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| EPAM Systems, RD Dep. |
| MTN.BI.07 Partitioning |

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| REVISION HISTORY | | | | | |
| Ver. | Description of Change | Author | Date | Approved | |
| Name | Effective Date |
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# Hands-On Task

Create any table with some kind of partitioning to show next concepts:

**SQL-script for creating table:**

CREATE TABLE part\_table

( key\_column NUMBER NOT NULL,

name\_c varchar2(20),

birth\_date date

)

PARTITION BY RANGE (birth\_date)

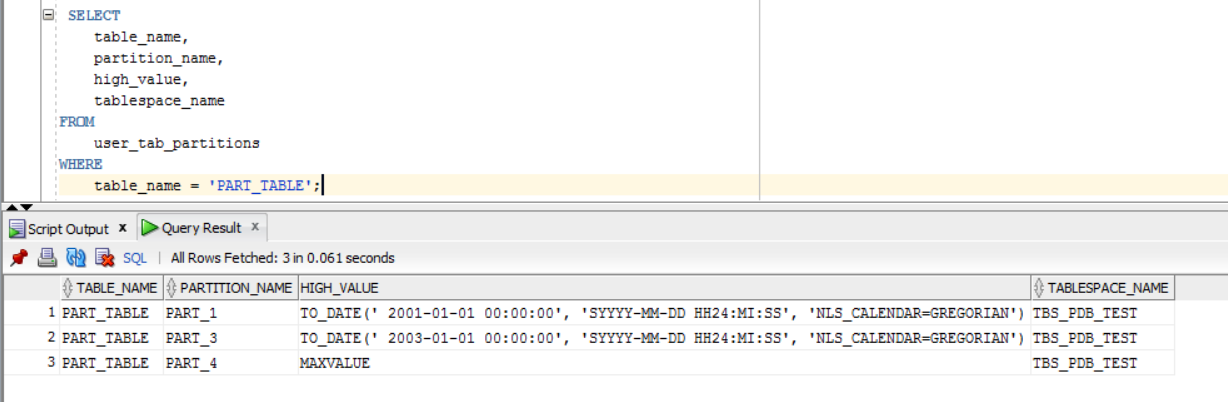
(

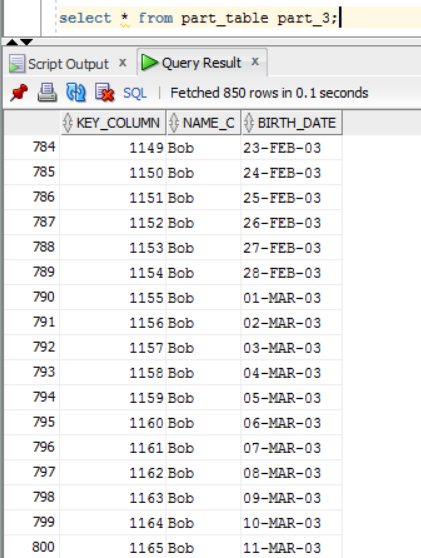
PARTITION part\_1 VALUES LESS THAN (to\_date('01.01.2007','DD.MM.YYYY')),

PARTITION part\_3 VALUES LESS THAN (to\_date('01.01.2009','DD.MM.YYYY')),

PARTITION part\_4 VALUES LESS THAN ( MAXVALUE )

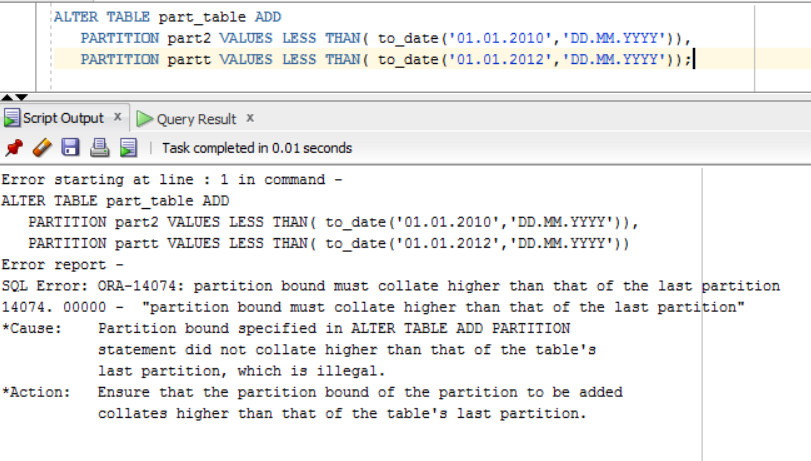
);





* Adding Partition

The screenshot below demonstrate, that I have an error while adding new partitions because there is a partition with values less than maxvalue.

