## Advantages of integrating Oracle and Hadoop

- Best of two worlds:
  - Oracle: Online Transactional System
  - Hadoop: Large-Scalable Data Warehouse

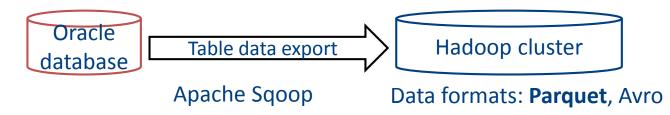
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- Hybrid systems:
  - Move (read-only) data from Oracle to Hadoop
  - Query Hadoop data from Oracle (using Oracle APIs)
  - Also possible: query Oracle from Hadoop
- Increase scalability and lower ratio cost/performance
  - Hadoop data formats and engines for high performance analytics
  - ....without need of changing the end-user apps connecting to Oracle

## Offloading from Oracle to Hadoop

• Step1: Offload data to Hadoop



• Step2: Offload queries to Hadoop



SQL engines: Impala, Hive

## Making data sources transparent to end-user

- Hybrid views on Oracle
  - Recent (read-write) data in Oracle
  - Archive data in Hadoop
  - Advantages: Hadoop performance with unchanged applications (Oracle APIs)

Split point has to be updated after each successful data offload

```
create view hybrid_view as
select * from online_table where date > '2016-10-01'
union all
select * from archival table@hadoop where date <= '2016-10-01'</pre>
```