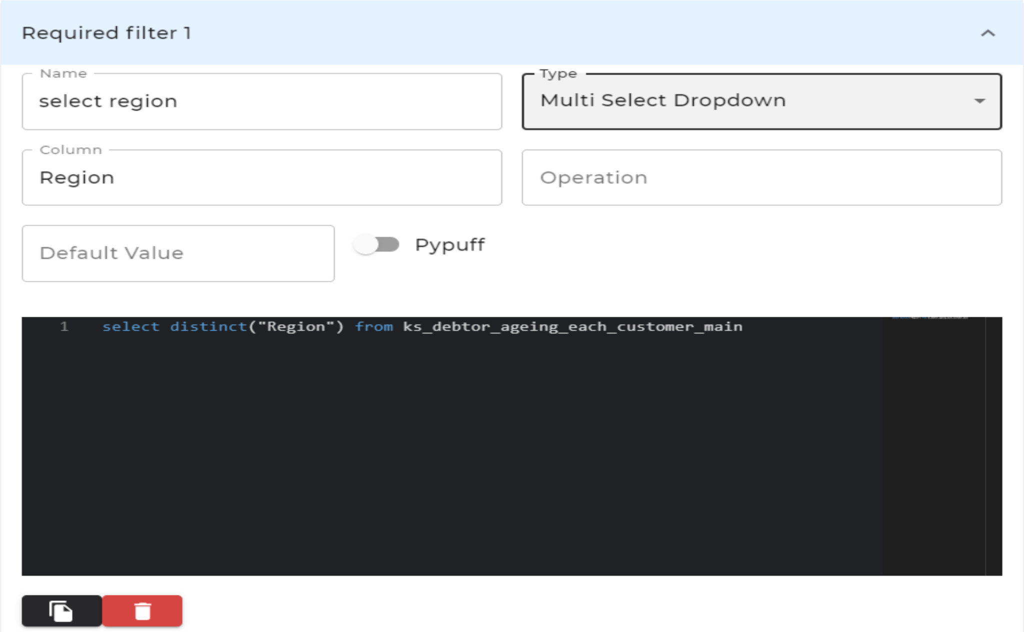
ISSUES FACED ON COGNIVIZ:

