Assignment 5

Join Tuning

Database Tuning

New Group 8

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Experimental Setup

Describe your experimental setup in a few lines.

[Your answer goes here . . .]

Join Strategies Proposed by System

Response times

Indexes	Join Strategy Q1	Join Strategy Q2
no index	. . .	. . .
unique non-clustering on `Publ.pubID`	. . .	. . .
clustering on `Publ.pubID` and `Auth.pubID`	. . .	. . .

Discussion   Discuss your observations. Is the choice of the strategy expected? How does the system come to this choice?

[Your answer goes here . . .]

Indexed Nested Loop Join

Response times

Indexes	Response time Q1 [ms]	Response time Q2 [ms]
index on `Publ.pubID`	. . .	. . .
index on `Auth.pubID`	. . .	. . .
index on `Publ.pubID` and `Auth.pubID`	. . .	. . .

Query plans

Index on `Publ.pubID` (Q1/Q2):

```
[Your query plans (index on Publ.pubID) go here ...]
```

Index on `Auth.pubID` (Q1/Q2):

```
[Your query plans (index on Auth.pubID) go here ...]
```

Index on `Auth.pubID` and `Auth.pubID` (Q1/Q2):

```
[Your query plans (index on Publ.pubID and Auth.pubID) go here ...]
```

Discussion   Discuss your observations. Are the response times expected? Why (not)?

[Your answer goes here ...]

Sort-Merge Join

Response times

Indexes	Response time Q1 [ms]	Response time Q2 [ms]
no index	...	...
two non-clustering indexes	...	...
two clustering indexes	...	...

Query plans

No index (Q1/Q2):

```
[Your query plans (no index) go here ...]
```

Two non-clustering indexes (Q1/Q2):

```
[Your query plans (two non-clustering indexes) go here ...]
```

Two clustering indexes (Q1/Q2):

```
[Your query plans (two clustering indexes) go here ...]
```

Discussion   Discuss your observations. Are the response times expected? Why (not)?

[Your answer goes here ...]

Hash Join

Response times

Indexes	Response time Q1 [ms]	Response time [ms] Q2
no index	...	...

Query plans

No Index (Q1/Q2):

```
[Your query plans (no index) go here ...]
```

Discussion What do you think about the response time of the hash index vs. the response times of sort-merge and index nested loop join for each of the queries? Explain.

[Your answer goes here . . .]

Time Spent on this Assignment

Time in hours per person: **XXX**

References