What are Pair RDDs

Pair RDDs are those RDDs that contain **key and value** pairs

Key1, Value1
Key2, Value2
.
.
KeyN, ValueN

Why do we need Pair RDDs?

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```
INPUT

Lion Owl Cat Tiger Cat Owl Cat Tiger Lion Cat

Lion, 1 Owl 1,
Owl, 1 Cat 1,
Cat 1, Tiger 1,
Tiger 1, Lion 1,
Cat 1 Cat 1

GROUPED

Lion, (1,1) Tiger, (1,1) Cat, (1,1,1,1) Owl, (1,1)

AGGREGATED

Lion, (2) Tiger, (2) Cat, (4) Owl, (2)
```

Why do we need Pair RDDs

These key-value RDDs are instrumental in use cases where we need to group and/or aggregate values based on a key.

When we create pair RDDs, spark allows us to apply certain special key-value operations like

- groupByKey
- reduceByKey