

Task 1

*) As we were asked to Generate weekly statistics (mean, median, mode) for number of new cases and deaths across a specific state. I have done with Delaware state

*) After calculating the statistics of Delaware I compared the stats with other 5 states

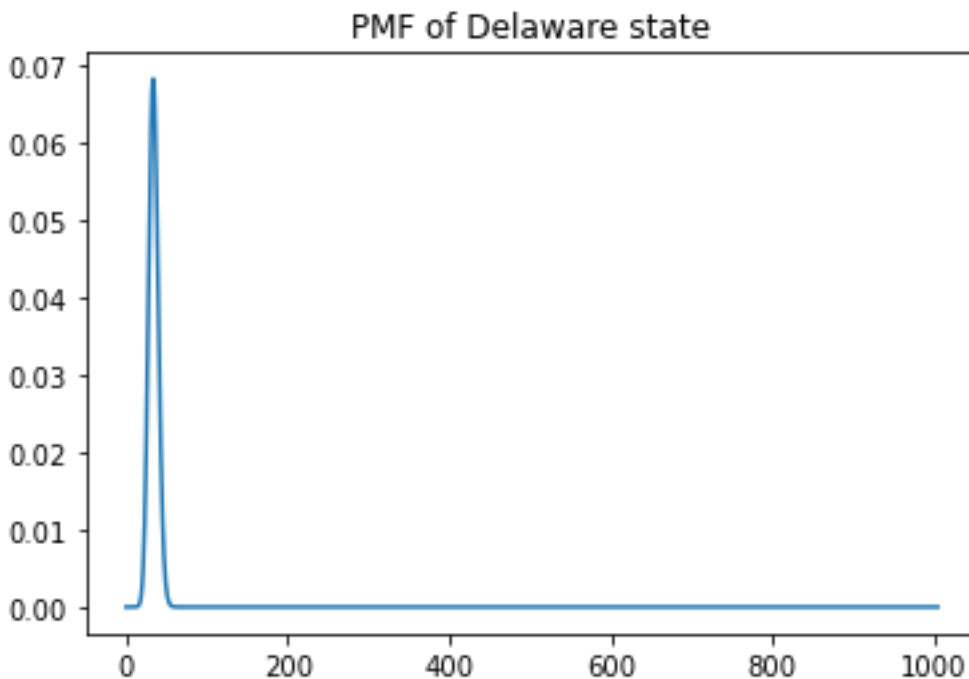
*) In Delaware state Counties with high cases and deaths have been identified

*) The statistics of Delaware have been displayed and normalized by population

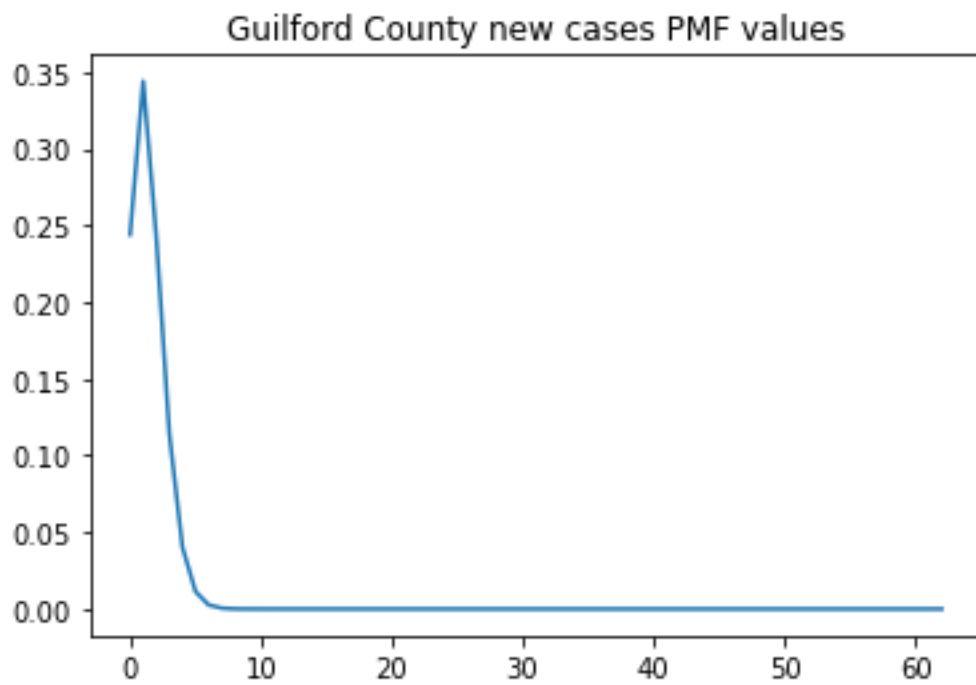
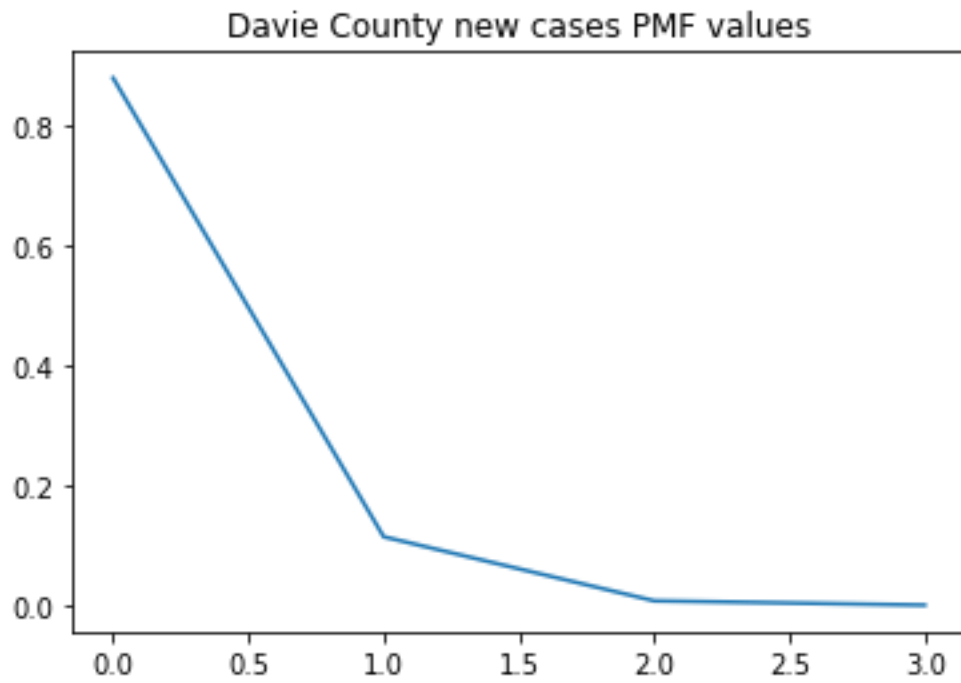
Task 2

