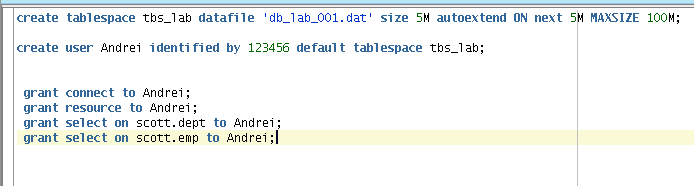
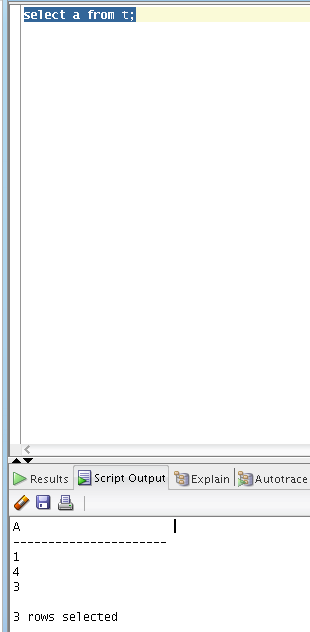
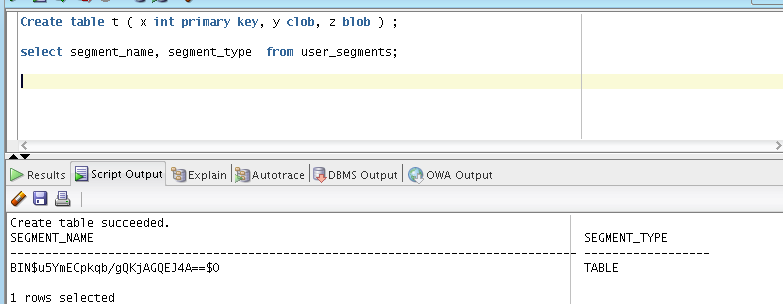
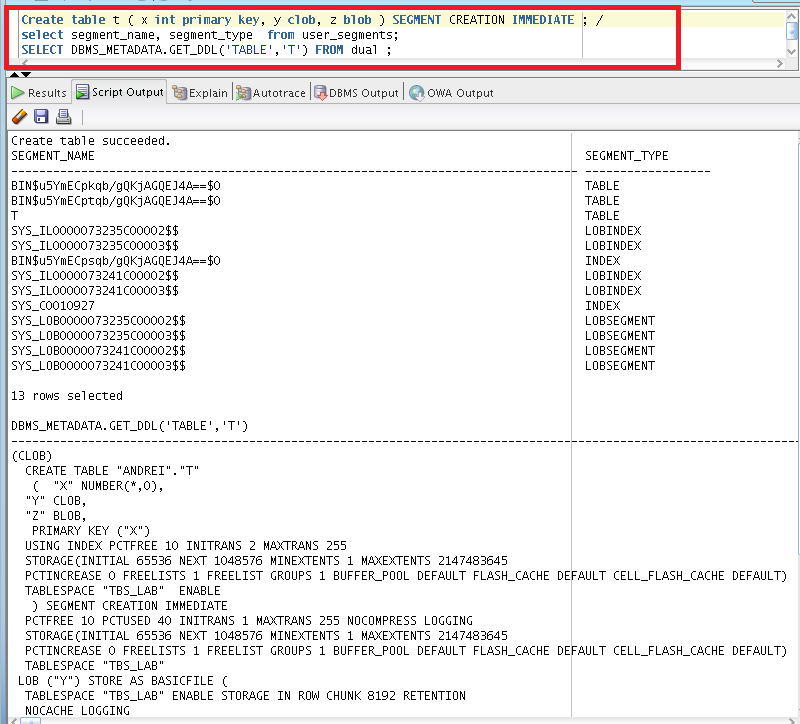
## Task 1 – Heap Understanding



