# Mean Accuracies

Approach 1 8B-CSV

### Global Metrics Across All Datasets (Weighted):

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:-------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| GLOBAL | 0.267 | 0.451 | 0.314 | 0.311 | 0.139 | 0.118 | 0.326 | 0.181 |

Approach 1 8B-KV

### Global Metrics Across All Datasets (Weighted):

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:-------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| GLOBAL | 0.322 | 0.515 | 0.309 | 0.392 | 0.198 | 0.198 | 0.385 | 0.218 |  
  
Approach 1 70B

### Global Metrics Across All Datasets (Weighted):

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:-------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| GLOBAL | 0.497 | 0.738 | 0.444 | 0.572 | 0.353 | 0.38 | 0.563 | 0.366 |

Approach 2 8B

### Global Metrics Across All Datasets (Weighted):

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:-------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| GLOBAL | 0.31 | 0.557 | 0.322 | 0.311 | 0.146 | 0.211 | 0.403 | 0.19 |

Approach 2 70B

### Global Metrics Across All Datasets (Weighted):

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:-------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| GLOBAL | 0.489 | 0.646 | 0.457 | 0.557 | 0.374 | 0.414 | 0.569 | 0.37 |

Approach 3 8B

### Global Metrics Across All Datasets (Weighted):

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:-------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| GLOBAL | 0.184 | 0.207 | 0.215 | 0.265 | 0.118 | 0.114 | 0.2 | 0.175 |

Approach 3 70B

### Global Metrics Across All Datasets (Weighted):

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:-------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| GLOBAL | 0.491 | 0.658 | 0.376 | 0.614 | 0.367 | 0.443 | 0.473 | 0.459 |

# Wrong vs Right Cols

Approach 1 8B, Input CSV

### Column Quality Table:

| model | wrong cols | right cols | format error |

|:------------------|:-------------|:-------------|:---------------|

| 001\_Forbes | 16.0 (4) | 84.0 (21) | 0.0 (0) |

| 002\_Titanic | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 004\_Taxi | 10.0 (2) | 65.0 (13) | 25.0 (5) |

| 005\_NYC | 5.0 (1) | 85.0 (17) | 10.0 (2) |

| 006\_London | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 007\_Fifa | 5.0 (1) | 85.0 (17) | 10.0 (2) |

| 008\_Tornados | 5.0 (1) | 85.0 (17) | 10.0 (2) |

| 009\_Central | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 010\_ECommerce | 5.0 (1) | 75.0 (15) | 20.0 (4) |

| 011\_SF | 10.0 (2) | 75.0 (15) | 15.0 (3) |

| 012\_Heart | 0.0 (0) | 85.0 (17) | 15.0 (3) |

| 013\_Roller | 30.0 (6) | 60.0 (12) | 10.0 (2) |

| 015\_Food | 15.0 (3) | 80.0 (16) | 5.0 (1) |

| 016\_Holiday | 10.0 (2) | 80.0 (16) | 10.0 (2) |

| 017\_Hacker | 15.0 (3) | 75.0 (15) | 10.0 (2) |

| 018\_Staff | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 019\_Aircraft | 25.0 (5) | 55.0 (11) | 20.0 (4) |

| 021\_Telco | 15.0 (3) | 80.0 (16) | 5.0 (1) |

| 022\_Airbnbs | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 023\_Climate | 50.0 (10) | 35.0 (7) | 15.0 (3) |

| 024\_Salary | 10.0 (2) | 75.0 (15) | 15.0 (3) |

| 025\_Data | 40.0 (8) | 55.0 (11) | 5.0 (1) |

| 026\_Predicting | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 027\_Supermarket | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 028\_Predict | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 029\_NYTimes | 20.0 (4) | 70.0 (14) | 10.0 (2) |

| 030\_Professionals | 20.0 (4) | 55.0 (11) | 25.0 (5) |

| 031\_Trustpilot | 10.0 (2) | 70.0 (14) | 20.0 (4) |

| 032\_Delicatessen | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 033\_Employee | 25.0 (5) | 70.0 (14) | 5.0 (1) |

| 034\_World | 25.0 (5) | 60.0 (12) | 15.0 (3) |

| 036\_US | 30.0 (6) | 65.0 (13) | 5.0 (1) |

| 037\_Ted | 10.0 (2) | 70.0 (14) | 20.0 (4) |

| 038\_Stroke | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 039\_Happy | 35.0 (7) | 55.0 (11) | 10.0 (2) |

| 040\_Speed | 25.0 (5) | 55.0 (11) | 20.0 (4) |

| 041\_Airline | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 042\_Predict | 10.0 (2) | 75.0 (15) | 15.0 (3) |

| 043\_Predict | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 044\_IMDb | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 045\_Predict | 15.0 (3) | 75.0 (15) | 10.0 (2) |

| 046\_120 | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 047\_Bank | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 048\_Data | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 050\_ING | 20.0 (4) | 65.0 (13) | 15.0 (3) |

| 051\_Pokemon | 35.0 (7) | 55.0 (11) | 10.0 (2) |

| 052\_Professional | 20.0 (4) | 45.0 (9) | 35.0 (7) |

| 053\_Patents | 55.0 (11) | 40.0 (8) | 5.0 (1) |

| 055\_German | 0.0 (0) | 90.0 (18) | 10.0 (2) |

| 056\_Emoji | 35.0 (7) | 60.0 (12) | 5.0 (1) |

| 057\_Spain | 20.0 (4) | 60.0 (12) | 20.0 (4) |

| 058\_US | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 059\_Second | 10.0 (2) | 75.0 (15) | 15.0 (3) |

| 060\_Bakery | 35.0 (7) | 45.0 (9) | 20.0 (4) |

| 061\_Disneyland | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 062\_Trump | 40.0 (8) | 55.0 (11) | 5.0 (1) |

| 063\_Influencers | 40.0 (8) | 50.0 (10) | 10.0 (2) |

| 064\_Clustering | 15.0 (3) | 65.0 (13) | 20.0 (4) |

| 065\_RFM | 30.0 (6) | 70.0 (14) | 0.0 (0) |

Approach 1 - 8B, Input KV Pairs

### Column Quality Table:

| model | wrong cols | right cols | format error |

|:------------------|:-------------|:-------------|:---------------|

| 001\_Forbes | 16.0 (4) | 76.0 (19) | 8.0 (2) |

| 002\_Titanic | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 004\_Taxi | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 005\_NYC | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 006\_London | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 007\_Fifa | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 008\_Tornados | 5.0 (1) | 85.0 (17) | 10.0 (2) |

| 009\_Central | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 010\_ECommerce | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 011\_SF | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 012\_Heart | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 013\_Roller | 30.0 (6) | 65.0 (13) | 5.0 (1) |

| 015\_Food | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 016\_Holiday | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 017\_Hacker | 10.0 (2) | 65.0 (13) | 25.0 (5) |

| 018\_Staff | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 019\_Aircraft | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 021\_Telco | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 022\_Airbnbs | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 023\_Climate | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 024\_Salary | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 025\_Data | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 026\_Predicting | 5.0 (1) | 75.0 (15) | 20.0 (4) |

| 027\_Supermarket | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 028\_Predict | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 029\_NYTimes | 10.0 (2) | 80.0 (16) | 10.0 (2) |

| 030\_Professionals | 40.0 (8) | 50.0 (10) | 10.0 (2) |

| 031\_Trustpilot | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 032\_Delicatessen | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 033\_Employee | 15.0 (3) | 75.0 (15) | 10.0 (2) |

| 034\_World | 25.0 (5) | 65.0 (13) | 10.0 (2) |

| 036\_US | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 037\_Ted | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 038\_Stroke | 5.0 (1) | 85.0 (17) | 10.0 (2) |

| 039\_Happy | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 040\_Speed | 30.0 (6) | 55.0 (11) | 15.0 (3) |

| 041\_Airline | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 042\_Predict | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 043\_Predict | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 044\_IMDb | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 045\_Predict | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 046\_120 | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 047\_Bank | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 048\_Data | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 050\_ING | 20.0 (4) | 70.0 (14) | 10.0 (2) |

| 051\_Pokemon | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 052\_Professional | 10.0 (2) | 75.0 (15) | 15.0 (3) |

| 053\_Patents | 45.0 (9) | 45.0 (9) | 10.0 (2) |

| 055\_German | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 056\_Emoji | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 057\_Spain | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 058\_US | 25.0 (5) | 60.0 (12) | 15.0 (3) |

| 059\_Second | 10.0 (2) | 80.0 (16) | 10.0 (2) |

| 060\_Bakery | 35.0 (7) | 55.0 (11) | 10.0 (2) |

| 061\_Disneyland | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 062\_Trump | 10.0 (2) | 75.0 (15) | 15.0 (3) |

| 063\_Influencers | 10.0 (2) | 80.0 (16) | 10.0 (2) |

| 064\_Clustering | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 065\_RFM | 15.0 (3) | 80.0 (16) | 5.0 (1) |