1 – Using multi select dropdown and choosing multiple values to create a visual



Required filter 1

Name: select region

Type: Multi Select Dropdown

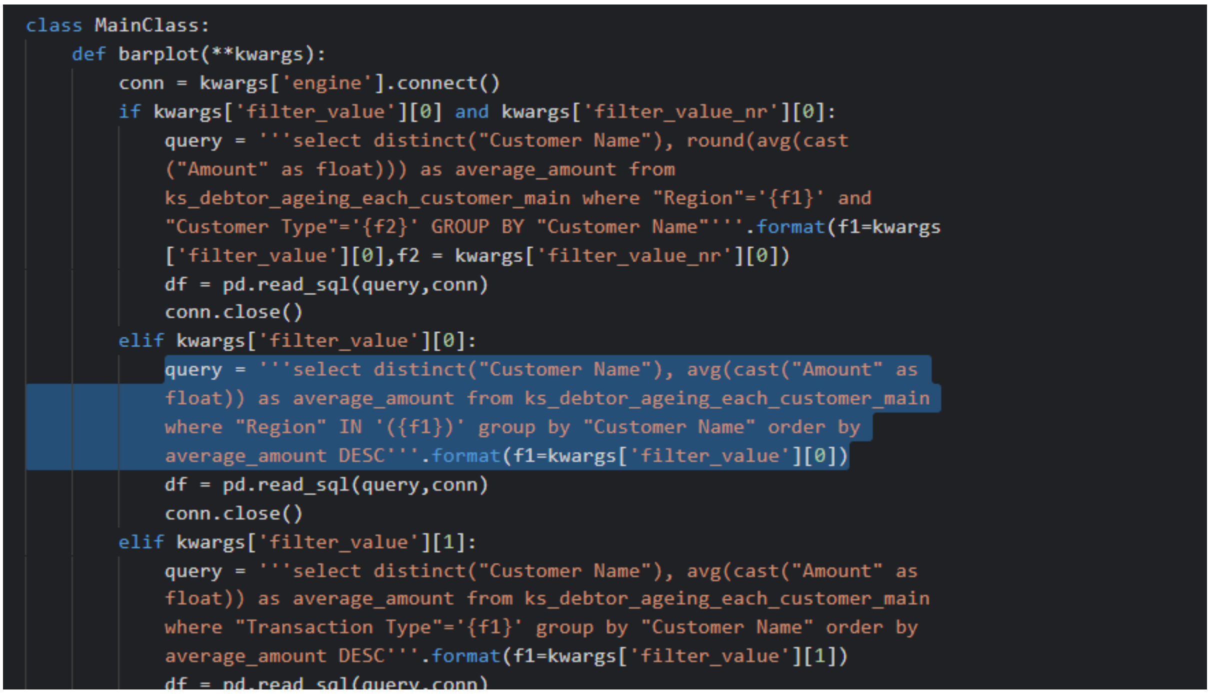
Column: Region

Operation

Default Value

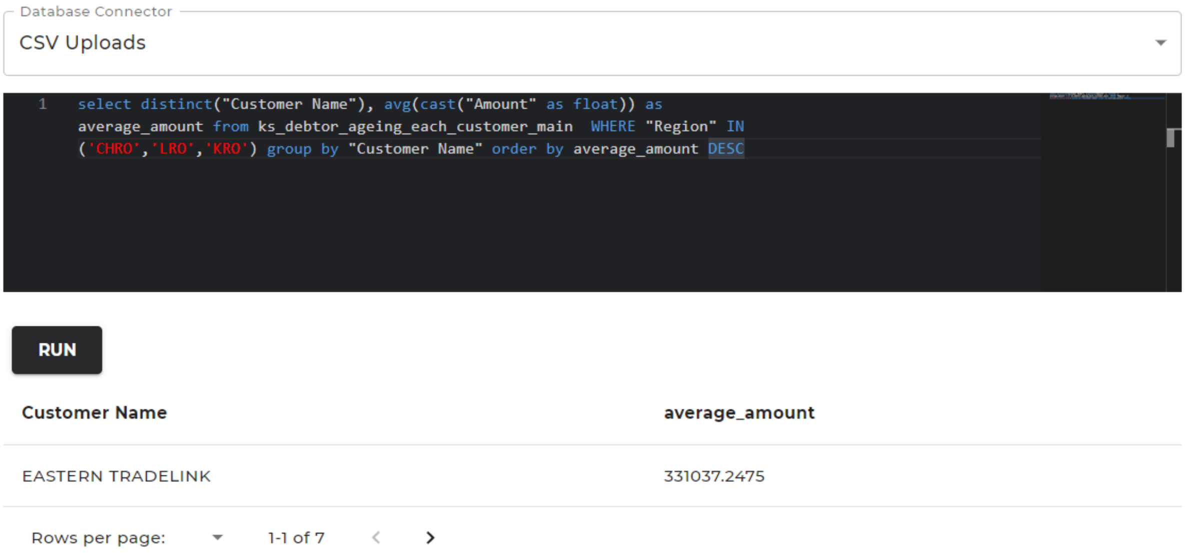
Pypuff

```
select distinct("Region") from ks_debtor_ageing_each_customer_main
```



```
class MainClass:
    def barplot(**kwargs):
        conn = kwargs['engine'].connect()
        if kwargs['filter_value'][0] and kwargs['filter_value_nr'][0]:
            query = '''select distinct("Customer Name"), round(avg(cast
            ("Amount" as float))) as average_amount from
            ks_debtor_ageing_each_customer_main where "Region"='{f1}' and
            "Customer Type"='{f2}' GROUP BY "Customer Name"'''.format(f1=kwargs
            ['filter_value'][0],f2 = kwargs['filter_value_nr'][0])
            df = pd.read_sql(query,conn)
            conn.close()
        elif kwargs['filter_value'][0]:
            query = '''select distinct("Customer Name"), avg(cast("Amount" as
            float)) as average_amount from ks_debtor_ageing_each_customer_main
            where "Region" IN '({f1})' group by "Customer Name" order by
            average_amount DESC'''.format(f1=kwargs['filter_value'][0])
            df = pd.read_sql(query,conn)
            conn.close()
        elif kwargs['filter_value'][1]:
            query = '''select distinct("Customer Name"), avg(cast("Amount" as
            float)) as average_amount from ks_debtor_ageing_each_customer_main
            where "Transaction Type"='{f1}' group by "Customer Name" order by
            average_amount DESC'''.format(f1=kwargs['filter_value'][1])
            df = pd.read_sql(query,conn)
```

QUERY RUNNING ON DB TESTER

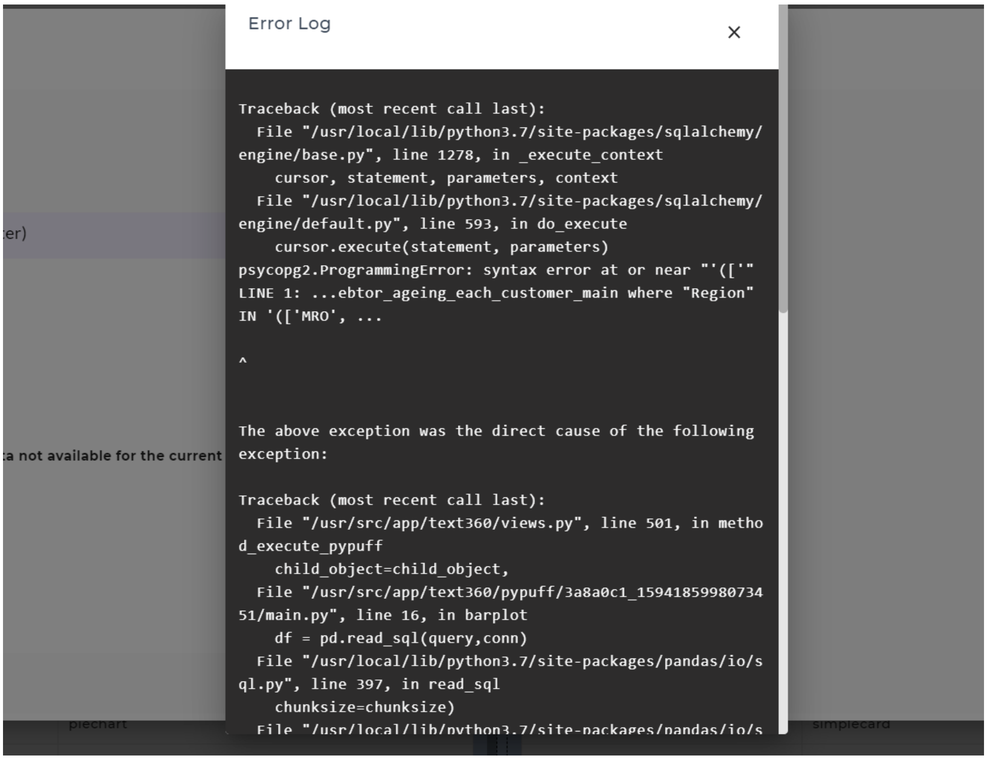


Database Connector: CSV Uploads

```
select distinct("Customer Name"), avg(cast("Amount" as float)) as
average_amount from ks_debtor_ageing_each_customer_main  WHERE "Region" IN
('CHRO','LRO','KRO') group by "Customer Name" order by average_amount DESC
```