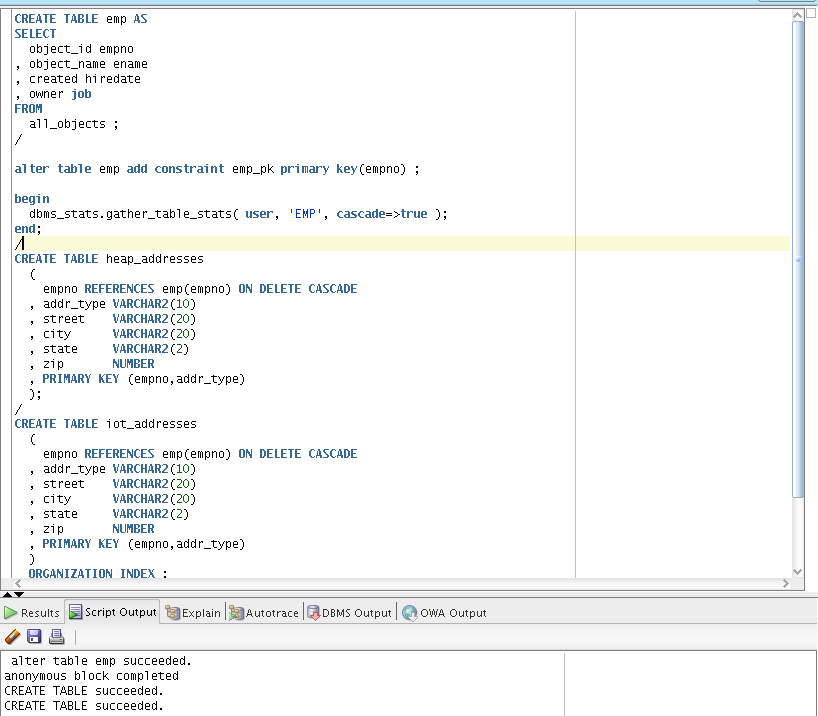


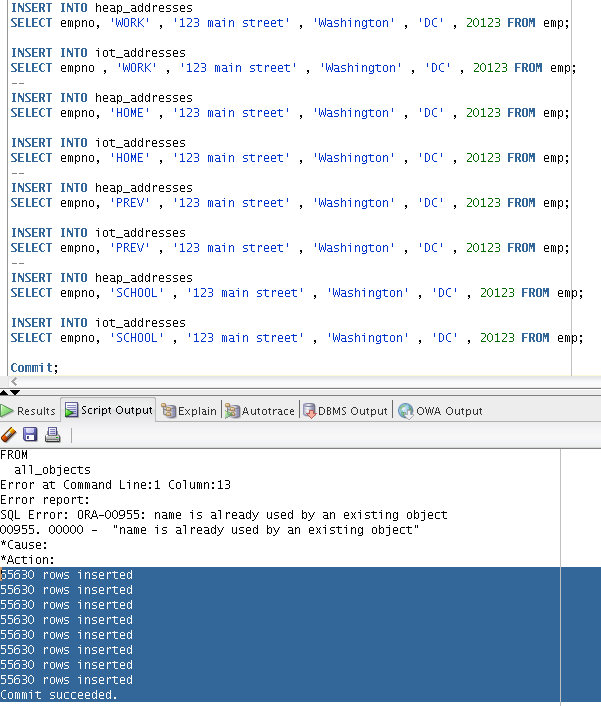
**Task 2 – Understanding Low level of data abstraction: Heap Table Segments**

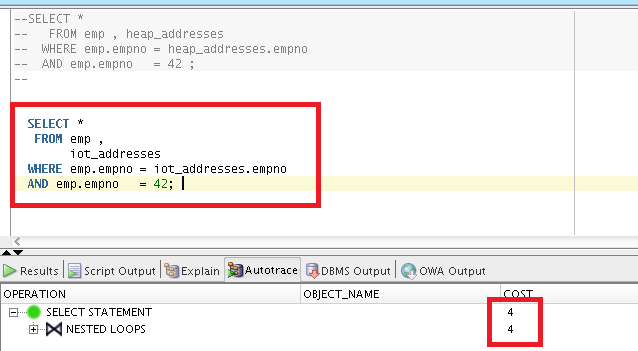
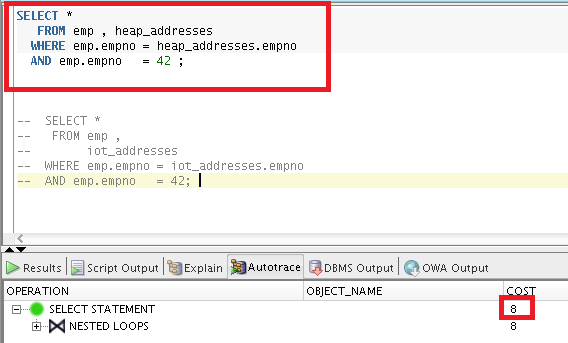
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# Index Organized Tables