Approach 1 - 70B

### Column Quality Table:

| model | wrong cols | right cols | format error |

|:------------------|:-------------|:-------------|:---------------|

| 001\_Forbes | 12.0 (3) | 88.0 (22) | 0.0 (0) |

| 002\_Titanic | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 004\_Taxi | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 005\_NYC | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 006\_London | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 007\_Fifa | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 008\_Tornados | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 009\_Central | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 010\_ECommerce | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 011\_SF | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 012\_Heart | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 013\_Roller | 15.0 (3) | 80.0 (16) | 5.0 (1) |

| 015\_Food | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 016\_Holiday | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 017\_Hacker | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 018\_Staff | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 019\_Aircraft | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 021\_Telco | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 022\_Airbnbs | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 023\_Climate | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 024\_Salary | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 025\_Data | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 026\_Predicting | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 027\_Supermarket | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 028\_Predict | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 029\_NYTimes | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 030\_Professionals | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 031\_Trustpilot | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 032\_Delicatessen | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 033\_Employee | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 034\_World | 15.0 (3) | 75.0 (15) | 10.0 (2) |

| 036\_US | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 037\_Ted | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 038\_Stroke | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 039\_Happy | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 040\_Speed | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 041\_Airline | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 042\_Predict | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 043\_Predict | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 044\_IMDb | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 045\_Predict | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 046\_120 | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 047\_Bank | 5.0 (1) | 85.0 (17) | 10.0 (2) |

| 048\_Data | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 050\_ING | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 051\_Pokemon | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 052\_Professional | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 053\_Patents | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 055\_German | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 056\_Emoji | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 057\_Spain | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 058\_US | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 059\_Second | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 060\_Bakery | 15.0 (3) | 80.0 (16) | 5.0 (1) |

| 061\_Disneyland | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 062\_Trump | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 063\_Influencers | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 064\_Clustering | 15.0 (3) | 80.0 (16) | 5.0 (1) |

| 065\_RFM | 10.0 (2) | 85.0 (17) | 5.0 (1) |

Approach 2 8B

### Column Quality Table:

| model | wrong cols | right cols | format error |

|:------------------|:-------------|:-------------|:---------------|

| 001\_Forbes | 36.0 (9) | 60.0 (15) | 4.0 (1) |

| 002\_Titanic | 25.0 (5) | 70.0 (14) | 5.0 (1) |

| 004\_Taxi | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 005\_NYC | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 006\_London | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 007\_Fifa | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 008\_Tornados | 45.0 (9) | 50.0 (10) | 5.0 (1) |

| 009\_Central | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 010\_ECommerce | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 011\_SF | 40.0 (8) | 45.0 (9) | 15.0 (3) |

| 012\_Heart | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 013\_Roller | 30.0 (6) | 50.0 (10) | 20.0 (4) |

| 015\_Food | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 016\_Holiday | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 017\_Hacker | 25.0 (5) | 70.0 (14) | 5.0 (1) |

| 018\_Staff | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 019\_Aircraft | 35.0 (7) | 55.0 (11) | 10.0 (2) |

| 021\_Telco | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 022\_Airbnbs | 15.0 (3) | 80.0 (16) | 5.0 (1) |

| 023\_Climate | 80.0 (16) | 20.0 (4) | 0.0 (0) |

| 024\_Salary | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 025\_Data | 45.0 (9) | 50.0 (10) | 5.0 (1) |

| 026\_Predicting | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 027\_Supermarket | 65.0 (13) | 35.0 (7) | 0.0 (0) |

| 028\_Predict | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 029\_NYTimes | 20.0 (4) | 55.0 (11) | 25.0 (5) |

| 030\_Professionals | 40.0 (8) | 45.0 (9) | 15.0 (3) |

| 031\_Trustpilot | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 032\_Delicatessen | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 033\_Employee | 20.0 (4) | 70.0 (14) | 10.0 (2) |

| 034\_World | 30.0 (6) | 60.0 (12) | 10.0 (2) |

| 036\_US | 50.0 (10) | 45.0 (9) | 5.0 (1) |

| 037\_Ted | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 038\_Stroke | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 039\_Happy | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 040\_Speed | 25.0 (5) | 60.0 (12) | 15.0 (3) |

| 041\_Airline | 15.0 (3) | 75.0 (15) | 10.0 (2) |

| 042\_Predict | 25.0 (5) | 65.0 (13) | 10.0 (2) |

| 043\_Predict | 25.0 (5) | 70.0 (14) | 5.0 (1) |

| 044\_IMDb | 35.0 (7) | 55.0 (11) | 10.0 (2) |

| 045\_Predict | 15.0 (3) | 80.0 (16) | 5.0 (1) |

| 046\_120 | 30.0 (6) | 65.0 (13) | 5.0 (1) |

| 047\_Bank | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 048\_Data | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 050\_ING | 5.0 (1) | 80.0 (16) | 15.0 (3) |

| 051\_Pokemon | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 052\_Professional | 15.0 (3) | 75.0 (15) | 10.0 (2) |

| 053\_Patents | 20.0 (4) | 70.0 (14) | 10.0 (2) |

| 055\_German | 25.0 (5) | 70.0 (14) | 5.0 (1) |

| 056\_Emoji | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 057\_Spain | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 058\_US | 30.0 (6) | 65.0 (13) | 5.0 (1) |

| 059\_Second | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 060\_Bakery | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 061\_Disneyland | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 062\_Trump | 40.0 (8) | 55.0 (11) | 5.0 (1) |

| 063\_Influencers | 35.0 (7) | 60.0 (12) | 5.0 (1) |

| 064\_Clustering | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 065\_RFM | 15.0 (3) | 80.0 (16) | 5.0 (1) |

Approach 2 - 70B

### Column Quality Table:

| model | wrong cols | right cols | format error |

|:------------------|:-------------|:-------------|:---------------|

| 001\_Forbes | 28.0 (7) | 72.0 (18) | 0.0 (0) |

| 002\_Titanic | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 004\_Taxi | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 005\_NYC | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 006\_London | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 007\_Fifa | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 008\_Tornados | 40.0 (8) | 50.0 (10) | 10.0 (2) |

| 009\_Central | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 010\_ECommerce | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 011\_SF | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 012\_Heart | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 013\_Roller | 55.0 (11) | 45.0 (9) | 0.0 (0) |

| 015\_Food | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 016\_Holiday | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 017\_Hacker | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 018\_Staff | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 019\_Aircraft | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 021\_Telco | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 022\_Airbnbs | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 023\_Climate | 80.0 (16) | 20.0 (4) | 0.0 (0) |

| 024\_Salary | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 025\_Data | 40.0 (8) | 55.0 (11) | 5.0 (1) |

| 026\_Predicting | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 027\_Supermarket | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 028\_Predict | 35.0 (7) | 60.0 (12) | 5.0 (1) |

| 029\_NYTimes | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 030\_Professionals | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 031\_Trustpilot | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 032\_Delicatessen | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 033\_Employee | 20.0 (4) | 70.0 (14) | 10.0 (2) |

| 034\_World | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 036\_US | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 037\_Ted | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 038\_Stroke | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 039\_Happy | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 040\_Speed | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 041\_Airline | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 042\_Predict | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 043\_Predict | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 044\_IMDb | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 045\_Predict | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 046\_120 | 40.0 (8) | 60.0 (12) | 0.0 (0) |

| 047\_Bank | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 048\_Data | 20.0 (4) | 65.0 (13) | 15.0 (3) |

| 050\_ING | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 051\_Pokemon | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 052\_Professional | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 053\_Patents | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 055\_German | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 056\_Emoji | 10.0 (2) | 85.0 (17) | 5.0 (1) |

| 057\_Spain | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 058\_US | 10.0 (2) | 80.0 (16) | 10.0 (2) |

| 059\_Second | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 060\_Bakery | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 061\_Disneyland | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 062\_Trump | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 063\_Influencers | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 064\_Clustering | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 065\_RFM | 5.0 (1) | 95.0 (19) | 0.0 (0) |

Approach 3 8B

### Column Quality Table:

| model | wrong cols | right cols | format error |

|:------------------|:-------------|:-------------|:---------------|

| 001\_Forbes | 72.0 (18) | 24.0 (6) | 4.0 (1) |

| 002\_Titanic | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 004\_Taxi | 80.0 (16) | 20.0 (4) | 0.0 (0) |

| 005\_NYC | 70.0 (14) | 30.0 (6) | 0.0 (0) |

| 006\_London | 55.0 (11) | 45.0 (9) | 0.0 (0) |

| 007\_Fifa | 35.0 (7) | 60.0 (12) | 5.0 (1) |

| 008\_Tornados | 70.0 (14) | 30.0 (6) | 0.0 (0) |

| 009\_Central | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 010\_ECommerce | 85.0 (17) | 15.0 (3) | 0.0 (0) |

| 011\_SF | 60.0 (12) | 35.0 (7) | 5.0 (1) |

| 012\_Heart | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 013\_Roller | 75.0 (15) | 25.0 (5) | 0.0 (0) |

| 015\_Food | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 016\_Holiday | 55.0 (11) | 45.0 (9) | 0.0 (0) |

| 017\_Hacker | 60.0 (12) | 35.0 (7) | 5.0 (1) |

| 018\_Staff | 60.0 (12) | 40.0 (8) | 0.0 (0) |

| 019\_Aircraft | 75.0 (15) | 25.0 (5) | 0.0 (0) |

| 021\_Telco | 70.0 (14) | 30.0 (6) | 0.0 (0) |

| 022\_Airbnbs | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 023\_Climate | 60.0 (12) | 40.0 (8) | 0.0 (0) |

| 024\_Salary | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 025\_Data | 60.0 (12) | 35.0 (7) | 5.0 (1) |

| 026\_Predicting | 5.0 (1) | 90.0 (18) | 5.0 (1) |

| 027\_Supermarket | 65.0 (13) | 35.0 (7) | 0.0 (0) |

| 028\_Predict | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 029\_NYTimes | 70.0 (14) | 30.0 (6) | 0.0 (0) |

| 030\_Professionals | 85.0 (17) | 10.0 (2) | 5.0 (1) |

| 031\_Trustpilot | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 032\_Delicatessen | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 033\_Employee | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 034\_World | 40.0 (8) | 60.0 (12) | 0.0 (0) |

| 036\_US | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 037\_Ted | 35.0 (7) | 60.0 (12) | 5.0 (1) |

| 038\_Stroke | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 039\_Happy | 80.0 (16) | 20.0 (4) | 0.0 (0) |

| 040\_Speed | 45.0 (9) | 50.0 (10) | 5.0 (1) |

| 041\_Airline | 25.0 (5) | 65.0 (13) | 10.0 (2) |

| 042\_Predict | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 043\_Predict | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 044\_IMDb | 25.0 (5) | 70.0 (14) | 5.0 (1) |

