# Assignment 4 (Sort Merge Join & Hash Join) Analysis

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## **System Configuration**

- ★ 8 GB DDR4 Ram
- ★ Intel i5 7th gen Processor
- ★ NVIDIA GeForce 940MX Graphic card
- ★ 100 GB Memory (allocated to Ubuntu)
- ★ Clock speed 2.5 Ghz
- ★ Cache 3 MB

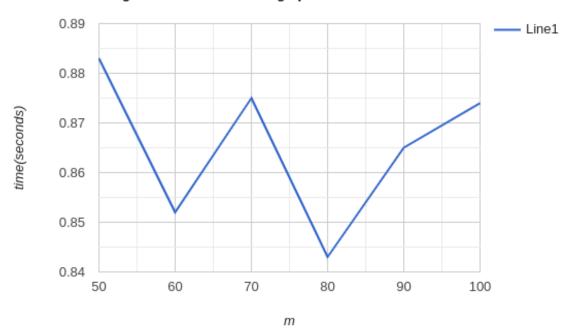
#### **Observations**

Input File Size : InputR = 1000 Rows, InputS : 2500 Rows

**Observation 1 : Sort Merge Join** 

М	Execution Time (in seconds)
50	0.883
60	0.852
70	0.875
80	0.843
90	0.865
100	0.874

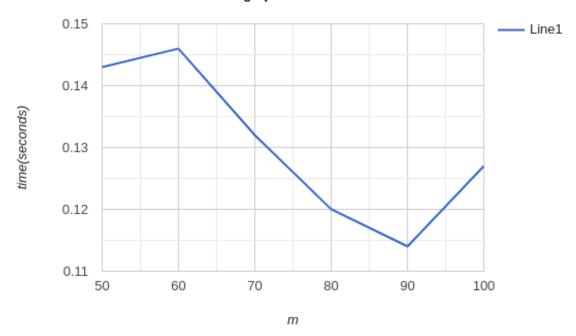
## Merge Sort Join : m vs time graph



**Observation 2 : Hash Join** 

М	Execution Time (in seconds)
50	0.143
60	0.146
70	0.132
80	0.120
90	0.114
100	0.127

### Hash Join : m vs time graph



**Inference:** Hash Join is faster then Sort-Merge join.