Unravelling Seattle's Weather Patterns

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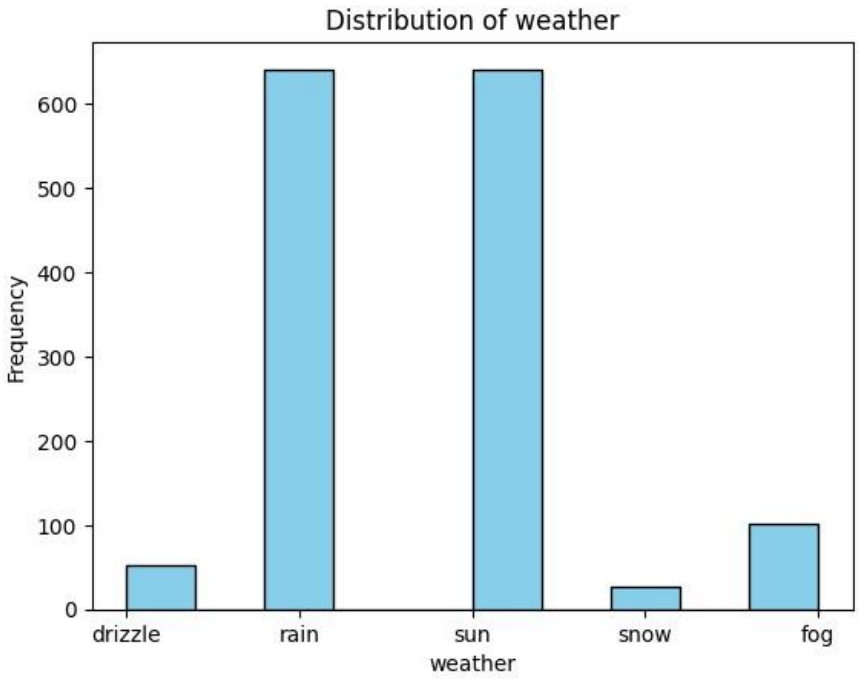
Git Id : https://github.com/Jayendra727/final-visualisation-report/upload

