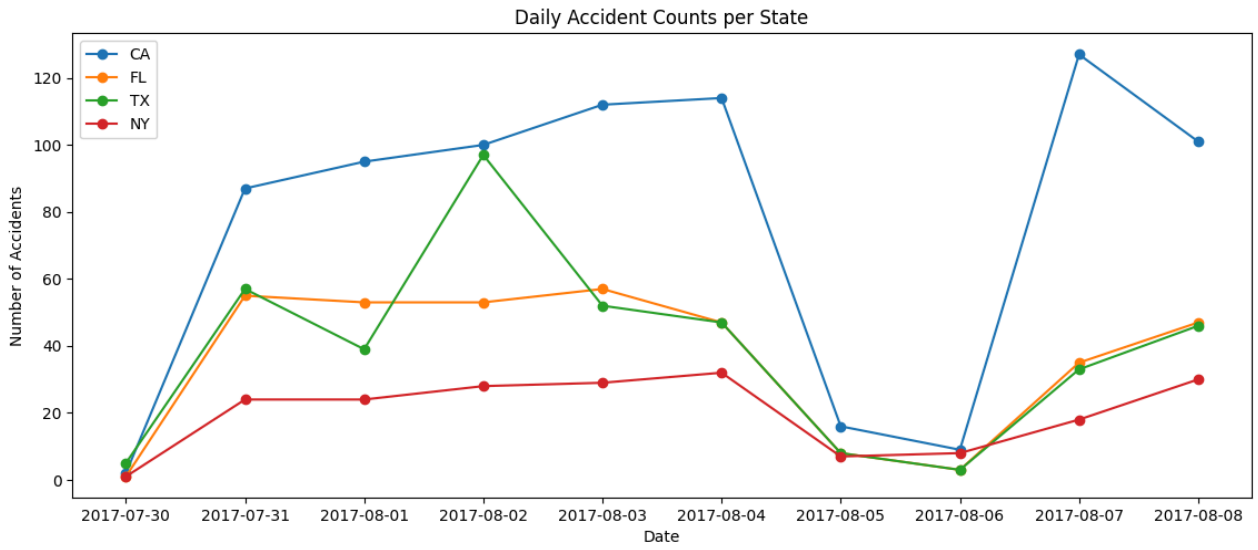
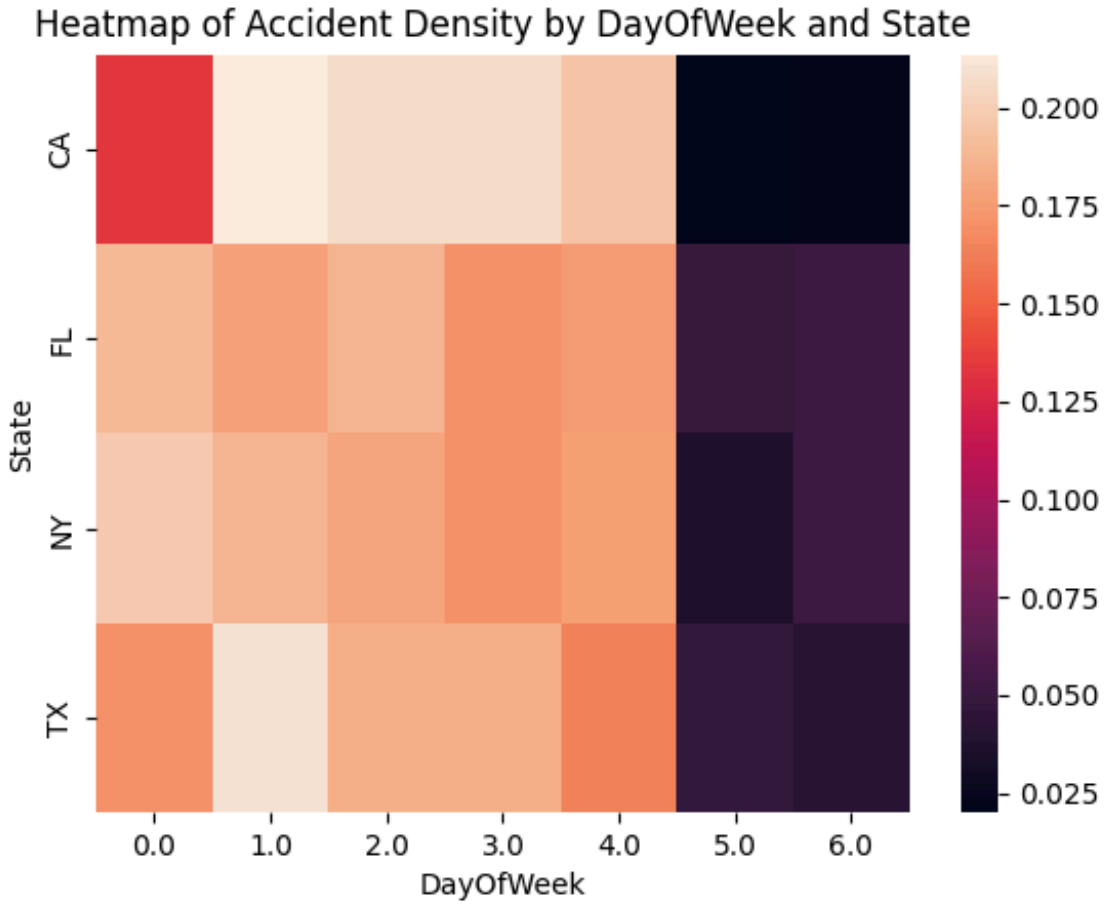
Task 1



