

Pandas Dataframe Export as CSV with Automatic File Path and Name

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1 Pandas Importing and Exporting

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1.1 Export a Dataframe to CSV in User Download with Automatic File Name

During debugging and testing, a large dataframe is generated, but certain operation produces error. To fully debug, drop into debugger on error in PyCharm, and use console to generate a dataframe of just the matrix at issue. Now export this dataframe to csv in the fastest way possible.

1. Find user home path, generate a download subdirectory if it does not exist.
2. Export the current dataframe to csv in that file, with auto row and column names.
3. The dataframe will be named after the current variable array name, and will have a time suffix added.

Replace the `mt_abc` line below, use a different name that should appear in the saved file name.

```
# Import Pathlib and pandas
import pandas as pd
import numpy as np
from pathlib import Path
import time

# replace mt_abc line by the matrix currently used
mt_abc = np.column_stack(np.random.randint(10, size=(5, 3)))
# Save results to C:\Users\fan\Downloads\PythonDebug, generate if does not exist.
srt_pydebug = Path.joinpath(Path.home(), "Downloads", "PythonDebug")
srt_pydebug.mkdir(parents=True, exist_ok=True)
# Matrix to data frame with columns and row names
df2export = pd.DataFrame(data=mt_abc,
                          index=['r' + str(it_col) for it_col in np.array(range(1, mt_abc.shape[0] + 1))],
                          columns=['c' + str(it_col) for it_col in np.array(range(1, mt_abc.shape[1] + 1))])

# Export File Name
spn_csv_path = Path.joinpath(srt_pydebug, f'{mt_abc}'.split('=')[0] + '-' + time.strftime("%Y%m%d-%H%M%S"))
# export
df2export.to_csv(spn_csv_path, sep=",")
```

```
# print
print(f'{srt_pydebug=}')

## srt_pydebug=WindowsPath('C:/Users/fan/Downloads/PythonDebug')
print(f'{spn_csv_path=}')

## spn_csv_path=WindowsPath('C:/Users/fan/Downloads/PythonDebug/mt_abc-20201223-221232.csv')
```