Author: Ranabhatt

1. Download raw GPS data.
2. Extract trip info using raw data.
   - Make sure 194 folder contains GPS raw data per day (~0.7M lines in one day) [sep2021-April2022]
   - Change tripCalculation.yaml to change the input values.
   - Run Final_truck_analysis python file.
   - trip_info_output file will be generated
3. Generate orders results (which contains calculation of capacity utilization of each order)
   - Update the MongoDB database with new orders maualbooking, umlagelieferplan and segment Kanban (db18022022 → sep21-dec21,db19062022 → sep21-Apr22)
   - Update "20211217_JIS_order" file (db18062022/script)
   - Update database and JIS order file name in config file
   - Go to generate_orders_results_file/db_19062022/scripts
   - Change config file if needed
   - Run main.py
   - orders_results_19_06_2022.txt output file will be generated
4. Calculate Capacity_utilization_without_cancelling_trips
   - orders_results_19_06_2022, trcukInfo, trip_info_output_18_06_2022 are input files to the module
   - prepare trip_info_output_18_06_2022 file (remove extra space, change – to /, remove trips when GPS coordinates issue—example trips finish in the same minutes or nxt minutes 25 oct2021 is an example)
   - remove error 6 orders from orders_results_19_06_2022
   - run python script and TruckCU("orders_results_19_06_2022.txt","truckInfo.txt","trip_info_output_18_06_2022.txt","output_19_06_2022")
   - output_19_06_2022_P1p2, output_19_06_2022_P2p1, output_19_06_2022_orders_replenishmentBreak_P1p2, output_19_06_2022_orders_replenishmentBreak_P2p1 will be generated
5. Calculate Capacity_utilization_with_cancellation_of_trips_plus_replenishmentbreak
   - Use the same modified input files used in above module
   - Run python scripts and TruckCU("orders_results_19_06_2022.txt","truckInfo.txt","trip_info_output_18_06_2022.txt","output_19_06_2022")
6. Generate plots
   - Trip cancellation plots:
     - Run excelFormatGraph_trips (output_19_06_2022_cancelled_trips_info, trip_info_output_18_06_2022) → trip inputs
     - trip_info_output_18_06_2022 → replace / with –
     - output files "outpt_format_19_06_22_entireWeekResults", "outpt_format_19_06_22_onlyWorkingDayResults" will be generated.
     - Generate the plots.

CU p1p2 and CU p2p1 plots:

- o output_19_06_2022_P2p1, output_19_06_2022_P1p2
- o Note: forgot to copy 13-17 December trips so please consider previously generated output for the December.

Trip_inut_sep_dec_2021_plus_Jan22 → old file input (sep-dec with removed error trips + jan-aprl trips from trip_info_output_18_06_2022)

Count total number of records:

Go to this path:
/mnt/c/Users/Ranabhatt/Documents/DHBW/demanad_forecasting/ALFRIED_optimization_results_07_07_2022/tripCalculation/194

Run the following commands:
```
for z in $(ls );do cd ${z};echo ${z};
zcat 7C97635048C5.csv.gz|wc -l; cd ..;done > ../TotalRecords.txt
awk -v rec="" '{if(NR % 2 != 0){rec = $0;next}else;print rec"\t"$0}' TotalRecords.txt > TotalRecords.1.txt
```

Verification_19_09_2022:

4. Calculate Capacity_utilization_without_cancelling_trips

- orders_results_19_06_2022, trcukInfo, trip_info_output_19_09_2022 are input files to the module
- prepare trip_info_output_18_06_2022 file (remove extra space, change – to /, remove trips when GPS coordinates issue—example trips finish in the same minutes or nxt minutes 25 oct2021 is an example)
- remove error 6 orders from orders_results_19_06_2022
- run python script and
  TruckCU("orders_results_19_06_2022.txt","truckInfo.txt","trip_info_output_18_06_2022.txt","output_19_06_2022")
- output_19_06_2022_P1p2, output_19_06_2022_P2p1, output_19_06_2022_orders_replenishmentBreak_P1p2, output_19_06_2022_orders_replenishmentBreak_P2p1 will be generated