

## Data Systems Assignment 4 Analysis

### **Configuration :**

Processor : Intel(R) Core(TM) i5-8250U CPU @ 1.60GHz

RAM : 8GB

OS : Ubuntu 20.04

### **Analysis :**

- Test 1

#### Input Details :

No. of Tuples in R : 1000

No. of Tuples in S : 1000

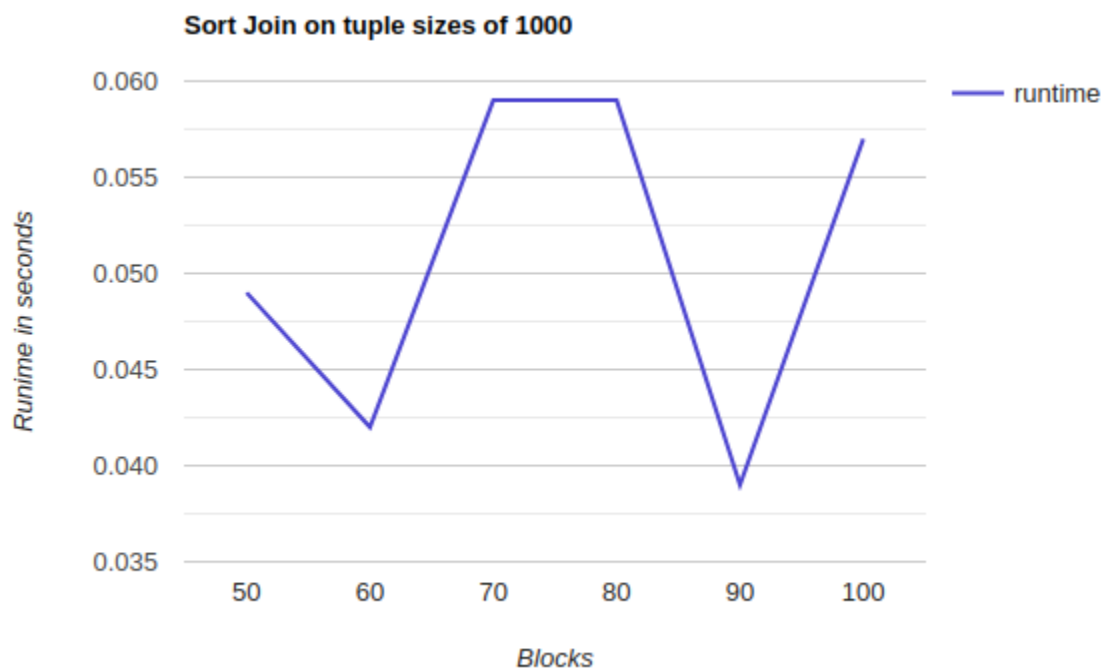
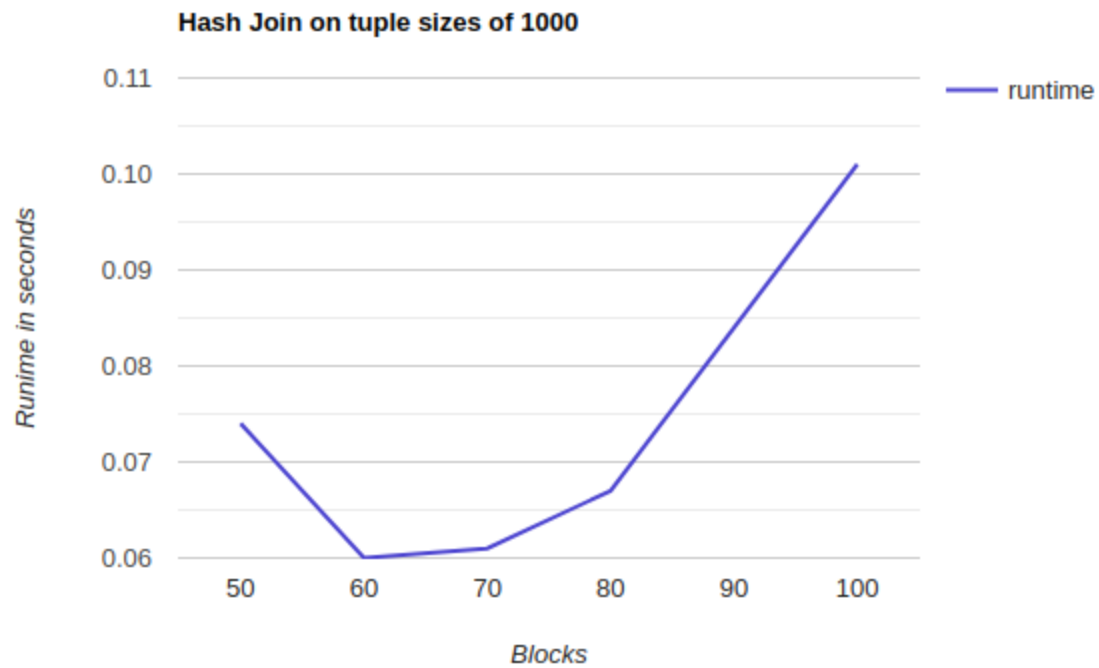
Size of X : 100