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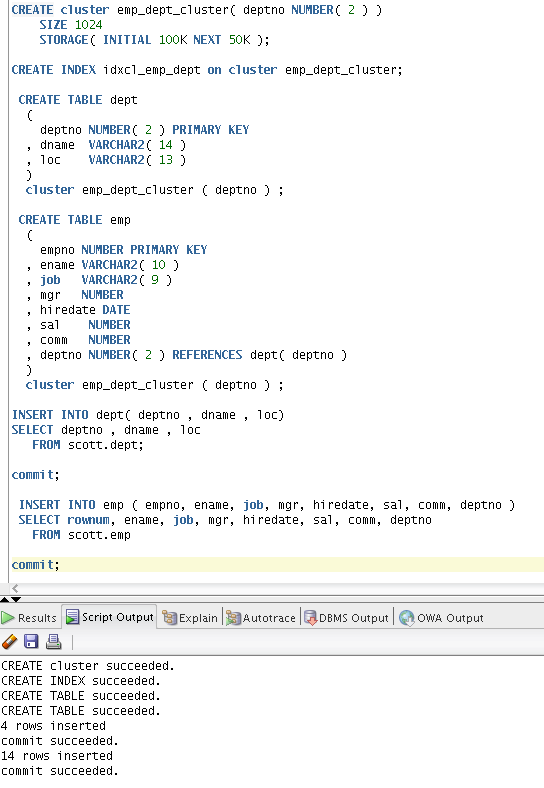
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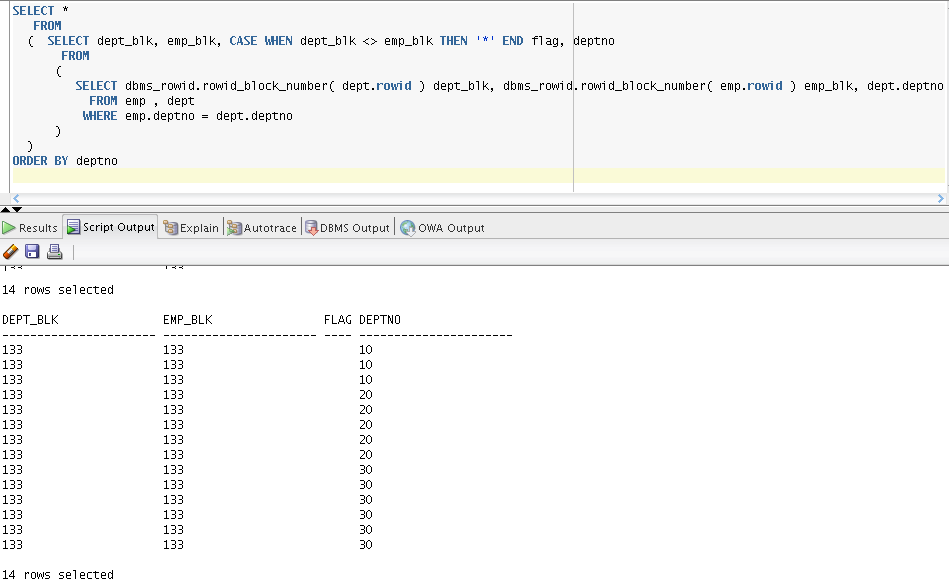
**As we can see, the «cost» is lower, when we use index organized table in query.**

**In Where clause, we used emp.empno field, one time for join and one time to find all rows where emp.empno=42.**

**In heap table we should overlook all rows to read value from empno field. But in IOT using B\*tree structured table by empno field, we found directly all rows with required values.**

