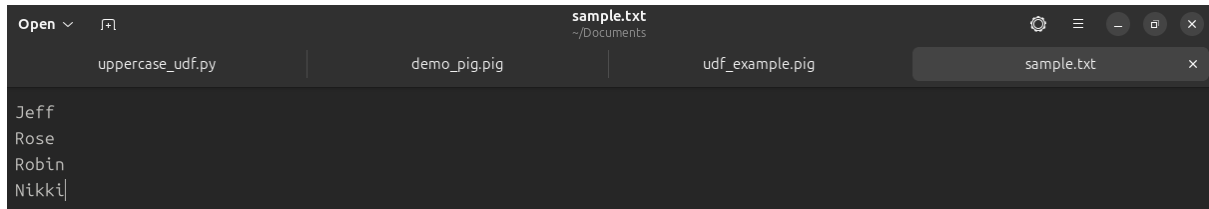


Ex. No.: 4

Reg. No. : 210701092

## User Defined Function(UDF) in PIG

Input(sample.txt):



A screenshot of a text editor window titled 'sample.txt' located at '~Documents'. The editor has four tabs: 'uppercase\_udf.py', 'demo\_pig.pig', 'udf\_example.pig', and 'sample.txt'. The 'sample.txt' tab is active, showing the following text:

```
Jeff
Rose
Robin
Nikki|
```

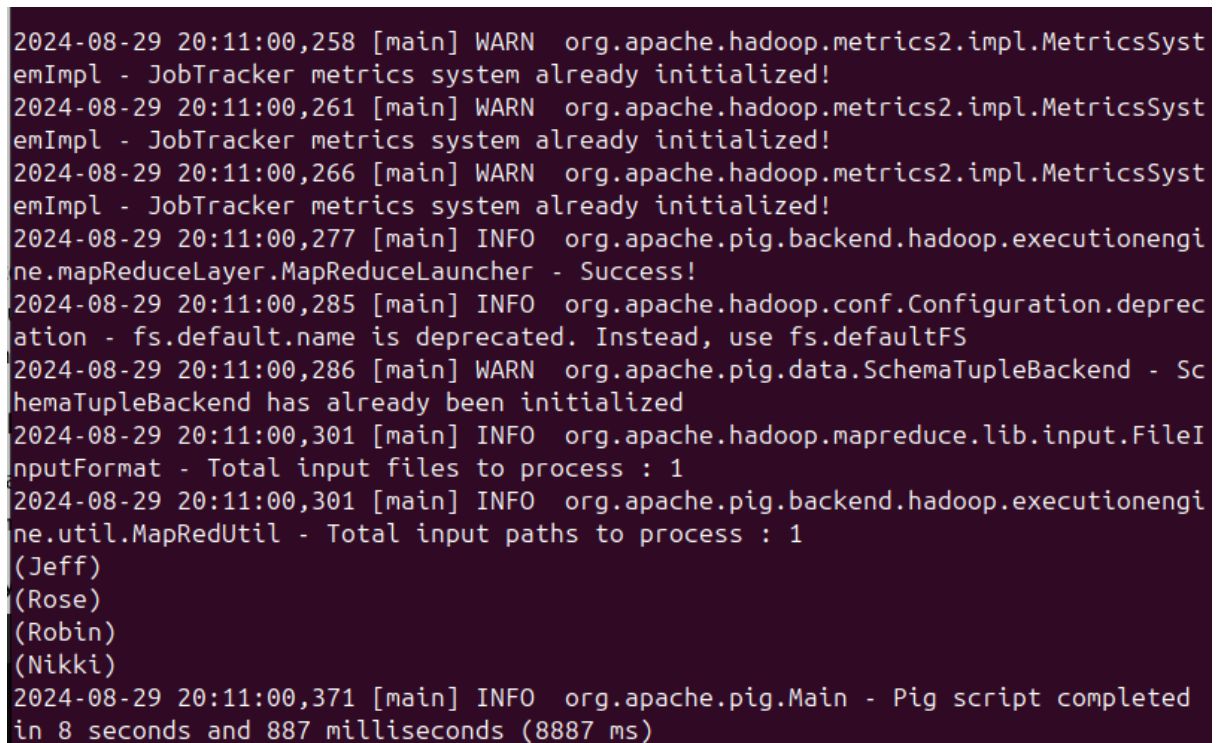
demo\_pig.pig:



A screenshot of a Pig script editor window titled 'demo\_pig.pig' located at '~Documents'. The editor has three tabs: 'uppercase\_udf.py', 'demo\_pig.pig', and 'udf\_example.pig'. The 'demo\_pig.pig' tab is active, showing the following Pig script:

```
data = LOAD '/piginput/sample.txt' USING PigStorage(',') AS (id:chararray);
DUMP data;
```

Output for demo\_pig.pig:



A screenshot of a terminal window showing the output of the Pig script. The output consists of several log messages and the final data dump:

```
2024-08-29 20:11:00,258 [main] WARN org.apache.hadoop.metrics2.impl.MetricsSystemImpl - JobTracker metrics system already initialized!
2024-08-29 20:11:00,261 [main] WARN org.apache.hadoop.metrics2.impl.MetricsSystemImpl - JobTracker metrics system already initialized!
2024-08-29 20:11:00,266 [main] WARN org.apache.hadoop.metrics2.impl.MetricsSystemImpl - JobTracker metrics system already initialized!
2024-08-29 20:11:00,277 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapreduceLayer.MapReduceLauncher - Success!
2024-08-29 20:11:00,285 [main] INFO org.apache.hadoop.conf.Configuration.deprecation - fs.default.name is deprecated. Instead, use fs.defaultFS
2024-08-29 20:11:00,286 [main] WARN org.apache.pig.data.SchemaTupleBackend - SchemaTupleBackend has already been initialized
2024-08-29 20:11:00,301 [main] INFO org.apache.hadoop.mapreduce.lib.input.FileInputFormat - Total input files to process : 1
2024-08-29 20:11:00,301 [main] INFO org.apache.pig.backend.hadoop.executionengine.util.MapRedUtil - Total input paths to process : 1
(Jeff)
(Rose)
(Robin)
(Nikki)
2024-08-29 20:11:00,371 [main] INFO org.apache.pig.Main - Pig script completed in 8 seconds and 887 milliseconds (8887 ms)
```

## uppercase\_udf.py:

```
Open ▾  ↵  uppercase_udf.py  demo_pig.pig  udf_example.pig
~/.Documents

def uppercase(text):
    return text.upper()

if __name__ == "__main__":
    import sys
    for line in sys.stdin:
        line = line.strip()
        result = uppercase(line)
        print(result)
```

## udf\_example.pig:

```
Open ▾  ↵  uppercase_udf.py  demo_pig.pig  udf_example.pig
~/.Documents

REGISTER 'hdfs:///piginput/uppercase_udf.py' USING jython AS udf;
data = LOAD 'hdfs:///piginput/sample.txt' AS (text:chararray);
uppercased_data = FOREACH data GENERATE udf.uppercase(text) AS uppercase_text;
STORE uppercased_data INTO 'hdfs:///piginput/pig_output_data';
```

## Output for udf\_example.pig:

```
hadoop@jeff-VirtualBox:~/Documents$ hdfs dfs -cat /piginput/pig_output_data/part-m-00000
JEFF
ROSE
ROBIN
NIKKI
```