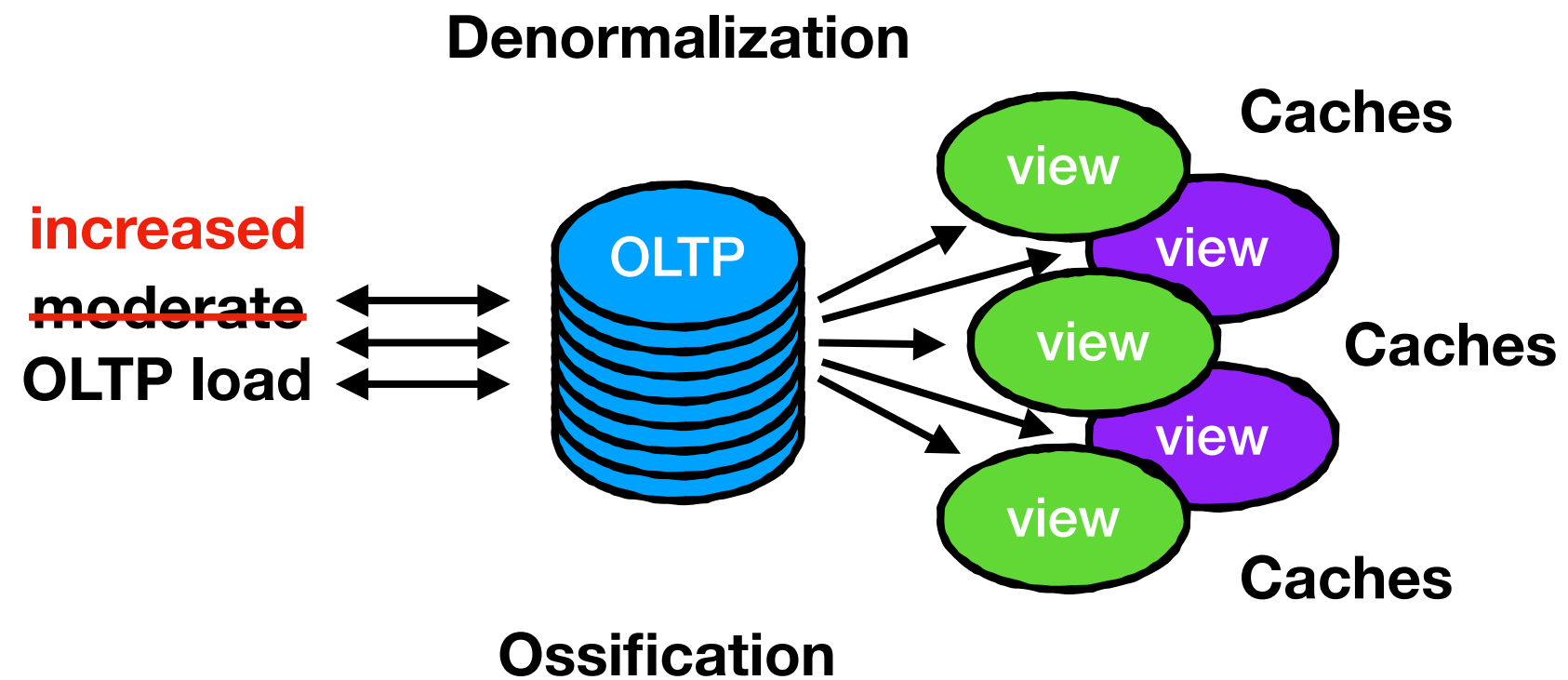




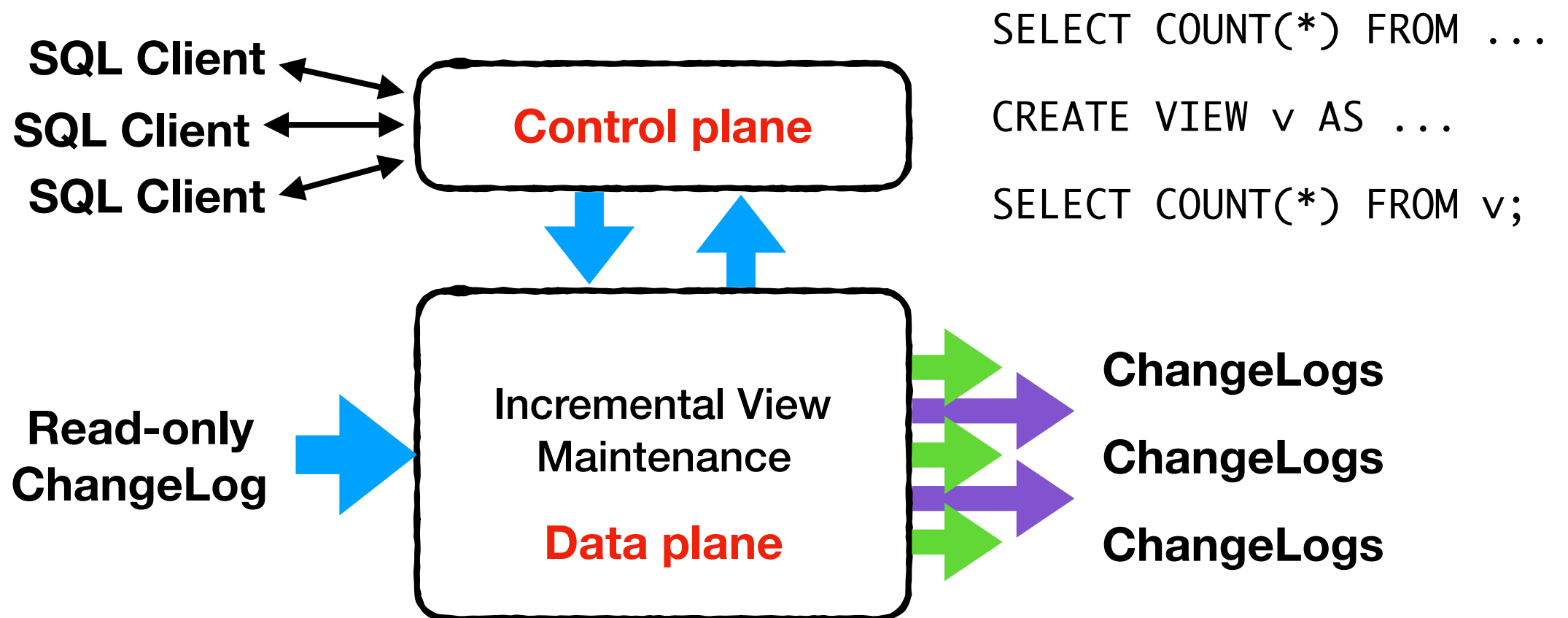
**MATERIALIZE**

# Why is Materialize?