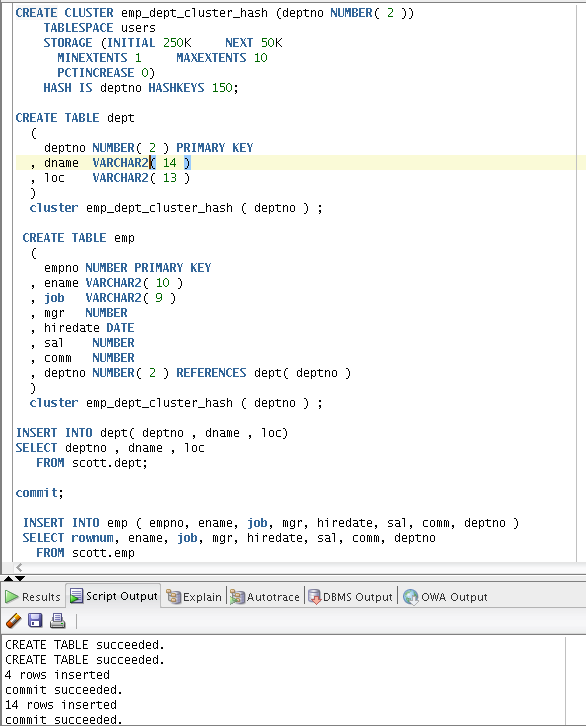
# Index Clustered Tables

****

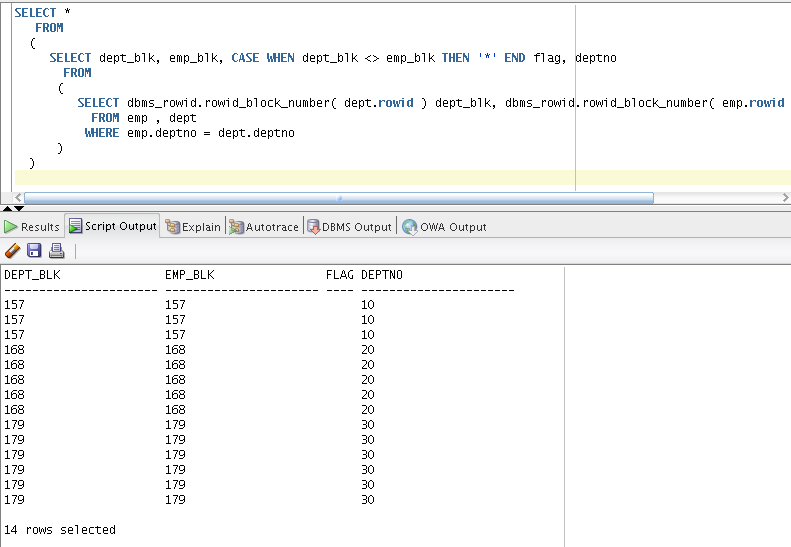
****

Data from many tables may be stored on the same block. This query show equal number of block where field deptno is storing ☺

# HASH Clustered Tables

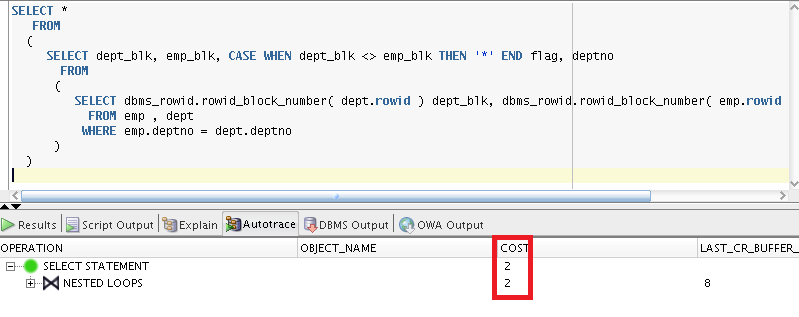
****

**Hash**

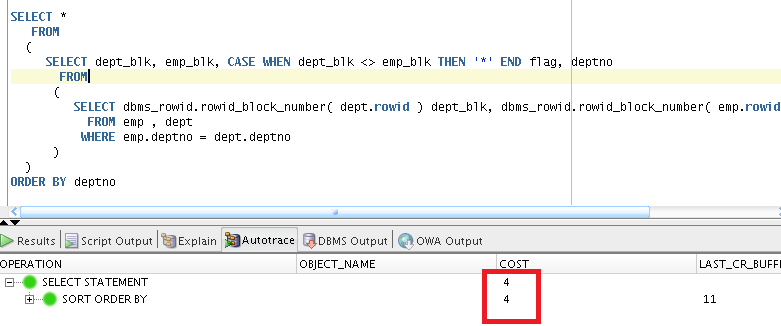
****

We see ,that equal deptno values still stored on the same block, but now this blocks are not placed together.

Hash cluster

****

Index cluster

****

**In Hash clustered table, instead of using a B\*Tree index to locate the data, them locate data by hash cluster key. Using hash is more faster way to get data. You can see in on my screenshots.**

