In [2]:

```
import findspark
findspark.init()
import pyspark
from pyspark.sql import SparkSession
spark = SparkSession.builder.getOrCreate()
from pyspark.sql.functions import *
```

LOAN DATASET

In [14]:

```
df = spark.read.csv("C:/Users/sidse/Downloads/big data course/ASSIGNMENTS/project
```

In [15]:

```
df.printSchema()
```

```
root
 |-- Customer_ID: string (nullable = true)
 |-- Age: integer (nullable = true)
 |-- Gender: string (nullable = true)
 |-- Occupation: string (nullable = true)
 |-- Marital Status: string (nullable = true)
 |-- Family Size: integer (nullable = true)
 |-- Income: integer (nullable = true)
 |-- Expenditure: integer (nullable = true)
 |-- Use Frequency: integer (nullable = true)
 |-- Loan Category: string (nullable = true)
 |-- Loan Amount: string (nullable = true)
 |-- Overdue: integer (nullable = true)
 |--  Debt Record: integer (nullable = true)
 |--  Returned Cheque: integer (nullable = true)
 |--  Dishonour of Bill: integer (nullable = true)
```

In [16]:
```
df.show(5)
```

```
+-----------+---+------+------------+--------------+-----------+------+--------
---+-------------+-------------+-----------+-------+------------+--------------
--+------------------+
|Customer_ID|Age|Gender|  Occupation|Marital Status|Family Size|Income|Expendit
ure|Use Frequency|Loan Category|Loan Amount|Overdue| Debt Record| Returned Cheq
ue| Dishonour of Bill|
+-----------+---+------+------------+--------------+-----------+------+--------
---+-------------+-------------+-----------+-------+------------+--------------
--+------------------+
|    IB14001| 30|  MALE|BANK MANAGER|        SINGLE|          4| 50000|      22
199|            6|      HOUSING| 10,00,000 |      5|       42898|
6|                 9|
|    IB14008| 44|  MALE|   PROFESSOR|       MARRIED|          6| 51000|      19
999|            4|     SHOPPING|      50000|      3|       33999|
1|                 5|
|    IB14012| 30|FEMALE|     DENTIST|        SINGLE|          3| 58450|      27
675|            5|   TRAVELLING|      75000|      6|       20876|
3|                 1|
|    IB14018| 29|  MALE|     TEACHER|       MARRIED|          5| 45767|      12
787|            3|    GOLD LOAN|  6,00,000 |      7|       11000|
0|                 4|
|    IB14022| 34|  MALE|      POLICE|        SINGLE|          4| 43521|      11
999|            3|   AUTOMOBILE|  2,00,000 |      2|       43898|
1|                 2|
+-----------+---+------+------------+--------------+-----------+------+--------
---+-------------+-------------+-----------+-------+------------+--------------
--+------------------+
only showing top 5 rows
```

In [6]:
```
len(df.columns)
```

Out[6]:
```
15
```

In [7]:
```
df.count()
```

Out[7]:
```
500
```

In [8]:
```
df.distinct().count()
```

Out[8]:
```
500
```

In [11]:
```
#number of loans in each category
df.groupBy("Loan Category").count().orderBy("count", ascending = False).show()
```

```
|     Loan Category|count|
+------------------+-----+
|         GOLD LOAN|   77|
|           HOUSING|   67|
|        AUTOMOBILE|   60|
|        TRAVELLING|   53|
|       RESTAURANTS|   41|
|          SHOPPING|   35|
|COMPUTER SOFTWARES|   35|
|          BUSINESS|   24|
|    EDUCATIONAL LOAN|   20|
|        RESTAURANT|   20|
|       ELECTRONICS|   14|
|   HOME APPLIANCES|   14|
|           DINNING|   14|
|       AGRICULTURE|   12|
|       BOOK STORES|    7|
|          BUILDING|    7|
+------------------+-----+
```

In [14]:
```
#number of people who have taken more than 1 lack loan
df.filter(df["Loan Amount"]>"1,00,000").count()
```

