

Loading Historical Transactions Data into NoSQL Database

Commands to load the past transactions data into NoSQL database

```
import happybase
```

#To create connection

```
connection = happybase.Connection('localhost', port=9090 ,autoconnect=False)
```

#To open connection and perform operations

```
def open_connection():  
    connection.open()
```

#To close the opened connection

```
def close_connection():  
    connection.close()
```

#To list all tables in Hbase

```
def list_tables():  
    print "fetching all table"  
    open_connection()  
    tables = connection.tables()  
    close_connection()  
    print "all tables fetched"  
    return tables
```

#To create the required table

```
def create_table(name,cf):  
    print "creating table " + name  
    tables = list_tables()  
    if name not in tables:  
        open_connection()  
        connection.create_table(name, cf)  
        close_connection()  
        print "table created"  
    else:  
        print "table already present"
```

#To get the created table

```
def get_table(name):  
    open_connection()  
    table = connection.table(name)  
    close_connection()  
    return table
```

#To batch insert data

```
def batch_insert_data(filename,tableName):
    print "starting batch insert of events"
    file = open(filename, "r")
    table = get_table(tableName)
    open_connection()
    i=0
    for line in file:
        temp = line.strip().split(",")

        #To skip first row
        if temp[0]!='card_id':
            table.put(bytes(i) , { 'info:card_id':bytes(temp[0]),
                                   'info:member_id':bytes(temp[1]),
                                   'info:amount':bytes(temp[2]),
                                   'info:postcode':bytes(temp[3]),
                                   'info:pos_id':bytes(temp[4]),
                                   'info:transaction_dt':bytes(temp[5]),
                                   'info:status':bytes(temp[6])})
            i=i+1
        file.close()
    print "batch insert done"
    close_connection()
```

#To batch insert data of card_transactions.csv

```
create_table('card_transactions', {'info' : dict(max_versions=5) })
batch_insert_data('card_transactions.csv','card_transactions')
```

<Command to list the table in which the data is loaded and the command to get the count of the rows of the table>

Command used to view the created table: *list*

Command used to get the count of the rows in table: *count card_transactions*

Screenshot of the table created

```
9736 column=info:pos_id, timestamp=1607957944969, value=546062979209182
9736 column=info:postcode, timestamp=1607957944969, value=95991
9736 column=info:status, timestamp=1607957944969, value=GENUINE
9736 column=info:transaction_dt, timestamp=1607957944969, value=03-01-2018 12:46:58
9737 column=info:amount, timestamp=1607957944972, value=816027
9737 column=info:card_id, timestamp=1607957944972, value=6011706374151856
9737 column=info:member_id, timestamp=1607957944972, value=199243620982420
9737 column=info:pos_id, timestamp=1607957944972, value=546062979209182
9737 column=info:postcode, timestamp=1607957944972, value=95991
9737 column=info:status, timestamp=1607957944972, value=GENUINE
9737 column=info:transaction_dt, timestamp=1607957944972, value=03-01-2018 23:18:59
9738 column=info:amount, timestamp=1607957944973, value=4042654
9738 column=info:card_id, timestamp=1607957944973, value=6011706374151856
9738 column=info:member_id, timestamp=1607957944973, value=199243620982420
9738 column=info:pos_id, timestamp=1607957944973, value=59930477798828
9738 column=info:postcode, timestamp=1607957944973, value=96727
9738 column=info:status, timestamp=1607957944973, value=GENUINE
9738 column=info:transaction_dt, timestamp=1607957944973, value=03-12-2017 08:53:52
9739 column=info:amount, timestamp=1607957944974, value=4034933
9739 column=info:card_id, timestamp=1607957944974, value=6011706374151856
9739 column=info:member_id, timestamp=1607957944974, value=199243620982420
9739 column=info:pos_id, timestamp=1607957944974, value=068029537978614
9739 column=info:postcode, timestamp=1607957944974, value=14511
9739 column=info:status, timestamp=1607957944974, value=GENUINE
9739 column=info:transaction_dt, timestamp=1607957944974, value=05-11-2017 10:15:33
974 column=info:amount, timestamp=1607957932834, value=5093161
974 column=info:card_id, timestamp=1607957932834, value=4380357644954006
974 column=info:member_id, timestamp=1607957932834, value=012871894714576
974 column=info:pos_id, timestamp=1607957932834, value=114439686882626
974 column=info:postcode, timestamp=1607957932834, value=10919
974 column=info:status, timestamp=1607957932834, value=GENUINE
974 column=info:transaction_dt, timestamp=1607957932834, value=05-10-2017 01:06:28
9740 column=info:amount, timestamp=1607957944975, value=3173523
9740 column=info:card_id, timestamp=1607957944975, value=6011706374151856
9740 column=info:member_id, timestamp=1607957944975, value=199243620982420
9740 column=info:pos_id, timestamp=1607957944975, value=771819356785069
9740 column=info:postcode, timestamp=1607957944975, value=72143
9740 column=info:status, timestamp=1607957944975, value=GENUINE
9740 column=info:transaction_dt, timestamp=1607957944975, value=05-12-2017 15:19:17
9741 column=info:amount, timestamp=1607957944976, value=2070998
9741 column=info:card_id, timestamp=1607957944976, value=6011706374151856
9741 column=info:member_id, timestamp=1607957944976, value=199243620982420
9741 column=info:pos_id, timestamp=1607957944976, value=771819356785069
9741 column=info:postcode, timestamp=1607957944976, value=72143
```