After creating a line plot for task 1, I was able to visualize the daily accident counts per state.

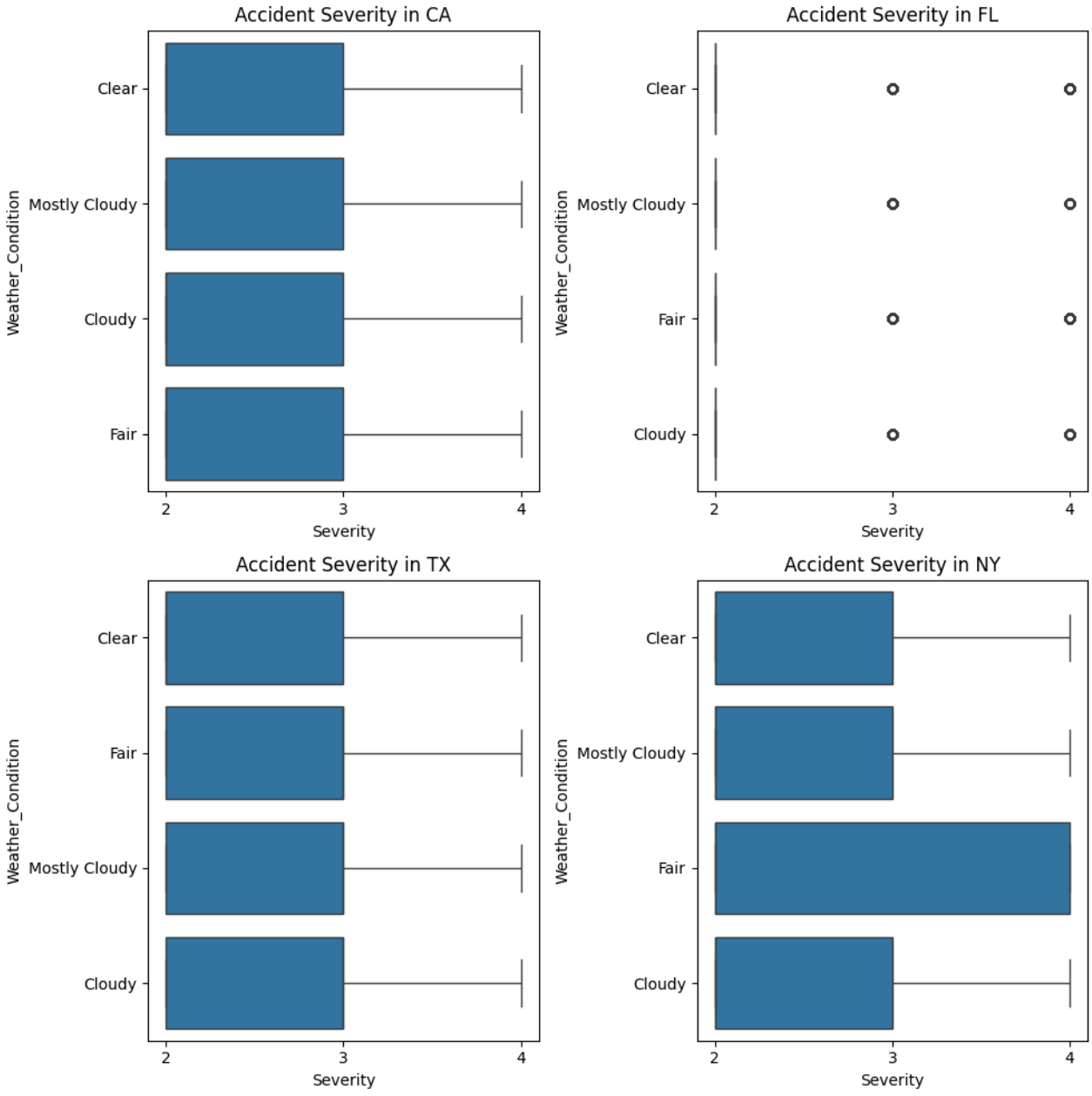
- From July 30, 2017 to August 8, 2017, we can see that the highest accident count of more than 120 was recorded on August 7.
- Something that stood out to me in this plot was on August 5 and 6, the accident count had a massive drop across all states at around 10. These were on Saturday and Sunday.
- I also noticed that after July 30, the daily accident count jumped significantly.
- Across all four states, I'd say the trend was about equal with each seeing a rise between July 30 to August 4, and then a drop on August 5 and 6, followed by an increase on the days after.