Out[14]:
```
379
```

In [18]:
```
#number of people with income greater than 60000 rupees
df.filter(df["Income"]>"60000").count()
```

Out[18]:
```
198
```

In [26]:
```
#number of people with 2 or more returned cheques and income less than 50000
df.filter((df[" Returned Cheque"]>"1") & (df["Income"]<"50000")).count()
```

Out[26]:
```
137
```

In [27]:
```
#number of people with 2 or more returned cheques and are single
df.filter((df[" Returned Cheque"]>"1") & (df["Marital Status"]<"SINGLE")).count()
```

Out[27]:
```
283
```

In [6]:

```
#number of people with expenditure over 50000 a month
df.filter((df["Expenditure"]>"50000")).show()
```

```
+-----------+---+------+---------------+--------------+-----------+------+---
--------+-------------+-------------+-----------+-------+------------+-------
---------+------------------+
|Customer_ID|Age|Gender|     Occupation|Marital Status|Family Size|Income|Exp
enditure|Use Frequency|Loan Category|Loan Amount|Overdue| Debt Record| Return
ed Cheque| Dishonour of Bill|
+-----------+---+------+---------------+--------------+-----------+------+---
--------+-------------+-------------+-----------+-------+------------+-------
---------+------------------+
|    IB14158| 54|  MALE|AIRPORT OFFICER|       MARRIED|          6| 80000|
62541|            2|   AUTOMOBILE| 20,45,789 |      1|       16599|
2|                 3|
|    IB14176| 54|  MALE|AIRPORT OFFICER|       MARRIED|          6| 80000|
62541|            2|      HOUSING| 20,45,789 |      1|       16599|
2|                 3|
|    IB14204| 54|  MALE|AIRPORT OFFICER|       MARRIED|          6| 81000|
62541|            2|      DINNING| 20,45,789 |      1|       16599|
2|                 3|
|    IB14227| 54|  MALE|AIRPORT OFFICER|       MARRIED|          6| 80000|
```

In [22]:

```
df.select("Customer_ID", "Age", "Occupation", "Marital Status", "Income").filter(
```

```
+-----------+---+--------------------+--------------+------+
|Customer_ID|Age|          Occupation|Marital Status|Income|
+-----------+---+--------------------+--------------+------+
|    IB14001| 30|        BANK MANAGER|        SINGLE| 50000|
|    IB14012| 30|             DENTIST|        SINGLE| 58450|
|    IB14085| 30|         ELECTRICIAN|       MARRIED| 30000|
|    IB14187| 30|             DENTIST|        SINGLE| 58450|
|    IB14220| 30|             DENTIST|        SINGLE| 58450|
|    IB14304| 30|         ELECTRICIAN|       MARRIED| 30000|
|    IB14497| 30|     ACCOUNT MANAGER|       MARRIED| 52568|
|    IB14566| 30| CHARTERED APPRAISER|       MARRIED| 81225|
|    IB14633| 30|   SOFTWARE ENGINEER|       MARRIED| 62522|
|    IB14667| 30|AGRICULTURAL ENGI...|        SINGLE| 85289|
|    IB14706| 30|             TEACHER|        SINGLE| 51564|
|    IB14721| 30|               PILOT|        SINGLE| 76333|
|    IB14800| 30|             TEACHER|        SINGLE| 49370|
|    IB14804| 30|            BUSINESS|        SINGLE| 53957|
|    IB14831| 30|                NAVY|        SINGLE| 51862|
|    IB14976| 30| CHARTERED APPRAISER|       MARRIED| 85225|
|    IB15011| 30|             TEACHER|        SINGLE| 55564|
|    IB15031| 30|               PILOT|        SINGLE| 86333|
+-----------+---+--------------------+--------------+------+
```

