

## Maven Analytics HCAHPS Dataset Analysis using SQL

```
1 Create View dbo.Scores
2 as
3 Select Release_Period as 'Period',
4         Sum(Top_box_Percentage) as 'TotalTopScore',
5         Sum(Middle_box_Percentage) as 'TotalMiddleScore',
6         Sum(Bottom_box_Percentage) as 'TotalBottomScore'
7 from national_results
8 group by Release_Period
9
10 Select * from Scores
11 order by TotalTopScore desc
```

	Period	TotalTopScore	TotalMiddleScore	TotalBottomScore
1	07_2020	723	196	81
2	07_2021	723	198	79
3	07_2018	720	200	80
4	07_2019	720	198	82
5	07_2017	717	203	80
6	07_2016	713	204	83
7	07_2015	710	206	84
8	07_2022	707	201	92
9	07_2023	694	210	96

```
1 Create View dbo.TopMeasures
2 as
3 Select Measure, Sum(Top_box_Percentage) as 'National Top Score'
4 from national_results
5 inner join measures
6 on national_results.Measure_ID = measures.Measure_ID
7 group by Measure
8
9 Select Top 5 * from TopMeasures
10 order by [National Top Score] desc
```

	Measure	National Top Score
1	Discharge Information	780
2	Communication with Doctors	732
3	Communication with Nurses	721
4	Cleanliness of Hospital Environment	669
5	Overall Hospital Rating	650

```

Create View dbo.LeastSatisfiedStates
as
Select State_Name,Sum(Bottom_box_Percentage) as 'Least Satisfied State'
from state_results
inner join states
on state_results.State = states.State
group by State_Name

Select Top(5) * from dbo.LeastSatisfiedStates
order by [Least Satisfied State] desc

```

	State_Name	Least Satisfied State
1	District of Columbia	1310
2	New Jersey	1036
3	Nevada	1023
4	Florida	1011
5	New York	995

```

Create View dbo.SatisfiedStates
as
Select State_Name,Sum(Top_box_Percentage) as 'Most Satisfied State'
from state_results
inner join states
on state_results.State = states.State
group by State_Name

Select Top(5) * from dbo.SatisfiedStates
order by [Most Satisfied State] desc

```

	State_Name	Most Satisfied State
1	South Dakota	6913
2	Nebraska	6905
3	Louisiana	6846
4	Kansas	6786
5	Minnesota	6786

```

Select Region, AVG(Top_box_Percentage) as AvgTop, AVG(Middle_box_Percentage) as AvgMiddle,
        Avg(Bottom_box_Percentage) as AvgBottom
from state_results
inner join states
on state_results.State = states.State
group by Region

```

	Region	AvgTop	AvgMiddle	AvgBottom
1	East North Central	72	20	7
2	East South Central	72	19	8
3	Mid-Atlantic	67	22	10
4	Mountain	71	20	8
5	New England	71	20	8
6	Pacific	69	21	8
7	South Atlantic	68	21	10
8	West North Central	74	18	6
9	West South Central	73	18	7

```

Alter Table responses
Alter Column Response_Rate float

Select Release_Period, round(Sum(Response_Rate) / Count(Response_Rate),2) as ResponseRate
from responses
group by Release_Period
order by Release_Period

```

	Release_Period	ResponseRate
1	07_2015	30.84
2	07_2016	29.47
3	07_2017	28.39
4	07_2018	27
5	07_2019	25.65
6	07_2020	25.45
7	07_2021	24.99
8	07_2022	23.46
9	07_2023	22.36

```

Select Top(5) State_Name, round(Sum(Response_Rate) / Count(Response_Rate),2) as ResponseRate
from responses
inner join states
on responses.State = states.State
group by State_Name
order by ResponseRate desc

```

	State_Name	ResponseRate
1	Nebraska	36.28
2	Wisconsin	35.06
3	Minnesota	34.43
4	Iowa	33.62
5	North Dakota	33.34

