

Spark Core: Actions

transformations are
evaluated after an action
is performed



IO operations that trigger
the evaluation of the
transformation pipeline and
return the final result to
the driver program or
save the results to a
persistent storage

* "the last step in a
spark pipeline"

After this video you will be able to..

- Explain the steps of a Spark pipeline ending with a collect action
- List four common action operations in Spark

Driver Program

Spark
Context


Spark
Context

2. sends all the resulting RDDs from the workers and copy them to the java virtual machine on the driver program
3. this is piped also to python shell

transformation
steps

flatMap

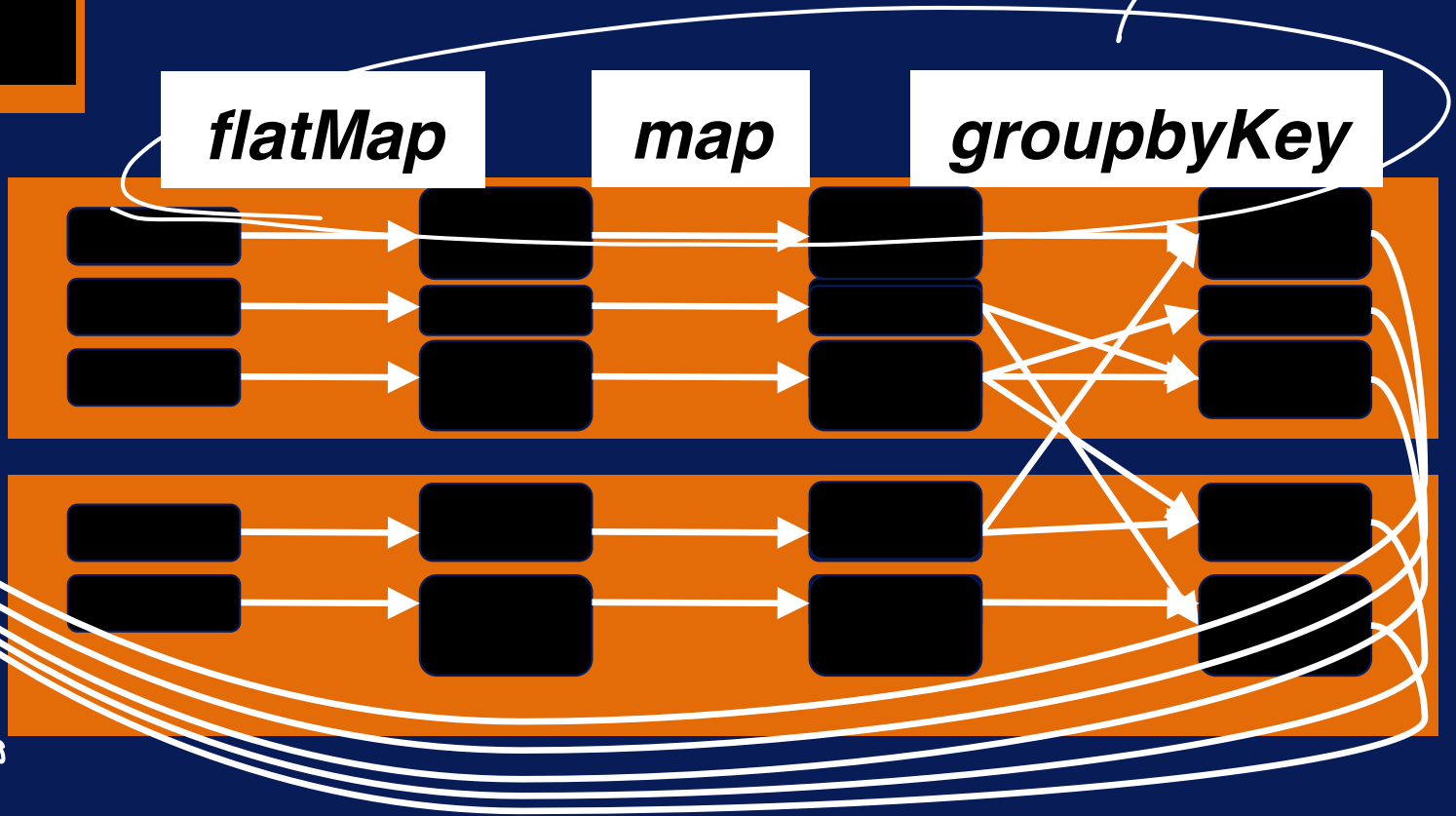
map

groupByKey


collect

common
action

1. when the final step is done, the collect action is called and spark sends all the tasks for execution to the worker nodes



Some Common Actions

Action	Usage
collect()	Copy all elements to the driver
take(n)	Copy first n elements
reduce(func) * most famous one	Aggregate elements with func (takes 2 elements, returns 1)
 save As Text File	Save to local file or HDFS

if results are too large to fit in the driver memory, then there's an opportunity to write them directly

no key, just a large area of some values
• running over and over to reduce everything to one single value

save the results to local disk or HDFS
* useful if output is large