Task 2



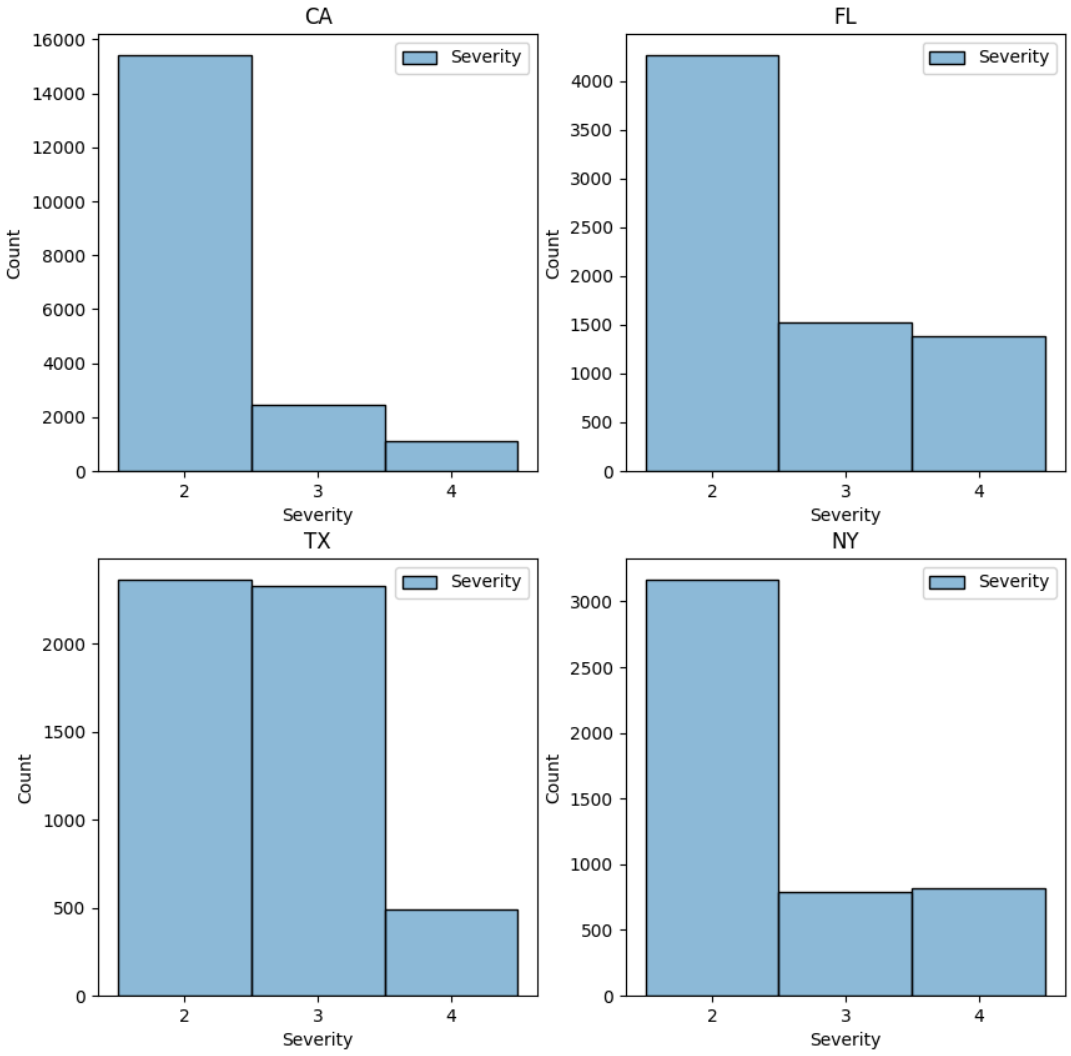
- In task 2, I noticed that CA showed the strongest weekday and weekend contrast. On Monday (0.0), you can see that the box is a hot red and on the weekends (5.0, 6.0), it gets cooler at almost a black color.
- An unusual pattern I see is also in CA where after Monday, the density is a lot less. In the other states,I can see that the density is almost consistent across the weekday.