| 045\_Predict | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 046\_120 | 50.0 (10) | 40.0 (8) | 10.0 (2) |

| 047\_Bank | 25.0 (5) | 70.0 (14) | 5.0 (1) |

| 048\_Data | 55.0 (11) | 45.0 (9) | 0.0 (0) |

| 050\_ING | 60.0 (12) | 40.0 (8) | 0.0 (0) |

| 051\_Pokemon | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 052\_Professional | 20.0 (4) | 75.0 (15) | 5.0 (1) |

| 053\_Patents | 65.0 (13) | 35.0 (7) | 0.0 (0) |

| 055\_German | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 056\_Emoji | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 057\_Spain | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 058\_US | 85.0 (17) | 15.0 (3) | 0.0 (0) |

| 059\_Second | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 060\_Bakery | 80.0 (16) | 20.0 (4) | 0.0 (0) |

| 061\_Disneyland | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 062\_Trump | 65.0 (13) | 35.0 (7) | 0.0 (0) |

| 063\_Influencers | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 064\_Clustering | 35.0 (7) | 60.0 (12) | 5.0 (1) |

| 065\_RFM | 65.0 (13) | 35.0 (7) | 0.0 (0) |

Approach 3 70B

### Column Quality Table:

| model | wrong cols | right cols | format error |

|:------------------|:-------------|:-------------|:---------------|

| 001\_Forbes | 36.0 (9) | 64.0 (16) | 0.0 (0) |

| 002\_Titanic | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 004\_Taxi | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 005\_NYC | 40.0 (8) | 60.0 (12) | 0.0 (0) |

| 006\_London | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 007\_Fifa | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 008\_Tornados | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 009\_Central | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 010\_ECommerce | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 011\_SF | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 012\_Heart | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 013\_Roller | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 015\_Food | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 016\_Holiday | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 017\_Hacker | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 018\_Staff | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 019\_Aircraft | 60.0 (12) | 40.0 (8) | 0.0 (0) |

| 021\_Telco | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 022\_Airbnbs | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 023\_Climate | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 024\_Salary | 0.0 (0) | 95.0 (19) | 5.0 (1) |

| 025\_Data | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 026\_Predicting | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 027\_Supermarket | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 028\_Predict | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 029\_NYTimes | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 030\_Professionals | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 031\_Trustpilot | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 032\_Delicatessen | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 033\_Employee | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 034\_World | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 036\_US | 10.0 (2) | 90.0 (18) | 0.0 (0) |

| 037\_Ted | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 038\_Stroke | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 039\_Happy | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 040\_Speed | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 041\_Airline | 40.0 (8) | 60.0 (12) | 0.0 (0) |

| 042\_Predict | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 043\_Predict | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 044\_IMDb | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 045\_Predict | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 046\_120 | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 047\_Bank | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 048\_Data | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 050\_ING | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 051\_Pokemon | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 052\_Professional | 25.0 (5) | 75.0 (15) | 0.0 (0) |

| 053\_Patents | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 055\_German | 0.0 (0) | 100.0 (20) | 0.0 (0) |

| 056\_Emoji | 60.0 (12) | 40.0 (8) | 0.0 (0) |

| 057\_Spain | 5.0 (1) | 95.0 (19) | 0.0 (0) |

| 058\_US | 35.0 (7) | 65.0 (13) | 0.0 (0) |

| 059\_Second | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 060\_Bakery | 45.0 (9) | 55.0 (11) | 0.0 (0) |

| 061\_Disneyland | 20.0 (4) | 80.0 (16) | 0.0 (0) |

| 062\_Trump | 30.0 (6) | 70.0 (14) | 0.0 (0) |

| 063\_Influencers | 15.0 (3) | 85.0 (17) | 0.0 (0) |

| 064\_Clustering | 50.0 (10) | 50.0 (10) | 0.0 (0) |

| 065\_RFM | 35.0 (7) | 65.0 (13) | 0.0 (0) |

# Comparison against dataset

Approach 1 8B, Input :CSV

### Main Metrics Table:

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:------------------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| 001\_Forbes | 0.32 | 0.6 | 0.4 | 0.4 | 0.2 | 0 | 0.429 | 0.278 |

| 002\_Titanic | 0.25 | 0.25 | 0.5 | 0.25 | 0 | 0.25 | 0.286 | 0.231 |

| 004\_Taxi | 0.1 | 0.25 | 0.25 | 0 | 0 | 0 | 0.1 | 0 |

| 005\_NYC | 0.25 | 1 | 0 | 0.25 | 0 | 0 | 0.25 | 0 |

| 006\_London | 0.2 | 0.25 | 0.5 | 0 | 0 | 0.25 | 0.2 | 0 |

| 007\_Fifa | 0.45 | 0.5 | 0.5 | 0.75 | 0 | 0.5 | 0.636 | 0.222 |

| 008\_Tornados | 0.3 | 0.5 | 0.5 | 0.5 | 0 | 0 | 0.357 | 0.167 |

| 009\_Central | 0.5 | 0.25 | 1 | 0.5 | 0 | 0.75 | 0.727 | 0.222 |

| 010\_ECommerce | 0.3 | 0.25 | 0.25 | 0.5 | 0.5 | 0 | 0.3 | 0 |

| 011\_SF | 0.15 | 0 | 0 | 0.5 | 0.25 | 0 | 0.167 | 0.125 |

| 012\_Heart | 0.55 | 0.75 | 0.5 | 0.5 | 1 | 0 | 0.5 | 0.75 |

| 013\_Roller | 0.4 | 0.75 | 0.5 | 0.25 | 0 | 0.5 | 0.667 | 0.182 |

| 015\_Food | 0.3 | 0.75 | 0 | 0.75 | 0 | 0 | 0.2 | 0.6 |

| 016\_Holiday | 0.4 | 1 | 0.25 | 0 | 0.25 | 0.5 | 0.533 | 0 |

| 017\_Hacker | 0.15 | 0 | 0 | 0.75 | 0 | 0 | 0.158 | 0 |

| 018\_Staff | 0.35 | 0.25 | 0.5 | 0.75 | 0.25 | 0 | 0.429 | 0.167 |

| 019\_Aircraft | 0.2 | 0.25 | 0.5 | 0 | 0.25 | 0 | 0.235 | 0 |

| 021\_Telco | 0.3 | 0.5 | 0.25 | 0.25 | 0.5 | 0 | 0.312 | 0.25 |

| 022\_Airbnbs | 0.25 | 0.5 | 0.25 | 0.5 | 0 | 0 | 0.263 | 0 |

| 023\_Climate | 0.1 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.143 |

| 024\_Salary | 0.4 | 0.75 | 0.25 | 0.5 | 0.5 | 0 | 0.375 | 0.5 |

| 025\_Data | 0.1 | 0 | 0.25 | 0 | 0 | 0.25 | 0.25 | 0.062 |

| 026\_Predicting | 0.25 | 0.75 | 0.5 | 0 | 0 | 0 | 0.571 | 0.077 |

| 027\_Supermarket | 0.35 | 0.25 | 0.5 | 0.75 | 0.25 | 0 | 0.5 | 0.286 |

| 028\_Predict | 0.4 | 0.75 | 0.25 | 0 | 0.75 | 0.25 | 0.5 | 0.357 |

| 029\_NYTimes | 0.2 | 0.5 | 0.25 | 0.25 | 0 | 0 | 0.333 | 0.091 |

| 030\_Professionals | 0.25 | 0.25 | 0.5 | 0.5 | 0 | 0 | 0.263 | 0 |

| 031\_Trustpilot | 0.2 | 0.5 | 0.25 | 0 | 0.25 | 0 | 0.273 | 0.111 |

| 032\_Delicatessen | 0.45 | 0.75 | 0.5 | 0.25 | 0.5 | 0.25 | 0.562 | 0 |

| 033\_Employee | 0.35 | 0.75 | 0.333 | 0.4 | 0.25 | 0 | 0.429 | 0.167 |

| 034\_World | 0.1 | 0 | 0 | 0.5 | 0 | 0 | 0 | 0.1 |

| 036\_US | 0.15 | 0.5 | 0.25 | 0 | 0 | 0 | 0.273 | 0 |

| 037\_Ted | 0.2 | 1 | 0 | 0 | 0 | 0 | 0.286 | 0 |

| 038\_Stroke | 0.3 | 0.5 | 0.5 | 0.5 | 0 | 0 | 0.667 | 0.235 |

| 039\_Happy | 0.3 | 0 | 0.75 | 0 | 0.5 | 0.25 | 0.455 | 0.111 |

| 040\_Speed | 0.1 | 0.25 | 0.25 | 0 | 0 | 0 | 0.333 | 0.059 |

| 041\_Airline | 0.45 | 0.5 | 0.5 | 0.5 | 0.25 | 0.5 | 0.417 | 0.5 |

| 042\_Predict | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0 | 0.333 | 0.176 |

