UDACITY- Explore Weather Trends

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To fetch my city Temperature data:

1)

select * from city_list where country ='India' ;

Above Query Fetched 22 records and from that selected the nearest city Bangalore

2)

select * from city_data where city ='Bangalore' ;

select * from global_data ;

3) **Calculated Moving Average for the range of 10 years (in excel using Data Analysis Tool option)**

year	Globe_Temperature	Year	Bangalore City Temperature	Globe Moving Average	City Moving Average
1750	8.72	1750		#N/A	#N/A
1751	7.98	1751		#N/A	#N/A
1752	5.78	1752		#N/A	#N/A
1753	8.39	1753		#N/A	#N/A
1754	8.47	1754		#N/A	#N/A
1755	8.36	1755		#N/A	#N/A
1756	8.85	1756		#N/A	#N/A
1757	9.02	1757		#N/A	#N/A
1758	6.74	1758		#N/A	#N/A
1759	7.99	1759		8.03	#N/A
1760	7.19	1760		7.877	#N/A

1761	8.77	1761		7.956	#N/A
1762	8.61	1762		8.239	#N/A
1763	7.5	1763		8.15	#N/A
1764	8.4	1764		8.143	#N/A
1765	8.25	1765		8.132	#N/A
1766	8.41	1766		8.088	#N/A
1767	8.22	1767		8.008	#N/A
1768	6.78	1768		8.012	#N/A
1769	7.69	1769		7.982	#N/A
1770	7.69	1770		8.032	#N/A
1771	7.85	1771		7.94	#N/A
1772	8.19	1772		7.898	#N/A
1773	8.22	1773		7.97	#N/A
1774	8.77	1774		8.007	#N/A
1775	9.18	1775		8.1	#N/A
1776	8.3	1776		8.089	#N/A
1777	8.26	1777		8.093	#N/A
1778	8.54	1778		8.269	#N/A
1779	8.98	1779		8.398	#N/A
1780	9.43	1780		8.572	#N/A
1781	8.1	1781		8.597	#N/A
1782	7.9	1782		8.568	#N/A
1783	7.68	1783		8.514	#N/A
1784	7.86	1784		8.423	#N/A
1785	7.36	1785		8.241	#N/A
1786	8.26	1786		8.237	#N/A
1787	8.03	1787		8.214	#N/A
1788	8.45	1788		8.205	#N/A
1789	8.33	1789		8.14	#N/A
1790	7.98	1790		7.995	#N/A
1791	8.23	1791		8.008	#N/A
1792	8.09	1792		8.027	#N/A
1793	8.23	1793		8.082	#N/A
1794	8.53	1794		8.149	#N/A
1795	8.35	1795		8.248	#N/A
1796	8.27	1796	24.49	8.249	#N/A
1797	8.51	1797	25.18	8.297	#N/A
1798	8.67	1798	24.65	8.319	#N/A
1799	8.51	1799	24.81	8.337	#N/A
1800	8.48	1800	24.85	8.387	#N/A
1801	8.59	1801	24.49	8.423	#N/A

1802	8.58	1802	25.44	8.472	#N/A
1803	8.5	1803	25.22	8.499	#N/A
1804	8.84	1804	25.67	8.53	#N/A
1805	8.56	1805	25.01	8.551	24.981
1806	8.43	1806	24.87	8.567	25.019
1807	8.28	1807	24.25	8.544	24.926
1808	7.63	1808		8.44	24.95666667
1809	7.08	1809		8.297	24.975
1810	6.92	1810		8.141	24.99285714
1811	6.86	1811		7.968	25.07666667
1812	7.05	1812		7.815	25.004
1813	7.74	1813	24.23	7.739	24.806
1814	7.59	1814	23.91	7.614	24.454
1815	7.24	1815	23.79	7.482	24.21
1816	6.94	1816	23.3	7.333	23.896
1817	6.98	1817	23.6	7.203	23.766
1818	7.83	1818	23.94	7.223	23.795
1819	7.37	1819	23.86	7.252	23.80428571
1820	7.62	1820	23.91	7.322	23.8175
1821	8.09	1821	24.4	7.445	23.88222222
1822	8.19	1822	24.33	7.559	23.927
1823	7.72	1823	24.62	7.557	23.966
1824	8.55	1824	25.1	7.653	24.085
1825	8.39	1825	24.69	7.768	24.175
1826	8.36	1826	24.88	7.91	24.333
1827	8.81	1827	24.67	8.093	24.44
1828	8.17	1828	24.61	8.127	24.507
1829	7.94	1829	24.46	8.184	24.567
1830	8.52	1830	24.39	8.274	24.615
1831	7.64	1831	24.43	8.229	24.618
1832	7.45	1832	24.66	8.155	24.651
1833	8.01	1833	24.46	8.184	24.635
1834	8.15	1834	24.59	8.144	24.584
1835	7.39	1835	23.89	8.044	24.504
1836	7.7	1836	24.12	7.978	24.428
1837	7.38	1837	24.13	7.835	24.374
1838	7.51	1838	24.29	7.769	24.342
1839	7.63	1839	24.24	7.738	24.32
1840	7.8	1840	24.24	7.666	24.305
1841	7.69	1841	24.05	7.671	24.267
1842	8.02	1842	24.22	7.728	24.223

