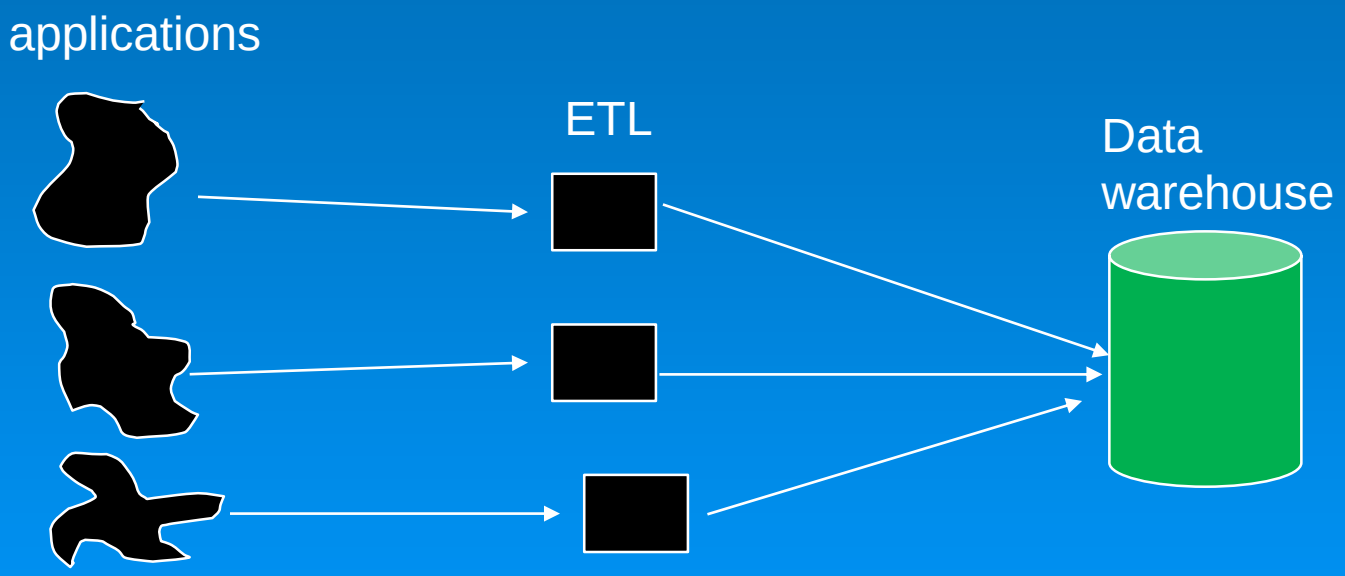
LAKEHOUSE AND WAREHOUSE – A COMPARISON

A presentation by
W H Inmon



The data warehouse infrastructure

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A fundamental transformation of data occurs

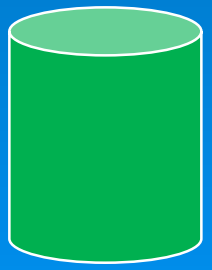
applications

Gender – m/f
Distance - inches

Gender – male/female
Distance - feet

Gender – 1/0
Distance - cms

Data warehouse



Gender – m/f
Distance - feet

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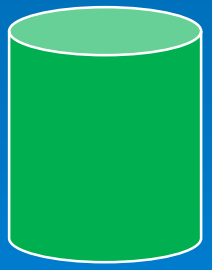
Data warehouse



Data warehouse –
- subject oriented
- integrated
- non volatile
- time variant

collection of data for management decisions

The single version of the truth

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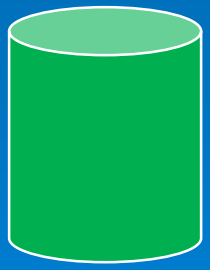
Data warehouse



Historical data as well.