| 043\_Predict | 0.2 | 0.25 | 0.25 | 0.25 | 0 | 0.25 | 0.333 | 0.176 |

| 044\_IMDb | 0.2 | 0.5 | 0.25 | 0 | 0.25 | 0 | 0 | 0.2 |

| 045\_Predict | 0.35 | 0.5 | 0.25 | 0.5 | 0 | 0.5 | 0.375 | 0.333 |

| 046\_120 | 0.25 | 0.5 | 0.25 | 0 | 0.25 | 0.25 | 0.25 | 0.25 |

| 047\_Bank | 0.4 | 0.5 | 0.75 | 0.5 | 0.25 | 0 | 0.471 | 0 |

| 048\_Data | 0.35 | 0.75 | 0.5 | 0.25 | 0 | 0.25 | 0.375 | 0.25 |

| 050\_ING | 0.2 | 0.5 | 0 | 0.5 | 0 | 0 | 0.222 | 0.182 |

| 051\_Pokemon | 0.2 | 0.5 | 0.25 | 0.25 | 0 | 0 | 0.222 | 0.182 |

| 052\_Professional | 0.15 | 0.75 | 0 | 0 | 0 | 0 | 0 | 0.231 |

| 053\_Patents | 0.1 | 0 | 0 | 0.5 | 0 | 0 | 0.125 | 0 |

| 055\_German | 0.5 | 1 | 0.5 | 0.75 | 0 | 0.25 | 0.5 | 0.5 |

| 056\_Emoji | 0.15 | 0 | 0.25 | 0.25 | 0 | 0.25 | 0.167 | 0.125 |

| 057\_Spain | 0.15 | 0.25 | 0.25 | 0.25 | 0 | 0 | 0.158 | 0 |

| 058\_US | 0.35 | 0.75 | 0 | 0.75 | 0.25 | 0 | 0.294 | 0.667 |

| 059\_Second | 0.4 | 0.5 | 0.5 | 0.75 | 0.25 | 0 | 0.368 | 1 |

| 060\_Bakery | 0.1 | 0 | 0.25 | 0 | 0 | 0.25 | 0.143 | 0.077 |

| 061\_Disneyland | 0.3 | 0.5 | 0.5 | 0.25 | 0 | 0.25 | 0.5 | 0.167 |

| 062\_Trump | 0.3 | 0.5 | 0.5 | 0.5 | 0 | 0 | 0.375 | 0 |

| 063\_Influencers | 0.15 | 0.25 | 0.25 | 0 | 0 | 0.25 | 0.273 | 0 |

| 064\_Clustering | 0.2 | 0.25 | 0.25 | 0 | 0.25 | 0.25 | 0.231 | 0.143 |

| 065\_RFM | 0.15 | 0.5 | 0 | 0.25 | 0 | 0 | 0.231 | 0 |

Approach 1 - 8B, Input: Key Value Pair

### Main Metrics Table:

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:------------------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| 001\_Forbes | 0.28 | 0.4 | 0.4 | 0.2 | 0 | 0.4 | 0.286 | 0.278 |

| 002\_Titanic | 0.15 | 0.25 | 0.25 | 0.25 | 0 | 0 | 0.286 | 0.077 |

| 004\_Taxi | 0.35 | 0.75 | 0 | 0.5 | 0.25 | 0.25 | 0.35 | 0 |

| 005\_NYC | 0.25 | 0.75 | 0 | 0.25 | 0.25 | 0 | 0.25 | 0 |

| 006\_London | 0.45 | 0.5 | 0.5 | 0.75 | 0.5 | 0 | 0.45 | 0 |

| 007\_Fifa | 0.45 | 0.75 | 0.5 | 0.5 | 0 | 0.5 | 0.545 | 0.333 |

| 008\_Tornados | 0.25 | 0.25 | 0.75 | 0.25 | 0 | 0 | 0.357 | 0 |

| 009\_Central | 0.5 | 0.5 | 1 | 0.25 | 0 | 0.75 | 0.818 | 0.111 |

| 010\_ECommerce | 0.45 | 0 | 0.25 | 0.75 | 0.5 | 0.75 | 0.45 | 0 |

| 011\_SF | 0.4 | 0.75 | 0.25 | 0.25 | 0.5 | 0.25 | 0.333 | 0.5 |

| 012\_Heart | 0.55 | 1 | 0.5 | 0.5 | 0.75 | 0 | 0.5 | 0.75 |

| 013\_Roller | 0.45 | 0.75 | 0.5 | 0.25 | 0 | 0.75 | 0.778 | 0.182 |

| 015\_Food | 0.45 | 1 | 0 | 0.75 | 0.25 | 0.25 | 0.4 | 0.6 |

| 016\_Holiday | 0.35 | 0.75 | 0 | 0 | 0.25 | 0.75 | 0.467 | 0 |

| 017\_Hacker | 0.3 | 0.5 | 0 | 0.75 | 0 | 0.25 | 0.316 | 0 |

| 018\_Staff | 0.35 | 0.25 | 0.5 | 0.5 | 0.25 | 0.25 | 0.5 | 0 |

| 019\_Aircraft | 0.2 | 0.5 | 0.5 | 0 | 0 | 0 | 0.235 | 0 |

| 021\_Telco | 0.5 | 0.5 | 0.25 | 0.25 | 0.75 | 0.75 | 0.562 | 0.25 |

| 022\_Airbnbs | 0.45 | 0.5 | 0.25 | 0.75 | 0.5 | 0.25 | 0.421 | 1 |

| 023\_Climate | 0.15 | 0.5 | 0 | 0.25 | 0 | 0 | 0 | 0.214 |

| 024\_Salary | 0.5 | 0.75 | 0.5 | 0.75 | 0.5 | 0 | 0.5 | 0.5 |

| 025\_Data | 0.3 | 0.5 | 0.75 | 0 | 0 | 0.25 | 0.75 | 0.188 |

| 026\_Predicting | 0.1 | 0.5 | 0 | 0 | 0 | 0 | 0.286 | 0 |

| 027\_Supermarket | 0.35 | 0.5 | 0.75 | 0.5 | 0 | 0 | 0.667 | 0.214 |

| 028\_Predict | 0.25 | 0.5 | 0.5 | 0 | 0.25 | 0 | 0.5 | 0.143 |

| 029\_NYTimes | 0.2 | 0.5 | 0.25 | 0.25 | 0 | 0 | 0.333 | 0.091 |

| 030\_Professionals | 0.15 | 0.25 | 0 | 0.5 | 0 | 0 | 0.158 | 0 |

| 031\_Trustpilot | 0.3 | 0.75 | 0.25 | 0 | 0.25 | 0.25 | 0.364 | 0.222 |

| 032\_Delicatessen | 0.5 | 0.75 | 0.5 | 0.25 | 0.5 | 0.5 | 0.625 | 0 |

| 033\_Employee | 0.3 | 1 | 0.333 | 0 | 0.25 | 0 | 0.357 | 0.167 |

| 034\_World | 0.1 | 0 | 0 | 0.25 | 0.5 | 0 | 0 | 0.1 |

| 036\_US | 0.15 | 0.5 | 0.25 | 0 | 0 | 0 | 0.273 | 0 |

| 037\_Ted | 0.3 | 1 | 0.25 | 0.25 | 0 | 0 | 0.357 | 0.167 |

| 038\_Stroke | 0.3 | 0.5 | 0.25 | 0.75 | 0 | 0 | 0.333 | 0.294 |

| 039\_Happy | 0.5 | 0.5 | 0.25 | 0.75 | 0.5 | 0.5 | 0.545 | 0.444 |

| 040\_Speed | 0.25 | 0.75 | 0.25 | 0.25 | 0 | 0 | 0.333 | 0.235 |

| 041\_Airline | 0.45 | 0.75 | 0.5 | 0.75 | 0 | 0.25 | 0.417 | 0.5 |

| 042\_Predict | 0.35 | 0.25 | 0.5 | 1 | 0 | 0 | 0.667 | 0.294 |

| 043\_Predict | 0.25 | 0.75 | 0.25 | 0.25 | 0 | 0 | 0.333 | 0.235 |

| 044\_IMDb | 0.1 | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.1 |

| 045\_Predict | 0.35 | 0.25 | 0.25 | 0.5 | 0.25 | 0.5 | 0.375 | 0.333 |

| 046\_120 | 0.25 | 0.25 | 0.25 | 0 | 0.25 | 0.5 | 0.333 | 0.125 |

| 047\_Bank | 0.5 | 0.25 | 0.75 | 0.5 | 0.75 | 0.25 | 0.588 | 0 |

| 048\_Data | 0.55 | 0.75 | 0.5 | 0.75 | 0.5 | 0.25 | 0.625 | 0.25 |

| 050\_ING | 0.35 | 0.5 | 0 | 0.75 | 0.25 | 0.25 | 0.222 | 0.455 |

| 051\_Pokemon | 0.25 | 0.5 | 0.25 | 0.25 | 0 | 0.25 | 0.222 | 0.273 |

| 052\_Professional | 0.25 | 0.5 | 0.25 | 0.5 | 0 | 0 | 0.143 | 0.308 |

| 053\_Patents | 0.2 | 0.25 | 0.25 | 0.5 | 0 | 0 | 0.25 | 0 |

| 055\_German | 0.45 | 0.5 | 0.5 | 0.75 | 0 | 0.5 | 0.583 | 0.25 |

| 056\_Emoji | 0.2 | 0.25 | 0.25 | 0.25 | 0 | 0.25 | 0.25 | 0.125 |

| 057\_Spain | 0.2 | 0.25 | 0.25 | 0.25 | 0 | 0.25 | 0.211 | 0 |

| 058\_US | 0.35 | 0.5 | 0 | 0.75 | 0.5 | 0 | 0.353 | 0.333 |

| 059\_Second | 0.4 | 0.5 | 0.25 | 0.75 | 0.5 | 0 | 0.368 | 1 |

| 060\_Bakery | 0.25 | 0 | 0.25 | 0.25 | 0.5 | 0.25 | 0.286 | 0.231 |

| 061\_Disneyland | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.375 | 0.167 |

| 062\_Trump | 0.4 | 0.75 | 0.5 | 0.75 | 0 | 0 | 0.438 | 0.25 |

| 063\_Influencers | 0.25 | 0.5 | 0.5 | 0 | 0 | 0.25 | 0.455 | 0 |

| 064\_Clustering | 0.3 | 0.5 | 0.25 | 0.25 | 0.5 | 0 | 0.308 | 0.286 |

| 065\_RFM | 0.25 | 0.5 | 0 | 0.75 | 0 | 0 | 0.231 | 0.286 |

Approach 1 - 70B

### Main Metrics Table:

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:------------------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| 001\_Forbes | 0.52 | 0.6 | 0.6 | 0.6 | 0.4 | 0.4 | 0.714 | 0.444 |