Customer Name	average_amount
EASTERN TRADELINK	331037.2475

NOT RUNNING ON COMPONENTS



```
Traceback (most recent call last):
  File "/usr/local/lib/python3.7/site-packages/sqlalchemy/
engine/base.py", line 1278, in _execute_context
    cursor, statement, parameters, context
  File "/usr/local/lib/python3.7/site-packages/sqlalchemy/
engine/default.py", line 593, in do_execute
    cursor.execute(statement, parameters)
psycopg2.ProgrammingError: syntax error at or near "'(['"
LINE 1: ...ebtor_ageing_each_customer_main where "Region"
IN '(['MRO', ...

^


The above exception was the direct cause of the following
exception:

Traceback (most recent call last):
  File "/usr/src/app/text360/views.py", line 501, in metho
d_execute_pypuff
    child_object=child_object,
  File "/usr/src/app/text360/pypuff/3a8a0c1_15941859980734
51/main.py", line 16, in barplot
    df = pd.read_sql(query,conn)
  File "/usr/local/lib/python3.7/site-packages/pandas/io/s
ql.py", line 397, in read_sql
    chunksize=chunksize)
  File "/usr/local/lib/python3.7/site-packages/pandas/io/s
```

Correlation Code Documentation

This code is prepared for finding correlation for time series data based on weekly and monthly basis.

Python finalscript.py typeofcorr number1 number2 dataset.csv

Dataset should be in csv format

Typeofcorr can be weekly, monthly

Number1 and number2 are week/month numbers for which you want to find correlation.

E.g., *python finalscript.py weekly 40 46 ptcdata.csv*

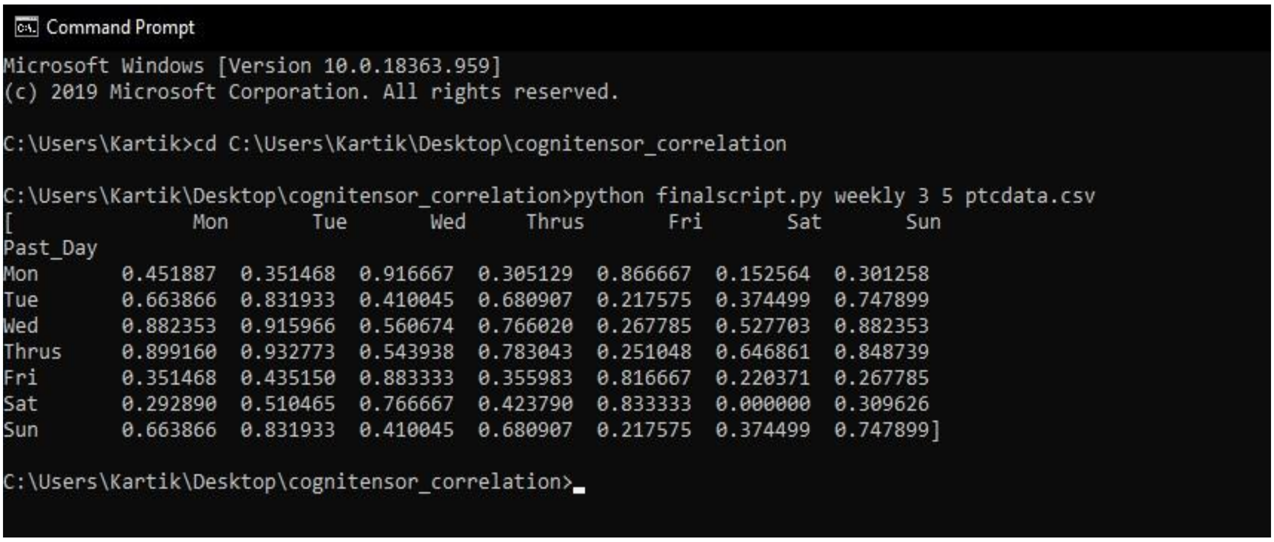
For weekly:

For finding correlation between different weeks you can pass values of weeks between 2-52 e.g. first week number can be 4 and second week number can be 5 etc.

For Monthly:

For finding correlation between different months you can pass values of weeks between 2-12 e.g. first month number can be 3 and second month number can be 5 etc.

If your dataset *doesn't have headers* then you can add the headers then you can skip adding headers in the command line arguments although it is an optional argument you can add or skip if you require.



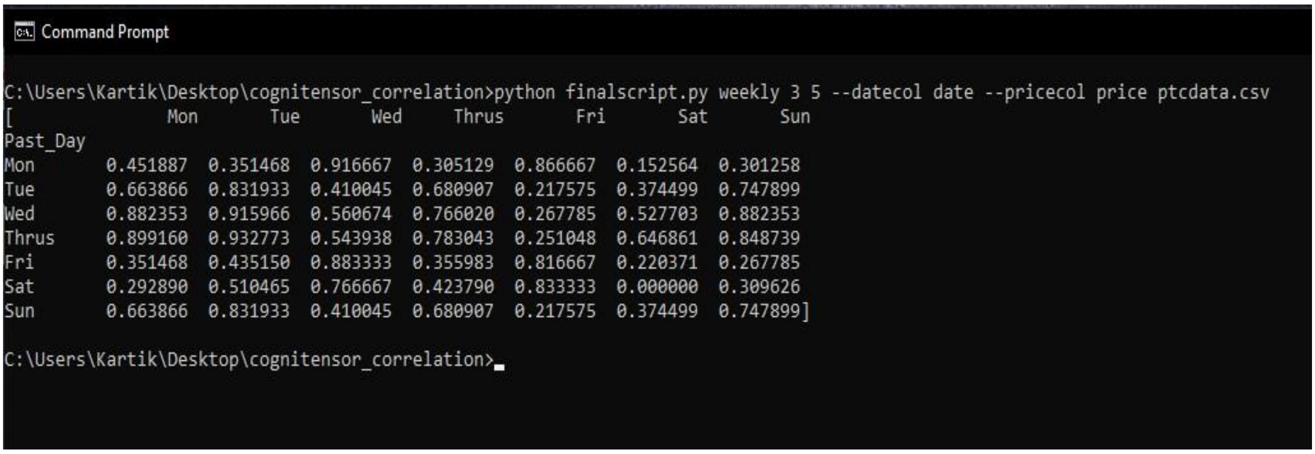
```
Microsoft Windows [Version 10.0.18363.959]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Kartik>cd C:\Users\Kartik\Desktop\cognitensor_correlation

C:\Users\Kartik\Desktop\cognitensor_correlation>python finalscript.py weekly 3 5 ptcdata.csv
[               Mon       Tue       Wed     Thrus       Fri       Sat       Sun
Past_Day
Mon       0.451887  0.351468  0.916667  0.305129  0.866667  0.152564  0.301258
Tue       0.663866  0.831933  0.410045  0.680907  0.217575  0.374499  0.747899
Wed       0.882353  0.915966  0.560674  0.766020  0.267785  0.527703  0.882353
Thrus     0.899160  0.932773  0.543938  0.783043  0.251048  0.646861  0.848739
Fri       0.351468  0.435150  0.883333  0.355983  0.816667  0.220371  0.267785
Sat       0.292890  0.510465  0.766667  0.423790  0.833333  0.000000  0.309626
Sun       0.663866  0.831933  0.410045  0.680907  0.217575  0.374499  0.747899]

C:\Users\Kartik\Desktop\cognitensor_correlation>
```

