

📄 exchange_rate.csv

```
1 Currency,Rate
2 EUR,0.93
3 GBP,0.8
4 INR,82.95
```

Exchange Rate CSV

```
theia@theia-skylarhayash:/home/project$ python3.11 banks_project.py
```

```
SELECT * FROM Largest_banks
```

	Name	MC_USD_Billion	MC_GBP_Billion	\
0	JPMorgan Chase	432.92	346.34	
1	Bank of America	231.52	185.22	
2	Industrial and Commercial Bank of China	194.56	155.65	
3	Agricultural Bank of China	160.68	128.54	
4	HDFC Bank	157.91	126.33	
5	Wells Fargo	155.87	124.70	
6	HSBC Holdings PLC	148.90	119.12	
7	Morgan Stanley	140.83	112.66	
8	China Construction Bank	139.82	111.86	
9	Bank of China	136.81	109.45	

	MC_EUR_Billion	MC_INR_Billion
0	402.62	35910.71
1	215.31	19204.58
2	180.94	16138.75
3	149.43	13328.41
4	146.86	13098.63
5	144.96	12929.42
6	138.48	12351.26
7	130.97	11681.85
8	130.03	11598.07
9	127.23	11348.39


```
SELECT AVG(MC_GBP_Billion) FROM Largest_banks
```

```
AVG(MC_GBP_Billion)
0 151.987
```

```
SELECT Name from Largest_banks LIMIT 5
```

	Name
0	JPMorgan Chase
1	Bank of America
2	Industrial and Commercial Bank of China
3	Agricultural Bank of China
4	HDFC Bank

Terminal Output

 Largest_banks_data.csv

```
1  ,Name,MC_USD_Billion,MC_GBP_Billion,MC_EUR_Billion,MC_INR_Billion
2  0,JPMorgan Chase,432.92,346.34,402.62,35910.71
3  1,Bank of America,231.52,185.22,215.31,19204.58
4  2,Industrial and Commercial Bank of China,194.56,155.65,180.94,16138.75
5  3,Agricultural Bank of China,160.68,128.54,149.43,13328.41
6  4,HDFC Bank,157.91,126.33,146.86,13098.63
7  5,Wells Fargo,155.87,124.7,144.96,12929.42
8  6,HSBC Holdings PLC,148.9,119.12,138.48,12351.26
9  7,Morgan Stanley,140.83,112.66,130.97,11681.85
10 8,China Construction Bank,139.82,111.86,130.03,11598.07
11 9,Bank of China,136.81,109.45,127.23,11348.39
```

Output CSV

 code_log.txt

```
1 2025-Aug-14-17:50:02 : Preliminaries complete. Initializing ETL process.
2 2025-Aug-14-17:50:03 : Data extraction complete. Initializing transformation process.
3 2025-Aug-14-17:50:03 : Data transformation complete. Initializing loading process.
4 2025-Aug-14-17:50:03 : Data saved to CSV file.
5 2025-Aug-14-17:50:03 : SQL connection initiated.
6 2025-Aug-14-17:50:03 : Data loaded to database as a table. Executing queries.
7 2025-Aug-14-17:50:03 : Process complete.
8 2025-Aug-14-17:50:03 : Server connection closed.
```

Log File