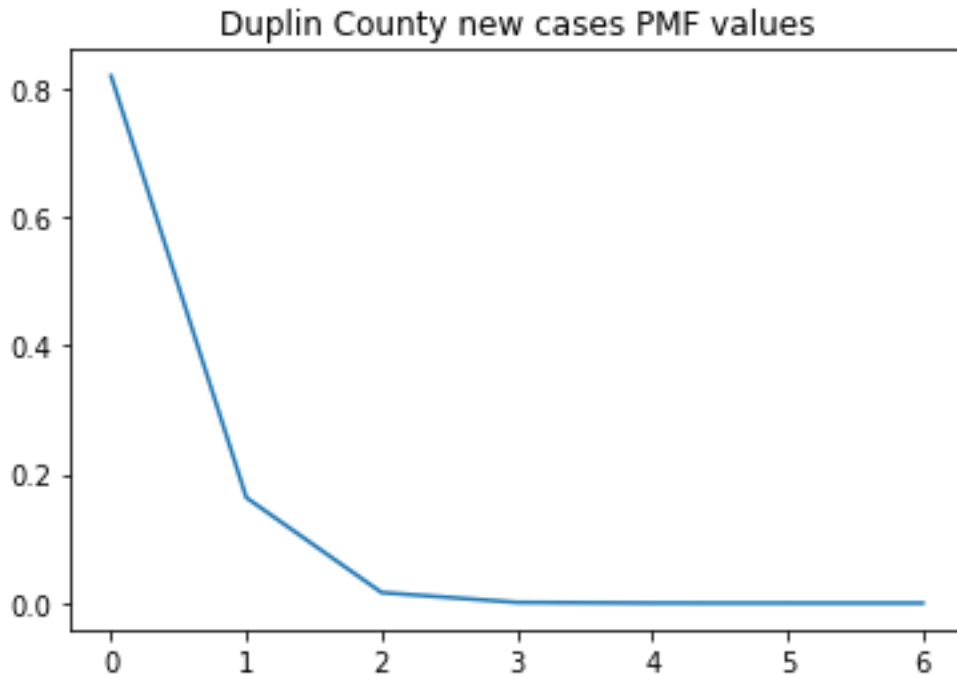
*) Fit a distribution to the number of COVID-19 **new** cases of a state of your choosing.

Graphically plot the distribution and describe the distribution statistics. If using discrete values, calculate the Probability Mass Function for the individual values or range (if using histogram) and plot that.



*) Model poisson distributions for North Carolina counties COVID-19 in cases and deaths.





*)Perform correlation between Enrichment data variables and COVID-19 cases to observe any patterns.

	current_votes	total_votes	cand_votes	won	state_total_votes	Cases	Death	population	New cases	New deaths
current_votes	1.000000	1.000000	0.445574	-0.029640	-0.159989	0.131354	0.084036	0.331209	0.010273	0.007959
total_votes	1.000000	1.000000	0.445574	-0.029640	-0.159989	0.131354	0.084036	0.331209	0.010273	0.007959
cand_votes	0.445574	0.445574	1.000000	0.460208	-0.182023	0.120712	0.090910	0.292307	0.005937	0.004281
won	-0.029640	-0.029640	0.460208	1.000000	-0.028486	0.017917	0.013002	0.043821	0.001007	0.000745
state_total_votes	-0.159989	-0.159989	-0.182023	-0.028486	1.000000	-0.184313	-0.177341	-0.412328	0.000801	0.002005
Cases	0.131354	0.131354	0.120712	0.017917	-0.184313	1.000000	0.953614	0.434983	0.046764	0.035183
Death	0.084036	0.084036	0.090910	0.013002	-0.177341	0.953614	1.000000	0.388038	0.052373	0.043109
population	0.331209	0.331209	0.292307	0.043821	-0.412328	0.434983	0.388038	1.000000	0.005917	0.002028
New cases	0.010273	0.010273	0.005937	0.001007	0.000801	0.046764	0.052373	0.005917	1.000000	0.994232
New deaths	0.007959	0.007959	0.004281	0.000745	0.002005	0.035183	0.043109	0.002028	0.994232	1.000000

Hypothesis

As The cases and Deaths increases the Total number of votes in state is Decreased The current votes Slightly decreased as the corealtion between cases and won is slightly increased