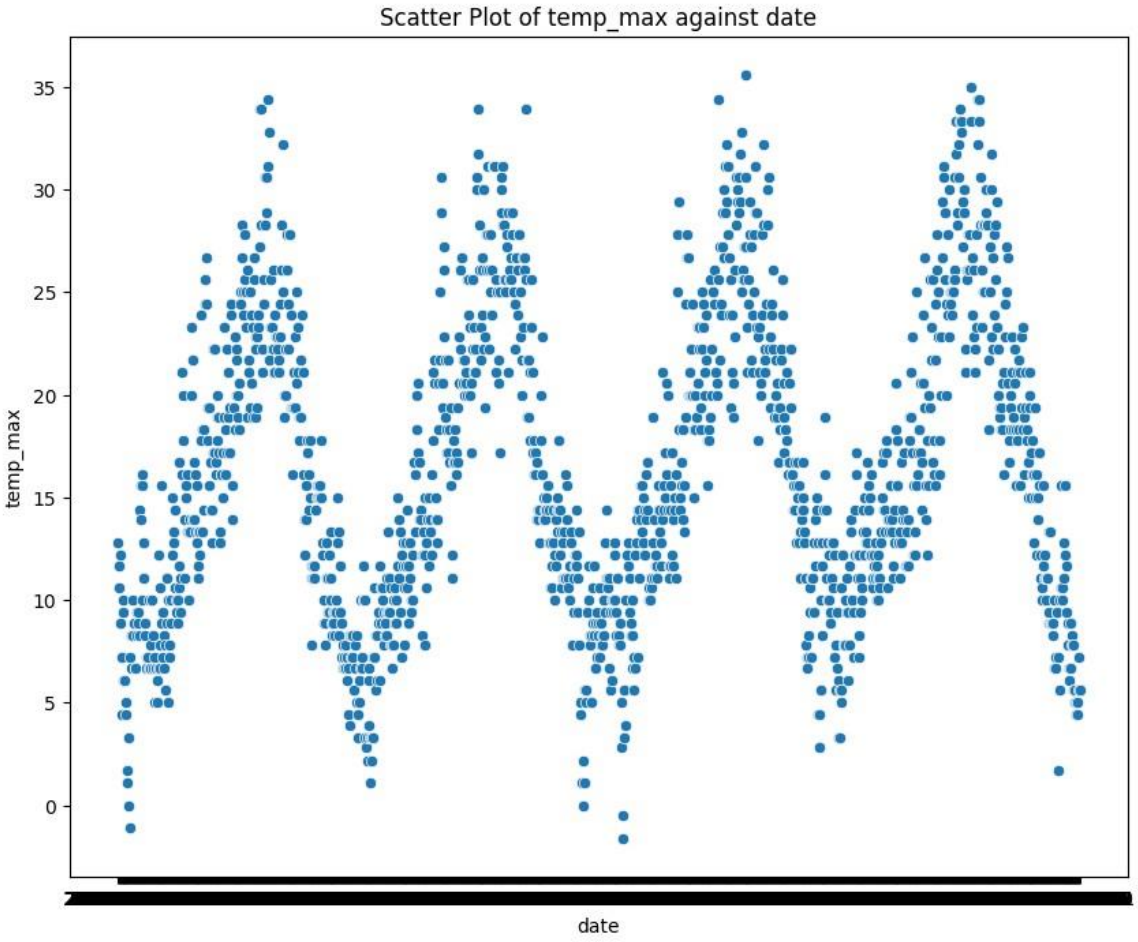
It was a crisp autumn morning when Dr. Emma Richards, a renowned meteorologist, found herself captivated by a vast dataset that promised to unravel the mysteries of Seattle's ever-changing weather patterns. The files contained a veritable tapestry of meteorological information, woven with intricate details about precipitation, temperatures, wind speeds, and the whimsical dance of atmospheric conditions.

As Dr. Richards delved into the numbers, she was immediately struck by the stark contrast between Seattle's average rainfall and its median – a telltale sign of the city's propensity for occasional downpours amidst its otherwise temperate climate. The standard deviations whispered tales of variability, with precipitation and temperatures exhibiting notable fluctuations, while wind speeds maintained a steadier rhythm.

	Mean	Median	Standard Deviation	Skewness	Kurtosis
precipitation	3.029432	0.0	6.680194	3.505644	15.522178
temp_max	16.439083	15.6	7.349758	0.280930	-0.690467
temp_min	8.234771	8.3	5.023004	-0.249459	-0.600573
wind	3.241136	3.0	1.437825	0.891668	0.803961