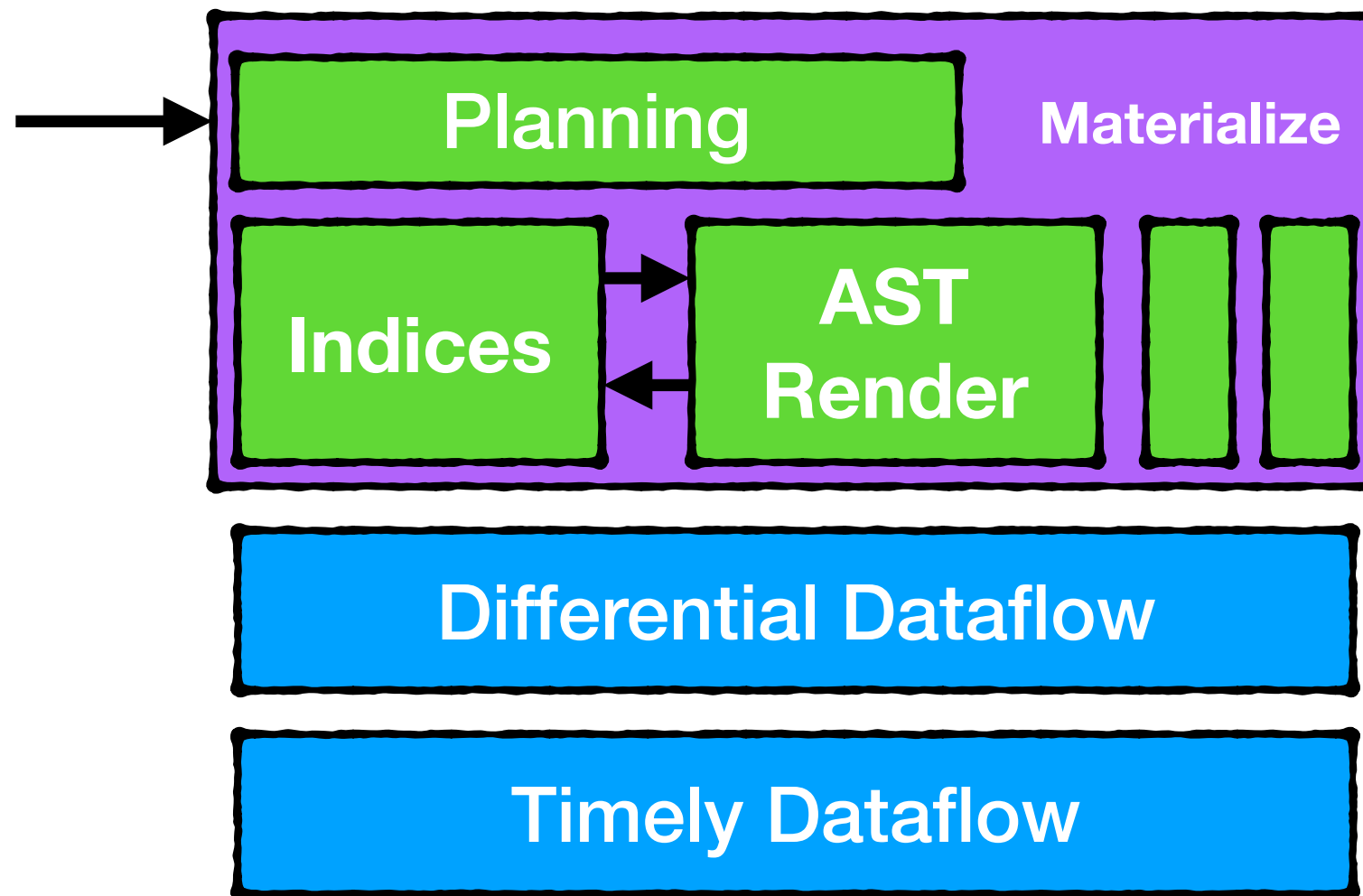


# What is Materialize?

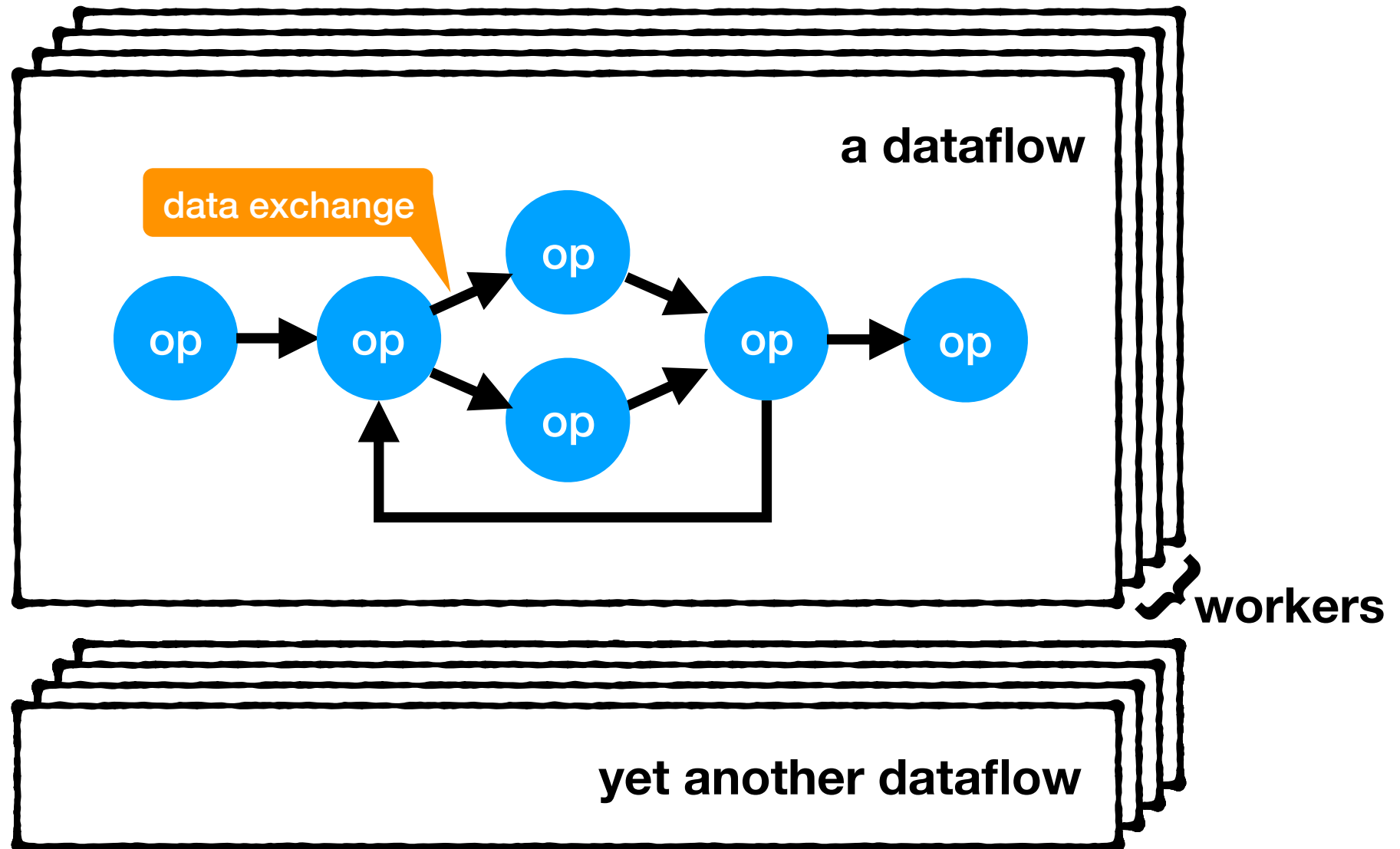
“incremental view maintenance offload”