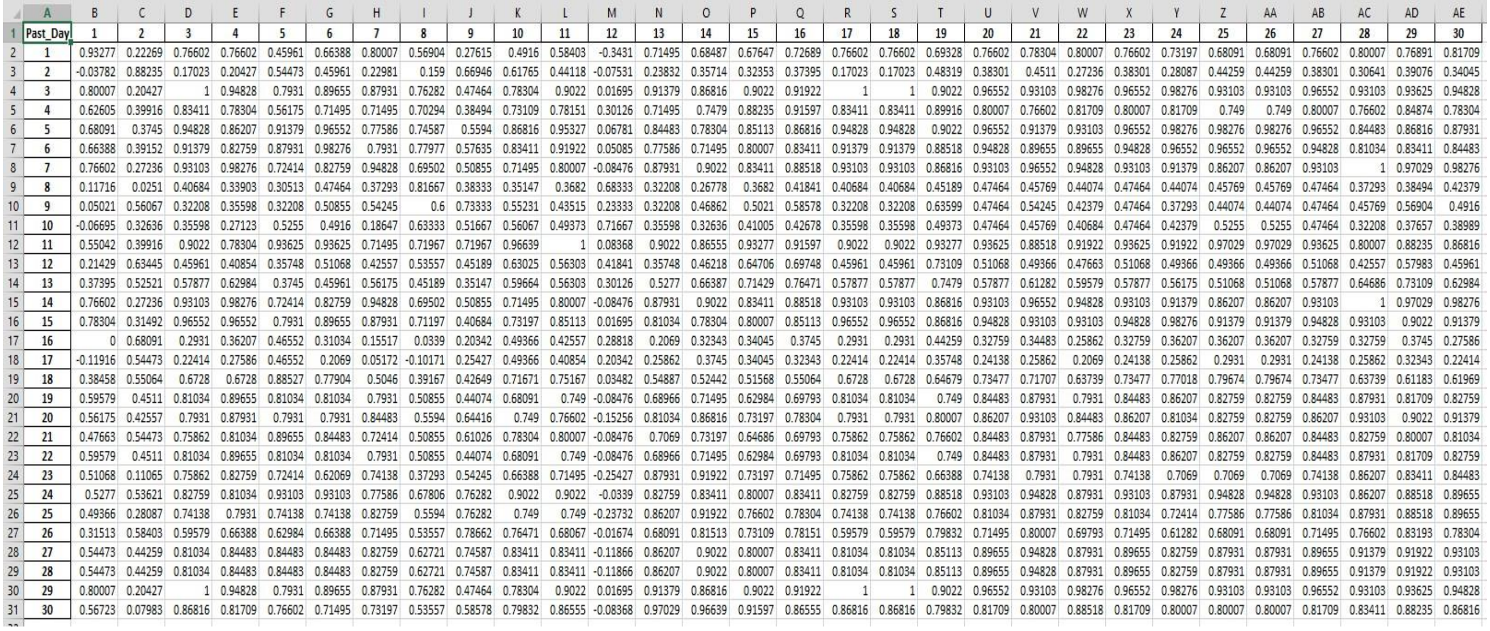
If your *dataset have date and price column* headers then you can add your date column and price column name as the optional arguments like shown below –



