SQL World Bank
Financial bank loans and insights

▶ The data is a quarterly set from the World Bank

▶ We will be reviewing and providing insight based on findings

▶ Interpret and analyze using statistical techniques and SQL

To be reviewed:

▶ Return all of the table

▶ Return all rows of the table, but only the borrower & due to IDA column

▶ Only show the first 5 rows of the previous query

▶ Abbreviate one of the column names so it's easier to write

▶ Show us all transactions from the Nicaragua (the country)?

▶ How many total transactions?

▶ How many total transactions per country??

▶ What is the max owed to the IDA?

▶ Which was the most recent to pay?

▶ Who has the most loans?

Reviewing the data

- SQL is used to analyze larger data sets.

- The Bank data has over a million records, 1109994 to be exact.

```
1  SELECT COUNT(*)  FROM "banking_data";
```

	count_star()
1	1109994

- Using SQL to review the data we can use "LIMIT" to pull up and review the data records. Typically depending on computer resources a "LIMIT" will need to be used to be able to review a snapshot of the table (or the computer may lock up and freeze).

- We can also abbreviate data names, so they are easier to write and remember. This is done utilizing the "AS" command.

Running SELECT Borrower, "Due to IDA" FROM 'banking_data'; shows us that there is over a million records of Borrower and Individual Development Accounts(IDA).

Upon further review almost half, 510870, have an IDA of less than 1 and 440172 have an account balance of zero.

Drilling down a little more, using the "WHERE" . We can filter and select what we want to review.

Selecting a random country, Nicaragua will be the location that we will analyze, running the following will show us all transactions : select count("Due to IDA") from banking_data WHERE "Country" = 'Nicaragua';
Total transaction number is :

	count("Due to IDA")
1	13704

select Country, COUNT(*) FROM banking_data Group BY "Country"; tells the story of how many transactions per country. Please see snapshot of 20 (actual total of 137):

	Country	count_star()
1	Honduras	13864
2	Sudan	7330
3	India	58339
4	Chile	139
5	Colombia	139
6	Taiwan, China	556
7	Costa Rica	139
8	Pakistan	35203
9	Paraguay	1112
10	Jordan	2188
11	Eswatini	164
12	Korea, Republic of	1251
13	Nicaragua	13704
14	Tunisia	1390
15	El Salvador	556
16	Haiti	11870
17	Turkiye	84
18	Ethiopia	26495
19	Tanzania	34061
20	Syrian Arab Repub...	556

The Max amount owed to the IDA is

	max("Due to IDA")
1	793256127.64

The MIN amount owed to the IDA is negative:

min("Due to IDA")
-5.37

The total SUM owed to the IDA is :

sum("Due to IDA")
20164338829274.426

The AVG (average) owed to the IDA is:

avg("Due to IDA")
18166201.94494593

We can also rename data columns with "AS" , *column **AS** new name*

For World Bank data we can review what transactions have the highest & lowest service charge rates:
*SELECT * FROM Banking_Data WHERE "Service Charge Rate" > 0 ORDER BY "Service Charge Rate" LIMIT 15;*

We can also review multiple columns of data with "AND" , here we see loans in Nicaragua and service charge larger than 1 : brings back 840 transactions ; above 4 but no greater than 5 is 75 transactions.

*We can also review by "projects" SELECT ***
FROM "banking_data" WHERE "Project Name"
= 'HIGHWAYS' OR "Project Name" = 'RAILWAYS' LIMIT 5000;

Project Name	Origina
HIGHWAYS	7211271
HIGHWAYS	1688882
HIGHWAYS	9436547
HIGHWAYS	2250000
HIGHWAYS	1370929
HIGHWAYS	5028857
HIGHWAYS	2338243
HIGHWAYS	2574840
HIGHWAYS	5000000
RAILWAYS	8142824
RAILWAYS	7479334
RAILWAYS	8203141
RAILWAYS	1075268
RAILWAYS	1062351