

```
In [1]: import sys
from pathlib import Path

# Add project root to Python path
ROOT = Path.cwd().parent # adjusts if notebook is in /notebooks/
sys.path.append(str(ROOT))
```

```
In [2]: from pathlib import Path
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
sns.set(style="whitegrid", context="notebook")

from src.cleaning import make_processed
```

```
df = make_processed() # runs pipeline + returns cleaned df
df.head()
```

Saved cleaned data to /Users/sherman/Library/Mobile Documents/com~apple~CloudDocs/SUTDie/Term 7/02.218TS Intro to Psychology/IntroPsych/data/processed/study_results_clean.csv

```
Out[2]:   participant group  correct_1  correct_2  correct_3  correct_4  correct_5  correct_6  correct_7  correct_8 ...  abs_19  cws_19  p_20  abs_20  cws_20
0      CG1    CG        0       1.0       1.0       1.0       1.0       1.0       1.0       1.0       1.0 ...
1      CG2    CG        0       1.0       1.0       1.0       1.0       1.0       1.0       1.0 ...
2      CG3    CG        0       1.0       0.0       1.0       1.0       0.0       1.0       0.0 ...
3      CG4    CG        1       1.0       0.0       1.0       1.0       1.0       1.0       1.0 ...
4      CG5    CG        1       1.0       0.0       0.0       0.0       1.0       1.0       1.0 ...
5      CG6    CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
6      CG7    CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
7      CG8    CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
8      CG9    CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
9      CG10   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
10     CG11   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
11     CG12   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
12     CG13   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
13     CG14   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
14     CG15   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
15     CG16   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
16     CG17   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
17     CG18   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
18     CG19   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
19     CG20   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
20     CG21   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
21     CG22   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
22     CG23   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
23     CG24   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
24     CG25   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
25     CG26   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
26     CG27   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
27     CG28   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
28     CG29   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
29     CG30   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
30     CG31   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
31     CG32   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
32     CG33   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
33     CG34   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
34     CG35   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
35     CG36   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
36     CG37   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
37     CG38   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
38     CG39   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
39     CG40   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
40     CG41   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
41     CG42   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
42     CG43   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
43     CG44   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
44     CG45   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
45     CG46   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
46     CG47   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
47     CG48   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
48     CG49   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
49     CG50   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
50     CG51   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
51     CG52   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
52     CG53   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
53     CG54   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
54     CG55   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
55     CG56   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
56     CG57   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
57     CG58   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
58     CG59   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
59     CG60   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
60     CG61   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
61     CG62   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
62     CG63   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
63     CG64   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
64     CG65   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
65     CG66   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
66     CG67   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
67     CG68   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
68     CG69   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
69     CG70   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
70     CG71   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
71     CG72   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
72     CG73   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
73     CG74   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
74     CG75   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
75     CG76   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
76     CG77   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
77     CG78   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
78     CG79   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
79     CG80   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
80     CG81   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
81     CG82   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
82     CG83   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
83     CG84   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
84     CG85   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
85     CG86   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
86     CG87   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
87     CG88   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
88     CG89   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
89     CG90   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
90     CG91   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
91     CG92   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
92     CG93   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
93     CG94   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
94     CG95   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
95     CG96   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
96     CG97   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
97     CG98   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
98     CG99   CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
99     CG100  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
100    CG101  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
101    CG102  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
102    CG103  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
103    CG104  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
104    CG105  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
105    CG106  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
106    CG107  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
107    CG108  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
108    CG109  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
109    CG110  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
110    CG111  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
111    CG112  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
112    CG113  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
113    CG114  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
114    CG115  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
115    CG116  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
116    CG117  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
117    CG118  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
118    CG119  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
119    CG120  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
120    CG121  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
121    CG122  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
122    CG123  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
123    CG124  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
124    CG125  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
125    CG126  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
126    CG127  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
127    CG128  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
128    CG129  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
129    CG130  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
130    CG131  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
131    CG132  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
132    CG133  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
133    CG134  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
134    CG135  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
135    CG136  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
136    CG137  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
137    CG138  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
138    CG139  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
139    CG140  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
140    CG141  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
141    CG142  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
142    CG143  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
143    CG144  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
144    CG145  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
145    CG146  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
146    CG147  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
147    CG148  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
148    CG149  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
149    CG150  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
150    CG151  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
151    CG152  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
152    CG153  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
153    CG154  CG        1       1.0       0.0       0.0       0.0       0.0       1.0       1.0 ...
154    CG155  CG        1       1.0       0.0       0.0       0.0       0.0       
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