| 002\_Titanic | 0.65 | 1 | 0.5 | 0.5 | 0.5 | 0.75 | 0.571 | 0.692 |

| 004\_Taxi | 0.55 | 0.75 | 0.25 | 0.25 | 0.75 | 0.75 | 0.55 | 0 |

| 005\_NYC | 0.4 | 1 | 0.25 | 0.5 | 0 | 0.25 | 0.4 | 0 |

| 006\_London | 0.65 | 1 | 0.5 | 0.75 | 0.75 | 0.25 | 0.65 | 0 |

| 007\_Fifa | 0.55 | 0.75 | 0.5 | 1 | 0 | 0.5 | 0.727 | 0.333 |

| 008\_Tornados | 0.65 | 1 | 1 | 0.75 | 0 | 0.5 | 0.786 | 0.333 |

| 009\_Central | 0.75 | 0.5 | 1 | 0.75 | 0.5 | 1 | 0.909 | 0.556 |

| 010\_ECommerce | 0.5 | 0.75 | 0.5 | 0.5 | 0.5 | 0.25 | 0.5 | 0 |

| 011\_SF | 0.5 | 0.75 | 0.5 | 0.5 | 0.5 | 0.25 | 0.417 | 0.625 |

| 012\_Heart | 0.6 | 1 | 0.5 | 0.75 | 0.5 | 0.25 | 0.625 | 0.5 |

| 013\_Roller | 0.55 | 0.75 | 0.75 | 0.5 | 0 | 0.75 | 0.889 | 0.273 |

| 015\_Food | 0.5 | 0.75 | 0.25 | 1 | 0.5 | 0 | 0.4 | 0.8 |

| 016\_Holiday | 0.6 | 1 | 0.5 | 0.25 | 0.5 | 0.75 | 0.733 | 0.2 |

| 017\_Hacker | 0.5 | 0.5 | 0.25 | 0.75 | 0.5 | 0.5 | 0.526 | 0 |

| 018\_Staff | 0.65 | 0.75 | 0.75 | 0.5 | 0.5 | 0.75 | 0.786 | 0.333 |

| 019\_Aircraft | 0.2 | 0.5 | 0.5 | 0 | 0 | 0 | 0.235 | 0 |

| 021\_Telco | 0.7 | 0.5 | 0.5 | 0.75 | 0.75 | 1 | 0.75 | 0.5 |

| 022\_Airbnbs | 0.45 | 0.5 | 0 | 0.75 | 0.25 | 0.75 | 0.421 | 1 |

| 023\_Climate | 0.4 | 0.75 | 0.25 | 0.25 | 0.25 | 0.5 | 0.5 | 0.357 |

| 024\_Salary | 0.5 | 1 | 0 | 0.75 | 0.5 | 0.25 | 0.5 | 0.5 |

| 025\_Data | 0.25 | 0.5 | 0.5 | 0 | 0.25 | 0 | 0.5 | 0.188 |

| 026\_Predicting | 0.35 | 1 | 0.75 | 0 | 0 | 0 | 0.857 | 0.077 |

| 027\_Supermarket | 0.7 | 1 | 0.75 | 1 | 0.75 | 0 | 0.833 | 0.643 |

| 028\_Predict | 0.2 | 0.5 | 0.5 | 0 | 0 | 0 | 0.667 | 0 |

| 029\_NYTimes | 0.35 | 0.75 | 0.25 | 0.75 | 0 | 0 | 0.444 | 0.273 |

| 030\_Professionals | 0.5 | 0.5 | 0.5 | 1 | 0.167 | 0.5 | 0.526 | 0 |

| 031\_Trustpilot | 0.5 | 1 | 0.25 | 0.5 | 0.5 | 0.25 | 0.455 | 0.556 |

| 032\_Delicatessen | 0.65 | 1 | 0.5 | 0.5 | 0.5 | 0.75 | 0.812 | 0 |

| 033\_Employee | 0.55 | 0.75 | 0.333 | 0.4 | 0.75 | 0.5 | 0.571 | 0.5 |

| 034\_World | 0.15 | 0.25 | 0 | 0.5 | 0 | 0 | 0 | 0.15 |

| 036\_US | 0.35 | 1 | 0.25 | 0 | 0 | 0.5 | 0.636 | 0 |

| 037\_Ted | 0.4 | 1 | 0.25 | 0.5 | 0 | 0.25 | 0.429 | 0.333 |

| 038\_Stroke | 0.5 | 0.75 | 0.5 | 0.75 | 0.5 | 0 | 0.667 | 0.471 |

| 039\_Happy | 0.8 | 0.75 | 1 | 1 | 1 | 0.25 | 0.818 | 0.778 |

| 040\_Speed | 0.5 | 0.5 | 0.75 | 0.25 | 0.5 | 0.5 | 1 | 0.412 |

| 041\_Airline | 0.7 | 1 | 0.5 | 0.75 | 0.5 | 0.75 | 0.75 | 0.625 |

| 042\_Predict | 0.5 | 0.5 | 0.5 | 1 | 0.5 | 0 | 0.667 | 0.471 |

| 043\_Predict | 0.45 | 0.75 | 0.5 | 0.75 | 0 | 0.25 | 0.667 | 0.412 |

| 044\_IMDb | 0.25 | 0.75 | 0.5 | 0 | 0 | 0 | 0 | 0.25 |

| 045\_Predict | 0.4 | 0.75 | 0.25 | 0.25 | 0.25 | 0.5 | 0.375 | 0.417 |

| 046\_120 | 0.3 | 0.5 | 0.25 | 0 | 0.25 | 0.5 | 0.333 | 0.25 |

| 047\_Bank | 0.45 | 0.25 | 0.75 | 0.5 | 0.5 | 0.25 | 0.529 | 0 |

| 048\_Data | 0.4 | 0.5 | 0.5 | 0.25 | 0.25 | 0.5 | 0.5 | 0 |

| 050\_ING | 0.45 | 0.75 | 0 | 0.75 | 0.5 | 0.25 | 0.333 | 0.545 |

| 051\_Pokemon | 0.4 | 1 | 0.25 | 0.75 | 0 | 0 | 0.444 | 0.364 |

| 052\_Professional | 0.5 | 1 | 0.5 | 0.5 | 0 | 0.5 | 0.429 | 0.538 |

| 053\_Patents | 0.35 | 0.75 | 0.25 | 0.75 | 0 | 0 | 0.375 | 0.25 |

| 055\_German | 0.55 | 0.75 | 0.5 | 1 | 0 | 0.5 | 0.667 | 0.375 |

| 056\_Emoji | 0.6 | 0.75 | 0.75 | 0.75 | 0.25 | 0.5 | 0.667 | 0.5 |

| 057\_Spain | 0.4 | 0.75 | 0.25 | 0.5 | 0 | 0.5 | 0.421 | 0 |

| 058\_US | 0.55 | 0.5 | 0 | 1 | 0.75 | 0.5 | 0.588 | 0.333 |

| 059\_Second | 0.7 | 1 | 0.5 | 1 | 0.75 | 0.25 | 0.684 | 1 |

| 060\_Bakery | 0.5 | 0.25 | 0.5 | 0.75 | 0.75 | 0.25 | 0.143 | 0.692 |

| 061\_Disneyland | 0.65 | 0.75 | 0.75 | 0.75 | 0.25 | 0.75 | 0.625 | 0.667 |

| 062\_Trump | 0.7 | 1 | 0.5 | 0.75 | 0.75 | 0.5 | 0.688 | 0.75 |

| 063\_Influencers | 0.55 | 1 | 0.25 | 0.5 | 0.5 | 0.5 | 0.636 | 0.444 |

| 064\_Clustering | 0.55 | 0.5 | 0.5 | 0.5 | 0.75 | 0.5 | 0.462 | 0.714 |

| 065\_RFM | 0.3 | 0.5 | 0 | 0.5 | 0.25 | 0.25 | 0.385 | 0.143 |

Approach 2 8B

### Main Metrics Table:

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:------------------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| 001\_Forbes | 0.24 | 0.2 | 0.4 | 0.2 | 0 | 0.4 | 0.286 | 0.222 |