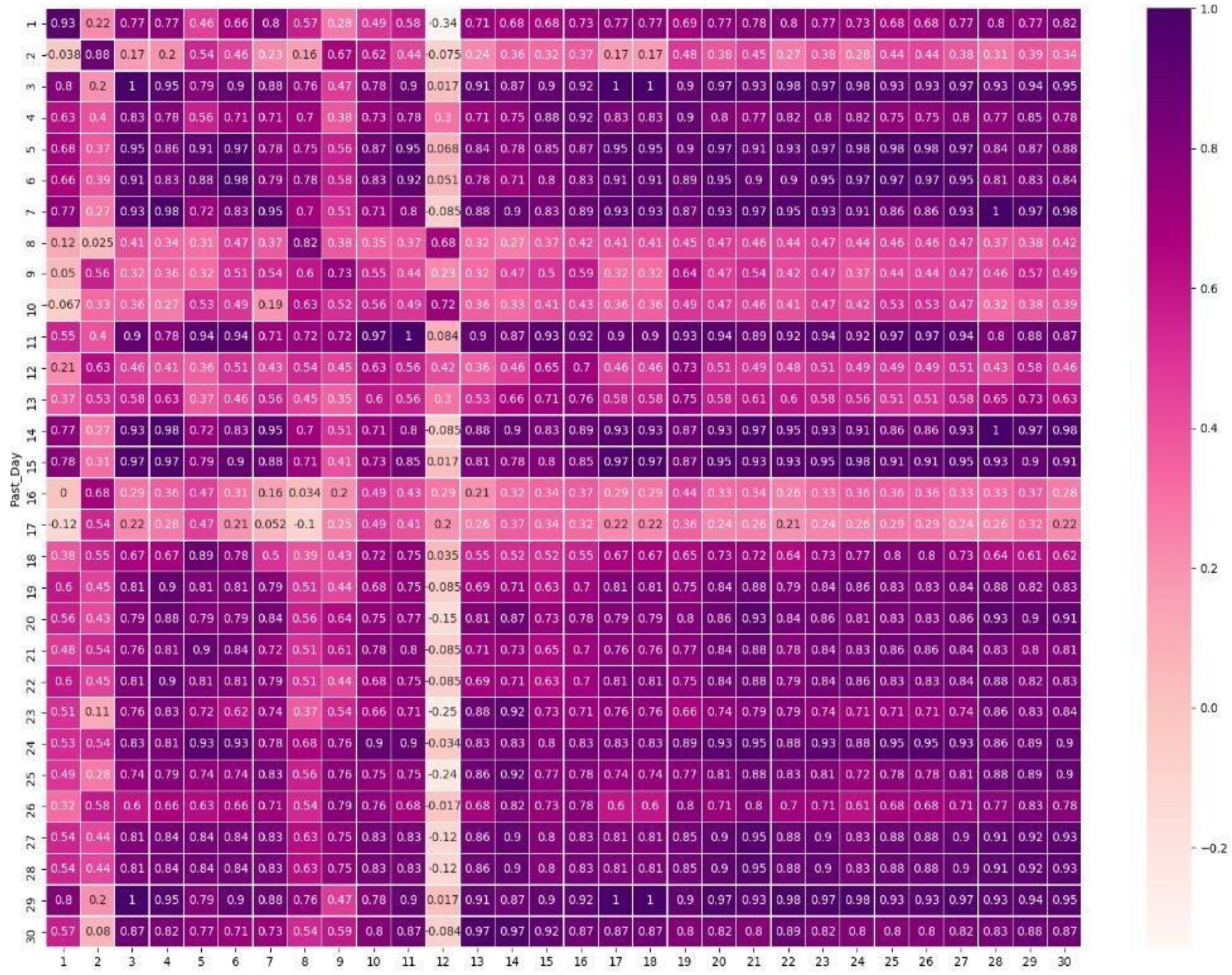
```
C:\Users\Kartik\Desktop\cognitensor_correlation>python finalscript.py weekly 3 5 --datecol date --pricecol price ptcdata.csv
[               Mon       Tue       Wed      Thrus       Fri       Sat       Sun
Past_Day
Mon        0.451887  0.351468  0.916667  0.305129  0.866667  0.152564  0.301258
Tue        0.663866  0.831933  0.410045  0.680907  0.217575  0.374499  0.747899
Wed        0.882353  0.915966  0.560674  0.766020  0.267785  0.527703  0.882353
Thrus      0.899160  0.932773  0.543938  0.783043  0.251048  0.646861  0.848739
Fri        0.351468  0.435150  0.883333  0.355983  0.816667  0.220371  0.267785
Sat        0.292890  0.510465  0.766667  0.423790  0.833333  0.000000  0.309626
Sun        0.663866  0.831933  0.410045  0.680907  0.217575  0.374499  0.747899]

C:\Users\Kartik\Desktop\cognitensor_correlation>_
```

Your final results will be saved as a dataframe into an excel file in the same working directory with the name of “typeofcorr_corr_results.xlsx” along with a heatmap figure for the same will be saved in the working directory. Example shown below -



