

PySpark RDD Operations

- RDD is core data structure of PySpark.
- RDD's are low-level obj and are highly efficient in performing distributed tasks.

Set of Operations:-

- ① Transformations:- Operations that take RDD as input and produce another RDD as output.
 - After Transformation is applied to an RDD, it returns a new RDD, the original RDD remains the same and thus are immutable.
 - After Applying Transformation, a DAG is created for computations. It ends after applying any actions on it.
 - This is called the lazy evaluation process.

② Actions.

- Applied on RDD to produce a single value.
- Applied on resultant RDDs producing a non-RDD result, thus removing the laziness of the transformations of RDD.

For eg :- collect()

The collect() action gives a list of all elements of the RDD.

```
collect-rdd = sc.parallelize([1,2,3,4,5])
print(collect-rdd.collect())
```

O/P will be :- [1, 2, 3, 4, 5].

Selecting, Renaming, Filtering Data in Pandas DataFrame.

- ① Creating DataFrame
- ② Using `withColumnRenamed()`
- ③ Using `selectExpr()`
- ④ Using `select()`
- ⑤ Using `toDF()`