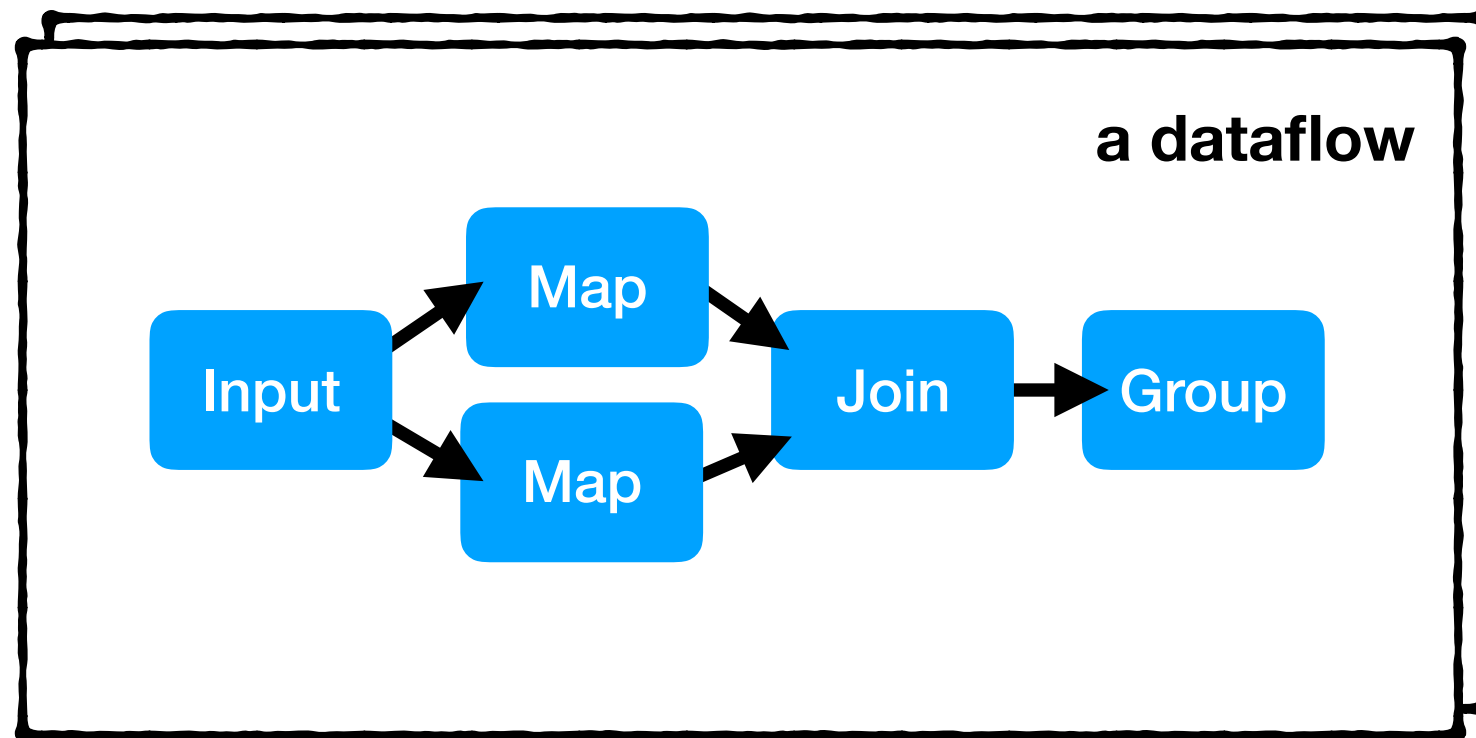
# The Materialize Stack



# Timely Dataflow



# Differential Dataflow



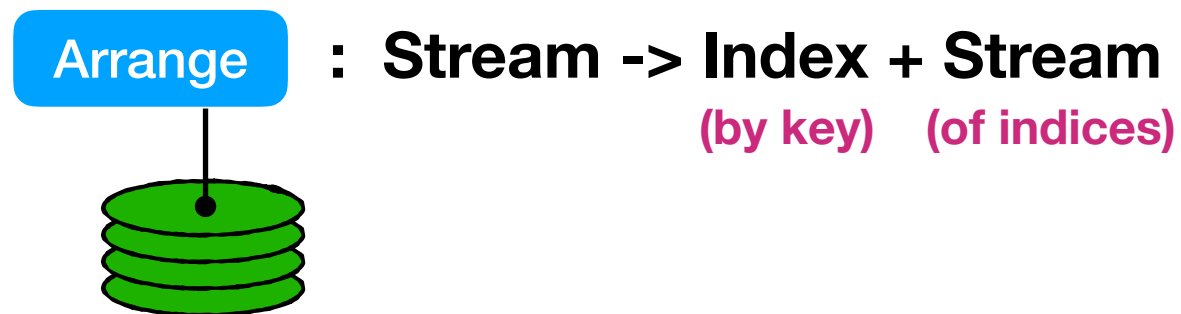
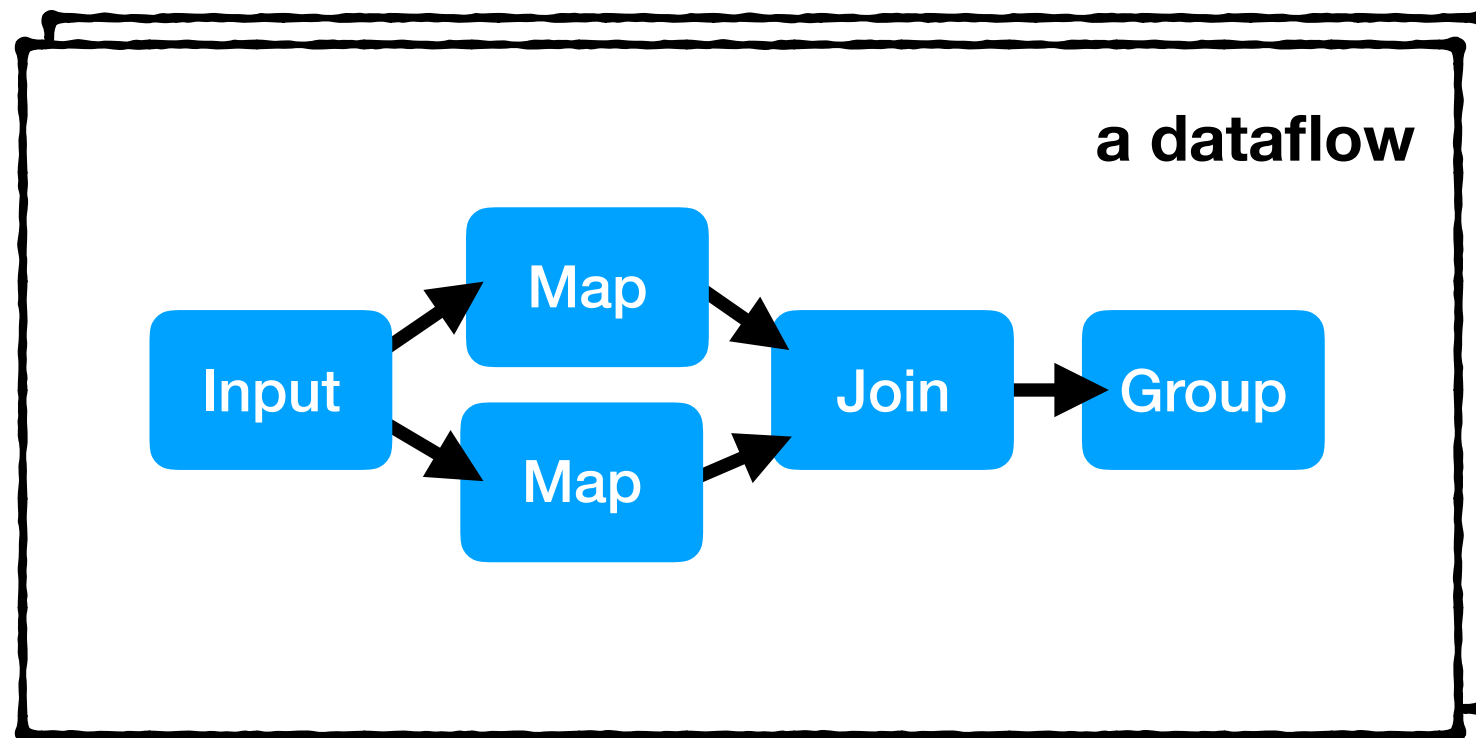
Streams of “updates”: (data, time, diff)

Operators produce “correct” output stream.