Size of Y : 100

Size of Z : 100

#### Results :

No. of Blocks	Sort Merge Join Time (in seconds)	Hash Join Time (in seconds)
50	0.049	0.074
60	0.042	0.060
70	0.059	0.061
80	0.059	0.067
90	0.039	0.084
100	0.057	0.101



- Test 2

Input Details :

No. of Tuples in R : 1500

No. of Tuples in S : 1500

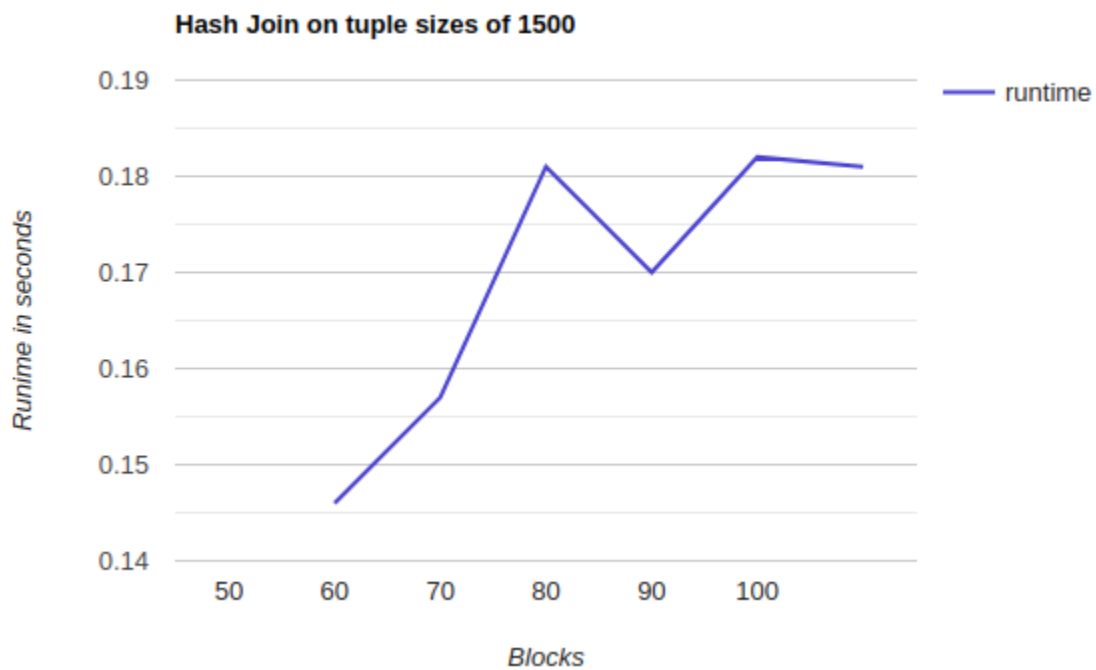
Size of X : 500

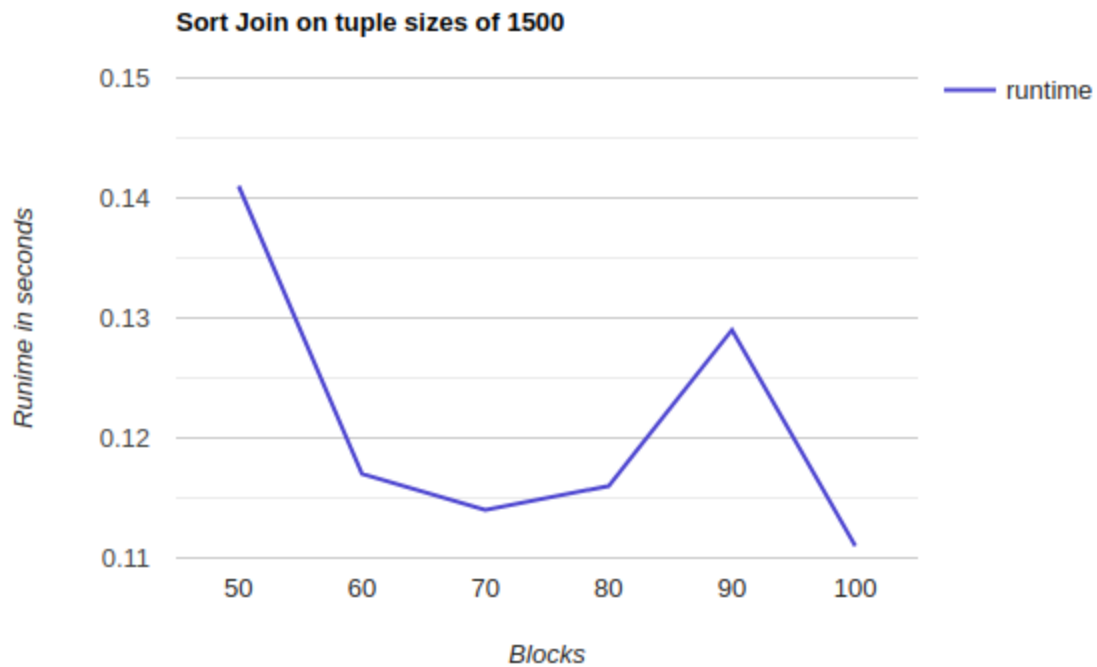
Size of Y : 500

Size of Z : 500

Results :

No. of Blocks	Sort Merge Join Time (in seconds)	Hash Join Time (in seconds)
50	0.141	0.146
60	0.117	0.157
70	0.114	0.181
80	0.116	0.170
90	0.129	0.182
100	0.111	0.181





- Test 3

Input Details :