In [20]:

```
n = df.withColumn("Age", when(df.Age==30,40).otherwise(df.Age))
n.show()
```

```
+-----------+---+------+-------------------+--------------+-----------+------+-
----------+-------------+------------------+-----------+-------+------------+--
--------------+------------------+
|Customer_ID|Age|Gender|         Occupation|Marital Status|Family Size|Income|E
xpenditure|Use Frequency|     Loan Category|Loan Amount|Overdue| Debt Record| R
eturned Cheque| Dishonour of Bill|
+-----------+---+------+-------------------+--------------+-----------+------+-
----------+-------------+------------------+-----------+-------+------------+--
--------------+------------------+
|    IB14001| 40|  MALE|       BANK MANAGER|        SINGLE|          4| 50000|
22199|            6|           HOUSING| 10,00,000 |      5|       42898|
6|                 9|
|    IB14008| 44|  MALE|          PROFESSOR|       MARRIED|          6| 51000|
19999|            4|          SHOPPING|      50000|      3|       33999|
1|                 5|
|    IB14012| 40|FEMALE|            DENTIST|        SINGLE|          3| 58450|
27675|            5|        TRAVELLING|      75000|      6|       20876|
3|                 1|
|    IB14018| 29|  MALE|            TEACHER|       MARRIED|          5| 45767|
12787|            3|         GOLD LOAN|  6,00,000 |      7|       11000|
0|                 4|
|    IB14022| 34|  MALE|             POLICE|        SINGLE|          4| 43521|
11999|            3|        AUTOMOBILE|  2,00,000 |      2|       43898|
1|                 2|
|    IB14024| 55|FEMALE|              NURSE|       MARRIED|          6| 34999|
19888|            4|        AUTOMOBILE|      47787|      1|       50000|
0|                 3|
|    IB14025| 39|FEMALE|            TEACHER|       MARRIED|          6| 46619|
18675|            4|           HOUSING| 12,09,867 |      8|       29999|
6|                 8|
|    IB14027| 51|  MALE|     SYSTEM MANAGER|       MARRIED|          3| 49999|
19111|            5|       RESTAURANTS|      60676|      8|       13000|
2|                 5|
|    IB14029| 24|FEMALE|            TEACHER|        SINGLE|          3| 45008|
17454|            4|        AUTOMOBILE|  3,99,435 |      9|       51987|
4|                 7|
|    IB14031| 37|FEMALE|  SOFTWARE ENGINEER|       MARRIED|          5| 55999|
23999|            5|        AUTOMOBILE|      60999|      2|           0|
5|                 3|
|    IB14032| 24|  MALE|       DATA ANALYST|        SINGLE|          4| 60111|
28999|            6|        AUTOMOBILE|      35232|      5|       33333|
1|                 2|
|    IB14034| 32|  MALE|   PRODUCT ENGINEER|       MARRIED|          6|  null|
29000|            7|COMPUTER SOFTWARES|      80660|      6|        4500|
5|                 4|
|    IB14037| 54|FEMALE|            TEACHER|       MARRIED|          5| 48099|
19999|            4|       RESTAURANTS|      30999|      1|       12000|
7|                 5|
|    IB14039| 45|  MALE|    ACCOUNT MANAGER|       MARRIED|          7| 45777|
18452|            4|         GOLD LOAN|  9,87,611 |      7|       39999|
8|                 1|
|    IB14041| 59|FEMALE|ASSISTANT PROFESSOR|       MARRIED|          4| 50999|
22999|            5|  EDUCATIONAL LOAN|  5,99,934 |      3|        9000|
9|                 9|
|    IB14042| 25|FEMALE|             DOCTOR|        SINGLE|           4| 60111|
27111|            5|       TRAVELLING| 12,90,929 |      4|       18000|
1|                 0|
|    IB14045| 31|  MALE|       STORE KEEPER|        SINGLE|           5| 40999|
11999|            3|      BOOK STORES|  1,67,654 |      1|        4500|
0|                 1|
|    IB14049| 49|  MALE|       BANK MANAGER|       MARRIED|           4| 45999|
14500|            4|       TRAVELLING|      79999|      4|        6700|
7|                 3|
|    IB14050| 56|  MALE|     CIVIL ENGINEER|       MARRIED|           4|  null|
13999|            3|          HOUSING| 10,65,577 |      6|       19999|
4|                 2|
|    IB14054| 58|FEMALE|             DOCTOR|       MARRIED|           5| 60000|
25000|            5|          HOUSING|  9,00,000 |      5|       21000|
9|                 0|
+-----------+---+------+-------------------+--------------+-----------+------+-
----------+-------------+------------------+-----------+-------+------------+--
--------------+------------------+
only showing top 20 rows
```