| 002\_Titanic | 0.25 | 0.5 | 0.5 | 0.25 | 0 | 0 | 0.429 | 0.154 |

| 004\_Taxi | 0.3 | 0.75 | 0.25 | 0 | 0 | 0.5 | 0.3 | 0 |

| 005\_NYC | 0.25 | 0.75 | 0 | 0.25 | 0 | 0.25 | 0.25 | 0 |

| 006\_London | 0.45 | 0.5 | 0.5 | 0.5 | 0.5 | 0.25 | 0.45 | 0 |

| 007\_Fifa | 0.55 | 0.75 | 0.5 | 0.75 | 0 | 0.75 | 0.727 | 0.333 |

| 008\_Tornados | 0.2 | 0 | 0.75 | 0.25 | 0 | 0 | 0.286 | 0 |

| 009\_Central | 0.5 | 0.25 | 1 | 0.5 | 0.25 | 0.5 | 0.636 | 0.333 |

| 010\_ECommerce | 0.35 | 0.25 | 0.25 | 0.5 | 0.25 | 0.5 | 0.35 | 0 |

| 011\_SF | 0.2 | 0.25 | 0 | 0.5 | 0.25 | 0 | 0.167 | 0.25 |

| 012\_Heart | 0.5 | 1 | 0.5 | 0.5 | 0.25 | 0.25 | 0.562 | 0.25 |

| 013\_Roller | 0.3 | 0.5 | 0.5 | 0 | 0 | 0.5 | 0.667 | 0 |

| 015\_Food | 0.4 | 0.75 | 0 | 1 | 0.25 | 0 | 0.267 | 0.8 |

| 016\_Holiday | 0.65 | 1 | 0.5 | 0.5 | 0.5 | 0.75 | 0.733 | 0.4 |

| 017\_Hacker | 0.3 | 0.25 | 0.25 | 0.5 | 0.25 | 0.25 | 0.316 | 0 |

| 018\_Staff | 0.4 | 0.75 | 0.5 | 0.5 | 0.25 | 0 | 0.571 | 0 |

| 019\_Aircraft | 0.15 | 0.25 | 0 | 0 | 0.25 | 0.25 | 0.176 | 0 |

| 021\_Telco | 0.45 | 0.5 | 0.5 | 0.5 | 0.5 | 0.25 | 0.5 | 0.25 |

| 022\_Airbnbs | 0.4 | 1 | 0.25 | 0.5 | 0.25 | 0 | 0.368 | 1 |

| 023\_Climate | 0.1 | 0 | 0 | 0 | 0 | 0.5 | 0.333 | 0 |

| 024\_Salary | 0.55 | 0.75 | 0.25 | 0.5 | 0.75 | 0.5 | 0.562 | 0.5 |

| 025\_Data | 0.2 | 0.25 | 0.5 | 0 | 0 | 0.25 | 0.5 | 0.125 |

| 026\_Predicting | 0.25 | 1 | 0.25 | 0 | 0 | 0 | 0.571 | 0.077 |

| 027\_Supermarket | 0.25 | 0.25 | 0.75 | 0.25 | 0 | 0 | 0.667 | 0.071 |

| 028\_Predict | 0.15 | 0.5 | 0.25 | 0 | 0 | 0 | 0.5 | 0 |

| 029\_NYTimes | 0.2 | 0.5 | 0.25 | 0.25 | 0 | 0 | 0.333 | 0.091 |

| 030\_Professionals | 0.25 | 0.25 | 0.5 | 0.25 | 0.167 | 0 | 0.263 | 0 |

| 031\_Trustpilot | 0.4 | 1 | 0.25 | 0.25 | 0.25 | 0.25 | 0.364 | 0.444 |

| 032\_Delicatessen | 0.45 | 0.75 | 0.5 | 0.25 | 0.5 | 0.25 | 0.562 | 0 |

| 033\_Employee | 0.4 | 1 | 0.333 | 0.2 | 0.25 | 0.25 | 0.5 | 0.167 |

| 034\_World | 0.1 | 0.25 | 0 | 0.25 | 0 | 0 | 0 | 0.1 |

| 036\_US | 0.3 | 1 | 0.25 | 0 | 0 | 0.25 | 0.545 | 0 |

| 037\_Ted | 0.25 | 1 | 0.25 | 0 | 0 | 0 | 0.357 | 0 |

| 038\_Stroke | 0.2 | 0.5 | 0.25 | 0.25 | 0 | 0 | 0.333 | 0.176 |

| 039\_Happy | 0.45 | 0.75 | 0.5 | 0.25 | 0.5 | 0.25 | 0.636 | 0.222 |

| 040\_Speed | 0.05 | 0 | 0.25 | 0 | 0 | 0 | 0.333 | 0 |

| 041\_Airline | 0.25 | 1 | 0.25 | 0 | 0 | 0 | 0.25 | 0.25 |

| 042\_Predict | 0.3 | 0.5 | 0.5 | 0.5 | 0 | 0 | 0.667 | 0.235 |

| 043\_Predict | 0.15 | 0.25 | 0.25 | 0.25 | 0 | 0 | 0.333 | 0.118 |

| 044\_IMDb | 0.05 | 0.25 | 0 | 0 | 0 | 0 | 0 | 0.05 |

| 045\_Predict | 0.45 | 0.75 | 0.25 | 0.25 | 0.5 | 0.5 | 0.375 | 0.5 |

| 046\_120 | 0.3 | 0.25 | 0.25 | 0.25 | 0.25 | 0.5 | 0.333 | 0.25 |

| 047\_Bank | 0.5 | 0.5 | 0.5 | 0.75 | 0.5 | 0.25 | 0.529 | 0.333 |

| 048\_Data | 0.35 | 0.75 | 0.5 | 0 | 0.25 | 0.25 | 0.438 | 0 |

| 050\_ING | 0.4 | 0.5 | 0.25 | 0.5 | 0.25 | 0.5 | 0.333 | 0.455 |

| 051\_Pokemon | 0.3 | 0.75 | 0.5 | 0 | 0 | 0.25 | 0.556 | 0.091 |

| 052\_Professional | 0.3 | 0.75 | 0.25 | 0.5 | 0 | 0 | 0.143 | 0.385 |

| 053\_Patents | 0.25 | 0.75 | 0 | 0.5 | 0 | 0 | 0.312 | 0 |

| 055\_German | 0.35 | 0.25 | 0.5 | 0.75 | 0 | 0.25 | 0.5 | 0.125 |

| 056\_Emoji | 0.15 | 0.5 | 0.25 | 0 | 0 | 0 | 0.25 | 0 |

| 057\_Spain | 0.2 | 0.25 | 0.25 | 0.25 | 0 | 0.25 | 0.211 | 0 |

| 058\_US | 0.4 | 0.75 | 0 | 0.75 | 0 | 0.5 | 0.353 | 0.667 |

| 059\_Second | 0.55 | 0.5 | 0.25 | 1 | 0.5 | 0.5 | 0.526 | 1 |

| 060\_Bakery | 0.3 | 0.75 | 0.25 | 0.25 | 0.25 | 0 | 0.429 | 0.231 |

| 061\_Disneyland | 0.2 | 0.25 | 0.25 | 0.25 | 0 | 0.25 | 0.25 | 0.167 |

| 062\_Trump | 0.3 | 0.5 | 0.25 | 0.75 | 0 | 0 | 0.312 | 0.25 |

| 063\_Influencers | 0.3 | 1 | 0.25 | 0 | 0 | 0.25 | 0.545 | 0 |

| 064\_Clustering | 0.25 | 0.5 | 0.25 | 0.25 | 0 | 0.25 | 0.308 | 0.143 |

| 065\_RFM | 0.3 | 0.75 | 0.5 | 0.25 | 0 | 0 | 0.462 | 0 |

Approach 2 - 70B

### Main Metrics Table:

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:------------------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| 001\_Forbes | 0.48 | 0.4 | 0.6 | 0.6 | 0.2 | 0.6 | 0.571 | 0.444 |

