**Experiment No: 3**

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Semester /Section: CS-V-CSA

Date: 1st September 2020

Faculty Signature:

Remarks:

**Objective**:

To do a Quick Sort using any Programming Language.

**Theory:**

Quick Sort is a Divide and Conquer algorithm. It picks an element as pivot and partitions the given array around the picked pivot.

**Code:**

def quick\_sort(sequence):

length = len(sequence)

if length <= 1:

return sequence

else:

pivot = sequence.pop()

items\_greater = []

items\_lower = []

for item in sequence:

if item > pivot:

items\_greater.append(item)

else:

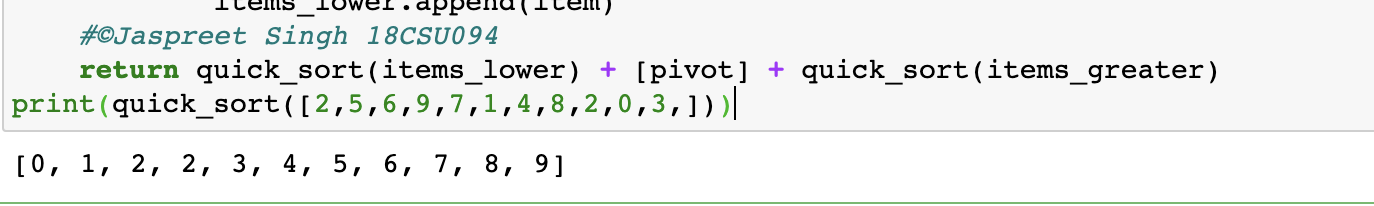
items\_lower.append(item)

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return quick\_sort(items\_lower) + [pivot] + quick\_sort(items\_greater)

print(quick\_sort([2,5,6,9,7,1,4,8,2,0,3,]))

**Output:**

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