e.g. u64

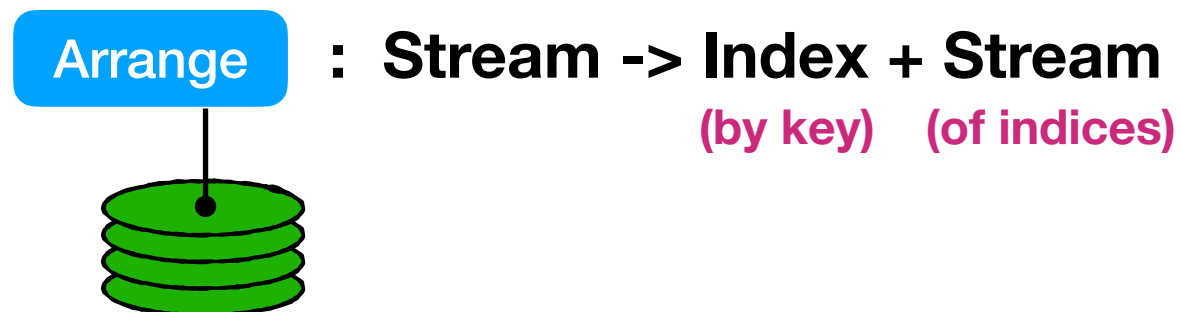
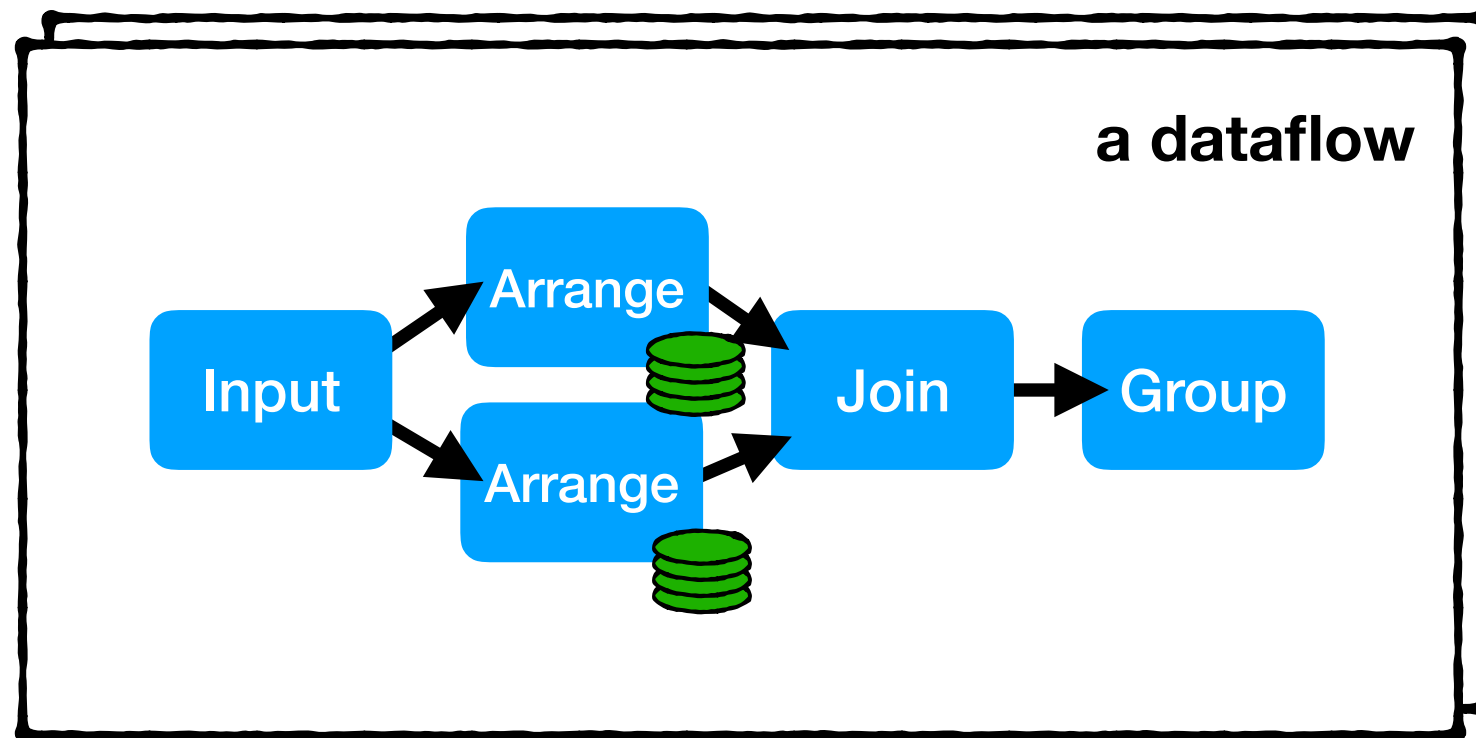
# Differential Dataflow

## Advanced Topic 1: Arrangements



# Differential Dataflow

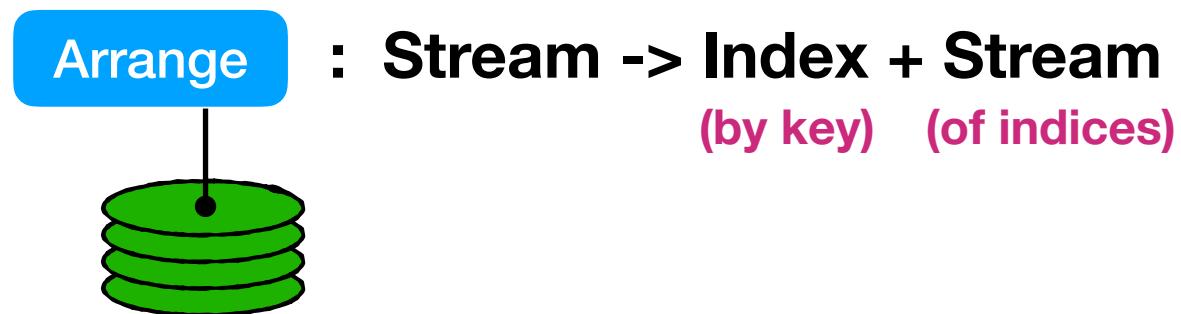
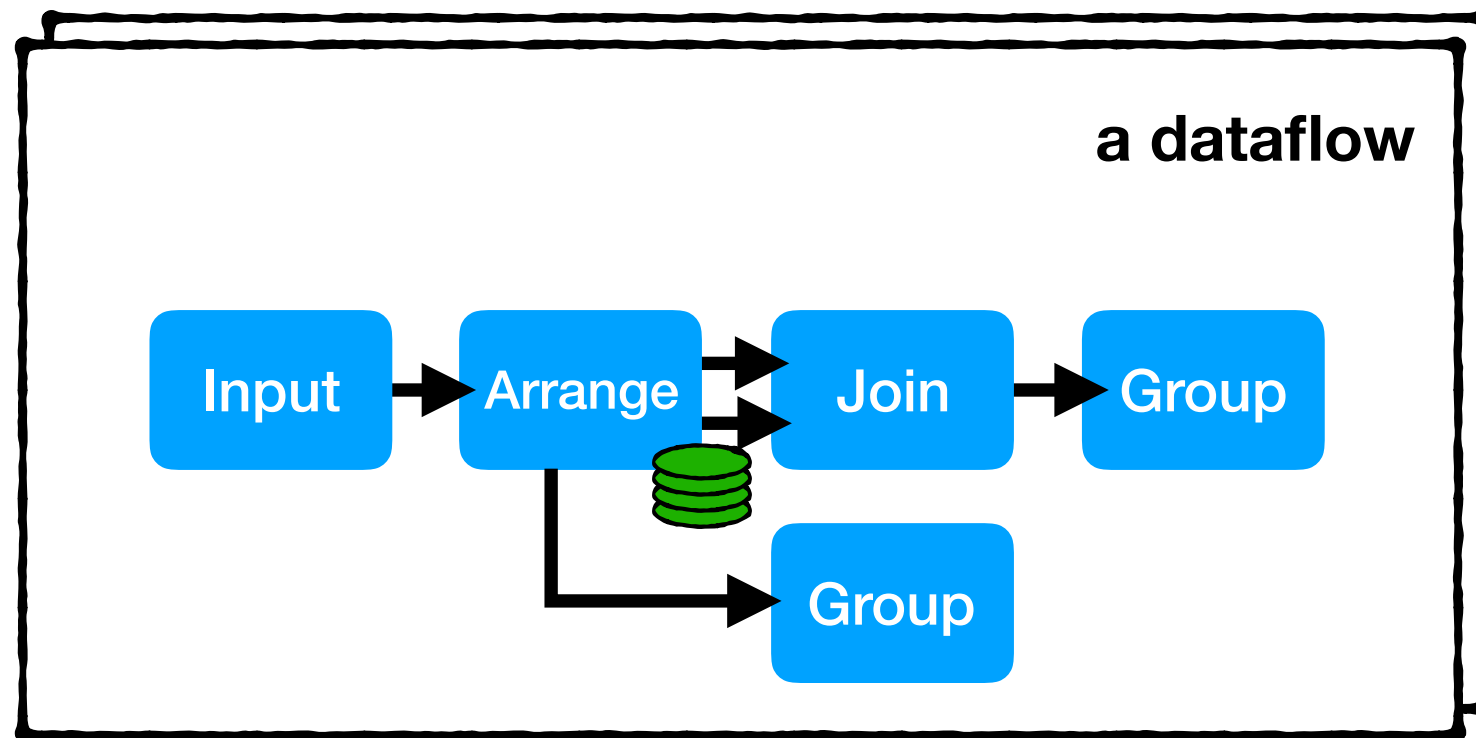
## Advanced Topic 1: Arrangements





