# CAPSTONE PROJECT – THE BATTLE OF NEIGHBORHOODS

## "COVID-19: NUMBERS & RATES IN TX STATE"

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# OBJECTIVE

- THE OBJECTIVE WAS TO IDENTIFY ONE OF THE REASONS WHY THE COVID-19 VIRUS SPREAD IN THE STATE OF TEXAS.
  - USING THE SKILLS LEARNED DURING THIS COURSE
  - EXPLORATORY DATA ANALYSIS
  - FOURSQUARE DATA

| | County | Cases | Deaths | Recoveries | Population | latitude | longitude | Infected (%) | Death Rate (%) | Recovery Rate (%) | Cinemas |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | Harris | 8176 | 179 | 3016 | 4602523 | 29.833990 | -95.434241 | 0.18% | 2.19% | 36.89% | 9 |
| 1 | Dallas | 6123 | 145 | 2511 | 2586552 | 32.767268 | -96.777626 | 0.24% | 2.37% | 41.01% | 5 |
| 2 | Tarrant | 3745 | 104 | 780 | 2019977 | 32.771419 | -97.291484 | 0.19% | 2.78% | 20.83% | 7 |
| 3 | Travis | 2171 | 65 | 713 | 1203166 | 30.326374 | -97.771258 | 0.18% | 2.99% | 32.84% | 17 |
| 4 | Bexar | 1920 | 57 | 976 | 1925865 | 29.437532 | -98.461582 | 0.10% | 2.97% | 50.83% | 13 |
| 5 | Fort Bend | 1404 | 40 | 236 | 739342 | 29.525461 | -95.771651 | 0.19% | 2.85% | 16.81% | 2 |
| 6 | El Paso | 1348 | 33 | 685 | 837654 | 31.694842 | -106.299987 | 0.16% | 2.45% | 50.82% | 8 |
| 7 | Potter | 1179 | 17 | 158 | 120899 | 35.401475 | -101.895089 | 0.98% | 1.44% | 13.40% | 0 |
| 8 | Denton | 946 | 25 | 440 | 807047 | 33.195872 | -97.116282 | 0.12% | 2.64% | 46.51% | 6 |
| 9 | Collin | 939 | 29 | 587 | 944350 | 33.152417 | -96.621427 | 0.10% | 3.09% | 62.51% | 12 |