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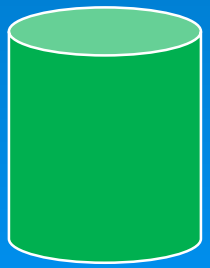
Structured, transaction based data

Data warehouse



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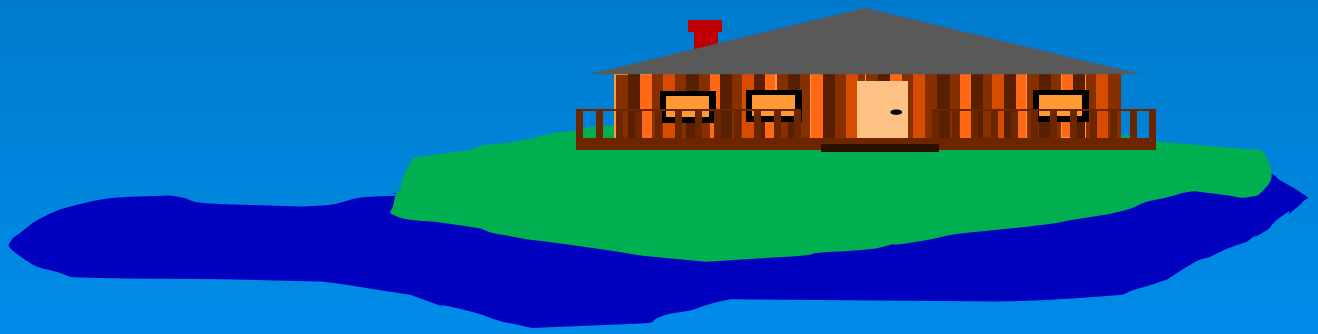

The data lakehouse

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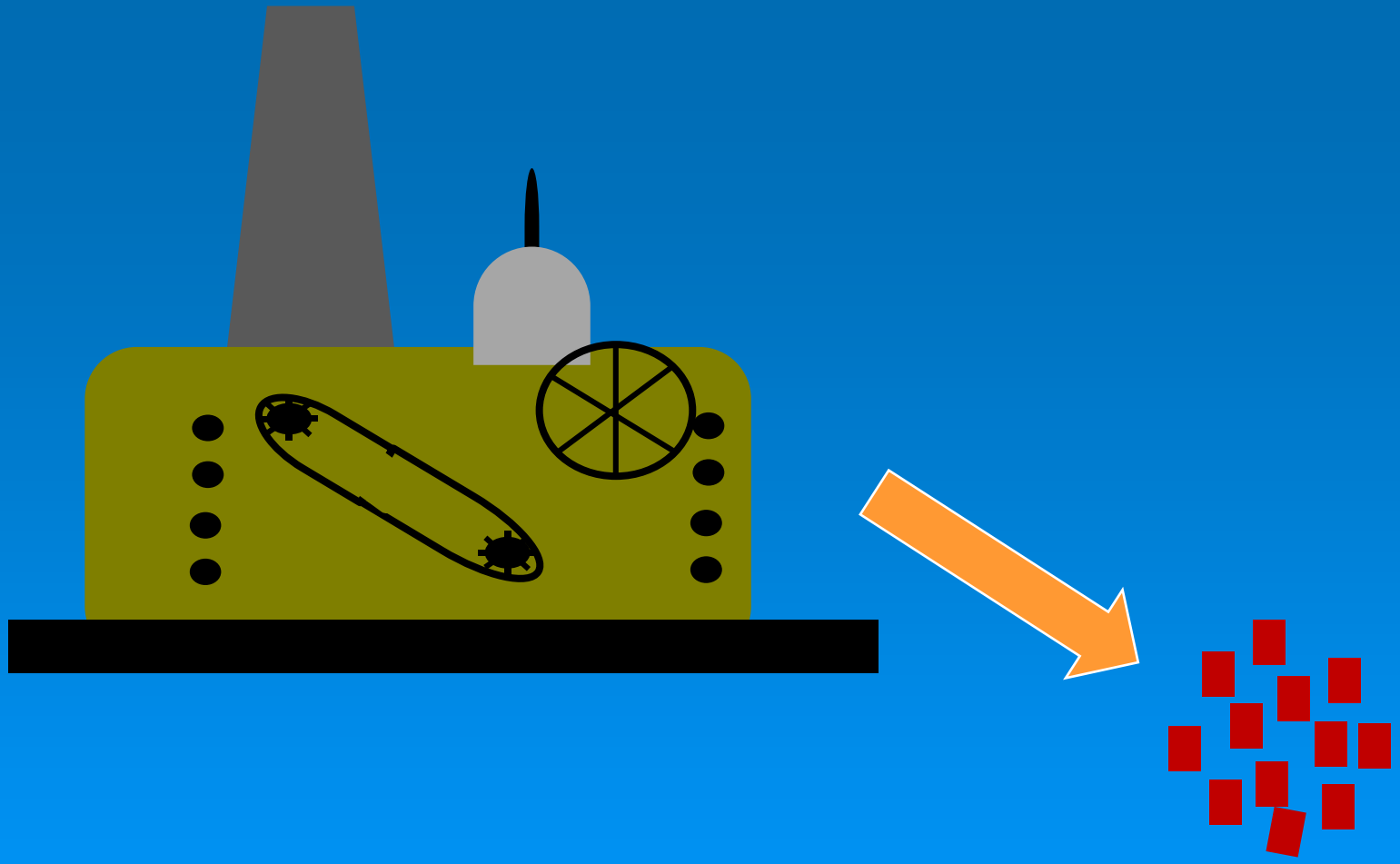