In [28]:

```python
n.filter(df.Customer_ID=="IB14001").show()
```

```
+-----------+---+------+------------+--------------+-----------+------+--------
---+-------------+-------------+-----------+-------+------------+-------------
--+------------------+
|Customer_ID|Age|Gender|  Occupation|Marital Status|Family Size|Income|Expendit
ure|Use Frequency|Loan Category|Loan Amount|Overdue| Debt Record| Returned Cheq
ue| Dishonour of Bill|
+-----------+---+------+------------+--------------+-----------+------+--------
---+-------------+-------------+-----------+-------+------------+-------------
--+------------------+
|    IB14001| 40|  MALE|BANK MANAGER|        SINGLE|          4| 50000|      22
199|            6|      HOUSING| 10,00,000 |      5|       42898|
6|                 9|
+-----------+---+------+------------+--------------+-----------+------+--------
---+-------------+-------------+-----------+-------+------------+-------------
--+------------------+
```

In [30]:

```python
df.select("Marital Status").distinct().show()
```

```
+--------------+
|Marital Status|
+--------------+
|        SINGLE|
|       MARRIED|
+--------------+
```

CREDIT CARD DATASET

In [9]:
```
dfc = spark.read.csv("C:/Users/sidse/Downloads/big data course/ASSIGNMENTS/projec
```

In [10]:
```
dfc.printSchema()
```

```
root
 |-- RowNumber: integer (nullable = true)
 |-- CustomerId: integer (nullable = true)
 |-- Surname: string (nullable = true)
 |-- CreditScore: integer (nullable = true)
 |-- Geography: string (nullable = true)
 |-- Gender: string (nullable = true)
 |-- Age: integer (nullable = true)
 |-- Tenure: integer (nullable = true)
 |-- Balance: double (nullable = true)
 |-- NumOfProducts: integer (nullable = true)
 |-- IsActiveMember: integer (nullable = true)
 |-- EstimatedSalary: double (nullable = true)
 |-- Exited: integer (nullable = true)
```

In [17]:
```
len(dfc.columns)
```

Out[17]:
```
13
```

In [16]:
```
dfc.count()
```

Out[16]:
```
10000
```

In [18]:
```
dfc.distinct().count()
```

Out[18]:
```
10000
```

In [11]:
```
dfc.show(5)
```

```
+---------+----------+--------+-----------+---------+------+---+------+--------
-+-------------+--------------+---------------+------+
|RowNumber|CustomerId| Surname|CreditScore|Geography|Gender|Age|Tenure|  Balanc
e|NumOfProducts|IsActiveMember|EstimatedSalary|Exited|
+---------+----------+--------+-----------+---------+------+---+------+--------
-+-------------+--------------+---------------+------+
|        1|  15634602|Hargrave|        619|   France|Female| 42|     2|      0.
0|            1|             1|      101348.88|     1|
|        2|  15647311|    Hill|        608|    Spain|Female| 41|     1| 83807.8
6|            1|             1|      112542.58|     0|
|        3|  15619304|    Onio|        502|   France|Female| 42|     8| 159660.
8|            3|             0|      113931.57|     1|
|        4|  15701354|    Boni|        699|   France|Female| 39|     1|      0.
0|            2|             0|       93826.63|     0|
|        5|  15737888|Mitchell|        850|    Spain|Female| 43|     2|125510.8
2|            1|             1|        79084.1|     0|
+---------+----------+--------+-----------+---------+------+---+------+--------
-+-------------+--------------+---------------+------+
only showing top 5 rows
```

