System test case - #4 - *Reproducing*

Original tester: Eetu Luoma

Original test date: 26.03.2024

Test case details

Test reproducer: Joonas Pelttari

Date: 02.04.2024

Device:

Desktop Computer, fast modern processor, Windows 10 Home Version 10.0.19045 Build 19045

Environment details:

- Most recent master branch of the project GitHub
- Commit 369416d27d187954a714f2dfe7d13cb406573927
- Python venv used with development
- Python and imports:
    - Python 3.12.1
    - numpy 1.26.3
    - pandas 2.1.4
    - us 3.1.1

Reproducing test details

In this test an attempt to reproduce the original test results by Eetu Luoma is made. More detailed notes about the test are available in the original test report (System test case -#4). In this test I only reproduce the original test steps 4 and 5, as they represent the full successful run. (There was a missing folder problem in the original test in steps 1-3).

Reproduced steps and results

Step 4. (Repeat step 1 in order to get a successful run):

a. Result: Successful validation, runtime of about 29 minutes. Files in relevant folder.

Step 5. (Run generate_predictions.py with the previous argument)

a. Result: Successful run, runtime of about 7.5 minutes. Files in relevant folder.

Reproducing test results

I am able to reproduce a bit similar (taking non-determinism into account) results in comparison to the original test and tester Eetu Luoma but especially when considering the mortality, differences are found.

In my tests, the start of Argentina's daily fatality prediction (pre_fata_daily) is different (Picture 1) and maybe because of that the end of the prediction also predicts higher mortality than the original test, and the mortality also starts increasing from zero sooner (21.05.2022 in my test vs 04.06.2022 in original test). This can be seen in the Picture 2. The predicted daily fatality then ends up almost twice as high in comparison to the original test.

Date	pre_fata_daily
08/03/2022	0.0
09/03/2022	92.0
10/03/2022	50.356483686031424
11/03/2022	14.144496654815157
12/03/2022	0.0
13/03/2022	0.0
14/03/2022	0.0
15/03/2022	0.0
16/03/2022	0.0
17/03/2022	0.0
18/03/2022	0.0
19/03/2022	0.0
20/03/2022	0.0
21/03/2022	0.0
22/03/2022	0.0
23/03/2022	0.0
24/03/2022	0.0
25/03/2022	0.0

Picture 1. Notice different date format in comparison to the original test report

Date	pre_fata_daily
20/05/2022	0.0
21/05/2022	2.525365854293341
22/05/2022	4.899327313964022
23/05/2022	7.0235636317083845
24/05/2022	8.985172347645857
25/05/2022	10.802162519015837
26/05/2022	12.491423292260151
27/05/2022	14.068778530272539
28/05/2022	15.54903877194738
29/05/2022	16.946050661048503
30/05/2022	18.272743963243556
31/05/2022	19.541176287501003
01/06/2022	20.76257563047693
02/06/2022	21.94738084160781
03/06/2022	23.105280117873917
04/06/2022	24.24524761881912
05/06/2022	25.375578295861487
06/06/2022	26.503921024719602
07/06/2022	27.637310119025642
08/06/2022	28.782006032357458
09/06/2022	29.791818523110123
10/06/2022	30.643477171601262
11/06/2022	31.45002272244892
12/06/2022	32.214741246032645
13/06/2022	32.940463557999465
14/06/2022	33.62958742585033
15/06/2022	34.28409869277675

Picture 2. Notice different date format in comparison to original test report