```
In [1]:    import findspark
           from pyspark.streaming import StreamingContext
           from pyspark.sql import SparkSession
           import math

           findspark.init()
```

```
In [15]:   try: ssc.stop(True, True)
           except: pass
           try: spark.stop()
           except: pass
```

```
printrdd []
-------------------------------------------
Time: 2021-09-19 15:19:15
-------------------------------------------


printrdd [('', 2)]
-------------------------------------------
Time: 2021-09-19 15:19:16
-------------------------------------------

printrdd [('', 2)]
-------------------------------------------
Time: 2021-09-19 15:19:17
-------------------------------------------

printrdd [('', 2)]
-------------------------------------------
Time: 2021-09-19 15:19:18
-------------------------------------------

printrdd [('', 2)]
-------------------------------------------
Time: 2021-09-19 15:19:19
-------------------------------------------

printrdd [('', 2)]
-------------------------------------------
Time: 2021-09-19 15:19:20
-------------------------------------------

printrdd [('', 2)]
-------------------------------------------
Time: 2021-09-19 15:19:21
-------------------------------------------

printrdd [('', 2)]
-------------------------------------------
Time: 2021-09-19 15:19:22
-------------------------------------------
abc

printrdd [('', 2), ('abc', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:23
-------------------------------------------
abc

printrdd [('', 2), ('abc', 2)]
```

```
-------------------------------------------
Time: 2021-09-19 15:19:24
-------------------------------------------
def

printrdd [('', 2), ('abc', 2), ('def', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:25
-------------------------------------------

printrdd [('', 2), ('abc', 2), ('def', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:26
-------------------------------------------
ghi

printrdd [('', 2), ('abc', 2), ('def', 1), ('ghi', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:27
-------------------------------------------

printrdd [('', 2), ('abc', 2), ('def', 1), ('ghi', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:28
-------------------------------------------
abc

printrdd [('', 2), ('abc', 3), ('def', 1), ('ghi', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:29
-------------------------------------------

printrdd [('', 2), ('abc', 3), ('def', 1), ('ghi', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:30
-------------------------------------------

printrdd [('', 2), ('abc', 3), ('def', 1), ('ghi', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:31
-------------------------------------------

printrdd [('', 2), ('abc', 3), ('def', 1), ('ghi', 1)]
-------------------------------------------
Time: 2021-09-19 15:19:32
-------------------------------------------

printrdd [('', 2), ('abc', 3), ('def', 1), ('ghi', 1)]
```

In [10]:
```python
spark=SparkSession.builder.appName("SparkStreaming-07").master('local[1]').getOrCreate()
sc=spark.sparkContext
# .config("spark.driver.allowMultipleContexts","true")
spark
```

Out[10]: **SparkSession - in-memory**

SparkContext

Spark UI

Version	v2.4.8
Master	local[1]
AppName	SparkStreaming-07

```
In [11]:  ssc=StreamingContext(sc, 1)
          ssc.checkpoint('checkpoint-07') # required for socket
          ssc # 1=1 second
```

Out[11]: <pyspark.streaming.context.StreamingContext at 0x26596fd60c8>

```
In [12]:  lines=ssc.socketTextStream("localhost", 8000)
          lines.pprint()
```

```
In [13]:  lines=lines.flatMap(lambda x:x.split(" ")).map(lambda x:(x,1))

          def printrdd(rdd):
              print("printrdd", rdd.collect())

          def func(new_val,last_sum):
              return sum(new_val)+(last_sum or 0)

          lines.updateStateByKey(func).foreachRDD(printrdd)
```

```
In [14]:  ssc.start()
```

          Time: 2021-09-19 15:19:14

```
In [ ]:
```