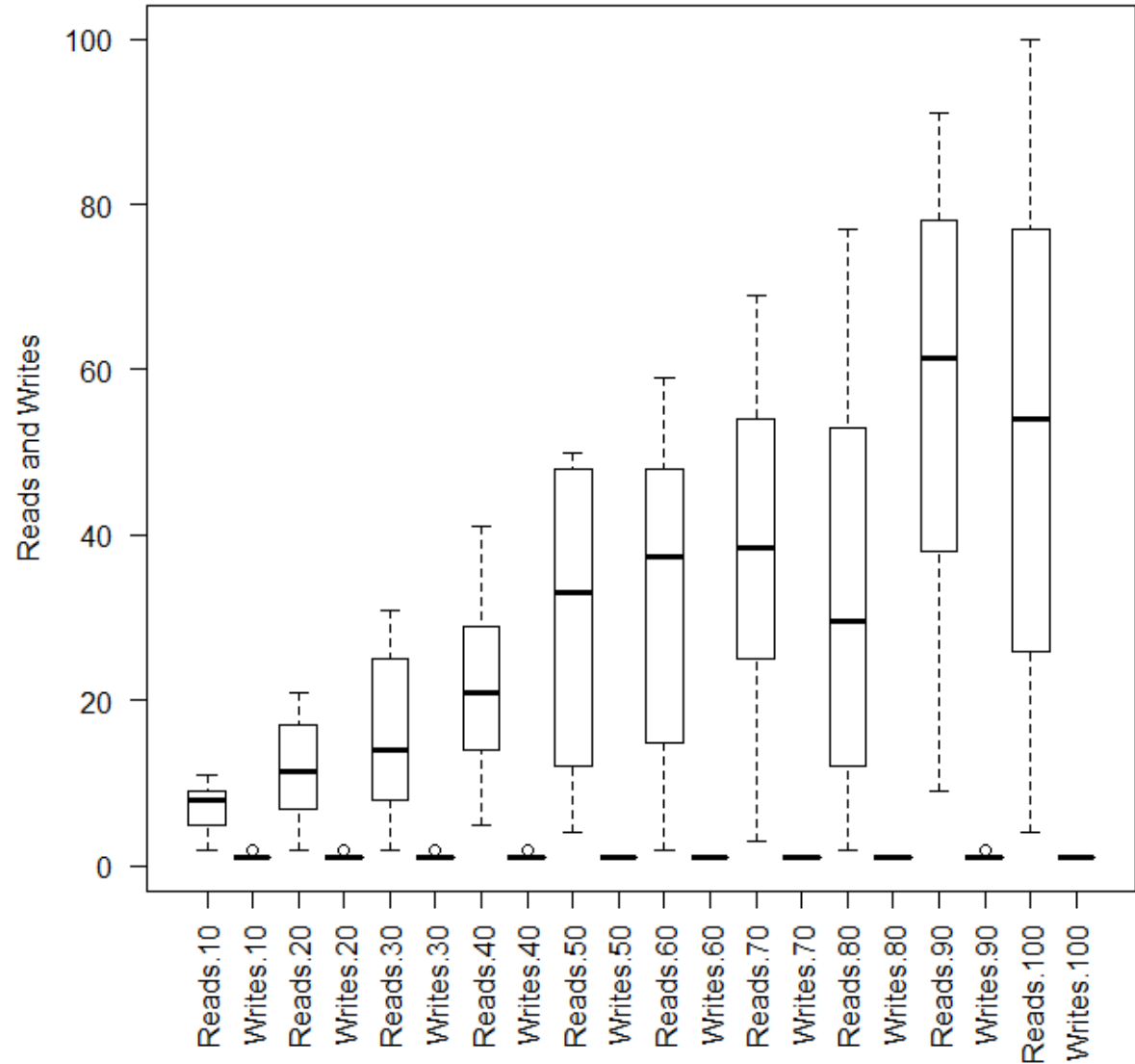
### Analysis of ds\_insert function for a linked list



