#### **Data Systems**

## **Assignment-4**

## • System Configuration:

Processor : Intel® Core™ i7-6500U CPU @ 2.50GHz × 4

Memory: 15.5 GiB Disk Capacity: 1.0 TB

Base System: Ubuntu 20.04 LTS 64-bit

#### • Observations:

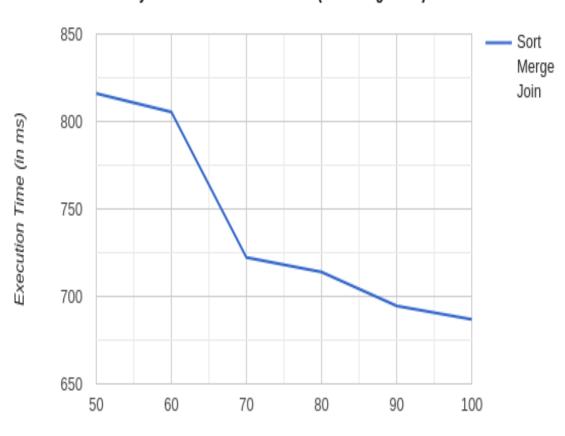
#### 1) Varying M (Number of memory blocks) for Sort Merge Join:

Number of records in a memory block = 100

M	Execution Time (In ms) (Sort Merge Join)
50	816.126
60	805.436
70	722.200
80	713.998
90	694.541
100	686.93

## **Graph of Observations (For Sort Merge Join):**

## Memory Blocks Vs Execution Time (Sort Merge Join)



Number of Memory Blocks

## 2) Varying M (Number of memory blocks) for Hash Join:

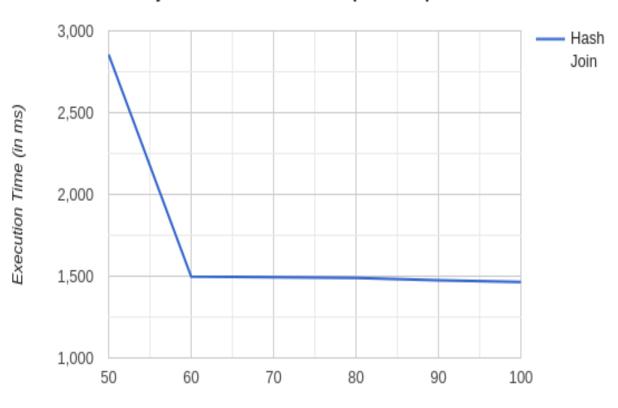
Number of records in a memory block = 100

M	Execution Time (In ms) (Hash Join)
50	2855.398
60	1497.878
70	1494.005
80	1488.661
90	1474.928
100	1463.683

Note: Kindly refer to the graph on next page

# **Graph of Observations (For Hash Join):**

#### Memory Blocks Vs Execution Time (Hash Join)



Number of Memory Blocks