# FINAL DATA FRAME
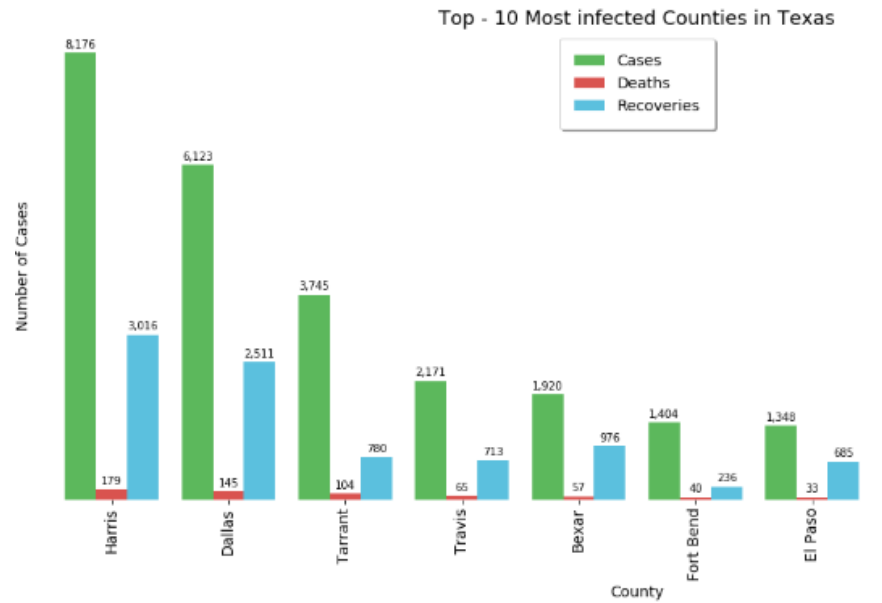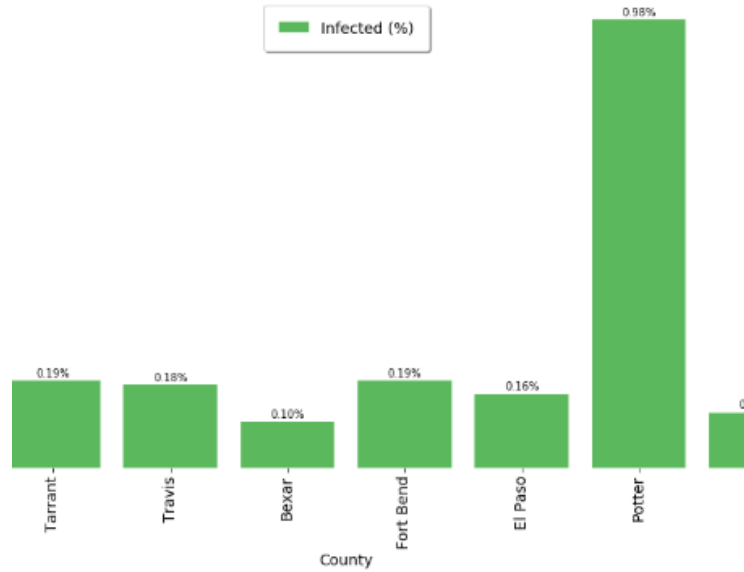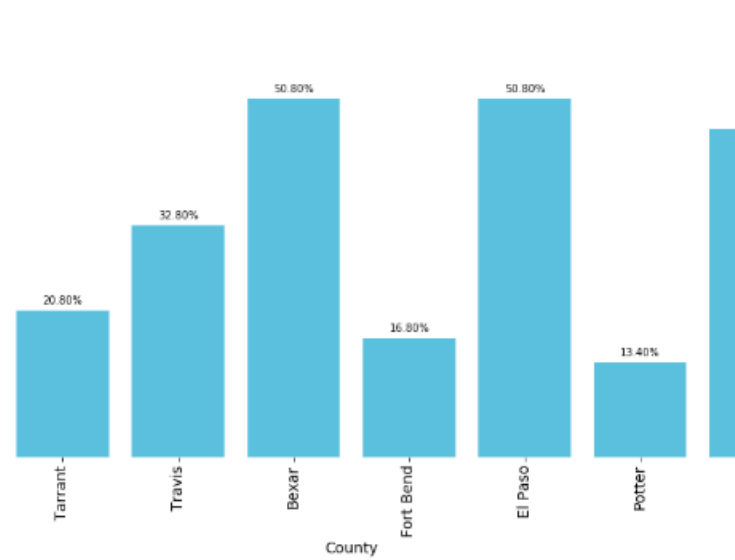
# EXPLORATORY DATA ANALYSIS
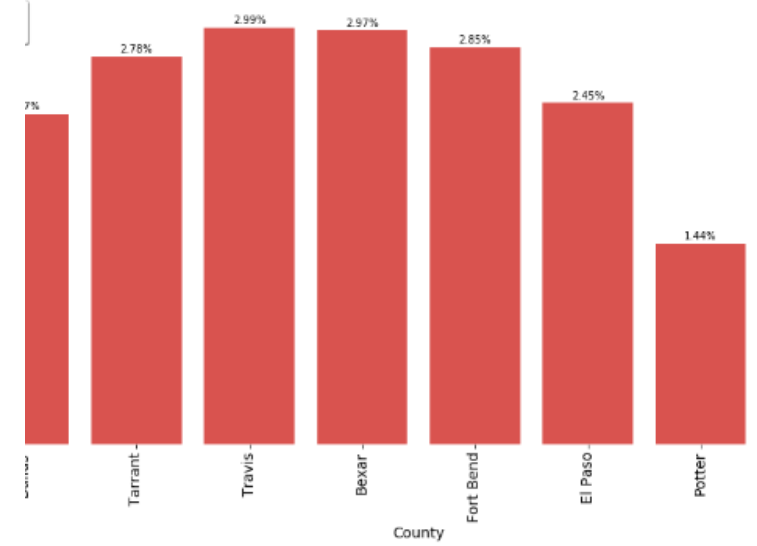
COVID-19: TEXAS RATES %
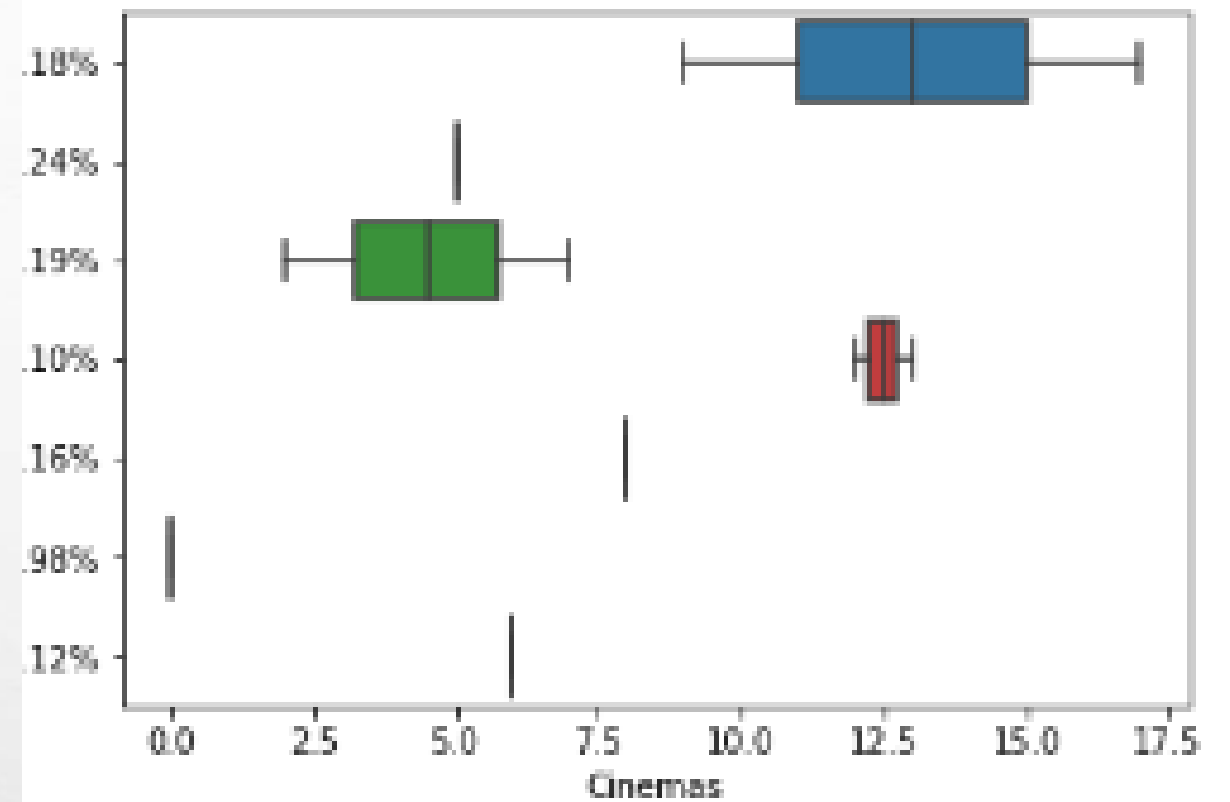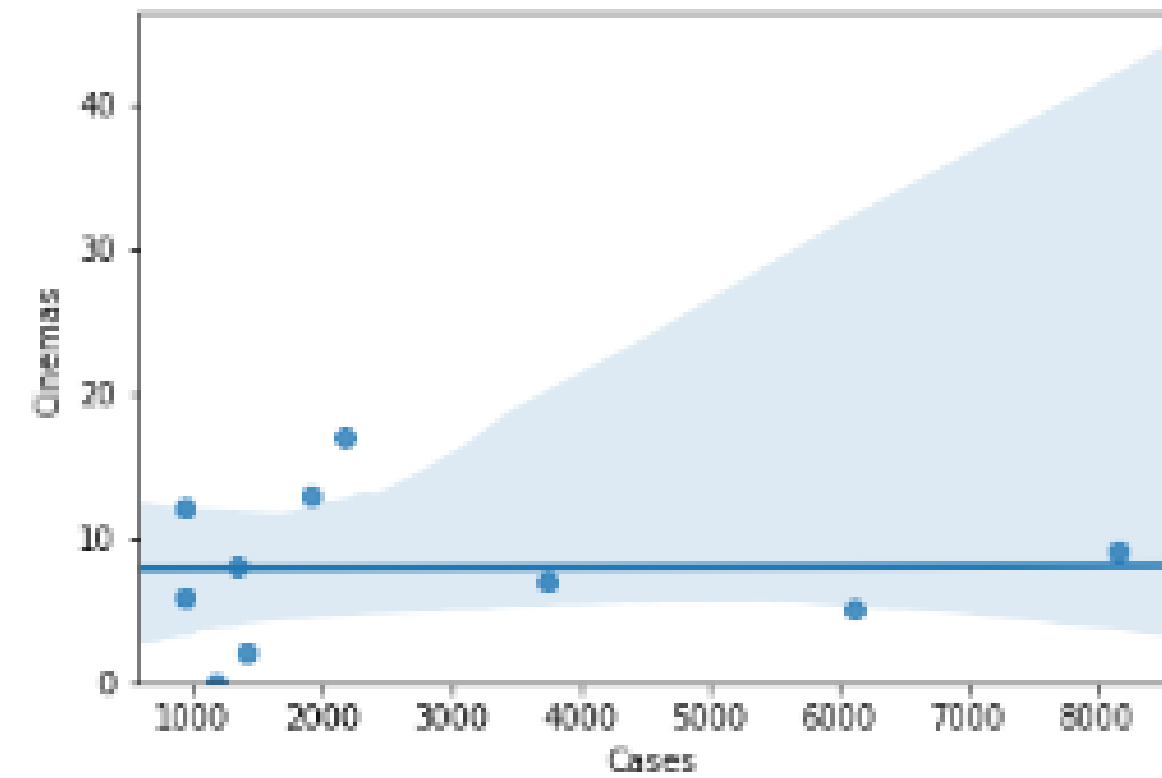
# RESULTS

- A *WEAK POSITIVE CORRELATION* OF <u>0.017</u> AND A P-VALUE OF <u>0.96</u> WAS OBTAINED.

- THIS IS <u>*ONE OF MANY*</u> CAUSES FOR WHICH VIRUSES WERE EXPANDED AND THEREFORE ITS LOW CORRELATION RESULT.

# CONLUSION

AFTER THE RESULTS, WE CONCLUDED THAT THE NUMBER OF CINEMA IN A COUNTY COULD HAVE BEEN ONE OF MANY CAUSES FOR WHICH THE VIRUS WAS RAPIDLY SPREAD BY THE STATE OF TEXAS.

BUT ALSO THERE ARE OTHER POTENTIAL CAUSES SUCH AS THE NUMBER OF PUBLIC PARKS, GYMS OR INTERNATIONAL ARRIVALS AT THE AIRPORT.