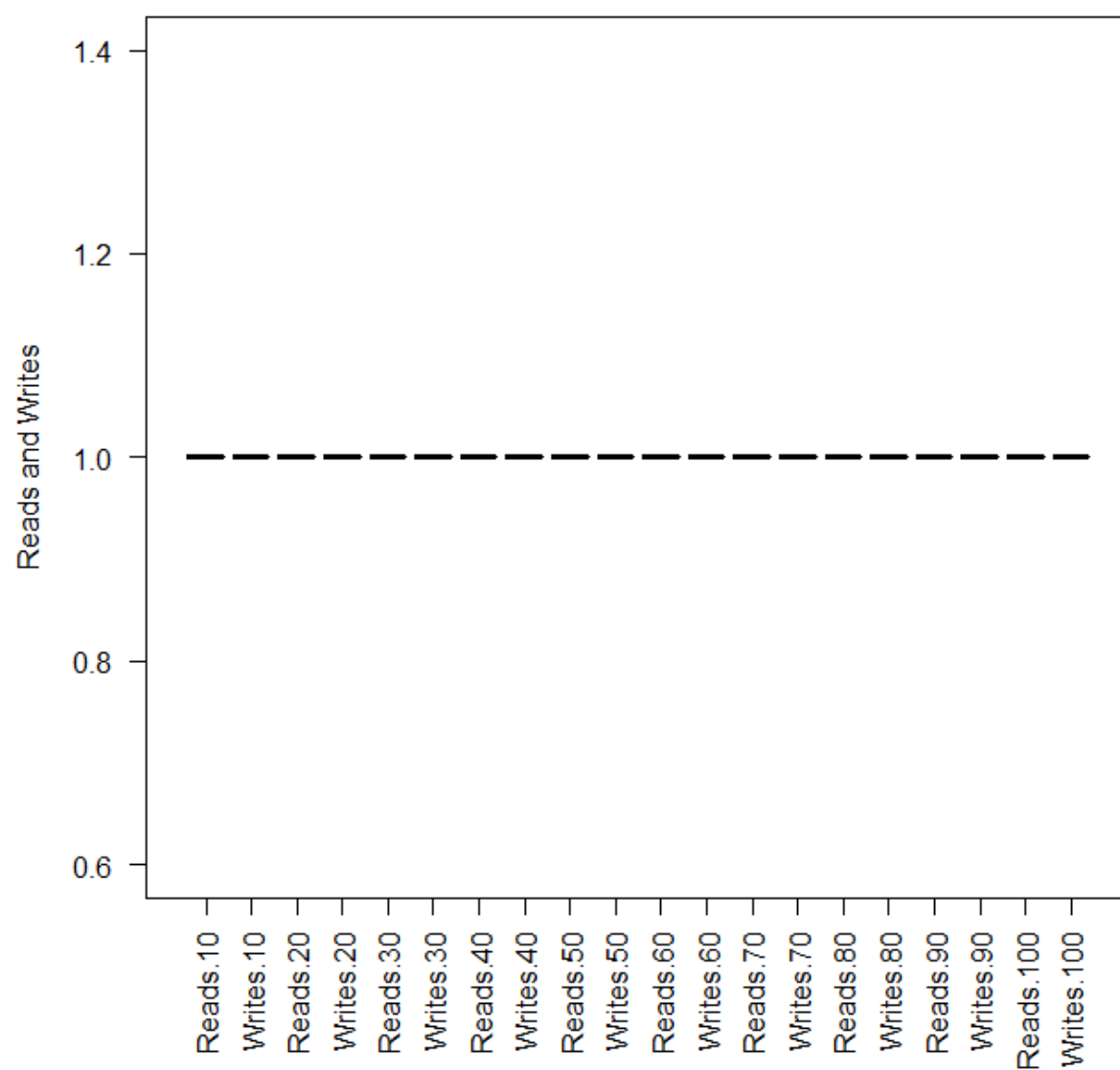
### Analysis of ds\_insert function for an array