Task 3



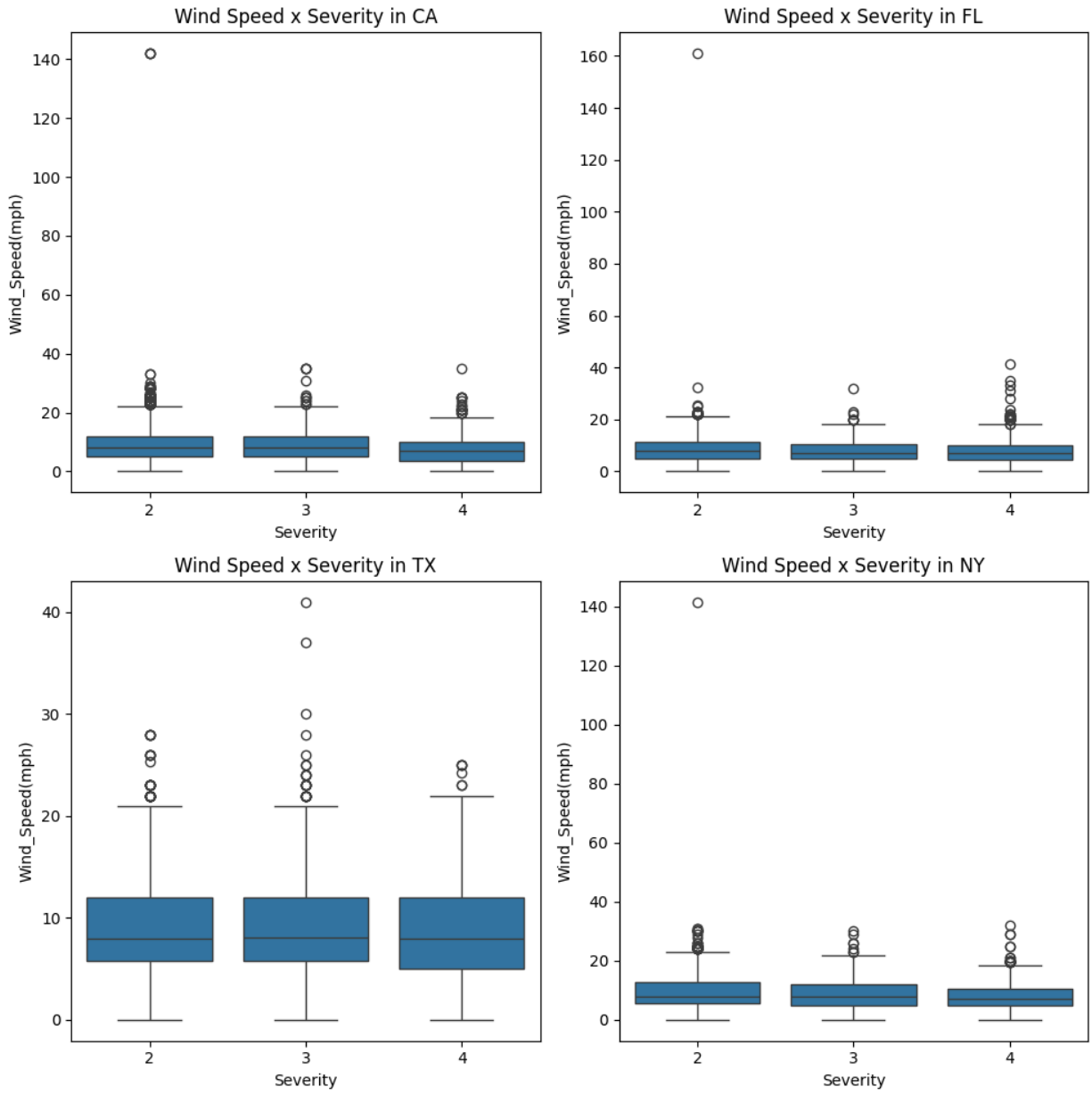
- In task 4, I noticed that in CA and TX, all weather conditions have the same severity. In FL and NY however, they are completely different. FL's severity is 2 in all conditions and NY's severity is 3 in all conditions except for Fair which is 4.
- I see that NY shows the widest spread as it's the only one that is not equal
- I thought FL's accident severity would be higher due to the weather but it makes sense because we're just comparing Clear, Mostly Cloudy, Cloudy, and Fair and not severe weather conditions like rain, storms, etc.

Task 4



- In CA, FL, and NY, there are more severity 2 accidents than 3 or 4 but in TX, severity 2 and 3 accidents are higher. CA also has a higher accident count than all the other states and TX has the fewest.
- The spike in CA between severity 2 and 4 is really significant compared to the other states. Although all of them still have a major gap in severity

Task 5



In task 5, the question I had was “Does higher wind speed lead to higher severity?” I noticed that in CA, FL, and NY, there is a massive outlier with a severity 2 happening at around 140mph. This is really interesting especially in CA where we don’t have tornadoes or hurricanes. Other than that, all accident severity happened at around 10mph.