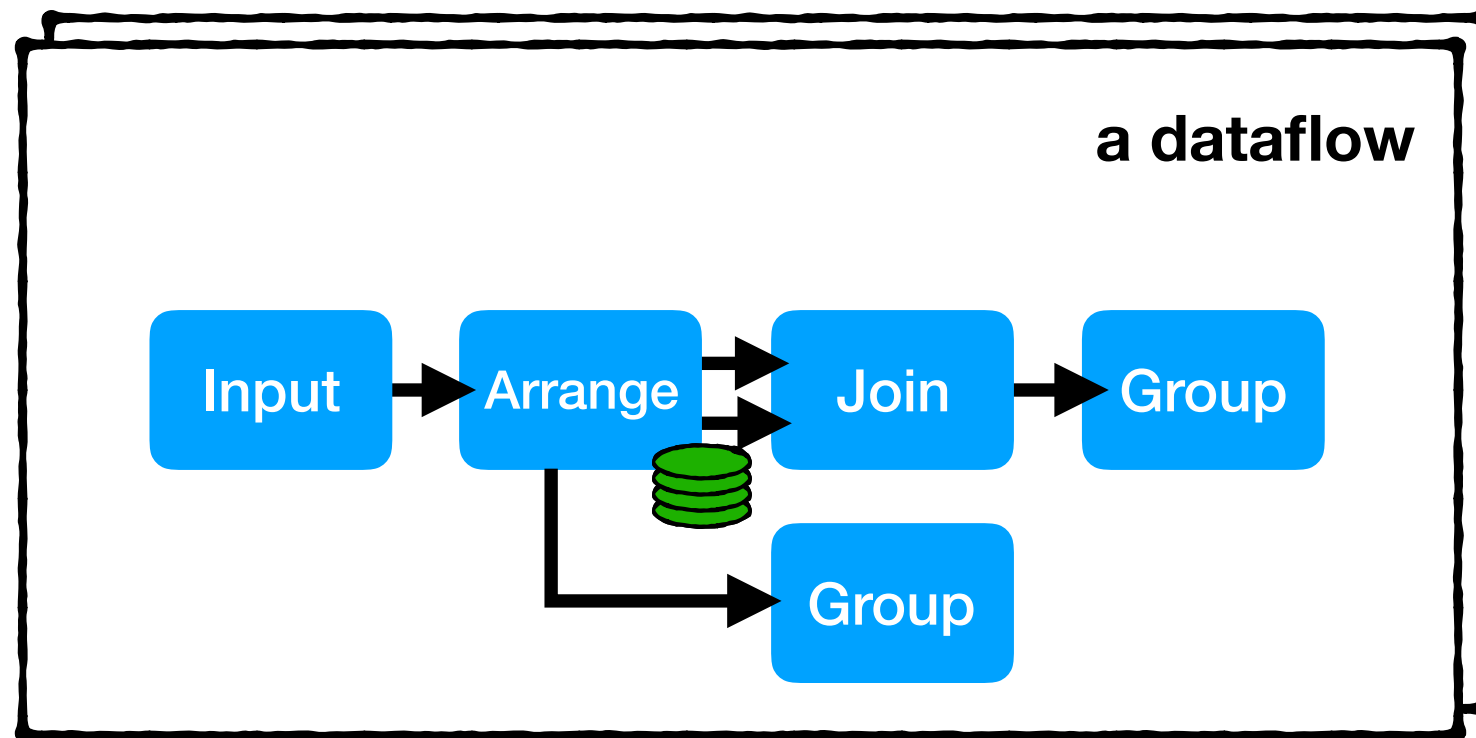
# Differential Dataflow

## Advanced Topic 1: Arrangements



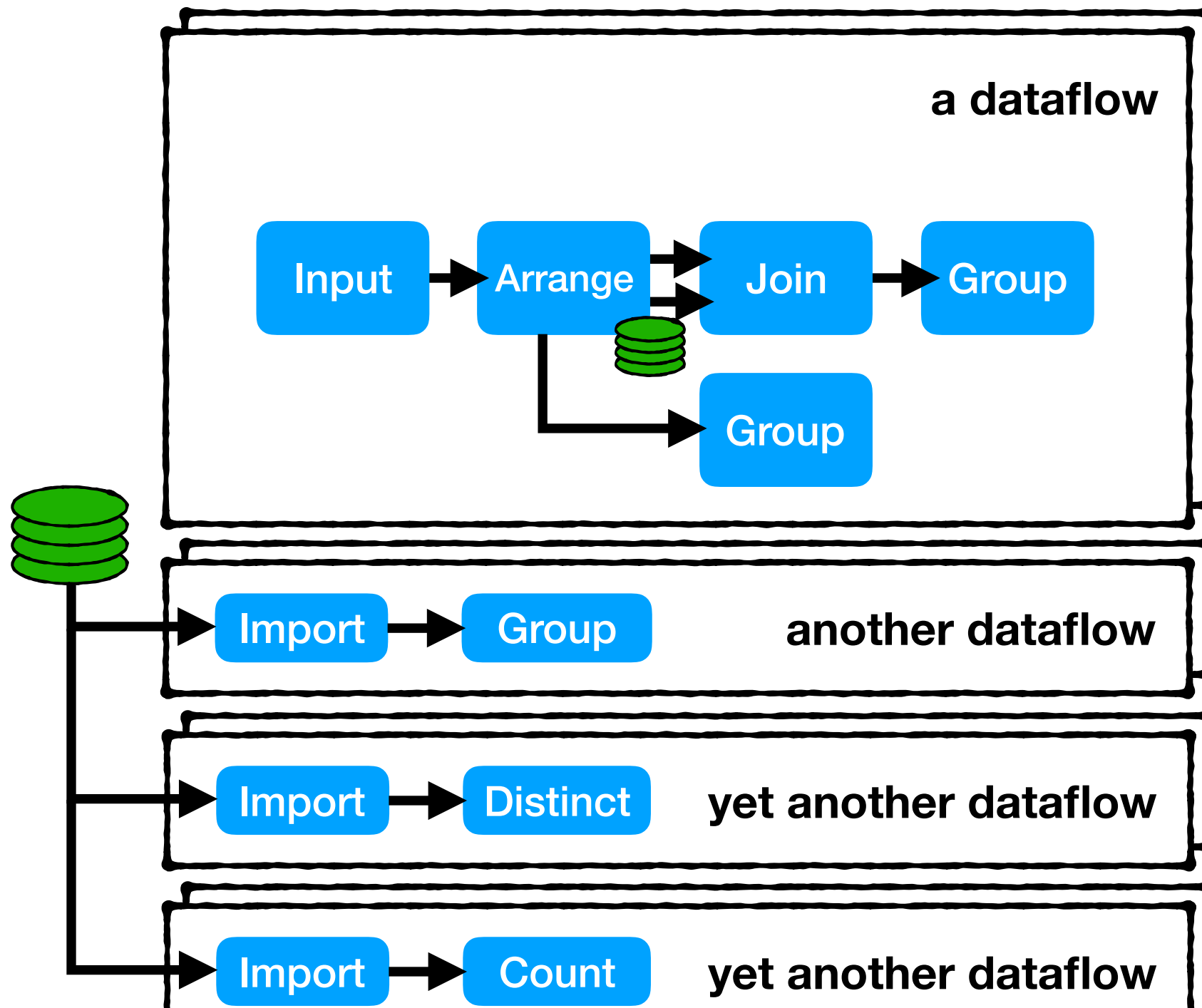
# Differential Dataflow

## Advanced Topic 1: Arrangements



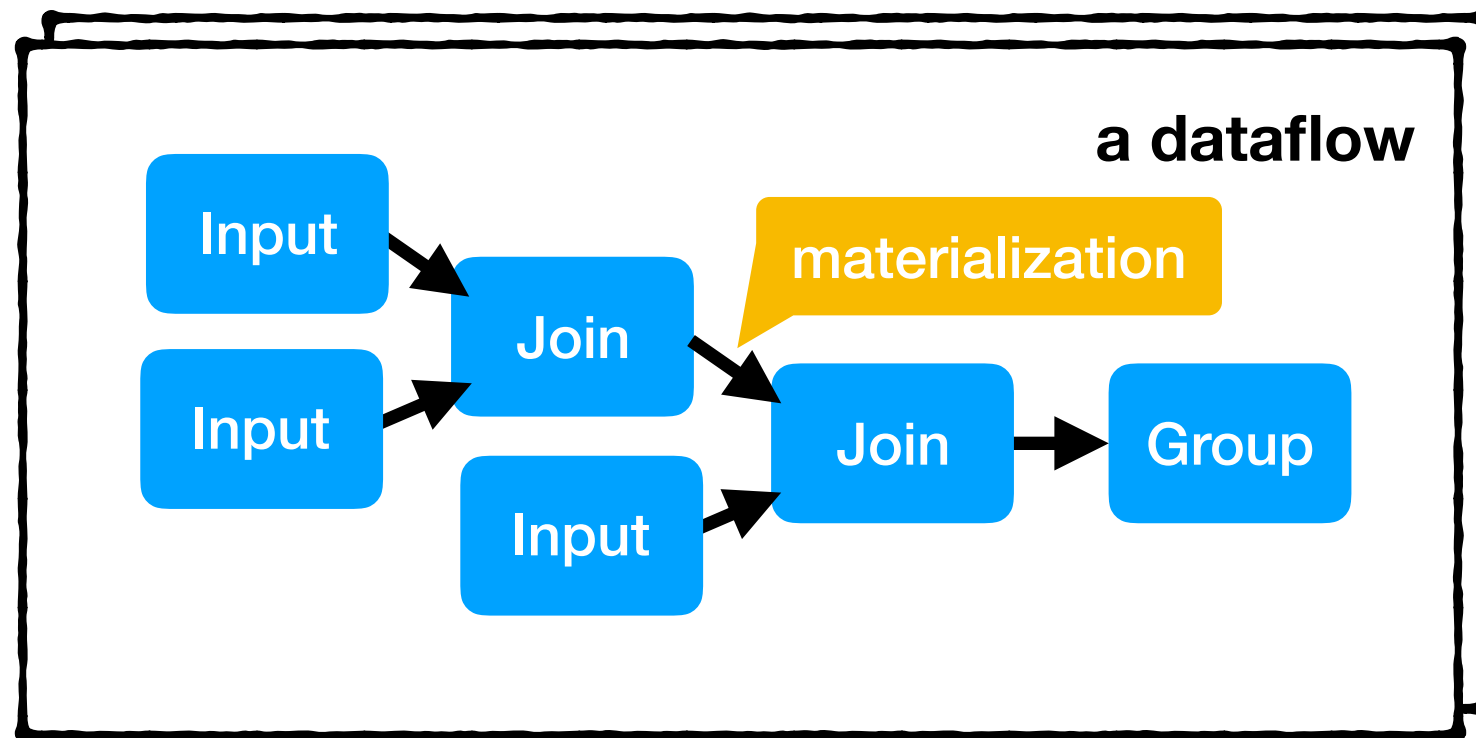