In [13]:
```
#number of members who are elgible for credit card
dfc.filter(dfc["CreditScore"]>700).count()
```

Out[13]:
```
3116
```

In [19]:
```
#number of members who are  elgible and active in the bank
dfc.filter((dfc["IsActiveMember"]==1) & (dfc["CreditScore"]>700)).count()
```

Out[19]:
```
1637
```

In [21]:

```
#credit card users in Spain
dfc.filter(dfc["Geography"]=="Spain").show()
```

```
+---------+----------+---------+-----------+---------+------+---+------+-------
--+-------------+--------------+---------------+------+
|RowNumber|CustomerId|  Surname|CreditScore|Geography|Gender|Age|Tenure|  Balan
ce|NumOfProducts|IsActiveMember|EstimatedSalary|Exited|
+---------+----------+---------+-----------+---------+------+---+------+-------
--+-------------+--------------+---------------+------+
|        2|  15647311|     Hill|        608|    Spain|Female| 41|     1| 83807.
86|            1|             1|      112542.58|     0|
|        5|  15737888| Mitchell|        850|    Spain|Female| 43|     2|125510.
82|            1|             1|       79084.1|     0|
|        6|  15574012|      Chu|        645|    Spain|  Male| 44|     8|113755.
78|            2|             0|      149756.71|     1|
|       12|  15737173|  Andrews|        497|    Spain|  Male| 24|     3|
0.0|            2|             0|       76390.01|     0|
|       15|  15600882|    Scott|        635|    Spain|Female| 35|     7|
0.0|            2|             1|       65951.65|     0|
|       18|  15788218|Henderson|        549|    Spain|Female| 24|     9|
0.0|            2|             1|       14406.41|     0|
|       19|  15661507|  Muldrow|        587|    Spain|  Male| 45|     6|
0.0|            1|             0|      158684.81|     0|
|       22|  15597945| Dellucci|        636|    Spain|Female| 32|     8|
0.0|            2|             0|      138555.46|     0|
|       23|  15699309|Gerasimov|        510|    Spain|Female| 38|     4|
0.0|            1|             0|      118913.53|     1|
|       31|  15589475|  Azikiwe|        591|    Spain|Female| 39|     3|
0.0|            3|             0|      140469.38|     1|
|       34|  15659428|  Maggard|        520|    Spain|Female| 42|     6|
0.0|            2|             1|       34410.55|     0|
|       35|  15732963| Clements|        722|    Spain|Female| 29|     9|
0.0|            2|             1|      142033.07|     0|
|       37|  15788448|   Watson|        490|    Spain|  Male| 31|     3|145260.
23|            1|             1|      114066.77|     0|
|       38|  15729599|  Lorenzo|        804|    Spain|  Male| 33|     7|  7654
8.6|            1|             1|       98453.45|     0|
|       41|  15619360|    Hsiao|        472|    Spain|  Male| 40|     4|
0.0|            1|             0|       70154.22|     0|
|       45|  15684171|  Bianchi|        660|    Spain|Female| 61|     5|155931.
11|            1|             1|      158338.39|     0|
|       59|  15623944|    T'ien|        511|    Spain|Female| 66|     4|
0.0|            1|             0|        1643.11|     1|
|       63|  15702014|  Jeffrey|        555|    Spain|  Male| 33|     1| 56084.
69|            2|             0|      178798.13|     0|
|       64|  15751208|  Pirozzi|        684|    Spain|  Male| 56|     8| 78707.
16|            1|             1|       99398.36|     0|
|       73|  15812518|  Palermo|        657|    Spain|Female| 37|     0|163607.
18|            1|             1|       44203.55|     0|
+---------+----------+---------+-----------+---------+------+---+------+-------
--+-------------+--------------+---------------+------+
only showing top 20 rows
```

```
In [24]: dfc.filter((dfc["EstimatedSalary"]>100000) & (dfc["Exited"]==1)).count()

Out[24]: 1044
```

```
In [25]: dfc.filter((dfc["EstimatedSalary"]<100000) & (dfc["NumOfProducts"]>1)).count()

Out[25]: 2432
```

