



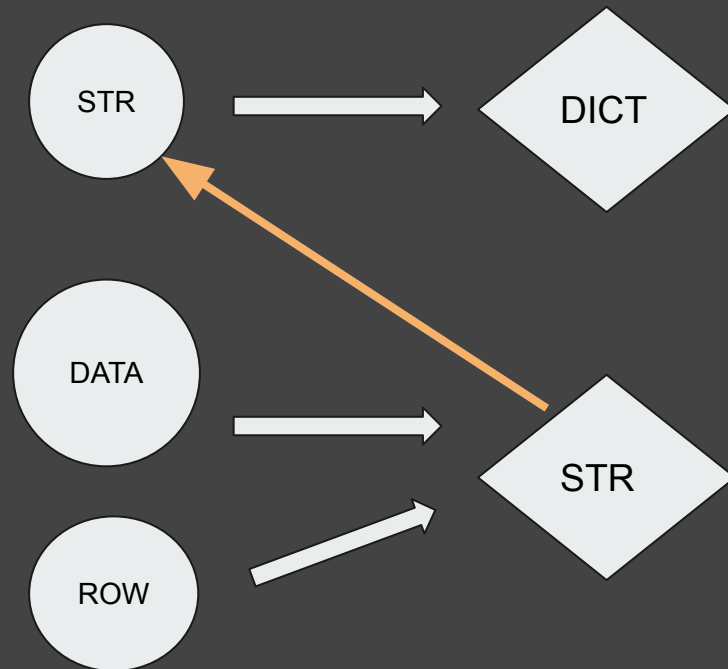
BIG Data Presentation

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Subtask

```
def count_chars(string_text):  
    """  
    Counts and returns the characters dict inside a string.  
  
    :param string_text: just a string  
    :return: a dict with key as character, and value as count  
    """  
  
def character_count(data, row_number):  
    """  
    Count the characters inside the string. return dict with  
    following format :  
    {character: number of times it appears}  
  
    :param data: nx2, where col1 = row_number, col2 = text  
    :param row_number: the row_number for the task  
    :return: str  
    """
```





Parallel Computing

```
# Number of maximum cpu_core available
cpus = mp.cpu_count()

# Init Pool of `multiprocessing` library
pool = mp.Pool(cpus)

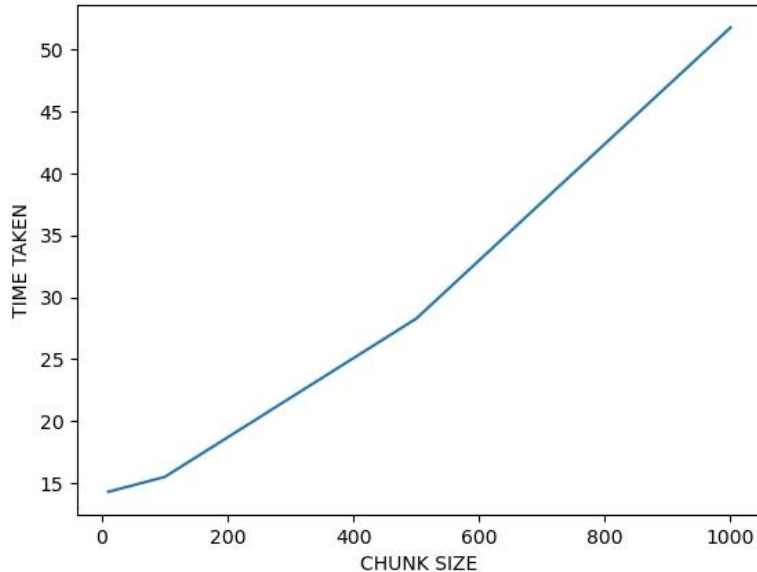
# Parallelising using Pool.apply()
results = [pool.apply(character_count, args=(chunks, row)) for
row in row_number]
```

Parallel Computing based on chunks, and unique rows.

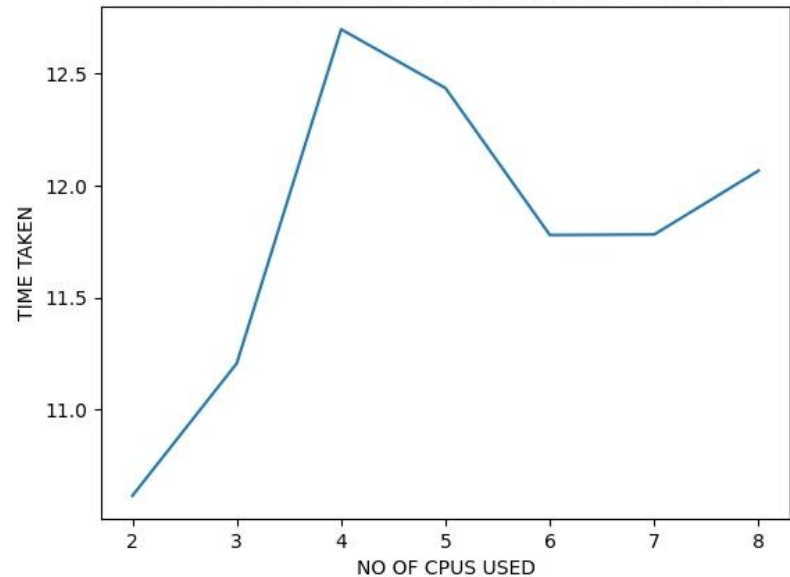


Complexity plots

Time taken program to run for various Chunk size.



Time taken for x no of CPU to run the program.



Results



Unique Characters:

There are 66 unique characters in the `abstract` column of the dataset.

Top 10 Characters.

‘ ’	n
e	o
t	s
i	r
a	d



Thank you.