# Differential Dataflow

## Advanced Topic 1: Arrangements



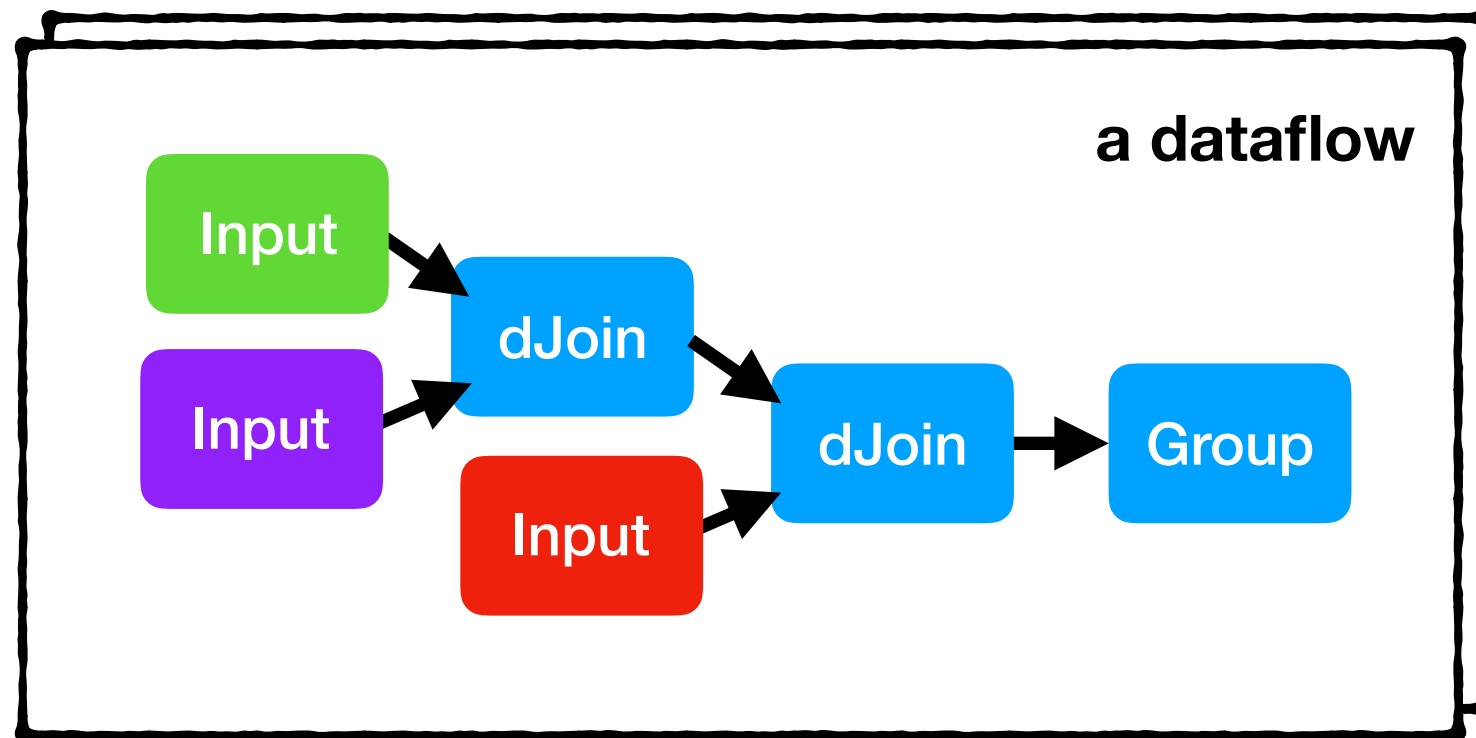
# Differential Dataflow

## Advanced Topic 2: Delta Queries



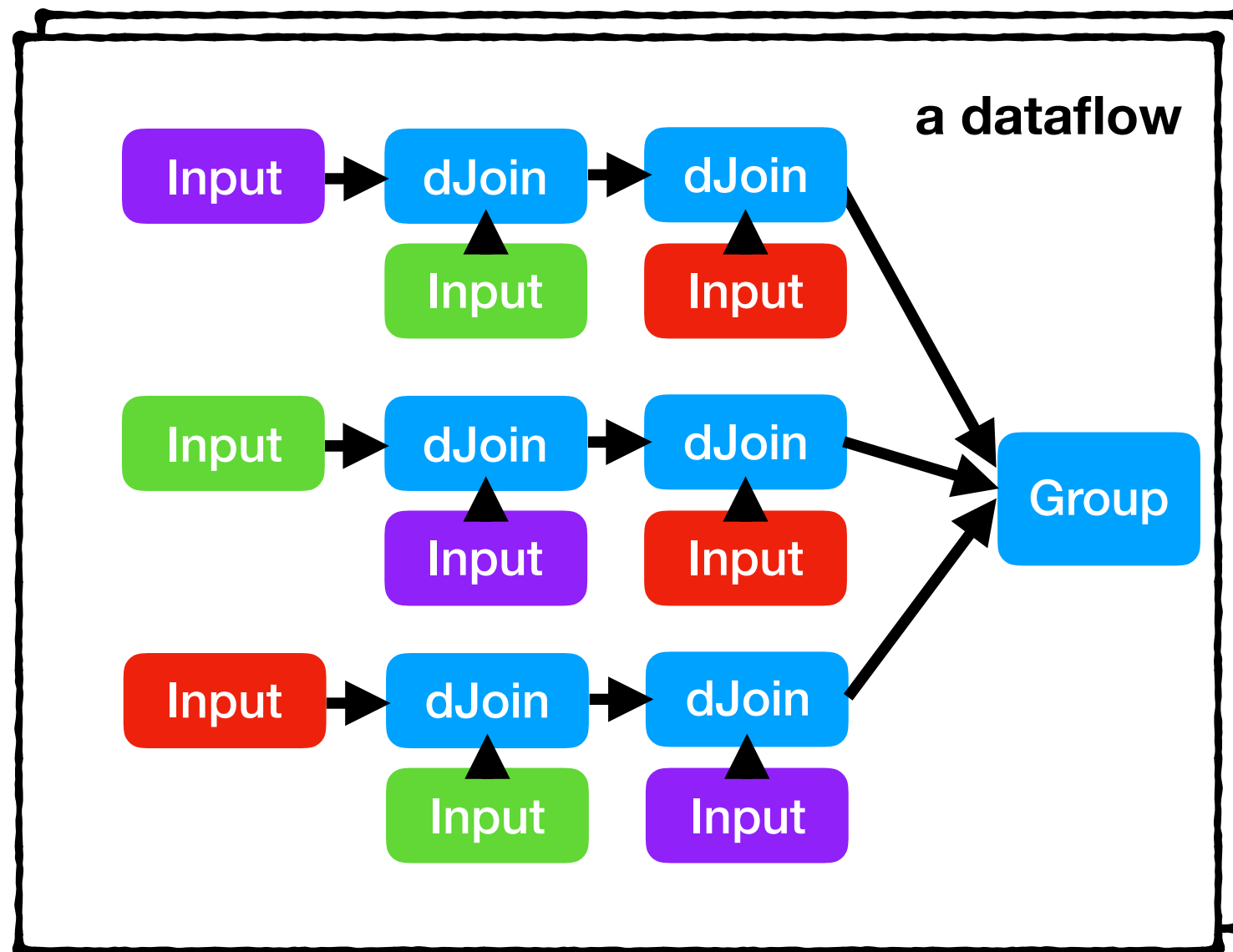
