# System test case - #2

## Test case details

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Date: 26.03.2024

Device: Desktop Computer, fast modern processor, Windows 11 Home v.23H2

Environment details:

- Most recent master branch of the project github
- most recent commit is c72169bb6764e2ddba202fc4f6486a08fd74cae9
- Anaconda virtual environment used with development
- Python 3.12.1
- numpy 1.26.3
- pandas 2.1.4
- us 3.1.1

## Test details

Test is a system test, running the whole model with specific parameters. For this test case we attempt to run the whole model using JHU state level data.

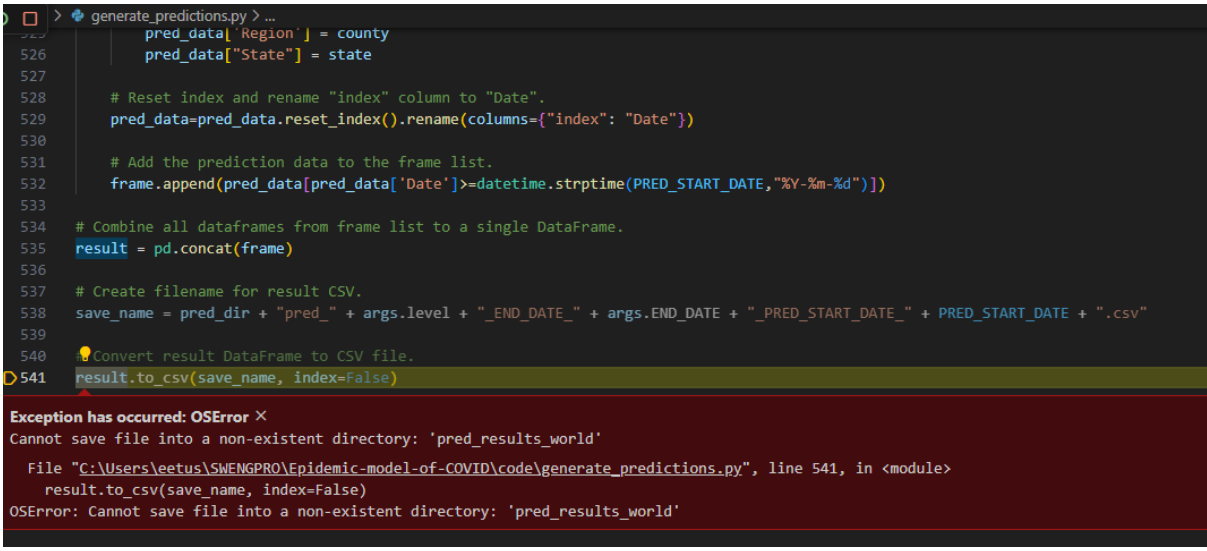
Parameters:

- Dataset: JHU Global
- END_DATE: 2021-07-07
- VAL_END_DATE: 2021-07-14
- level: nation

## Test steps and results:

1. Run validation.py with the following arguments:
   validation.py **–END_DATE** 2021-07-07 **–VAL_END_DATE** 2021-07-14 **–dataset** JHU **–level** nation
   a. Result: Seemingly successful run of validation.py with the JHU global data. Runtime was just about 35 minutes. Resulting files found in their respective folders in *System test 2* \ *Results_1*.
2. Run generate_predictions.py with the same arguments (prerequisite is that the files generated in step 1 exist).
   a. Result: Exception after 8 minutes of runtime. Seemingly, the predictions were completed, but they could not be saved to a file because the program attempted to

save them to a nonexisting directory. Image of exception below and in *System test 2 \ Results_2*.




3. Due to the nature of the exception being easily prevented, the missing directory was added to the codebase, and now the same test as before in step 2 will be redone.
   Run generate_predictions.py with the same arguments again.
   a. Result: generate_predictions.py has been successfully run with the given arguments. Runtime was just about 8 minutes. Resulting files can be found in *System test 2 \ Results_3 *.

## Test results

Test was quite successful. Missing directory was added to codebase, after which the model was successfully run. The generated data can be found from testing_reports \ System test 2 \. This means that as of the commit whose hash is mentioned in env details, the program is functional with JHU nation level data.