Machine generated data

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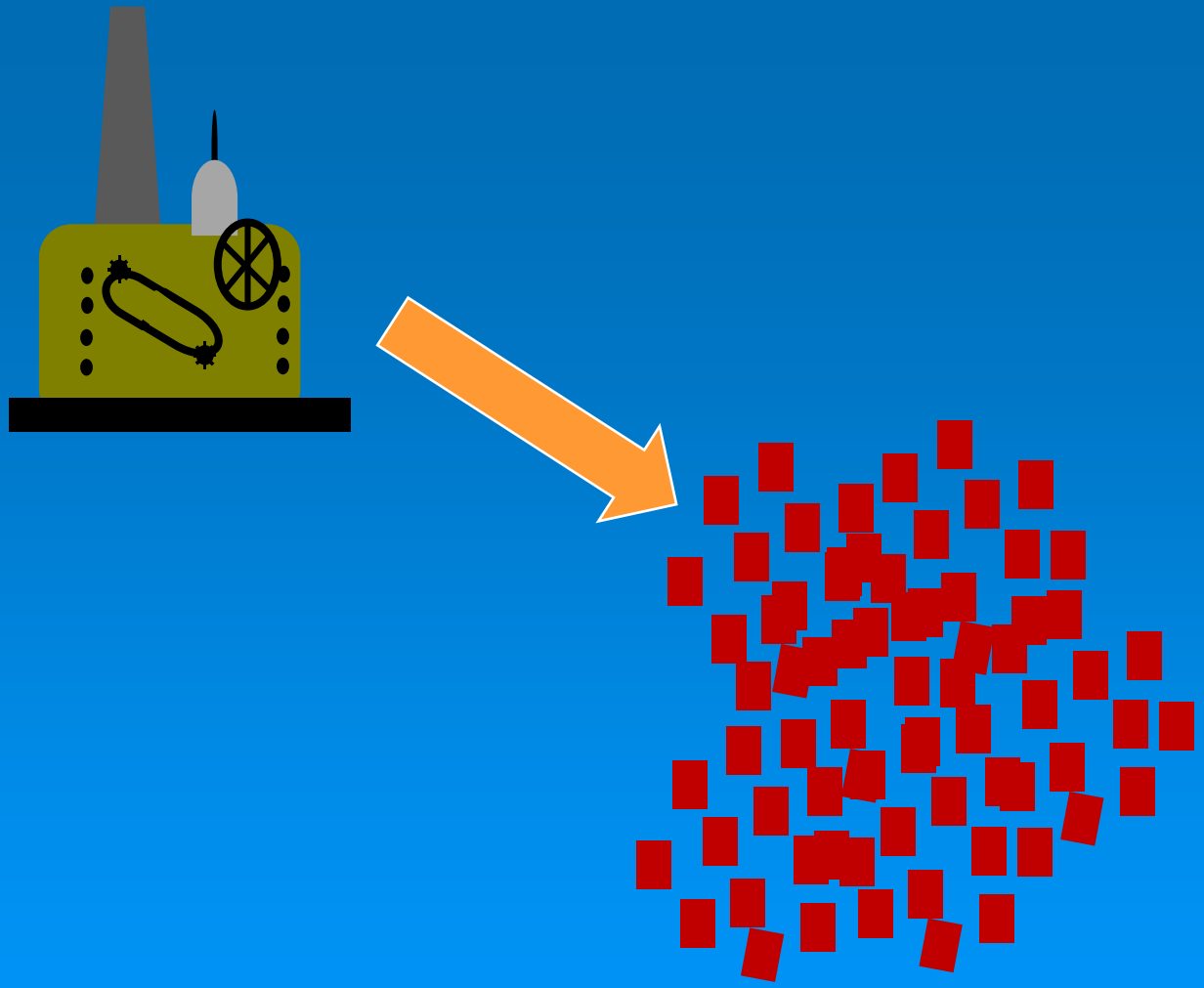