TRANSACTION DATASET

```
In [3]: txn = spark.read.csv("C:/Users/sidse/Downloads/big data course/ASSIGNMENTS/projec
```

```
In [4]: txn.printSchema()
```

```
root
 |-- Account No: string (nullable = true)
 |-- TRANSACTION DETAILS: string (nullable = true)
 |-- VALUE DATE: string (nullable = true)
 |--  WITHDRAWAL AMT : double (nullable = true)
 |--  DEPOSIT AMT : double (nullable = true)
 |-- BALANCE AMT: double (nullable = true)
```

```
In [5]: #COUNT OF TRANSACTION ON EVERY ACCOUNT
        txn.groupBy("Account No").count().orderBy("count", ascending = False).show(20, Fa
```

```
+-------------+-----+
|Account No   |count|
+-------------+-----+
|1196428'     |48779|
|409000362497'|29840|
|409000438620'|13454|
|1196711'     |10536|
|409000493210'|6014 |
|409000438611'|4588 |
|409000611074'|1093 |
|409000493201'|1044 |
|409000425051'|802  |
|409000405747'|51   |
+-------------+-----+
```

In [10]:

```
#Maximum withdrawal amount
txn.groupBy("Account No").max(" WITHDRAWAL AMT ").orderBy("max( WITHDRAWAL AMT )'
```

```
+-------------+--------------------+
|Account No   |max( WITHDRAWAL AMT )|
+-------------+--------------------+
|1196711'     |4.594475464E8       |
|409000438620'|4.0E8               |
|409000425051'|3.54E8              |
|409000438611'|2.4E8               |
|409000405747'|1.7E8               |
|1196428'     |1.5E8               |
|409000362497'|1.413662392E8       |
|409000493210'|1.5E7               |
|409000493201'|2500000.0           |
|409000611074'|912000.0            |
+-------------+--------------------+
```

In [24]:

```
#MINIMUM WITHDRAWAL AMOUNT OF AN ACCOUNT
txn.groupBy("Account No").min(" WITHDRAWAL AMT ").orderBy("min( WITHDRAWAL AMT )'
```

```
+-------------+--------------------+
|   Account No|min( WITHDRAWAL AMT )|
+-------------+--------------------+
|409000493210'|                0.01|
|409000438611'|                 0.2|
|     1196711'|                0.25|
|     1196428'|                0.25|
|409000438620'|                0.34|
|409000362497'|                0.97|
|409000425051'|                1.25|
|409000493201'|                 2.1|
|409000405747'|                21.0|
|409000611074'|               120.0|
+-------------+--------------------+
```

In [28]:
```
#MAXIMUM DEPOSIT AMOUNT OF AN ACCOUNT
txn.groupBy("Account No").max(" DEPOSIT AMT ").orderBy("max( DEPOSIT AMT )", asce
```

```
+-------------+------------------+
|   Account No|max( DEPOSIT AMT )|
+-------------+------------------+
|409000438620'|           5.448E8|
|     1196711'|             5.0E8|
|     1196428'|     2.119594422E8|
|409000405747'|           2.021E8|
|409000362497'|             2.0E8|
|409000438611'|          1.7025E8|
|409000425051'|             1.5E7|
|409000493210'|             1.5E7|
|409000611074'|         3000000.0|
|409000493201'|         1000000.0|
+-------------+------------------+
```

In [29]:
```
#MINIMUM DEPOSIT AMOUNT OF AN ACCOUNT
txn.groupBy("Account No").min(" DEPOSIT AMT ").orderBy("min( DEPOSIT AMT )").show
```

```
+-------------+------------------+
|   Account No|min( DEPOSIT AMT )|
+-------------+------------------+
|409000493210'|              0.01|
|409000438611'|              0.03|
|409000362497'|              0.03|
|409000438620'|              0.07|
|409000493201'|               0.9|
|     1196428'|               1.0|
|409000425051'|               1.0|
|     1196711'|              1.01|
|409000405747'|             500.0|
|409000611074'|            1320.0|
+-------------+------------------+
```