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
1	Past_Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
2	1	0.93277	0.22269	0.76602	0.76602	0.45961	0.66388	0.80007	0.56904	0.27615	0.4916	0.58403	-0.3431	0.71495	0.68487	0.67647	0.72689	0.76602	0.76602	0.69328	0.76602	0.78304	0.80007	0.76602	0.73197	0.68091	0.68091	0.76602	0.80007	0.76891	0.81709
3	2	-0.03782	0.88235	0.17023	0.20427	0.54473	0.45961	0.22981	0.159	0.66946	0.61765	0.44118	-0.07531	0.23832	0.35714	0.32353	0.37395	0.17023	0.17023	0.48319	0.38301	0.4511	0.27236	0.38301	0.28087	0.44259	0.44259	0.38301	0.30641	0.39076	0.34045
4	3	0.80007	0.20427	1	0.94828	0.7931	0.89655	0.87931	0.76282	0.47464	0.78304	0.9022	0.01695	0.91379	0.86816	0.9022	0.91922	1	1	0.9022	0.96552	0.93103	0.98276	0.96552	0.98276	0.93103	0.93103	0.96552	0.93103	0.93625	0.94828
5	4	0.62605	0.39916	0.83411	0.78304	0.56175	0.71495	0.71495	0.70294	0.38494	0.73109	0.78151	0.30126	0.71495	0.7479	0.88235	0.91597	0.83411	0.83411	0.89916	0.80007	0.76602	0.81709	0.80007	0.81709	0.749	0.749	0.80007	0.76602	0.84874	0.78304
6	5	0.68091	0.3745	0.94828	0.86207	0.91379	0.96552	0.77586	0.74587	0.5594	0.86816	0.95327	0.06781	0.84483	0.78304	0.85113	0.86816	0.94828	0.94828	0.9022	0.96552	0.91379	0.93103	0.96552	0.98276	0.98276	0.98276	0.96552	0.84483	0.86816	0.87931
7	6	0.66388	0.39152	0.91379	0.82759	0.87931	0.98276	0.7931	0.77977	0.57635	0.83411	0.91922	0.05085	0.77586	0.71495	0.80007	0.83411	0.91379	0.91379	0.88518	0.94828	0.89655	0.89655	0.94828	0.96552	0.96552	0.96552	0.94828	0.81034	0.83411	0.84483
8	7	0.76602	0.27236	0.93103	0.98276	0.72414	0.82759	0.94828	0.69502	0.50855	0.71495	0.80007	-0.08476	0.87931	0.9022	0.83411	0.88518	0.93103	0.93103	0.86816	0.93103	0.96552	0.94828	0.93103	0.91379	0.86207	0.86207	0.93103	1	0.97029	0.98276
9	8	0.11716	0.0251	0.40684	0.33903	0.30513	0.47464	0.37293	0.81667	0.38333	0.35147	0.3682	0.68333	0.32208	0.26778	0.3682	0.41841	0.40684	0.40684	0.45189	0.47464	0.45769	0.44074	0.47464	0.44074	0.45769	0.45769	0.47464	0.37293	0.38494	0.42379
10	9	0.05021	0.56067	0.32208	0.35598	0.32208	0.50855	0.54245	0.6	0.73333	0.55231	0.43515	0.23333	0.32208	0.46862	0.5021	0.58578	0.32208	0.32208	0.63599	0.47464	0.54245	0.42379	0.47464	0.37293	0.44074	0.44074	0.47464	0.45769	0.56904	0.4916
11	10	-0.06695	0.32636	0.35598	0.27123	0.5255	0.4916	0.18647	0.63333	0.51667	0.56067	0.49373	0.71667	0.35598	0.32636	0.41005	0.42678	0.35598	0.35598	0.49373	0.47464	0.45769	0.40684	0.47464	0.42379	0.5255	0.5255	0.47464	0.32208	0.37657	0.38989
12	11	0.55042	0.39916	0.9022	0.78304	0.93625	0.93625	0.71495	0.71967	0.71967	0.96639	1	0.08368	0.9022	0.86555	0.93277	0.91597	0.9022	0.9022	0.93277	0.93625	0.88518	0.91922	0.93625	0.91922	0.97029	0.97029	0.93625	0.80007	0.88235	0.86816
13	12	0.21429	0.63445	0.45961	0.40854	0.35748	0.51068	0.42557	0.53557	0.45189	0.63025	0.56303	0.41841	0.35748	0.46218	0.64706	0.69748	0.45961	0.45961	0.73109	0.51068	0.49366	0.47663	0.51068	0.49366	0.49366	0.49366	0.51068	0.42557	0.57983	0.45961
14	13	0.37395	0.52521	0.57877	0.62984	0.3745	0.45961	0.56175	0.45189	0.35147	0.59664	0.56303	0.30126	0.5277	0.66387	0.71429	0.76471	0.57877	0.57877	0.7479	0.57877	0.61282	0.59579	0.57877	0.56175	0.51068	0.51068	0.57877	0.64686	0.73109	0.62984
15	14	0.76602	0.27236	0.93103	0.98276	0.72414	0.82759	0.94828	0.69502	0.50855	0.71495	0.80007	-0.08476	0.87931	0.9022	0.83411	0.88518	0.93103	0.93103	0.86816	0.93103	0.96552	0.94828	0.93103	0.91379	0.86207	0.86207	0.93103	1	0.97029	0.98276
16	15	0.78304	0.31492	0.96552	0.96552	0.7931	0.89655	0.87931	0.71197	0.40684	0.73197	0.85113	0.01695	0.81034	0.78304	0.80007	0.85113	0.96552	0.96552	0.86816	0.94828	0.93103	0.93103	0.94828	0.98276	0.91379	0.91379	0.94828	0.93103	0.9022	0.91379