| 002\_Titanic | 0.55 | 0.5 | 0.5 | 0.25 | 0.75 | 0.75 | 0.571 | 0.538 |

| 004\_Taxi | 0.45 | 0.5 | 0.5 | 0.25 | 0.5 | 0.5 | 0.45 | 0 |

| 005\_NYC | 0.5 | 0.75 | 0.5 | 0.5 | 0.5 | 0.25 | 0.5 | 0 |

| 006\_London | 0.45 | 0.75 | 0.5 | 0.25 | 0.5 | 0.25 | 0.45 | 0 |

| 007\_Fifa | 0.7 | 0.75 | 0.75 | 0.5 | 0.5 | 1 | 0.818 | 0.556 |

| 008\_Tornados | 0.45 | 0.5 | 0.75 | 0.5 | 0.25 | 0.25 | 0.5 | 0.333 |

| 009\_Central | 0.8 | 0.5 | 1 | 0.75 | 0.75 | 1 | 0.909 | 0.667 |

| 010\_ECommerce | 0.7 | 0.75 | 0.75 | 0.5 | 0.75 | 0.75 | 0.7 | 0 |

| 011\_SF | 0.5 | 0.5 | 0.25 | 0.5 | 0.75 | 0.5 | 0.5 | 0.5 |

| 012\_Heart | 0.7 | 1 | 0.5 | 1 | 0.75 | 0.25 | 0.625 | 1 |

| 013\_Roller | 0.3 | 0.25 | 0.5 | 0.5 | 0 | 0.25 | 0.444 | 0.182 |

| 015\_Food | 0.5 | 0.75 | 0.25 | 0.75 | 0.75 | 0 | 0.467 | 0.6 |

| 016\_Holiday | 0.85 | 1 | 0.75 | 1 | 0.75 | 0.75 | 0.867 | 0.8 |

| 017\_Hacker | 0.7 | 0.75 | 0.25 | 1 | 0.75 | 0.75 | 0.684 | 1 |

| 018\_Staff | 0.65 | 1 | 0.75 | 0.5 | 0.5 | 0.5 | 0.714 | 0.5 |

| 019\_Aircraft | 0.35 | 0.25 | 0.25 | 0.75 | 0.25 | 0.25 | 0.294 | 0.667 |

| 021\_Telco | 0.7 | 0.75 | 0.75 | 0.5 | 0.75 | 0.75 | 0.812 | 0.25 |

| 022\_Airbnbs | 0.5 | 0.5 | 0.75 | 0.75 | 0.25 | 0.25 | 0.474 | 1 |

| 023\_Climate | 0.15 | 0 | 0 | 0 | 0.5 | 0.25 | 0.167 | 0.143 |

| 024\_Salary | 0.7 | 0.75 | 0.5 | 0.75 | 0.75 | 0.75 | 0.75 | 0.5 |

| 025\_Data | 0.2 | 0.25 | 0.5 | 0 | 0.25 | 0 | 0.5 | 0.125 |

| 026\_Predicting | 0.45 | 1 | 0.75 | 0 | 0 | 0.5 | 0.857 | 0.231 |

| 027\_Supermarket | 0.4 | 0.5 | 0.75 | 0.5 | 0 | 0.25 | 0.833 | 0.214 |

| 028\_Predict | 0.2 | 0.5 | 0.5 | 0 | 0 | 0 | 0.667 | 0 |

| 029\_NYTimes | 0.4 | 0.75 | 0.5 | 0.75 | 0 | 0 | 0.556 | 0.273 |

| 030\_Professionals | 0.45 | 0.5 | 0.5 | 0.75 | 0.167 | 0.5 | 0.474 | 0 |

| 031\_Trustpilot | 0.5 | 1 | 0.25 | 0.5 | 0.5 | 0.25 | 0.455 | 0.556 |

| 032\_Delicatessen | 0.7 | 1 | 0.75 | 0.5 | 0.5 | 0.75 | 0.875 | 0 |

| 033\_Employee | 0.55 | 1 | 0.333 | 0 | 0.75 | 0.75 | 0.643 | 0.333 |

| 034\_World | 0.1 | 0 | 0 | 0.5 | 0 | 0 | 0 | 0.1 |

| 036\_US | 0.35 | 1 | 0.25 | 0 | 0 | 0.5 | 0.636 | 0 |

| 037\_Ted | 0.4 | 1 | 0.25 | 0.25 | 0 | 0.5 | 0.5 | 0.167 |

| 038\_Stroke | 0.65 | 0.5 | 0.5 | 1 | 0.5 | 0.75 | 0.667 | 0.647 |

| 039\_Happy | 0.75 | 0.75 | 0.5 | 1 | 1 | 0.5 | 0.727 | 0.778 |

| 040\_Speed | 0.45 | 0.5 | 0.75 | 0.5 | 0.25 | 0.25 | 1 | 0.353 |

| 041\_Airline | 0.6 | 0.75 | 0.5 | 0.75 | 0.25 | 0.75 | 0.583 | 0.625 |

| 042\_Predict | 0.4 | 0.25 | 0.5 | 1 | 0.25 | 0 | 0.667 | 0.353 |

| 043\_Predict | 0.35 | 0.5 | 0.5 | 0.75 | 0 | 0 | 0.667 | 0.294 |

| 044\_IMDb | 0.25 | 0.75 | 0 | 0.25 | 0.25 | 0 | 0 | 0.25 |

| 045\_Predict | 0.45 | 0.75 | 0.25 | 0 | 0.5 | 0.75 | 0.5 | 0.417 |

| 046\_120 | 0.35 | 0.25 | 0.25 | 0.25 | 0.25 | 0.75 | 0.417 | 0.25 |

| 047\_Bank | 0.55 | 0.75 | 1 | 0.5 | 0.25 | 0.25 | 0.647 | 0 |

| 048\_Data | 0.45 | 0.25 | 0.25 | 0.75 | 0.5 | 0.5 | 0.438 | 0.5 |

| 050\_ING | 0.4 | 0.5 | 0.25 | 0.5 | 0.5 | 0.25 | 0.444 | 0.364 |

| 051\_Pokemon | 0.35 | 0.75 | 0.25 | 0.25 | 0.25 | 0.25 | 0.556 | 0.182 |

| 052\_Professional | 0.6 | 1 | 0.25 | 0.75 | 0.25 | 0.75 | 0.571 | 0.615 |

| 053\_Patents | 0.4 | 1 | 0.25 | 0.75 | 0 | 0 | 0.438 | 0.25 |

| 055\_German | 0.5 | 0.5 | 0.75 | 1 | 0 | 0.25 | 0.667 | 0.25 |

| 056\_Emoji | 0.45 | 0.75 | 0.25 | 0.75 | 0 | 0.5 | 0.5 | 0.375 |

| 057\_Spain | 0.4 | 0.5 | 0.25 | 0.5 | 0 | 0.75 | 0.421 | 0 |

| 058\_US | 0.5 | 0.5 | 0 | 1 | 0.5 | 0.5 | 0.529 | 0.333 |

| 059\_Second | 0.6 | 0.5 | 0.5 | 1 | 0.75 | 0.25 | 0.579 | 1 |

| 060\_Bakery | 0.4 | 0.25 | 0.5 | 0.75 | 0.5 | 0 | 0.286 | 0.462 |

| 061\_Disneyland | 0.65 | 0.75 | 0.5 | 1 | 0.5 | 0.5 | 0.625 | 0.667 |

| 062\_Trump | 0.45 | 1 | 0.25 | 0.75 | 0.25 | 0 | 0.5 | 0.25 |

| 063\_Influencers | 0.45 | 1 | 0.25 | 0 | 0.25 | 0.75 | 0.636 | 0.222 |

| 064\_Clustering | 0.55 | 1 | 0.5 | 0.5 | 0.5 | 0.25 | 0.615 | 0.429 |

| 065\_RFM | 0.5 | 0.75 | 0.5 | 0.75 | 0.25 | 0.25 | 0.615 | 0.286 |

Approach 3 8B

### Main Metrics Table:

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:------------------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| 001\_Forbes | 0.2 | 0 | 0.2 | 0.6 | 0 | 0.2 | 0 | 0.278 |

| 002\_Titanic | 0.2 | 0 | 0.5 | 0.25 | 0 | 0.25 | 0.286 | 0.154 |

| 004\_Taxi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| 005\_NYC | 0.05 | 0 | 0 | 0 | 0 | 0.25 | 0.05 | 0 |

| 006\_London | 0.2 | 0.5 | 0.25 | 0 | 0 | 0.25 | 0.2 | 0 |

| 007\_Fifa | 0.2 | 0.25 | 0.25 | 0.5 | 0 | 0 | 0.273 | 0.111 |

| 008\_Tornados | 0.1 | 0.25 | 0 | 0 | 0.25 | 0 | 0.071 | 0.167 |

| 009\_Central | 0.25 | 0 | 0.75 | 0 | 0.5 | 0 | 0.273 | 0.222 |

| 010\_ECommerce | 0.05 | 0 | 0 | 0.25 | 0 | 0 | 0.05 | 0 |

| 011\_SF | 0.1 | 0 | 0 | 0.25 | 0.25 | 0 | 0.083 | 0.125 |

| 012\_Heart | 0.45 | 0.5 | 0.5 | 0.5 | 0.5 | 0.25 | 0.438 | 0.5 |

| 013\_Roller | 0.1 | 0.25 | 0 | 0 | 0 | 0.25 | 0.111 | 0.091 |

| 015\_Food | 0.3 | 0.5 | 0.25 | 0.75 | 0 | 0 | 0.2 | 0.6 |

| 016\_Holiday | 0.3 | 0 | 0.25 | 0.75 | 0.25 | 0.25 | 0.2 | 0.6 |

| 017\_Hacker | 0.2 | 0.25 | 0 | 0.5 | 0 | 0.25 | 0.211 | 0 |

| 018\_Staff | 0.1 | 0 | 0.25 | 0.25 | 0 | 0 | 0.071 | 0.167 |

| 019\_Aircraft | 0.15 | 0 | 0.25 | 0.5 | 0 | 0 | 0.118 | 0.333 |

| 021\_Telco | 0.15 | 0 | 0 | 0.25 | 0.5 | 0 | 0.188 | 0 |

| 022\_Airbnbs | 0.3 | 0.25 | 0.25 | 0.5 | 0.25 | 0.25 | 0.263 | 1 |

| 023\_Climate | 0.05 | 0 | 0 | 0 | 0 | 0.25 | 0.167 | 0 |

| 024\_Salary | 0.25 | 0 | 0.25 | 0.25 | 0 | 0.75 | 0.312 | 0 |

| 025\_Data | 0.1 | 0 | 0.25 | 0 | 0.25 | 0 | 0.25 | 0.062 |

| 026\_Predicting | 0.15 | 0.5 | 0.25 | 0 | 0 | 0 | 0.429 | 0 |

| 027\_Supermarket | 0.25 | 0 | 0.25 | 0.75 | 0.25 | 0 | 0.167 | 0.286 |

| 028\_Predict | 0.15 | 0.25 | 0.5 | 0 | 0 | 0 | 0.333 | 0.071 |

| 029\_NYTimes | 0.1 | 0.25 | 0 | 0.25 | 0 | 0 | 0.111 | 0.091 |

| 030\_Professionals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| 031\_Trustpilot | 0.15 | 0.25 | 0.25 | 0.25 | 0 | 0 | 0.091 | 0.222 |

| 032\_Delicatessen | 0.2 | 0 | 0.25 | 0.25 | 0.5 | 0 | 0.25 | 0 |

| 033\_Employee | 0.2 | 0.25 | 0 | 0.2 | 0.5 | 0 | 0.143 | 0.333 |

| 034\_World | 0.05 | 0.25 | 0 | 0 | 0 | 0 | 0 | 0.05 |

| 036\_US | 0.2 | 0.5 | 0.25 | 0 | 0 | 0.25 | 0.364 | 0 |

| 037\_Ted | 0.1 | 0.25 | 0.25 | 0 | 0 | 0 | 0.143 | 0 |

| 038\_Stroke | 0.35 | 0.5 | 0.25 | 0.75 | 0.25 | 0 | 0.333 | 0.353 |

| 039\_Happy | 0.1 | 0 | 0.5 | 0 | 0 | 0 | 0.182 | 0 |

| 040\_Speed | 0.1 | 0.25 | 0.25 | 0 | 0 | 0 | 0.333 | 0.059 |

| 041\_Airline | 0.4 | 0.75 | 0.25 | 0.75 | 0 | 0.25 | 0.25 | 0.625 |

| 042\_Predict | 0.3 | 0.25 | 0.5 | 0.5 | 0 | 0.25 | 0.667 | 0.235 |

| 043\_Predict | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.333 | 0.235 |