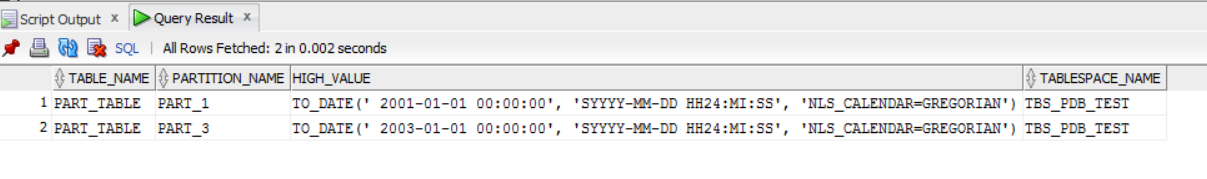


* Dropping Partition.

To drop partition alter table *table\_name* drop partition *partition\_name* is used:

alter table part\_table drop partition part\_4;

Now the partition with values less than maxvalue has been dropped.

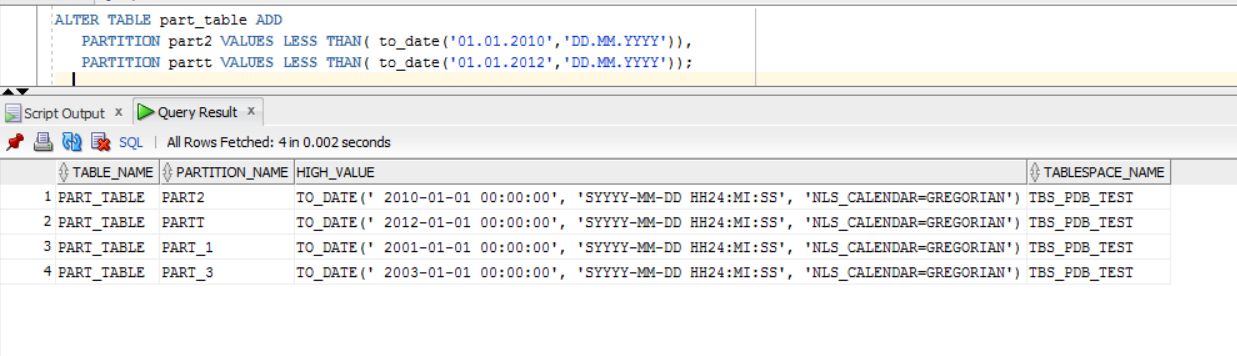


After that new partitions have been **added**.

ALTER TABLE part\_table ADD

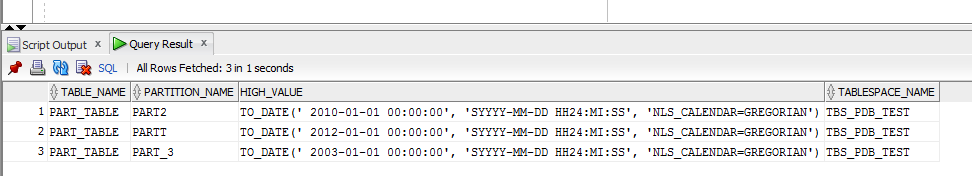
PARTITION part2 VALUES LESS THAN( to\_date('01.01.2010','DD.MM.YYYY')),

PARTITION partt VALUES LESS THAN( to\_date('01.01.2012','DD.MM.YYYY'));



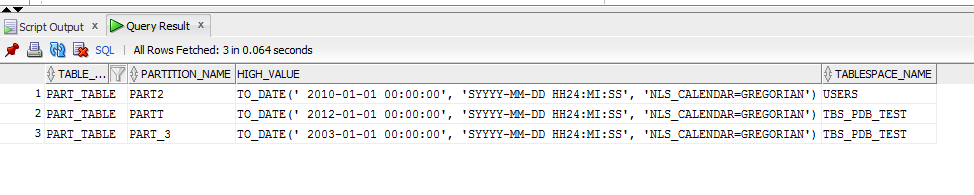
* Merging Partition.

alter table part\_table merge partitions part\_1, part\_3 into partition part\_3;



* Moving Partition.

ALTER TABLE part\_table MOVE PARTITION part2 TABLESPACE users NOLOGGING COMPRESS;



* Splitting Partition.
* Truncating Partition
* Coalescing Partition.

# Analytical task

## Partitioning

Add chapter on describing Fact table partitioning strategy, which fields will it be based on and why (use composite partitioning).

## Business

Create a report layout of the task you are trying to solve with your DWH (e.g. 'I want to analyze my sales on month and customers' region location and product type'). It could be done in Excel (just some headers, colors, dummy numbers, and little description) or any other tool of your preference. This would help to understand what task we are trying to solve.

# Results

Result of this lab work should be:

* Screenshots and description of partitioning maintenance operations.
* Chapter in document about advantages of partitioning the fact table in described way.
* Chapter in a document describing needed reports with possible layouts.