Assignment 8.2

Problem Statement:

Write a hive UDF that implements functionality of string concat_ws(string SEP, array<string>).

This UDF will accept two arguments, one string and one array of string.

It will return a single string where all the elements of the array are separated by the SEP.

UDF(StringUDF.java)

package hive.udf;

import java.util.List;
import org.apache.hadoop.hive.ql.exec.UDF;

```
/**
 *
 * This UDF will accept two arguments, one string separator and one array of
 * string arrayString. It will return a single string where all the elements of
 * the array are separated by the separator.
 *
 *
 */
public class StringUDF extends UDF {
        //
        public String evaluate(String separator, List<String> arrayString) {
                String concatWordString = "";
                for (int i = 0; i < arrayString.size(); i++) {

                        concatWordString = concatWordString + arrayString.get(i);
                        if (i + 1 != arrayString.size())//check for removal of last separator
                                concatWordString = concatWordString + separator;
                }
                return concatWordString;
        }

}
```
dependencies : hive-0.4.1.jar

created jar : assignment8.2.jar

Steps executed in Hive prompt

1. add jar assignment8.2.jar to hive environment

add jar assignment8.2.jar;

2.create temporary function with UDF class

create temporary function stringUDF as 'hive.udf.StringUDF';

```
hive> add jar assignment8.2.jar;
Added [assignment8.2.jar] to class path
Added resources: [assignment8.2.jar]
hive> create temporary function  stringUDF as 'hive.udf.StringUDF';
OK
Time taken: 1.602 seconds
```

3.Apply the UDF

```
hive> select * from candidates;
OK
Ramesh  23     ["JAVA","Oracle","Spring"]
Parveen 32     ["DB2","MySQL","MongoDB"]
Time taken: 0.309 seconds, Fetched: 2 row(s)
```

```
hive> select name,age ,stringUDF('|',skills)from candidates;
OK
Ramesh  23     JAVA|Oracle|Spring|
Parveen 32     DB2|MySQL|MongoDB|
Time taken: 0.341 seconds, Fetched: 2 row(s)
```

```
hive> select name,age,skills from candidates;
OK
Ramesh  23        ["JAVA","Oracle","Spring"]
Parveen 32        ["DB2","MySQL","MongoDB"]
Time taken: 2.522 seconds, Fetched: 2 row(s)
hive> select name,age ,stringUDF('|',skills)from candidates;
OK
Ramesh  23        JAVA|Oracle|Spring
Parveen 32        DB2|MySQL|MongoDB
Time taken: 0.505 seconds, Fetched: 2 row(s)
```