A lot of data generated

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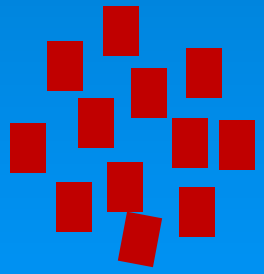
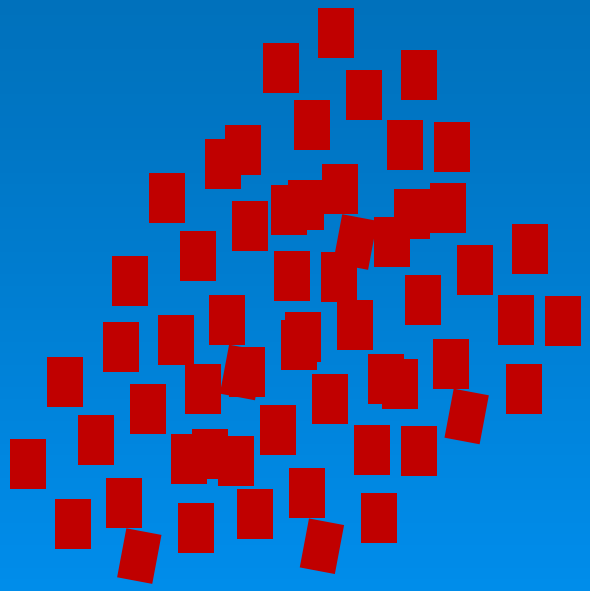
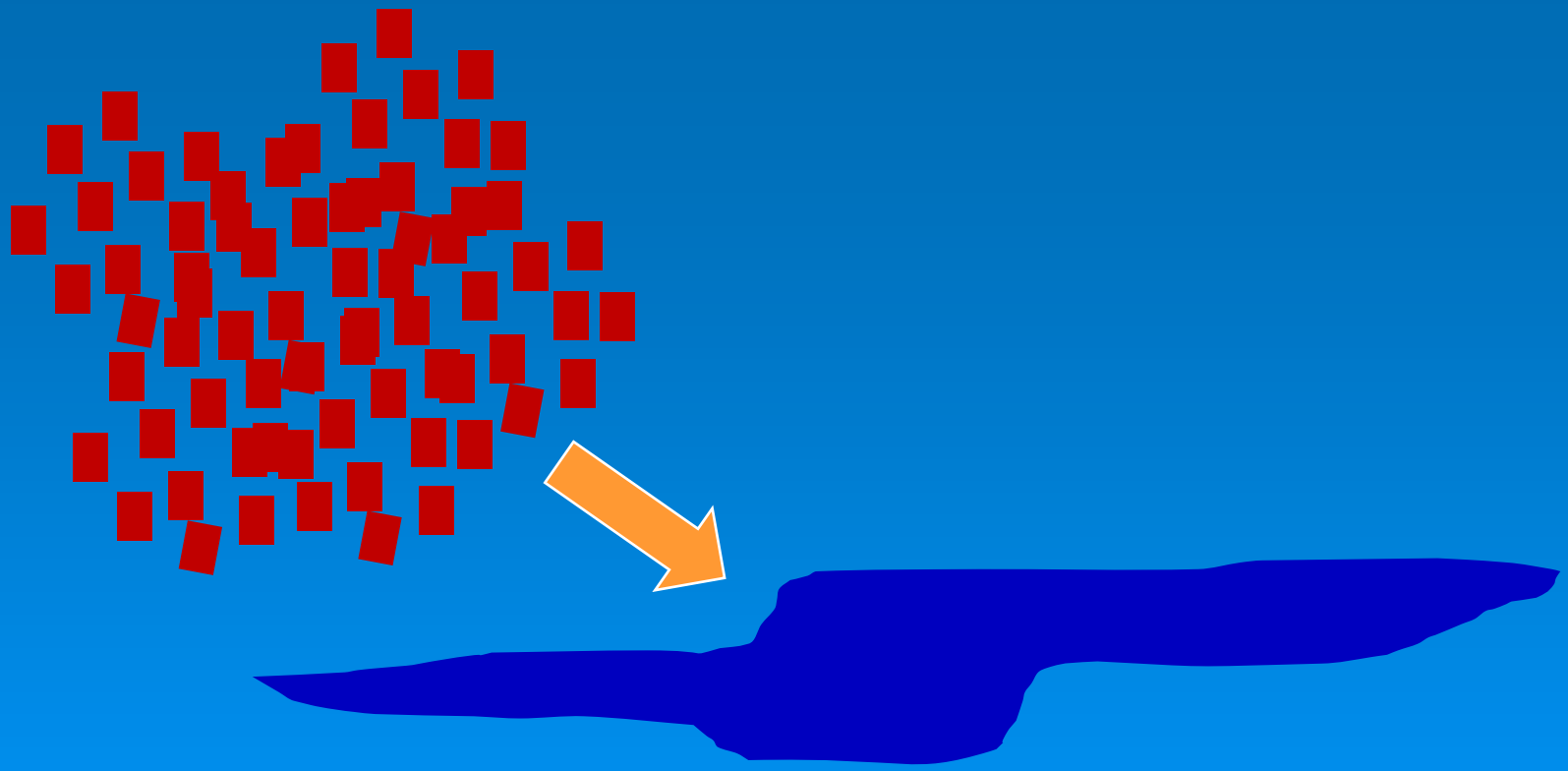
Some data has high business value,
much data has little business value