# Differential Dataflow

## Advanced Topic 2: Delta Queries



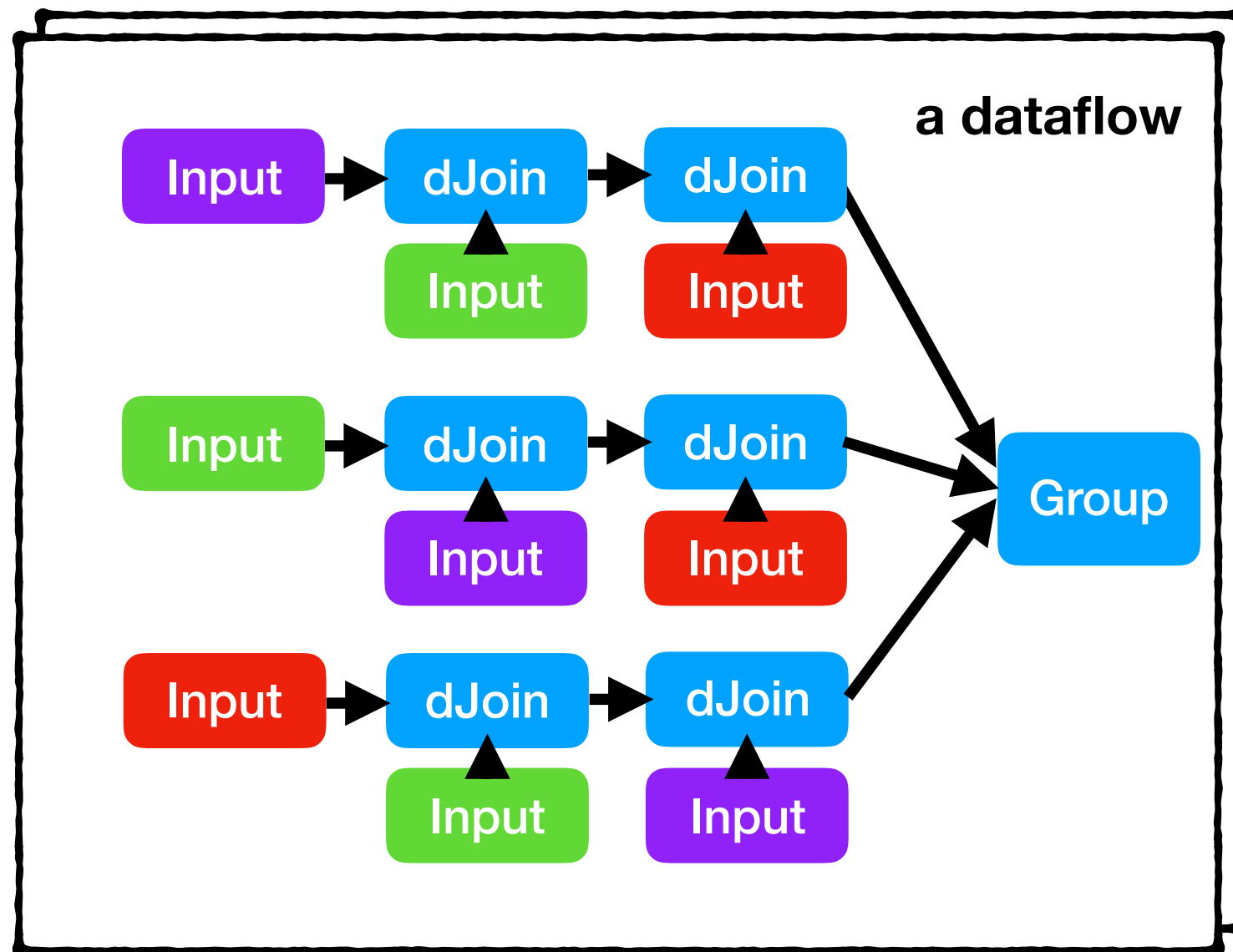
# Differential Dataflow

## Advanced Topic 2: Delta Queries



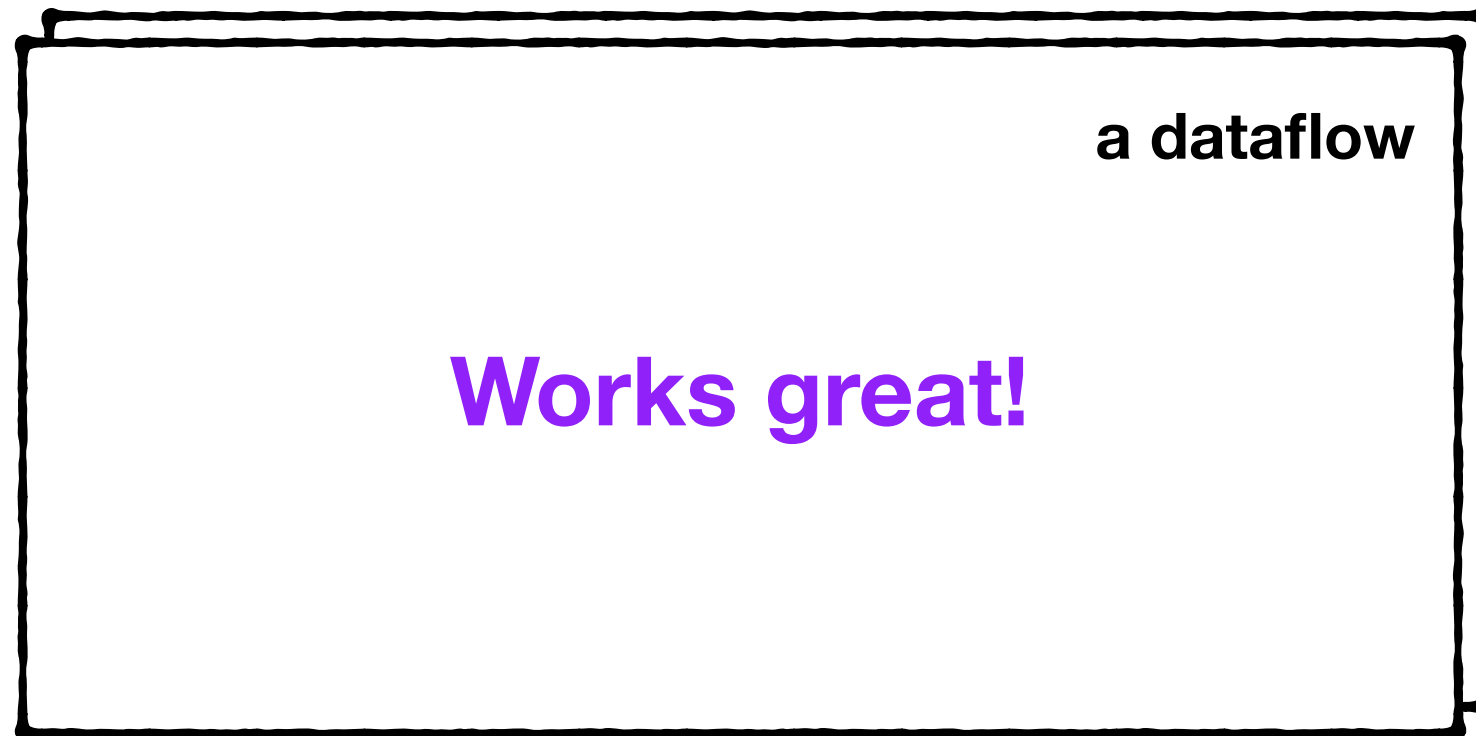
# Differential Dataflow

## Advanced Topic 2: Delta Queries