| 044\_IMDb | 0.05 | 0.25 | 0 | 0 | 0 | 0 | 0 | 0.05 |

| 045\_Predict | 0.25 | 0.75 | 0.25 | 0.25 | 0 | 0 | 0.125 | 0.333 |

| 046\_120 | 0.05 | 0 | 0 | 0 | 0.25 | 0 | 0.083 | 0 |

| 047\_Bank | 0.45 | 0.5 | 1 | 0.5 | 0.25 | 0 | 0.529 | 0 |

| 048\_Data | 0.2 | 0.25 | 0.25 | 0.25 | 0 | 0.25 | 0.188 | 0.25 |

| 050\_ING | 0.2 | 0.25 | 0 | 0.25 | 0.25 | 0.25 | 0.111 | 0.273 |

| 051\_Pokemon | 0.15 | 0.25 | 0.25 | 0.25 | 0 | 0 | 0.222 | 0.091 |

| 052\_Professional | 0.15 | 0.5 | 0.25 | 0 | 0 | 0 | 0.143 | 0.154 |

| 053\_Patents | 0.25 | 0.25 | 0.25 | 0.5 | 0 | 0.25 | 0.188 | 0.5 |

| 055\_German | 0.45 | 0.25 | 0.25 | 0.5 | 0.75 | 0.5 | 0.417 | 0.5 |

| 056\_Emoji | 0.15 | 0 | 0.25 | 0.5 | 0 | 0 | 0.083 | 0.25 |

| 057\_Spain | 0.25 | 0.25 | 0 | 0.5 | 0.25 | 0.25 | 0.263 | 0 |

| 058\_US | 0.05 | 0 | 0 | 0.25 | 0 | 0 | 0.059 | 0 |

| 059\_Second | 0.25 | 0.25 | 0.25 | 0.5 | 0.25 | 0 | 0.263 | 0 |

| 060\_Bakery | 0.05 | 0.25 | 0 | 0 | 0 | 0 | 0.143 | 0 |

| 061\_Disneyland | 0.35 | 0.25 | 0.25 | 0.5 | 0.25 | 0.5 | 0.25 | 0.417 |

| 062\_Trump | 0.25 | 0.25 | 0.5 | 0.5 | 0 | 0 | 0.25 | 0.25 |

| 063\_Influencers | 0.2 | 0.25 | 0.5 | 0 | 0.25 | 0 | 0.273 | 0.111 |

| 064\_Clustering | 0.15 | 0 | 0.25 | 0.25 | 0 | 0.25 | 0.154 | 0.143 |

| 065\_RFM | 0.1 | 0.25 | 0 | 0 | 0 | 0.25 | 0.154 | 0 |

Approach 3 70B

### Main Metrics Table:

| | avg | boolean | number | category | list[category] | list[number] | single col | multiple cols |

|:------------------|------:|----------:|---------:|-----------:|-----------------:|---------------:|-------------:|----------------:|

| 001\_Forbes | 0.44 | 0.6 | 0.4 | 0.6 | 0 | 0.6 | 0.143 | 0.556 |

| 002\_Titanic | 0.65 | 0.75 | 0.75 | 0.5 | 0.5 | 0.75 | 0.714 | 0.615 |

| 004\_Taxi | 0.7 | 0.75 | 0.25 | 0.5 | 1 | 1 | 0.7 | 0 |

| 005\_NYC | 0.3 | 0.5 | 0.25 | 0.25 | 0.25 | 0.25 | 0.3 | 0 |

| 006\_London | 0.6 | 1 | 0.5 | 0.5 | 0.75 | 0.25 | 0.6 | 0 |

| 007\_Fifa | 0.6 | 0.75 | 0.5 | 0.75 | 0.25 | 0.75 | 0.727 | 0.444 |

| 008\_Tornados | 0.65 | 0.75 | 0.75 | 0.75 | 0.5 | 0.5 | 0.643 | 0.667 |

| 009\_Central | 0.45 | 0 | 0.5 | 1 | 0.75 | 0 | 0.182 | 0.778 |

| 010\_ECommerce | 0.45 | 0.75 | 0.75 | 0 | 0 | 0.75 | 0.45 | 0 |

| 011\_SF | 0.45 | 0.5 | 0.25 | 0.5 | 0.75 | 0.25 | 0.333 | 0.625 |

| 012\_Heart | 0.7 | 1 | 0.5 | 1 | 0.5 | 0.5 | 0.688 | 0.75 |

| 013\_Roller | 0.3 | 0.5 | 0.25 | 0.5 | 0 | 0.25 | 0.222 | 0.364 |

| 015\_Food | 0.4 | 0.25 | 0.25 | 1 | 0.5 | 0 | 0.267 | 0.8 |

| 016\_Holiday | 0.75 | 1 | 0.5 | 0.75 | 0.5 | 1 | 0.8 | 0.6 |

| 017\_Hacker | 0.45 | 0.75 | 0.25 | 0.5 | 0.25 | 0.5 | 0.474 | 0 |

| 018\_Staff | 0.4 | 1 | 0.25 | 0.25 | 0 | 0.5 | 0.5 | 0.167 |

| 019\_Aircraft | 0.2 | 0.25 | 0 | 0.5 | 0 | 0.25 | 0.118 | 0.667 |

| 021\_Telco | 0.7 | 0.25 | 0.75 | 1 | 0.75 | 0.75 | 0.688 | 0.75 |

| 022\_Airbnbs | 0.35 | 0.5 | 0.25 | 0.5 | 0.25 | 0.25 | 0.316 | 1 |

| 023\_Climate | 0.75 | 1 | 0 | 0.75 | 1 | 1 | 0.5 | 0.857 |

| 024\_Salary | 0.6 | 0.75 | 0.5 | 0.5 | 0.75 | 0.5 | 0.625 | 0.5 |

| 025\_Data | 0.25 | 0.5 | 0.5 | 0 | 0.25 | 0 | 0.5 | 0.188 |

| 026\_Predicting | 0.4 | 1 | 0.75 | 0 | 0 | 0.25 | 0.857 | 0.154 |

| 027\_Supermarket | 0.6 | 0.75 | 0.75 | 1 | 0.25 | 0.25 | 0.667 | 0.571 |

| 028\_Predict | 0.35 | 0.5 | 0.5 | 0 | 0.5 | 0.25 | 0.5 | 0.286 |

| 029\_NYTimes | 0.4 | 0.75 | 0.5 | 0.75 | 0 | 0 | 0.556 | 0.273 |

| 030\_Professionals | 0.5 | 0.25 | 0.25 | 0.75 | 0.5 | 1 | 0.526 | 0 |

| 031\_Trustpilot | 0.6 | 1 | 0.25 | 0.5 | 0.5 | 0.75 | 0.636 | 0.556 |

| 032\_Delicatessen | 0.4 | 0.75 | 0.25 | 0.5 | 0.5 | 0 | 0.5 | 0 |

| 033\_Employee | 0.6 | 1 | 0 | 0.4 | 0.75 | 0.75 | 0.643 | 0.5 |

| 034\_World | 0.15 | 0.25 | 0 | 0.5 | 0 | 0 | 0 | 0.15 |

| 036\_US | 0.35 | 1 | 0 | 0.25 | 0 | 0.5 | 0.545 | 0.111 |

| 037\_Ted | 0.45 | 0.75 | 0.5 | 0.75 | 0 | 0.25 | 0.429 | 0.5 |

| 038\_Stroke | 0.45 | 0.5 | 0.5 | 1 | 0 | 0.25 | 0.667 | 0.412 |

| 039\_Happy | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.818 | 0.667 |

| 040\_Speed | 0.55 | 0.75 | 0.5 | 0.75 | 0.25 | 0.5 | 0.667 | 0.529 |

| 041\_Airline | 0.3 | 0.5 | 0 | 0.75 | 0 | 0.25 | 0.083 | 0.625 |

| 042\_Predict | 0.55 | 0.75 | 0.5 | 0.75 | 0.5 | 0.25 | 0.667 | 0.529 |

| 043\_Predict | 0.6 | 1 | 0.25 | 1 | 0 | 0.75 | 0.333 | 0.647 |

| 044\_IMDb | 0.3 | 0.5 | 0.25 | 0 | 0.25 | 0.5 | 0 | 0.3 |

| 045\_Predict | 0.5 | 0.75 | 0.25 | 0.25 | 0.75 | 0.5 | 0.375 | 0.583 |

| 046\_120 | 0.55 | 0.75 | 0.25 | 0.5 | 0.5 | 0.75 | 0.417 | 0.75 |

| 047\_Bank | 0.65 | 0.5 | 1 | 0.75 | 1 | 0 | 0.765 | 0 |

| 048\_Data | 0.4 | 0.25 | 0.25 | 0.75 | 0.5 | 0.25 | 0.312 | 0.75 |

| 050\_ING | 0.4 | 0.5 | 0 | 0.5 | 0.5 | 0.5 | 0.222 | 0.545 |

| 051\_Pokemon | 0.6 | 1 | 0.25 | 0.75 | 0.25 | 0.75 | 0.556 | 0.636 |

| 052\_Professional | 0.6 | 1 | 0.5 | 1 | 0.25 | 0.25 | 0.286 | 0.769 |

| 053\_Patents | 0.45 | 0.75 | 0.5 | 0.75 | 0.25 | 0 | 0.5 | 0.25 |

| 055\_German | 0.65 | 0.75 | 0.75 | 1 | 0.25 | 0.5 | 0.75 | 0.5 |

| 056\_Emoji | 0.3 | 0 | 0 | 1 | 0.5 | 0 | 0 | 0.75 |

| 057\_Spain | 0.45 | 0.75 | 0.25 | 0.5 | 0 | 0.75 | 0.474 | 0 |

| 058\_US | 0.5 | 0.75 | 0 | 1 | 0.25 | 0.5 | 0.471 | 0.667 |

| 059\_Second | 0.6 | 0.5 | 0.5 | 0.75 | 0.75 | 0.5 | 0.579 | 1 |

| 060\_Bakery | 0.4 | 0.25 | 0.5 | 0.75 | 0 | 0.5 | 0.429 | 0.385 |

| 061\_Disneyland | 0.65 | 0.75 | 0.25 | 0.75 | 0.5 | 1 | 0.375 | 0.833 |

| 062\_Trump | 0.4 | 0.75 | 0.5 | 0.5 | 0 | 0.25 | 0.5 | 0 |

| 063\_Influencers | 0.7 | 1 | 0.5 | 0.5 | 0.75 | 0.75 | 0.727 | 0.667 |

| 064\_Clustering | 0.25 | 0 | 0.25 | 0.5 | 0.25 | 0.25 | 0.077 | 0.571 |

| 065\_RFM | 0.5 | 1 | 0.25 | 0.75 | 0.25 | 0.25 | 0.615 | 0.286 |