1843	8.17	1843	23.99	7.744	24.176
1844	7.65	1844	24.23	7.694	24.14
1845	7.85	1845	24.46	7.74	24.197
1846	8.55	1846	24.9	7.825	24.275
1847	8.09	1847	24.35	7.896	24.297
1848	7.98	1848	24.35	7.943	24.303
1849	7.98	1849	24.32	7.978	24.311
1850	7.9	1850	24.38	7.988	24.325
1851	8.18	1851	24.45	8.037	24.365
1852	8.1	1852	24.43	8.045	24.386
1853	8.04	1853	24.67	8.032	24.454
1854	8.21	1854	24.73	8.088	24.504
1855	8.11	1855	24.75	8.114	24.533
1856	8	1856	24.21	8.059	24.464
1857	7.76	1857	23.87	8.026	24.416
1858	8.1	1858	24.59	8.038	24.44
1859	8.25	1859	24.55	8.065	24.463
1860	7.96	1860	24.41	8.071	24.466
1861	7.85	1861	24.21	8.038	24.442
1862	7.56	1862	23.59	7.984	24.358
1863	8.11	1863		7.991	24.32333333
1864	7.98	1864		7.968	24.2725
1865	8.18	1865	25.06	7.975	24.31125
1866	8.29	1866	25	8.004	24.41
1867	8.44	1867	24.96	8.072	24.54625
1868	8.25	1868	25.07	8.087	24.60625
1869	8.43	1869	24.92	8.105	24.6525
1870	8.2	1870	24.42	8.129	24.65375
1871	8.12	1871	24.47	8.156	24.68625
1872	8.19	1872	24.48	8.219	24.7975
1873	8.35	1873	24.51	8.243	24.76555556
1874	8.43	1874	24.56	8.288	24.745
1875	7.86	1875	24.64	8.256	24.703
1876	8.08	1876	24.84	8.235	24.687
1877	8.54	1877	25.23	8.245	24.714
1878	8.83	1878	25.15	8.303	24.722
1879	8.17	1879	24.39	8.277	24.669
1880	8.12	1880	24.58	8.269	24.685
1881	8.27	1881	24.76	8.284	24.714
1882	8.13	1882	24.33	8.278	24.699
1883	7.98	1883	24.25	8.241	24.673

1884	7.77	1884	24.35	8.175	24.652
1885	7.92	1885	24.62	8.181	24.65
1886	7.95	1886	24.53	8.168	24.619
1887	7.91	1887	24.31	8.105	24.527
1888	8.09	1888	24.63	8.031	24.475
1889	8.32	1889	24.73	8.046	24.509
1890	7.97	1890	24.46	8.031	24.497
1891	8.02	1891	24.95	8.006	24.516
1892	8.07	1892	24.59	8	24.542
1893	8.06	1893	24.38	8.008	24.555
1894	8.16	1894	24.75	8.047	24.595
1895	8.15	1895	24.78	8.07	24.611
1896	8.21	1896	25.12	8.096	24.67
1897	8.29	1897	25.3	8.134	24.769
1898	8.18	1898	24.87	8.143	24.793
1899	8.4	1899	24.74	8.151	24.794
1900	8.5	1900	25.44	8.204	24.892
1901	8.54	1901	25.09	8.256	24.906
1902	8.3	1902	25.06	8.279	24.953
1903	8.22	1903	24.82	8.295	24.997
1904	8.09	1904	24.53	8.288	24.975
1905	8.23	1905	24.92	8.296	24.989
1906	8.38	1906	25.09	8.313	24.986
1907	7.95	1907	24.74	8.279	24.93
1908	8.19	1908	24.66	8.28	24.909
1909	8.18	1909	24.61	8.258	24.896
1910	8.22	1910	24.42	8.23	24.794
1911	8.18	1911	24.76	8.194	24.761
1912	8.17	1912	25	8.181	24.755
1913	8.3	1913	25	8.189	24.773
1914	8.59	1914	25.02	8.239	24.822
1915	8.59	1915	25.22	8.275	24.852
1916	8.23	1916	24.75	8.26	24.818
1917	8.02	1917	24.46	8.267	24.79
1918	8.13	1918	24.74	8.261	24.798
1919	8.38	1919	25.06	8.281	24.843
1920	8.36	1920	24.99	8.295	24.9
1921	8.57	1921	24.88	8.334	24.912
1922	8.41	1922	24.74	8.358	24.886
1923	8.42	1923	24.84	8.37	24.87
1924	8.51	1924	24.89	8.362	24.857

