19/06/2022, 18:58 main_notebook

Get rates from API layer

Create a table in GCP with the columns required

```
In [11]: from main import create_table_gcp
    from bigquery_functions import delete_table

delete_table('qntq-recruitment.data.de_currency_rates')
    rates_table = create_table_gcp(table_name="de_currency_rates", data_fields=r

Deleted table qntq-recruitment.data.de_currency_rates
    qntq-recruitment.data.de_currency_rates
    Created table qntq-recruitment.data.de_currency_rates
```

Batch upload of all the currency conversion rates

Note: Retry this until 404 error is resolved

```
In [13]: from bigquery_functions import batch_upload
batch_upload(rates_table, rates_to_upload.to_dict(orient='records'))
```

New rows have been added.

Strategy for keeping the big query data uptodate

- 1. Get the latest date from the table
- 2. Re-run API layer with the above date as start date and today's date as end date
- 3. Append the table with the new data

```
In [14]: from main import find_last_date_table
    last_date = find_last_date_table(rates_table)
    print("Rates uploaded until %s" % (last_date))
    Rates uploaded until 2022-05-31
```

```
In [15]: from time import sleep
from main import date_today

new_rates_to_upload = get_rates(base='EUR', start_date=last_date, end_date=d
sleep(10) # Sleep to prevent 404 error from batch_upload
batch_upload(rates_table, new_rates_to_upload.to_dict(orient='records'))
```

New rows have been added.

```
In [16]: from main import query_print_table

last_date = find_last_date_table(rates_table)
print("Rates updated until %s" % (last_date))
print(query_print_table(rates_table))
```

200

19/06/2022, 18:58 main_notebook

```
Rates updated until 2022-06-19
            DATE BASE
                              AED
                                           AFN
                                                        AT<sub>1</sub>T<sub>1</sub>
                                                                      AMD
                                                                                 ANG
\
                                                 121.277018
0
     2022-01-01
                  EUR
                        4.176782
                                   117.979297
                                                             546.096265
                                                                           2,049808
1
     2022-01-02
                        4.177235
                                   117.993578
                                                 121.292102
                                                              546.164583
                                                                           2.050064
                  EUR
2
     2022-01-03
                  EUR
                        4.150540
                                   117.235943
                                                 120.060423
                                                              544.187906
                                                                           2.037327
3
     2022-01-04
                  EUR
                        4.144514
                                   118.362513
                                                 119.463303
                                                              544.201872
                                                                           2.032711
                        4.155551
                                   119.074390
                                                 120.943795
4
     2022-01-05
                  EUR
                                                              546.626133
                                                                           2.039588
                   . . .
. .
     2022-06-15
                        3.840543
                                    93.574145
                                                 119.489826
                                                              443.767194
166
                  EUR
                                                                           1.883967
167
     2022-06-16
                  EUR
                        3.873840
                                    94.242583
                                                 121.482911
                                                              450.895564
                                                                           1.901583
168
     2022-06-17
                  EUR
                        3.854981
                                    93.408884
                                                 119.699740
                                                              446.370858
                                                                           1.891079
                        3.855047
                                                              445.064659
169
     2022-06-18
                  EUR
                                    93.867237
                                                 119.808183
                                                                           1,895338
170
     2022-06-19
                  EUR
                        3.855047
                                    93.867237
                                                 119.808183
                                                              445.064659
                                                                           1.895338
                                                                 XCD
             AOA
                          ARS
                                     AUD
                                                      XAU
                                                                             XDR
0
     626.101357
                   116.773434
                                1.564485
                                                 0.000622
                                                            3.073193
                                                                       0.812663
                                           . . .
1
     626.179720
                  116.759289
                                1.565111
                                                 0.000622
                                                            3.073577
                                                                       0.812765
                                           . . .
2
     626.240367
                  116.341226
                                1.570112
                                                 0.000626
                                                            3.053832
                                                                       0.807706
3
     624.456835
                   116.336834
                                1.558361
                                                 0.000622
                                                            3.049405
                                                                       0.805117
                                           . . .
4
     625.241974
                  116.644985
                                1.566636
                                                 0.000625
                                                            3.057520
                                                                       0.810347
                                           . . .
             . . .
                                      . . .
                                           . . .
166
     455.073565
                   128.269729
                                1.490166
                                                 0.000570
                                                            2.825748
                                                                       0.786412
                                           . . .
     457.733881
                  129.639357
                                1.498011
                                                 0.000570
                                                            2.850249
                                                                       0.792250
167
                                           . . .
                  128.957990
168
     455.412029
                                1.516924
                                           . . .
                                                 0.000571
                                                            2.836418
                                                                       0.789261
169
     455.412029
                   129.265183
                                1.514260
                                                 0.000571
                                                            2.836418
                                                                       0.791024
                                           . . .
     455.412029
                   129.265183
                                1.514260
                                                 0.000571
170
                                           . . .
                                                            2.836418
                                                                       0.791024
             XOF
                          XPF
                                        YER
                                                    ZAR
                                                                    ZMK
                                                                                ZMW
١
0
     658.979869
                   120.367257
                                284.571056
                                             18.138658
                                                          10235.677475
                                                                         18.948740
                  120.382047
                                284.605769
                                             18.156679
1
     659.057648
                                                          10236.956907
                                                                         18.951110
2
                  120.061188
                                282.778231
                                             17.937892
                                                          10171.194552
     653.688869
                                                                         18.841523
3
                                                          10156.445865
     654.995150
                  119.745484
                                282.367813
                                             18.096101
                                                                         18.864138
4
     655.616678
                   119.413738
                                283.119082
                                             17.981505
                                                          10183.461167
                                                                         18.973170
             . . .
                          . . .
                                        . . .
                                                    . . .
                                                                    . . .
                                                                                . . .
. .
166
     654.140099
                   119.831742
                                261.720323
                                             16.472471
                                                           9411.528953
                                                                         17.691645
                                263.981709
167
     665.239987
                   120.859905
                                             16.888574
                                                           9493.134107
                                                                         17.858612
168
     653.338497
                   119.778071
                                262.646186
                                             16.827531
                                                           9447.066341
                                                                         17.811508
169
     655.728131
                   119.778071
                                262.646186
                                             16.822094
                                                           9447.066341
                                                                         17.851969
170
     655.728131
                   119.778071
                                262.646186
                                             16.822094
                                                           9447.066341
                                                                         17.851969
             ZWL
0
     366.160363
1
     366.206170
2
     363.853655
3
     363.326122
4
     364.293086
166
     336.678214
167
     339.597506
     337.949417
168
169
     337.949417
170
     337.949417
[171 rows x 170 columns]
```

None