

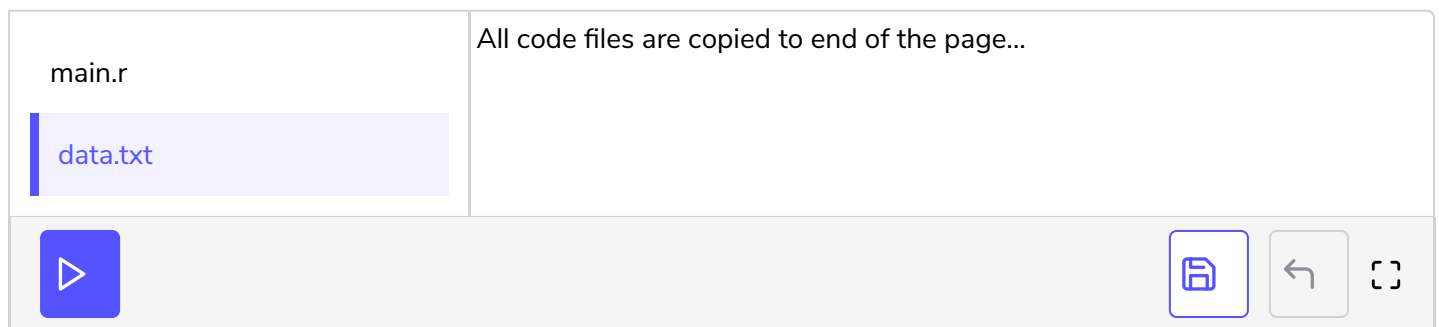
# Solution Review: Find Mean and Median

In this review, we give a detailed analysis of the solution to the problem of finding mean and median.

## We'll cover the following ^

- Solution: Input and Output from .txt File
  - Explanation
    - Steps Performed:

## Solution: Input and Output from .txt File #



## Explanation #

This solution is a bit tricky, but don't worry we will break it down for you.

Let's begin from the driver code (**line number 22**).

Steps Performed: #

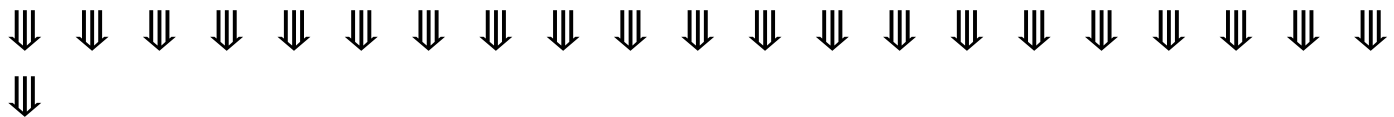
- **Line number 23 - 25:** Open the file and fetch all the lines in a variable.
- **Line number 27 - 31:** Populate a vector to store inputs from the file.
- **Line number 33:** Create a `result` vector
- **Line number 34 -38:** Find `mean` and `median` using their functions and store the output in the `result` vector.
- **Line number 40:** Write the `result` vector on `output\outData.txt` file.

`mean()` and `median()` functions are simple. They just take a vector, iterate over all

the elements, and output the specific answer.

In the next lesson, we have another challenge for you to solve.

## Code Files Content !!!



```
-----  
|  main.r [1]  
-----
```

```
mean <- function(myVector) # Creating function to find the mean  
{  
  # The formula for finding mean is sum / 2  
  sum = 0  
  myOutputVector <- vector("integer", 0)  
  for(i in myVector)  
  {  
    sum = sum + as.integer(i) # sum all the values in the vector  
  }  
  return(sum / length(myVector)) # return the mean  
}  
  
median <- function(myVector) # Creating function to find the median  
{  
  # median is the middle value of the sorted vector  
  sort(myVector) # sort is a built in function. You can write your own sorted function as well  
  myVectorLength = length(myVector)  
  middle = myVectorLength / 2  
  return(as.integer(myVector[middle]))  
}  
  
# Driver Code  
path <- "data.txt" # path of the input file  
fileData <- file(path, open = "r") # open the file  
lines <- readLines(fileData) # read all the lines present in the file  
  
myVector <- vector("numeric", 0) # create empty vector to save all values  
for (i in 1:length(lines))  
{  
  myVector <- c(myVector, lines[i]) # concatenate the values in this vector  
}  
  
result <- vector("numeric", 0) # create empty vector to store the result  
myMedian = median(myVector) # find median  
myMean = mean(myVector) # find mean  
  
result <- c(result, myMean) # concatenate mean and median in the result
```

```
result <- c(result, myMedian)
```

```
write(result, "output/outData.txt") # write the result in the respective file
```

```
-----  
| data.txt [1]  
-----
```

```
3  
8  
1
```

```
*****
```