1925	8.53	1925	24.69	8.356	24.804
1926	8.73	1926	25.14	8.406	24.843
1927	8.52	1927	25.06	8.456	24.903
1928	8.63	1928	25.06	8.506	24.935
1929	8.24	1929	24.87	8.492	24.916
1930	8.63	1930	24.86	8.519	24.903
1931	8.72	1931	25.24	8.534	24.939
1932	8.71	1932	24.68	8.564	24.933
1933	8.34	1933	24.61	8.556	24.91
1934	8.63	1934	24.81	8.568	24.902
1935	8.52	1935	24.93	8.567	24.926
1936	8.55	1936	24.99	8.549	24.911
1937	8.7	1937	24.96	8.567	24.901
1938	8.86	1938	24.91	8.59	24.886
1939	8.76	1939	24.84	8.642	24.883
1940	8.76	1940	24.92	8.655	24.889
1941	8.77	1941	25.55	8.66	24.92
1942	8.73	1942	25.23	8.662	24.975
1943	8.76	1943	24.69	8.704	24.983
1944	8.85	1944	24.92	8.726	24.994
1945	8.58	1945	25.05	8.732	25.006
1946	8.68	1946	24.97	8.745	25.004
1947	8.8	1947	25.02	8.755	25.01
1948	8.75	1948	25.21	8.744	25.04
1949	8.59	1949	24.92	8.727	25.048
1950	8.37	1950	24.85	8.688	25.041
1951	8.63	1951	25.03	8.674	24.989
1952	8.64	1952	25.12	8.665	24.978
1953	8.87	1953	25.18	8.676	25.027
1954	8.56	1954	24.92	8.647	25.027
1955	8.63	1955	24.78	8.652	25
1956	8.28	1956	24.73	8.612	24.976
1957	8.73	1957	25.11	8.605	24.985
1958	8.77	1958	25.29	8.607	24.993
1959	8.73	1959	25.24	8.621	25.025
1960	8.58	1960	25.07	8.642	25.047
1961	8.8	1961	24.97	8.659	25.041
1962	8.75	1962	24.9	8.67	25.019
1963	8.86	1963	25.04	8.669	25.005
1964	8.41	1964	25.09	8.654	25.022
1965	8.53	1965	25.04	8.644	25.048

1966	8.6	1966	25.32	8.676	25.107
1967	8.7	1967	24.87	8.673	25.083
1968	8.52	1968	25	8.648	25.054
1969	8.6	1969	25.36	8.635	25.066
1970	8.7	1970	24.95	8.647	25.054
1971	8.6	1971	24.74	8.627	25.031
1972	8.5	1972	25.22	8.602	25.063
1973	8.95	1973	25.4	8.611	25.099
1974	8.47	1974	24.94	8.617	25.084
1975	8.74	1975	24.86	8.638	25.066
1976	8.35	1976	25.13	8.613	25.047
1977	8.85	1977	25.2	8.628	25.08
1978	8.69	1978	25.07	8.645	25.087
1979	8.73	1979	25.44	8.658	25.095
1980	8.98	1980	25.45	8.686	25.145
1981	9.17	1981	25.17	8.743	25.188
1982	8.64	1982	25.42	8.757	25.208
1983	9.03	1983	25.59	8.765	25.227
1984	8.69	1984	25.08	8.787	25.241
1985	8.66	1985	25.31	8.779	25.286
1986	8.83	1986	25.51	8.827	25.324
1987	8.99	1987	25.81	8.841	25.385
1988	9.2	1988	25.5	8.892	25.428
1989	8.92	1989	25.2	8.911	25.404
1990	9.23	1990	25.25	8.936	25.384
1991	9.18	1991	25.49	8.937	25.416
1992	8.84	1992	25.16	8.957	25.39
1993	8.87	1993	25.22	8.941	25.353
1994	9.04	1994	25.22	8.976	25.367
1995	9.35	1995	25.44	9.045	25.38
1996	9.04	1996	25.41	9.066	25.37
1997	9.2	1997	25.68	9.087	25.357
1998	9.52	1998	26.01	9.119	25.408
1999	9.29	1999	25.29	9.156	25.417
2000	9.2	2000	25.34	9.153	25.426
2001	9.41	2001	25.53	9.176	25.43
2002	9.57	2002	25.76	9.249	25.49
2003	9.53	2003	25.92	9.315	25.56
2004	9.32	2004	25.25	9.343	25.563
2005	9.7	2005	25.48	9.378	25.567
2006	9.53	2006	25.42	9.427	25.568