No. of Tuples in R : 2000

No. of Tuples in S : 2000

Size of X : 1000

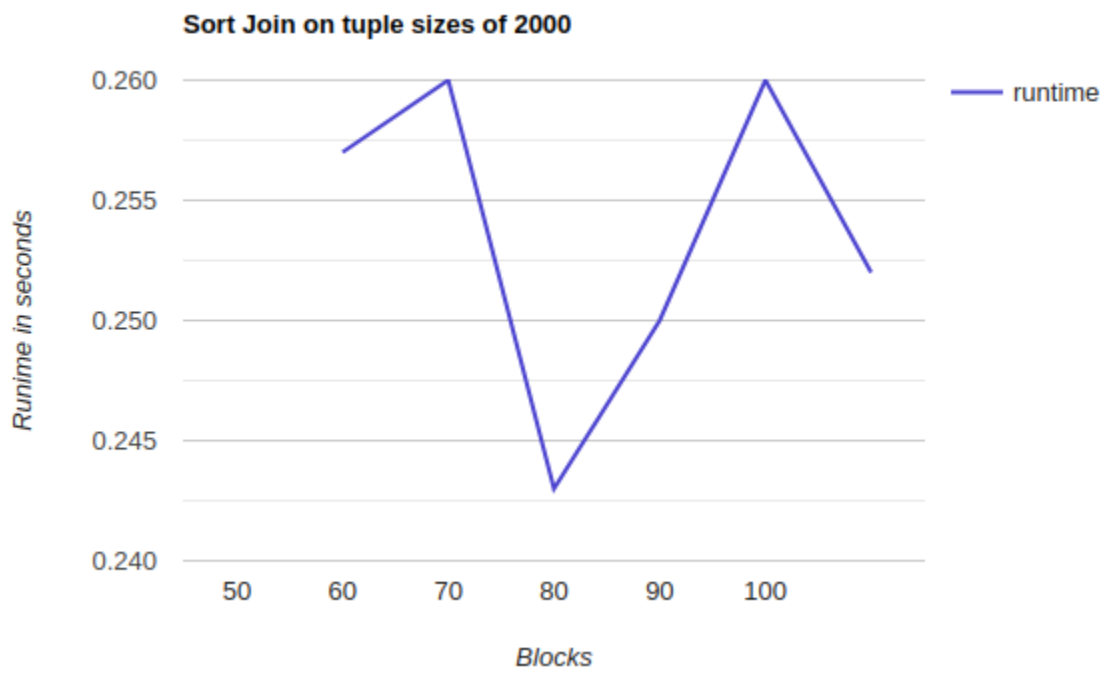
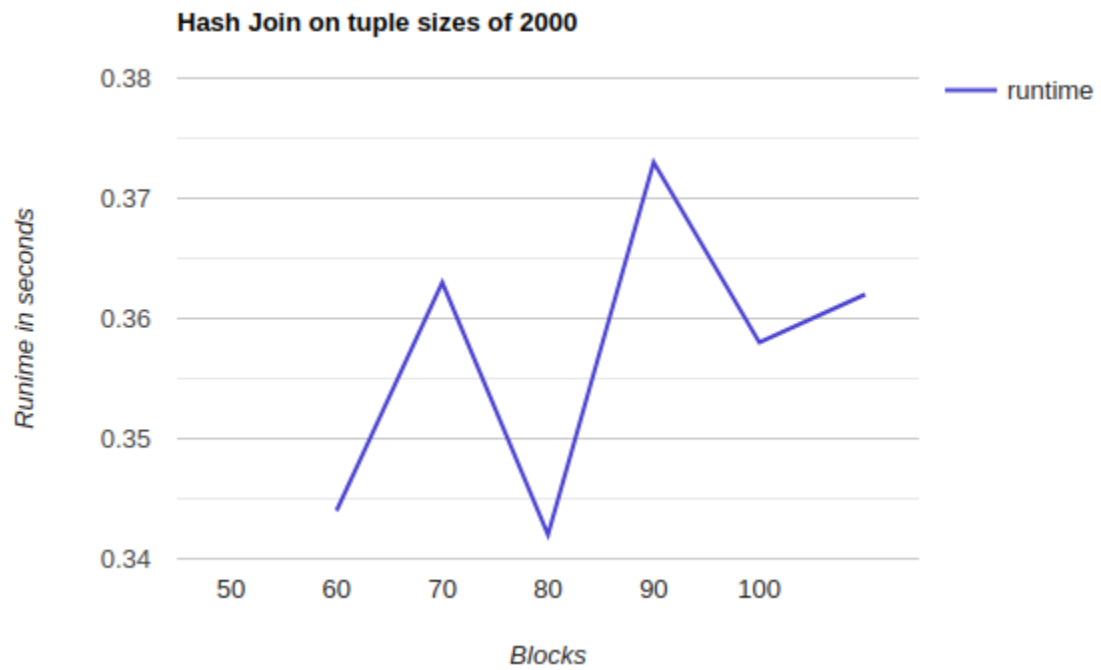
Size of Y : 1000

Size of Z : 1000

Results :

No. of Blocks	Sort Merge Join Time (in seconds)	Hash Join Time (in seconds)
50	0.257	0.344
60	0.260	0.363
70	0.243	0.342
80	0.250	0.373
90	0.260	0.358

100	0.252	0.362
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- Test 4

Input Details :

