NOpitz_DSC650_Week1_Assignment1_Pyspark

March 21, 2021

[1]:
```
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#

import sys
from random import random
from operator import add

from pyspark.sql import SparkSession


if __name__ == "__main__":
    """
        Usage: pi [partitions]
    """
    spark = SparkSession\
        .builder\
        .appName("PythonPi")\
        .getOrCreate()

    partitions = 2
    n = 100000 * partitions

    def f(_):
```

```
        x = random() * 2 - 1
        y = random() * 2 - 1
        return 1 if x ** 2 + y ** 2 <= 1 else 0

    count = spark.sparkContext.parallelize(range(1, n + 1), partitions).map(f).
↪reduce(add)
    print("Pi is roughly %f" % (4.0 * count / n))

    spark.stop()
```

```
Pi is roughly 3.152000
```