

Exercise 1

Q1 Word Count

Mapper Function:- The mapper function will first process the input data and then emit key-value pairs. In this example ,

the mapper function reads each line of text and splits it into words. For each word , it produces key-value pairs such that

each key is the lowercase letter of the word and each value is '1'.

Reducer Function :- The reducer function takes the input as key-value pairs which are generated by mapper function

where key is a word and value is list of 1s. The reducer function sums up the 1s for each word to calculate count of

occurrences of the word and groups the pairs to obtain final word count.

Q2

Mapper Function:- The mapper function outputs key-value pairs such that key is the department number and value is the salary.

Reducer Function :- The reducer function takes the input as key-value pairs which are generated by mapper function

where key is a department number and value is salary. The reducer function sums up salary using sum function which

calculates the salary for each department.


Q3

Mapper Function:- The mapper function first processes the input file and then extracts the URL provided and HTTP from

the request. Reducer Function:- The reducer function takes key-value pairs provided by the Mapper Function where each

key is GIF Images and each value is total count of occurrences

Exercise 2 and exercise 3

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