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1 Summary 1

Spark provides specific actions for RDD containing numerical values (integers or floats).

RDDs of numbers can be created by using the standard methods

- `parallelize`
- transformations that return an RDD of numbers

The following specific actions are also available on this type of RDDs

- `sum()`
- `mean()`
- `stdev()`
- `variance()`
- `max()`
- `min()`

1 Summary

All the examples reported in the following are applied on `inputRDD` that is an RDD containing the following double values: `[1.5,3.5,2.0]`

Action	Purpose	Example	Result
<code>sum()</code>	Return the sum of the values of the input RDD.	<code>inputRDD.sum()</code>	7.0
<code>mean()</code>	Return the mean computed over the values of the input RDD.	<code>inputRDD.mean()</code>	2.3333
<code>stdev()</code>	Return the standard deviation computed over the values of the input RDD.	<code>inputRDD.stdev()</code>	0.8498
<code>variance()</code>	Return the variance computed over the values of the input RDD.	<code>inputRDD.variance()</code>	0.7223
<code>max()</code>	Return the maximum value.	<code>inputRDD.max()</code>	3.5
<code>min()</code>	Return the minimum value.	<code>inputRDD.min()</code>	1.5

i Example

1. Create an RDD containing the following float values: [1.5,3.5,2.0]
2. Print on the standard output the following statistics
 - sum
 - mean
 - standard deviation
 - variance
 - maximum value
 - minimum value

```
1  # Create an RDD containing a list of float values
2  inputRDD = sc.parallelize([1.5,3.5,2.0])
3
4  # Compute the statistics of interest and print them on
5  # the standard output
6  print("sum:", inputRDD.sum())
7  print("mean:", inputRDD.mean())
8  print("stdev:", inputRDD.stdev())
9  print("variance:", inputRDD.variance())
10 print("max:", inputRDD.max())
11 print("min:", inputRDD.min())
```