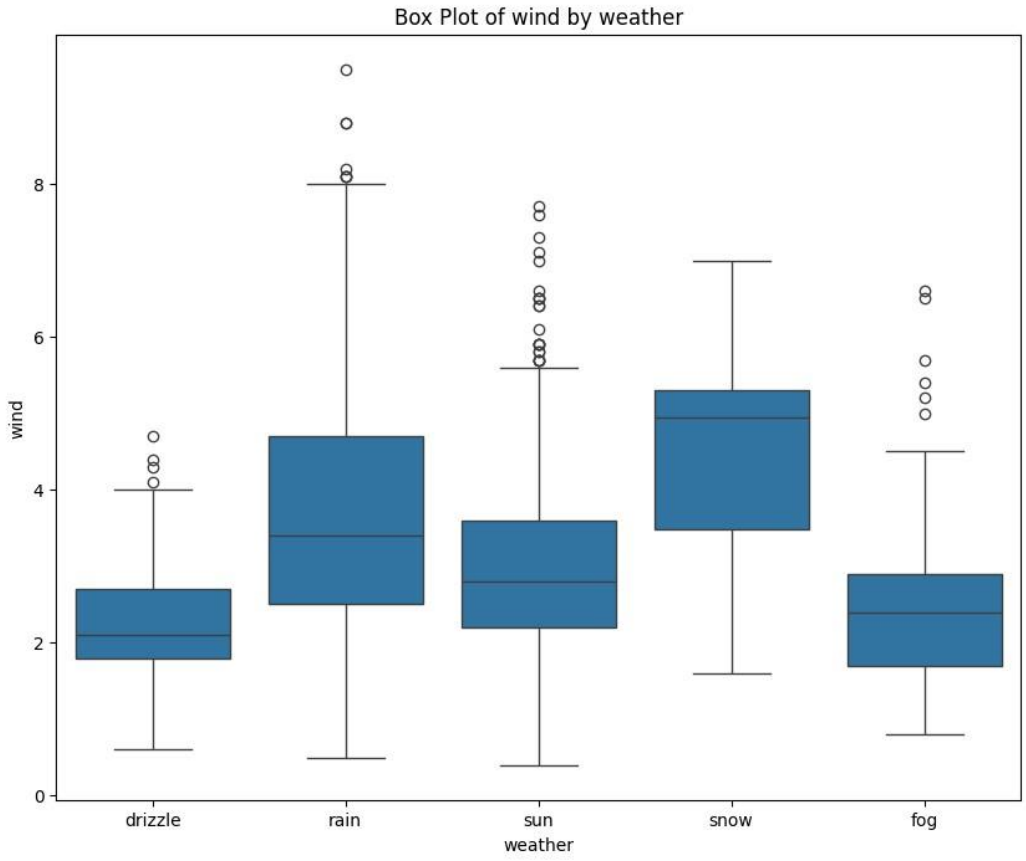
Intrigued, Dr. Richards turned her attention to the frequency of weather events, crafting a visual symphony that captured the essence of Seattle's atmospheric melodies. A bar chart unfolded before her, revealing the city's penchant for wet days, closely followed by its embrace of sunshine – a harmonious balance that seemed to defy the stereotypes of a perpetually rain-soaked metropolis.



Emboldened by her discoveries, Dr. Richards ventured deeper into the heart of the data, exploring the intricate dance between maximum temperatures and the passage of time. As she plotted these two variables against each other, a captivating pattern emerged – a sinusoidal rhythm that echoed the city's warm summers and cool winters, punctuated by occasional outliers that dared to defy the norm.

She could almost hear the collective sigh of relief from Seattleites as the summer warmth embraced the city, a respite from the cool grip of winter. Yet, the outliers stood as sentinels, reminding her that nature's whims could not be contained, and that even in the heart of summer or winter, surprises lurked around every corner.

But the true crescendo came when Dr. Richards unveiled the distribution of wind speeds across various weather conditions. With deft strokes, she crafted a box plot that whispered tales of atmospheric turmoil and tranquility – from the gentle breezes of sunny days to the howling gusts that accompanied the fog, each note a reminder of the intricate interplay between wind and weather.



She could envision the city's residents, huddled against the blustery winds on fog-laden mornings, or basking in the gentle zephyrs that graced the sunny afternoons. The whispers of the wind carried with them the promise of change, the ever-shifting moods of nature that kept Seattle's residents on their toes, always prepared for the next atmospheric symphony.

As Dr. Richards stepped back to admire her work, she realized that Seattle's whimsical weather symphony had been unveiled, note by note. The dataset had revealed a tapestry woven with the threads of precipitation, temperature, and wind, each element contributing its unique melody to the city's ever-changing atmospheric composition.

With a renewed sense of wonder, Dr. Richards knew that her exploration had only just begun. The insights gleaned from this analysis would serve as a catalyst for further discoveries, inspiring her to delve deeper into the realms of meteorology, climate patterns, and the intricate dance of nature's elements that shaped the world around us. For in Seattle's weather, she saw not just data points and statistics, but the very heartbeat of a city that embraced the ever-changing rhythms of the natural world, a place where the whimsical and the predictable coexisted in perfect harmony.