2007	9.73	2007	25.46	9.48	25.546
2008	9.43	2008	25.35	9.471	25.48
2009	9.51	2009	25.73	9.493	25.524
2010	9.7	2010	25.71	9.543	25.561
2011	9.52	2011	25.36	9.554	25.544
2012	9.51	2012	26.04	9.548	25.572
2013	9.61	2013	26.61	9.556	25.641
2014	9.57			9.581	25.68444444
2015	9.83			9.594	25.71
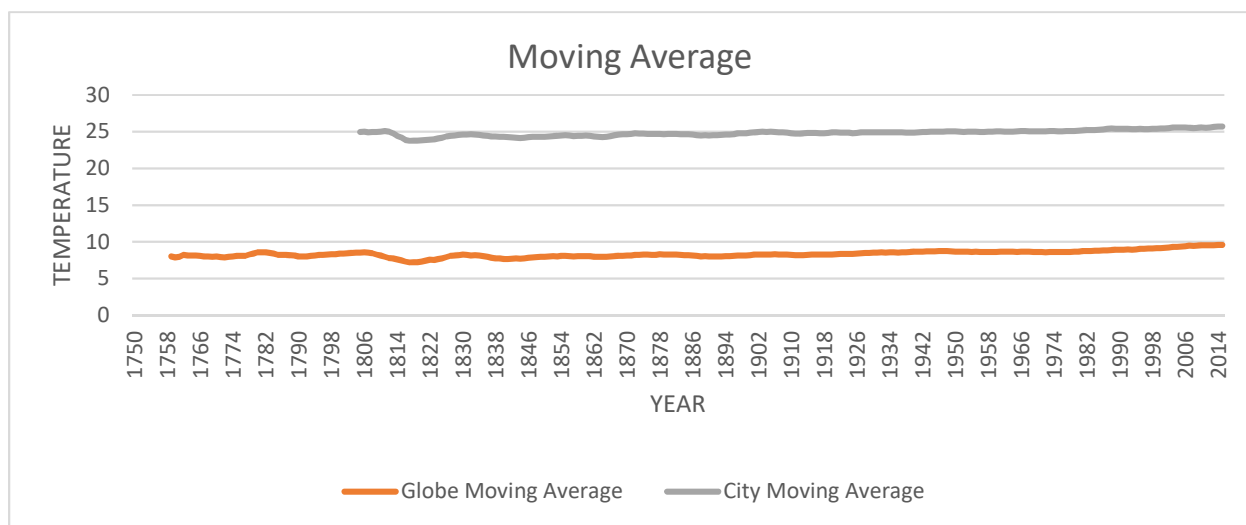
Observation :

1) My city Temperature (Bangalore,India) is higher than the global temperature by around 15 Degrees.
2) City Temperature as well as the global temperature has been increasing (by very small value) as the years progresses. Inference is that the world is getting hotter.
3) Lowest Global moving average temperature (span of 10 years) as well as the Bangalore City moving average temperature was in the year 1817. Below we have other details –

    Lowest Global moving average Temperature – 7.203
    Lowest Bangalore moving average temperature – 23.76
    Highest Global moving average Temperature – 9.594 (Year 2015)
    Highest Bangalore moving average temperature – 25.71 (Year 2015)

4) During the period 1806 to 1817 , there was a dip in global temperature.
5) In the year 1995, Moving average global temperature had reached 9 Degrees.
   In the year 1945, Bangalore's moving average temperature had reached 25 Degrees.