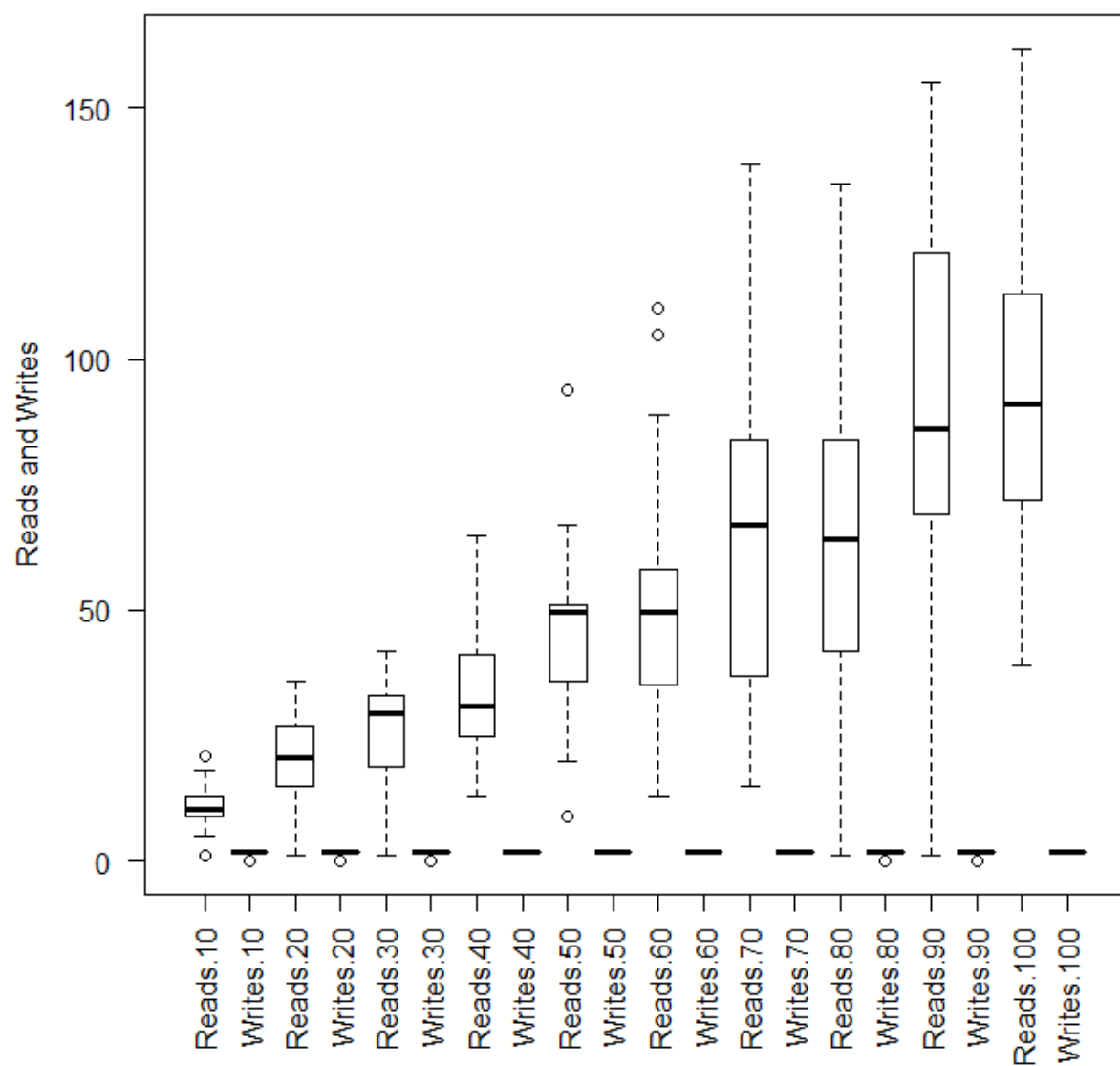
Analysis of ds\_replace function for a linked list