High business value





Low business value



The data is put into a data lake

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An analytical infrastructure is placed over the data lake

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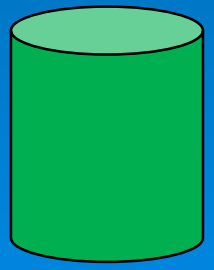
The data lakehouse



The data warehouse

How are the data lakehouse and the data warehouse
The same? How are they different?

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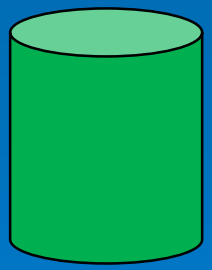
The data lakehouse



The data warehouse

The same -

Both exist to serve analytical processing
Both have vetted data – accurate, reliable
Both can look at data over a long period of time
Both have tame variant data
Both have data that once recorded cannot be changed

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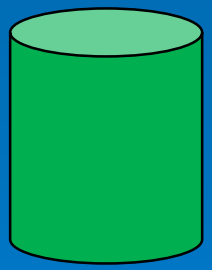
The data lakehouse



The data warehouse

Different -

There is MUCH MORE data in the lakehouse
The data is fundamentally different –
warehouse data is transaction based data
lakehouse data is machine generated data
The data structures are very different
Relating the two types of data is difficult to do

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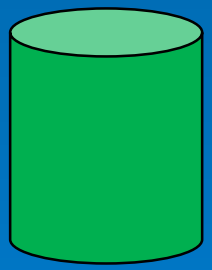
The data lakehouse



The data warehouse

Like cousins -

Related yet still different

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