LAB2 Pyspark

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Q1：
year, station with the max, maxValue ORDER BY maxValue DESC
year, station with the min, minValue ORDER BY minValue DESC

year	station	max_temp
1975	86200	36.1
1992	63600	35.4
1994	117160	34.7
2010	75250	34.4
2014	96560	34.4
1989	63050	33.9
1982	94050	33.8
1968	137100	33.7
1966	151640	33.5
2002	78290	33.3
2002	78290	33.3
1983	98210	33.3
1986	76470	33.2
1970	103080	33.2
2000	62400	33.0
1956	145340	33.0
1959	65160	32.8
1991	137040	32.7
2006	75240	32.7
1988	102540	32.6

year	station	min_temp
1990	147270	-35.0
1990	166870	-35.0
1952	192830	-35.5
1974	179950	-35.6
1974	166870	-35.6
1954	113410	-36.0
1992	179960	-36.1
1975	157860	-37.0
1972	167860	-37.5
1995	182910	-37.6
2000	169860	-37.6
1957	159970	-37.8
1989	166870	-38.2
1983	191900	-38.2
1953	183760	-38.4
2009	179960	-38.5
1993	191900	-39.0
1984	191900	-39.2
1984	123480	-39.2
1973	166870	-39.3

Q2:
year, month, value ORDER BY value DESC

year	month	count
1972	03	381
1972	11	380
1972	04	380
1972	10	380
1972	12	380
1972	01	379
1971	11	379
1972	05	379
1973	04	379
1972	02	379
1971	12	379
1973	01	379
1973	05	378
1971	10	378
1973	02	378
1973	06	377
1973	03	377
1973	09	376
1972	08	376
1972	06	375

Q3
year, month, station, avgMonthlyTemperature ORDER BY avgMonthlyTemperature DESC

year	month	station	avg_mon_temp
2014	07	96000	26.3
1994	07	65450	23.65483870967742
1994	07	95160	23.505376344086027
1994	07	75120	23.26881720430107
1994	07	105260	23.143820224719107
1994	07	85280	23.108602150537635
1983	08	54550	23.0
1975	08	54550	22.9625
1994	07	96550	22.957894736842114
1994	07	96000	22.931182795698923
1994	07	106070	22.822580645161295
1972	07	173960	22.776666666666667
1994	07	54300	22.76021505376344
1994	07	85210	22.755913978494615
2006	07	65450	22.74086021505376
2006	07	75120	22.73010752688173
1994	07	103080	22.708602150537626
1994	07	92100	22.698924731182792
1994	07	94180	22.68172043010753
1994	07	83230	22.577419354838707

Q4：
station, maxTemp, maxDailyPrecipitation ORDER BY station DESC

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+-------+---------+-------+--------+
|station|max_daily|station|max_temp|
+-------+---------+-------+--------+
+-------+---------+-------+--------+
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Q5：
year, month, avgMonthlyPrecipitation ORDER BY year DESC, month DESC

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+----+-----+------------------+
|year|month|      avg(sum_pre)|
+----+-----+------------------+
|2016|   07|               0.0|
|2016|   06|           47.6625|
|2016|   05|29.250000000000004|
|2016|   04|26.900000000000002|
|2016|   03|19.962500000000002|
|2016|   02|           21.5625|
|2016|   01|22.325000000000003|
|2015|   12|            28.925|
|2015|   11|63.887500000000024|
|2015|   10|            2.2625|
|2015|   09|101.29999999999998|
|2015|   08|           26.9875|
|2015|   07|119.09999999999997|
|2015|   06| 78.66250000000001|
|2015|   05| 93.22499999999998|
|2015|   04|15.337499999999999|
|2015|   03|42.612500000000004|
|2015|   02|            24.825|
|2015|   01| 59.1125000000000004|
|2014|   12| 35.46250000000001|
+----+-----+------------------+
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