17	16	0	0.68091	0.2931	0.36207	0.46552	0.31034	0.15517	0.0339	0.20342	0.49366	0.42557	0.28818	0.2069	0.32343	0.34045	0.3745	0.2931	0.2931	0.44259	0.32759	0.34483	0.25862	0.32759	0.36207	0.36207	0.36207	0.32759	0.32759	0.3745	0.27586
18	17	-0.11916	0.54473	0.22414	0.27586	0.46552	0.2069	0.05172	-0.10171	0.25427	0.49366	0.40854	0.20342	0.25862	0.3745	0.34045	0.32343	0.22414	0.22414	0.35748	0.24138	0.25862	0.2069	0.24138	0.25862	0.2931	0.2931	0.24138	0.25862	0.32343	0.22414
19	18	0.38458	0.55064	0.6728	0.6728	0.88527	0.77904	0.5046	0.39167	0.42649	0.71671	0.75167	0.03482	0.54887	0.52442	0.51568	0.55064	0.6728	0.6728	0.64679	0.73477	0.71707	0.63739	0.73477	0.77018	0.79674	0.79674	0.73477	0.63739	0.61183	0.61969
20	19	0.59579	0.4511	0.81034	0.89655	0.81034	0.81034	0.7931	0.50855	0.44074	0.68091	0.749	-0.08476	0.68966	0.71495	0.62984	0.69793	0.81034	0.81034	0.749	0.84483	0.87931	0.7931	0.84483	0.86207	0.82759	0.82759	0.84483	0.87931	0.81709	0.82759
21	20	0.56175	0.42557	0.7931	0.87931	0.7931	0.7931	0.84483	0.5594	0.64416	0.749	0.76602	-0.15256	0.81034	0.86816	0.73197	0.78304	0.7931	0.7931	0.80007	0.86207	0.93103	0.84483	0.86207	0.81034	0.82759	0.82759	0.86207	0.93103	0.9022	0.91379
22	21	0.47663	0.54473	0.75862	0.81034	0.89655	0.84483	0.72414	0.50855	0.61026	0.78304	0.80007	-0.08476	0.7069	0.73197	0.64686	0.69793	0.75862	0.75862	0.76602	0.84483	0.87931	0.77586	0.84483	0.82759	0.86207	0.86207	0.84483	0.82759	0.80007	0.81034
23	22	0.59579	0.4511	0.81034	0.89655	0.81034	0.81034	0.7931	0.50855	0.44074	0.68091	0.749	-0.08476	0.68966	0.71495	0.62984	0.69793	0.81034	0.81034	0.749	0.84483	0.87931	0.7931	0.84483	0.86207	0.82759	0.82759	0.84483	0.87931	0.81709	0.82759
24	23	0.51068	0.11065	0.75862	0.82759	0.72414	0.62069	0.74138	0.37293	0.54245	0.66388	0.71495	-0.25427	0.87931	0.91922	0.73197	0.71495	0.75862	0.75862	0.66388	0.74138	0.7931	0.7931	0.74138	0.7069	0.7069	0.7069	0.74138	0.86207	0.83411	0.84483
25	24	0.5277	0.53621	0.82759	0.81034	0.93103	0.93103	0.77586	0.67806	0.76282	0.9022	0.9022	-0.0339	0.82759	0.83411	0.80007	0.83411	0.82759	0.82759	0.88518	0.93103	0.94828	0.87931	0.93103	0.87931	0.94828	0.94828	0.93103	0.86207	0.88518	0.89655
26	25	0.49366	0.28087	0.74138	0.7931	0.74138	0.74138	0.82759	0.5594	0.76282	0.749	0.749	-0.23732	0.86207	0.91922	0.76602	0.78304	0.74138	0.74138	0.76602	0.81034	0.87931	0.82759	0.81034	0.72414	0.77586	0.77586	0.81034	0.87931	0.88518	0.89655
27	26	0.31513	0.58403	0.59579	0.66388	0.62984	0.66388	0.71495	0.53557	0.78662	0.76471	0.68067	-0.01674	0.68091	0.81513	0.73109	0.78151	0.59579	0.59579	0.79832	0.71495	0.80007	0.69793	0.71495	0.61282	0.68091	0.68091	0.71495	0.76602	0.83193	0.78304
28	27	0.54473	0.44259	0.81034	0.84483	0.84483	0.84483	0.82759	0.62721	0.74587	0.83411	0.83411	-0.11866	0.86207	0.9022	0.80007	0.83411	0.81034	0.81034	0.85113	0.89655	0.94828	0.87931	0.89655	0.82759	0.87931	0.87931	0.89655	0.91379	0.91922	0.93103
29	28	0.54473	0.44259	0.81034	0.84483	0.84483	0.84483	0.82759	0.62721	0.74587	0.83411	0.83411	-0.11866	0.86207	0.9022	0.80007	0.83411	0.81034	0.81034	0.85113	0.89655	0.94828	0.87931	0.89655	0.82759	0.87931	0.87931	0.89655	0.91379	0.91922	0.93103
30	29	0.80007	0.20427	1	0.94828	0.7931	0.89655	0.87931	0.76282	0.47464	0.78304	0.9022	0.01695	0.91379	0.86816	0.9022	0.91922	1	1	0.9022	0.96552	0.93103	0.98276	0.96552	0.98276	0.93103	0.93103	0.96552	0.93103	0.93625	0.94828
31	30	0.56723	0.07983	0.86816	0.81709	0.76602	0.71495	0.73197	0.53557	0.58578	0.79832	0.86555	-0.08368	0.97029	0.96639	0.91597	0.86555	0.86816	0.86816	0.79832	0.81709	0.80007	0.88518	0.81709	0.80007	0.80007	0.80007	0.81709	0.83411	0.88235	0.86816