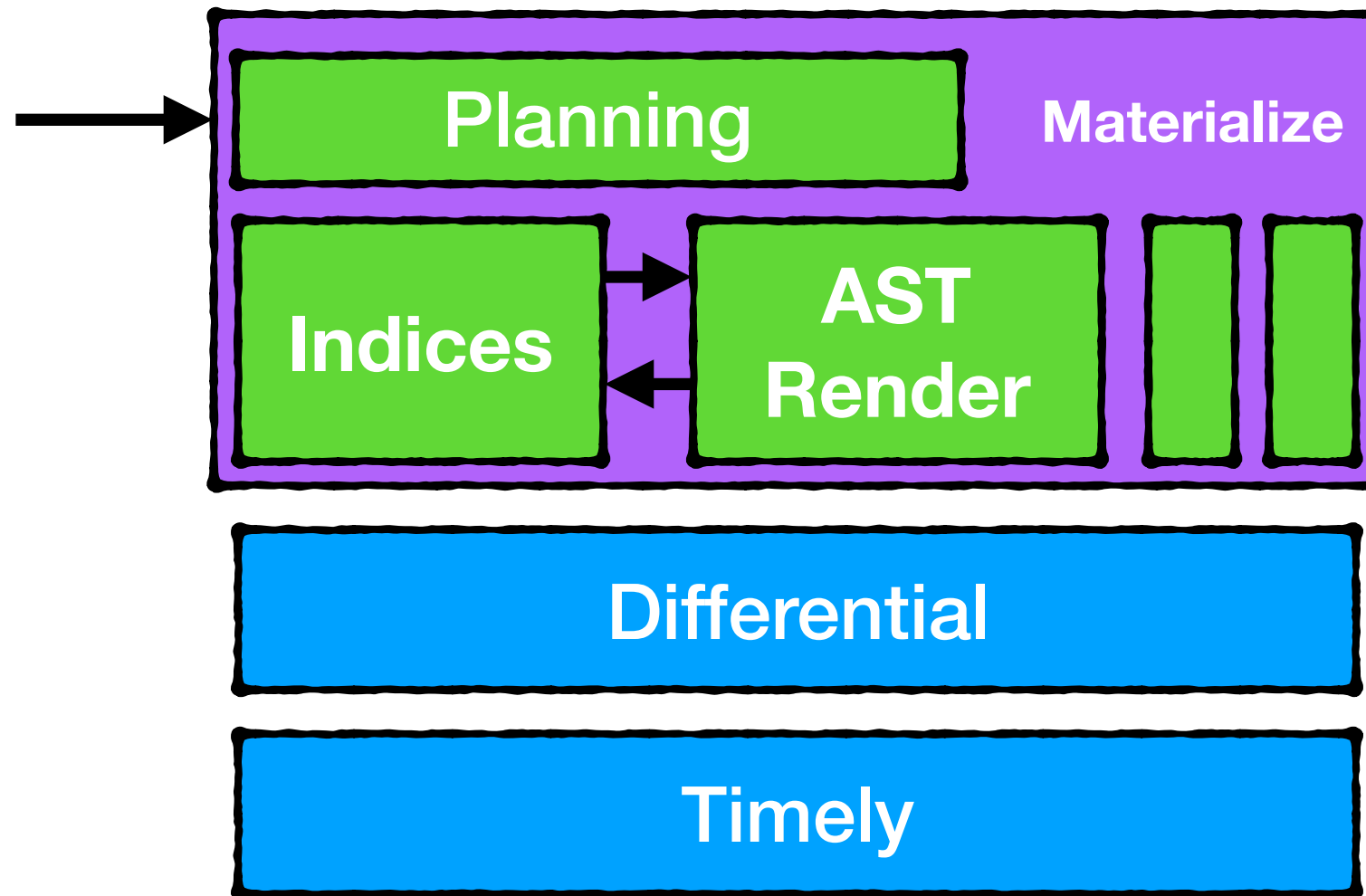
# Differential Dataflow

## Advanced Topic 3: Iteration

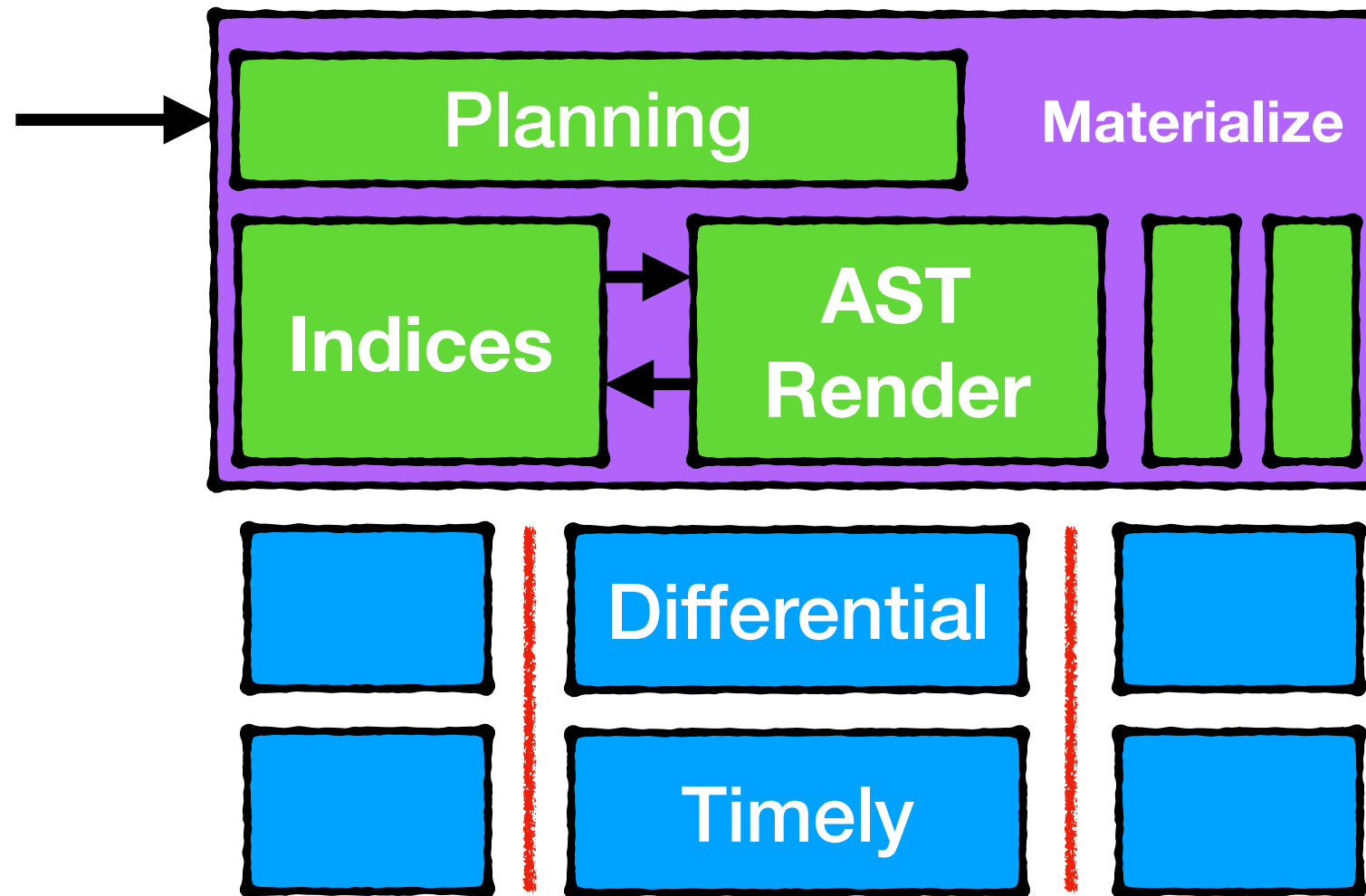




# The Materialize Stack



# The Materialize Stack





**MATERIALIZE .io**

**@frankmcsberry**