In [9]:
```
#sum of balance in every bank account
txn.groupBy("Account No").sum("BALANCE AMT").show()
```

```
+-------------+--------------------+
|   Account No|    sum(BALANCE AMT)|
+-------------+--------------------+
|409000438611'|-2.49486577068339...|
|     1196711'|-1.60476498101275E13|
|     1196428'| -8.1418498130721E13|
|409000493210'|-3.27584952132095...|
|409000611074'|        1.615533622E9|
|409000425051'|-3.77211841164998...|
|409000405747'|-2.43108047067000...|
|409000362497'| -5.2860004792808E13|
|409000493201'|1.0420831829499985E9|
|409000438620'|-7.12291867951358...|
+-------------+--------------------+
```

In [32]:
```
#Number of transaction on each date
txn.groupBy("VALUE DATE").count().orderBy("count", ascending = False).show()
```

```
+----------+-----+
|VALUE DATE|count|
+----------+-----+
| 27-Jul-17|  567|
| 13-Aug-18|  463|
|  8-Nov-17|  402|
|  7-Oct-17|  382|
| 10-Jul-18|  374|
| 12-Dec-17|  367|
| 12-Sep-18|  365|
|  9-Aug-18|  360|
| 19-Sep-17|  358|
| 16-Mar-17|  353|
| 10-Sep-18|  344|
| 14-Jul-17|  333|
|  7-Mar-18|  319|
| 11-Oct-18|  303|
| 22-Aug-17|  301|
|  9-Jan-18|  299|
|  9-Oct-18|  297|
```

In [11]:

```
#List of customers with withdrawal amount more than 1 Lakh
txn.select("Account No","TRANSACTION DETAILS"," WITHDRAWAL AMT ").filter(txn[" WI
```

```
+-------------+--------------------------------+----------------+
|Account No   |TRANSACTION DETAILS             | WITHDRAWAL AMT |
+-------------+--------------------------------+----------------+
|409000611074'|INDO GIBL Indiaforensic STL01071|133900.0        |
|409000611074'|INDO GIBL Indiaforensic STL04071|195800.0        |
|409000611074'|INDO GIBL Indiaforensic STL10071|143800.0        |
|409000611074'|INDO GIBL Indiaforensic STL11071|331650.0        |
|409000611074'|INDO GIBL Indiaforensic STL12071|129000.0        |
|409000611074'|INDO GIBL Indiaforensic STL13071|230013.0        |
|409000611074'|INDO GIBL Indiaforensic STL14071|367900.0        |
|409000611074'|INDO GIBL Indiaforensic STL15071|108000.0        |
|409000611074'|INDO GIBL Indiaforensic STL17071|141000.0        |
|409000611074'|INDO GIBL Indiaforensic STL22071|206000.0        |
|409000611074'|INDO GIBL Indiaforensic STL02081|242300.0        |
|409000611074'|INDO GIBL Indiaforensic STL04081|113250.0        |
|409000611074'|INDO GIBL Indiaforensic STL07081|206900.0        |
|409000611074'|INDO GIBL Indiaforensic STL08081|276000.0        |
|409000611074'|INDO GIBL Indiaforensic STL09081|171000.0        |
|409000611074'|INDO GIBL Indiaforensic STL11081|189800.0        |
|409000611074'|INDO GIBL Indiaforensic STL14081|271323.0        |
|409000611074'|INDO GIBL Indiaforensic STL16081|200600.0        |
|409000611074'|INDO GIBL Indiaforensic STL17081|176900.0        |
|409000611074'|INDO GIBL Indiaforensic STL18081|150050.0        |
+-------------+--------------------------------+----------------+
only showing top 20 rows
```