No. of Tuples in R : 5000

No. of Tuples in S : 5000

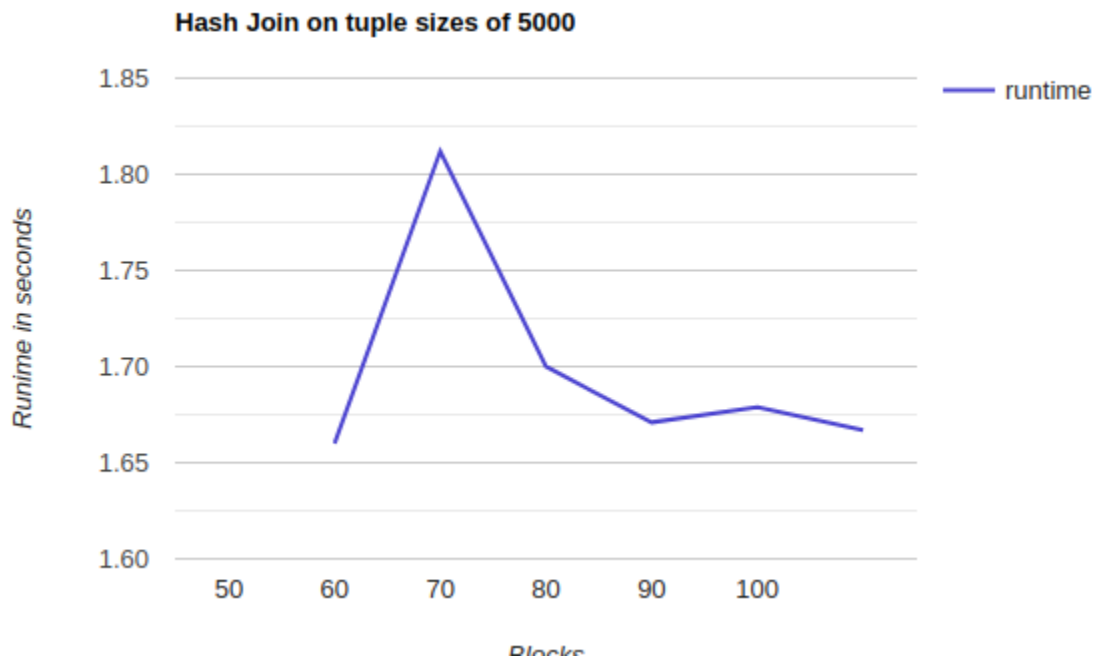
Size of X : 2000

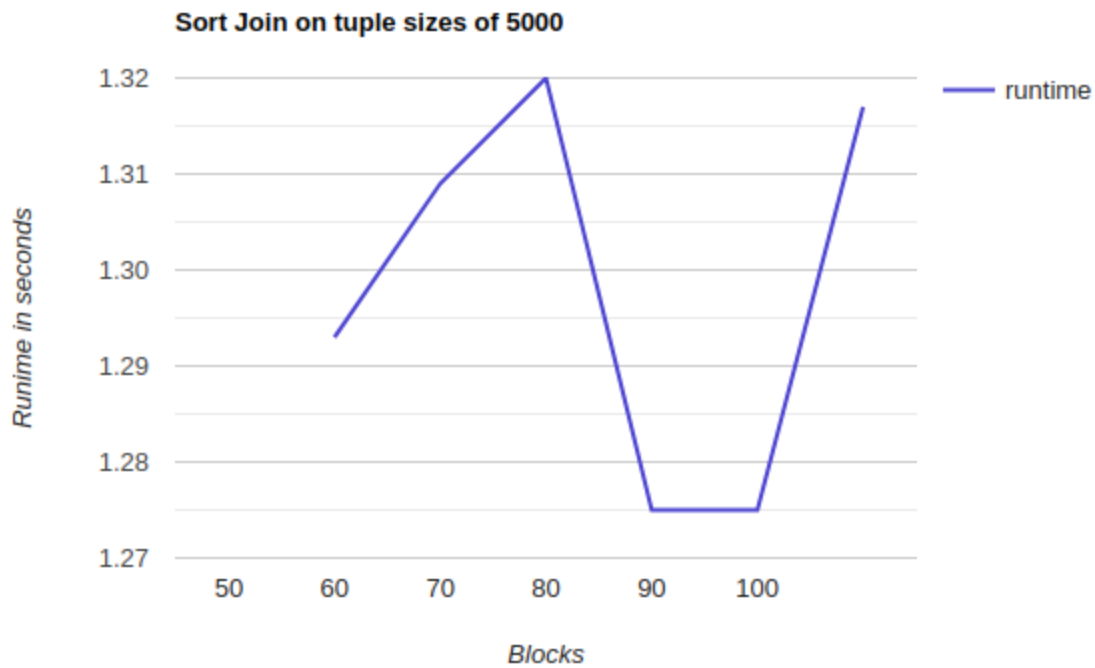
Size of Y : 2000

Size of Z : 2000

Results :

No. of Blocks	Sort Merge Join Time (in seconds)	Hash Join Time (in seconds)
50	1.293	1.660
60	1.309	1.812
70	1.320	1.700
80	1.275	1.671
90	1.275	1.679
100	1.317	1.667





- Test 5

Input Details :

No. of Tuples in R : 10000

No. of Tuples in S : 10000

Size of X : 2000

Size of Y : 2000

Size of Z : 2000

Results :

No. of Blocks	Sort Merge Join Time (in seconds)	Hash Join Time (in seconds)
50	2.548	3.280
60	2.542	3.284
70	2.435	3.437
80	2.597	3.233
90	2.673	3.144

100	2.613	3.327
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