Past_Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	0.93	0.22	0.77	0.77	0.46	0.66	0.8	0.57	0.28	0.49	0.58	-0.34	0.71	0.68	0.68	0.73	0.77	0.77	0.69	0.77	0.78	0.8	0.77	0.73	0.68	0.68	0.77	0.8	0.77	0.82
2	-0.038	0.88	0.17	0.2	0.54	0.46	0.23	0.16	0.67	0.62	0.44	-0.075	0.24	0.36	0.32	0.37	0.17	0.17	0.48	0.38	0.45	0.27	0.38	0.28	0.44	0.44	0.38	0.31	0.39	0.34
3	0.8	0.2	1	0.95	0.79	0.9	0.88	0.76	0.47	0.78	0.9	0.017	0.91	0.87	0.9	0.92	1	1	0.9	0.97	0.93	0.98	0.97	0.98	0.93	0.93	0.97	0.93	0.94	0.95
4	0.63	0.4	0.83	0.78	0.56	0.71	0.71	0.7	0.38	0.73	0.78	0.3	0.71	0.75	0.88	0.92	0.83	0.83	0.9	0.8	0.77	0.82	0.8	0.82	0.75	0.75	0.8	0.77	0.85	0.78
5	0.68	0.37	0.95	0.86	0.91	0.97	0.78	0.75	0.56	0.87	0.95	0.068	0.84	0.78	0.85	0.87	0.95	0.95	0.9	0.97	0.91	0.93	0.97	0.98	0.98	0.98	0.97	0.84	0.87	0.88
6	0.66	0.39	0.91	0.83	0.88	0.98	0.79	0.78	0.58	0.83	0.92	0.051	0.78	0.71	0.8	0.83	0.91	0.91	0.89	0.95	0.9	0.9	0.95	0.97	0.97	0.97	0.95	0.81	0.83	0.84
7	0.77	0.27	0.93	0.98	0.72	0.83	0.95	0.7	0.51	0.71	0.8	-0.085	0.88	0.9	0.83	0.89	0.93	0.93	0.87	0.93	0.97	0.95	0.93	0.91	0.86	0.86	0.93	1	0.97	0.98
8	0.12	0.025	0.41	0.34	0.31	0.47	0.37	0.82	0.38	0.35	0.37	0.68	0.32	0.27	0.37	0.42	0.41	0.41	0.45	0.47	0.46	0.44	0.47	0.44	0.46	0.46	0.47	0.37	0.38	0.42
9	0.05	0.56	0.32	0.36	0.32	0.51	0.54	0.6	0.73	0.55	0.44	0.23	0.32	0.47	0.5	0.59	0.32	0.32	0.64	0.47	0.54	0.42	0.47	0.37	0.44	0.44	0.47	0.46	0.57	0.49
10	-0.067	0.33	0.36	0.27	0.53	0.49	0.19	0.63	0.52	0.56	0.49	0.72	0.36	0.33	0.41	0.43	0.36	0.36	0.49	0.47	0.46	0.41	0.47	0.42	0.53	0.53	0.47	0.32	0.38	0.39
11	0.55	0.4	0.9	0.78	0.94	0.94	0.71	0.72	0.72	0.97	1	0.084	0.9	0.87	0.93	0.92	0.9	0.9	0.93	0.94	0.89	0.92	0.94	0.92	0.97	0.97	0.94	0.8	0.88	0.87
12	0.21	0.63	0.46	0.41	0.36	0.51	0.43	0.54	0.45	0.63	0.56	0.42	0.36	0.46	0.65	0.7	0.46	0.46	0.73	0.51	0.49	0.48	0.51	0.49	0.49	0.49	0.51	0.43	0.58	0.46
13	0.37	0.53	0.58	0.63	0.37	0.46	0.56	0.45	0.35	0.6	0.56	0.3	0.53	0.66	0.71	0.76	0.58	0.58	0.75	0.58	0.61	0.6	0.58	0.56	0.51	0.51	0.58	0.65	0.73	0.63
14	0.77	0.27	0.93	0.98	0.72	0.83	0.95	0.7	0.51	0.71	0.8	-0.085	0.88	0.9	0.83	0.89	0.93	0.93	0.87	0.93	0.97	0.95	0.93	0.91	0.86	0.86	0.93	1	0.97	0.98
15	0.78	0.31	0.97	0.97	0.79	0.9	0.88	0.71	0.41	0.73	0.85	0.017	0.81	0.78	0.8	0.85	0.97	0.97	0.87	0.95	0.93	0.93	0.95	0.98	0.91	0.91	0.95	0.93	0.9	0.91
16	0	0.68	0.29	0.36	0.47	0.31	0.16	0.034	0.2	0.49	0.43	0.29	0.21	0.32	0.34	0.37	0.29	0.29	0.44	0.33	0.34	0.26	0.33	0.36	0.36	0.36	0.33	0.33	0.37	0.28
17	-0.12	0.54	0.22	0.28	0.47	0.21	0.052	-0.1	0.25	0.49	0.41	0.2	0.26	0.37	0.34	0.32	0.22	0.22	0.36	0.24	0.26	0.21	0.24	0.26	0.29	0.29	0.24	0.26	0.32	0.22
18	0.38	0.55	0.67	0.67	0.89	0.78	0.5	0.39	0.43	0.72	0.75	0.035	0.55	0.52	0.52	0.55	0.67	0.67	0.65	0.73	0.72	0.64	0.73	0.77	0.8	0.8	0.73	0.64	0.61	0.62
19	0.6	0.45	0.81	0.9	0.81	0.81	0.79	0.51	0.44	0.68	0.75	-0.085	0.69	0.71	0.63	0.7	0.81	0.81	0.75	0.84	0.88	0.79	0.84	0.86	0.83	0.83	0.84	0.88	0.82	0.83
20	0.56	0.43	0.79	0.88	0.79	0.79	0.84	0.56	0.64	0.75	0.77	-0.15	0.81	0.87	0.73	0.78	0.79	0.79	0.8	0.86	0.93	0.84	0.86	0.81	0.83	0.83	0.86	0.93	0.9	0.91
21	0.48	0.54	0.76	0.81	0.9	0.84	0.72	0.51	0.61	0.78	0.8	-0.085	0.71	0.73	0.65	0.7	0.76	0.76	0.77	0.84	0.88	0.78	0.84	0.83	0.86	0.86	0.84	0.83	0.8	0.81
22	0.6	0.45	0.81	0.9	0.81	0.81	0.79	0.51	0.44	0.68	0.75	-0.085	0.69	0.71	0.63	0.7	0.81	0.81	0.75	0.84	0.88	0.79	0.84	0.86	0.83	0.83	0.84	0.88	0.82	0.83
23	0.51	0.11	0.76	0.83	0.72	0.62	0.74	0.37	0.54	0.66	0.71	-0.25	0.88	0.92	0.73	0.71	0.76	0.76	0.66	0.74	0.79	0.79	0.74	0.71	0.71	0.71	0.74	0.86	0.83	0.84
24	0.53	0.54	0.83	0.81	0.93	0.93	0.78	0.68	0.76	0.9	0.9	-0.034	0.83	0.83	0.8	0.83	0.83	0.83	0.89	0.93	0.95	0.88	0.93	0.88	0.95	0.95	0.93	0.86	0.89	0.9
25	0.49	0.28	0.74	0.79	0.74	0.74	0.83	0.56	0.76	0.75	0.75	-0.24	0.86	0.92	0.77	0.78	0.74	0.74	0.77	0.81	0.88	0.83	0.81	0.72	0.78	0.78	0.81	0.88	0.89	0.9
26	0.32	0.58	0.6	0.66	0.63	0.66	0.71	0.54	0.79	0.76	0.68	-0.017	0.68	0.82	0.73	0.78	0.6	0.6	0.8	0.71	0.8	0.7	0.71	0.61	0.68	0.68	0.71	0.77	0.83	0.78
27	0.54	0.44	0.81	0.84	0.84	0.84	0.83	0.63	0.75	0.83	0.83	-0.12	0.86	0.9	0.8	0.83	0.81	0.81	0.85	0.9	0.95	0.88	0.9	0.83	0.88	0.88	0.9	0.91	0.92	0.93
28	0.54	0.44	0.81	0.84	0.84	0.84	0.83	0.63	0.75	0.83	0.83	-0.12	0.86	0.9	0.8	0.83	0.81	0.81	0.85	0.9	0.95	0.88	0.9	0.83	0.88	0.88	0.9	0.91	0.92	0.93
29	0.8	0.2	1	0.95	0.79	0.9	0.88	0.76	0.47	0.78	0.9	0.017	0.91	0.87	0.9	0.92	1	1	0.9	0.97	0.93	0.98	0.97	0.98	0.93	0.93	0.97	0.93	0.94	0.95
30	0.57	0.08	0.87	0.82	0.77	0.71	0.73	0.54	0.59	0.8	0.87	-0.084	0.97	0.97	0.92	0.87	0.87	0.87	0.8	0.82	0.8	0.89	0.82	0.8	0.8	0.8	0.82	0.83	0.88	0.87