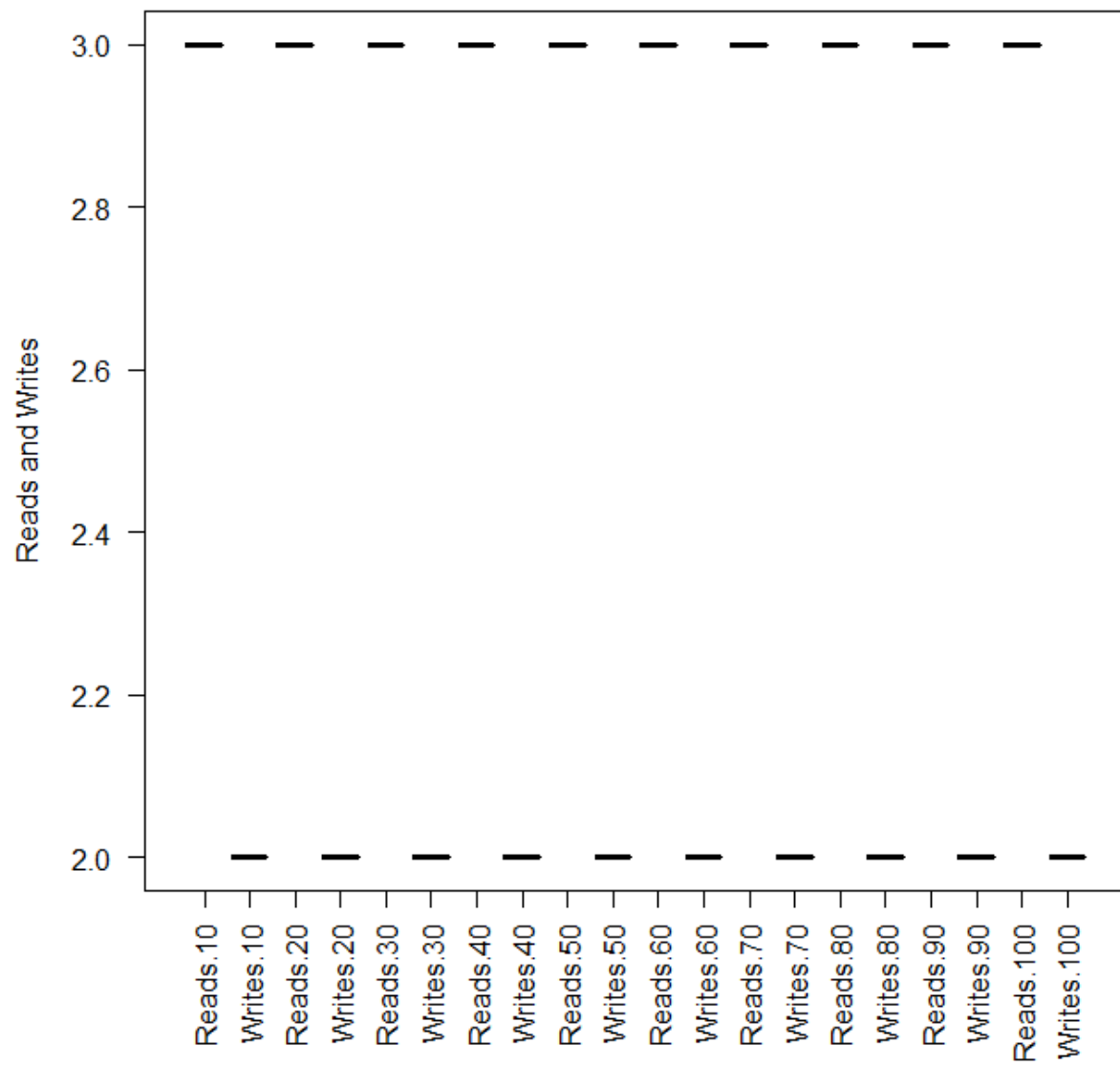
### Analysis of ds\_replace function for an array



## Analysis of ds\_swap function for a linked list



Analysis of ds\_swap function for an array





## Part D:

After analysing both data structure types, I believe that using a linked list would be best when inserting or deleting as its writes are constant, whereas the array's writes are increasing at roughly the same rate as the reads. It is advantageous to use an array when swapping or replacing values as the numbers will be constant regardless of the index of the value(s), whereas the reads for a linked list increases based on the index of the values.