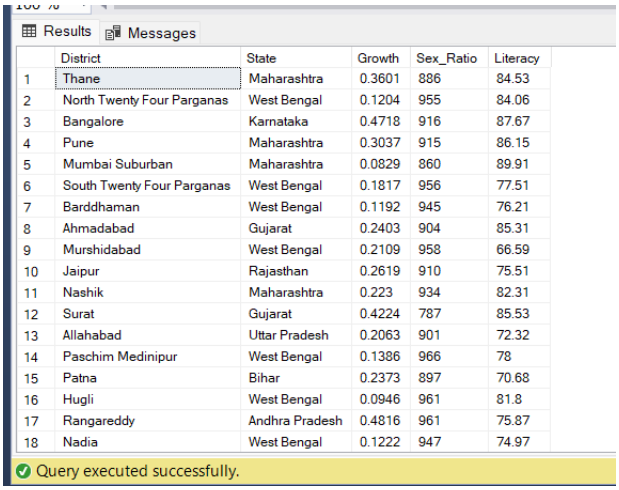
The Indian CENSUS SQL PROJECT

```sql
select * from PROJECT.dbo.Data1;
```

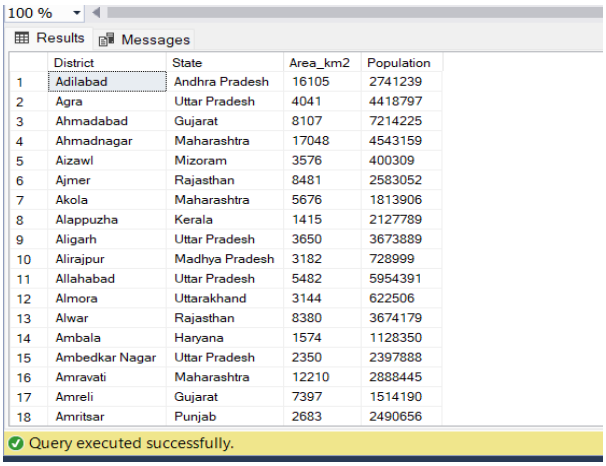


Results | Messages

	District	State	Growth	Sex_Ratio	Literacy
1	Thane	Maharashtra	0.3601	886	84.53
2	North Twenty Four Parganas	West Bengal	0.1204	955	84.06
3	Bangalore	Karnataka	0.4718	916	87.67
4	Pune	Maharashtra	0.3037	915	86.15
5	Mumbai Suburban	Maharashtra	0.0829	860	89.91
6	South Twenty Four Parganas	West Bengal	0.1817	956	77.51
7	Barddhaman	West Bengal	0.1192	945	76.21
8	Ahmadabad	Gujarat	0.2403	904	85.31
9	Murshidabad	West Bengal	0.2109	958	66.59
10	Jaipur	Rajasthan	0.2619	910	75.51
11	Nashik	Maharashtra	0.223	934	82.31
12	Surat	Gujarat	0.4224	787	85.53
13	Allahabad	Uttar Pradesh	0.2063	901	72.32
14	Paschim Medinipur	West Bengal	0.1386	966	78
15	Patna	Bihar	0.2373	897	70.68
16	Hugli	West Bengal	0.0946	961	81.8
17	Rangareddy	Andhra Pradesh	0.4816	961	75.87
18	Nadia	West Bengal	0.1222	947	74.97

Query executed successfully.

```sql
select * from PROJECT.dbo.Data2;
```



100 %

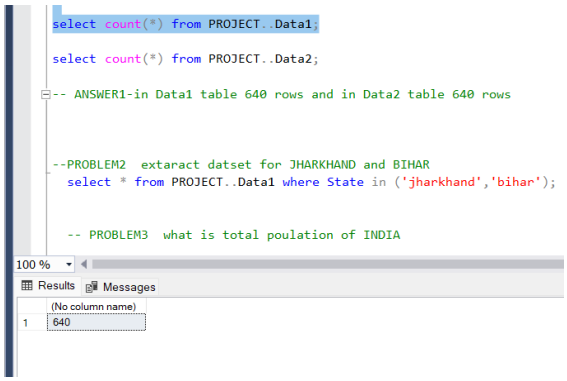
Results | Messages

	District	State	Area_km2	Population
1	Adilabad	Andhra Pradesh	16105	2741239
2	Agra	Uttar Pradesh	4041	4418797
3	Ahmadabad	Gujarat	8107	7214225
4	Ahmadnagar	Maharashtra	17048	4543159
5	Aizawl	Mizoram	3576	400309
6	Ajmer	Rajasthan	8481	2583052
7	Akola	Maharashtra	5676	1813906
8	Alappuzha	Kerala	1415	2127789
9	Aligarh	Uttar Pradesh	3650	3673889
10	Alirajpur	Madhya Pradesh	3182	728999
11	Allahabad	Uttar Pradesh	5482	5954391
12	Almora	Uttarakhand	3144	622506
13	Alwar	Rajasthan	8380	3674179
14	Ambala	Haryana	1574	1128350
15	Ambedkar Nagar	Uttar Pradesh	2350	2397888
16	Amravati	Maharashtra	12210	2888445
17	Amreli	Gujarat	7397	1514190
18	Amritsar	Punjab	2683	2490656

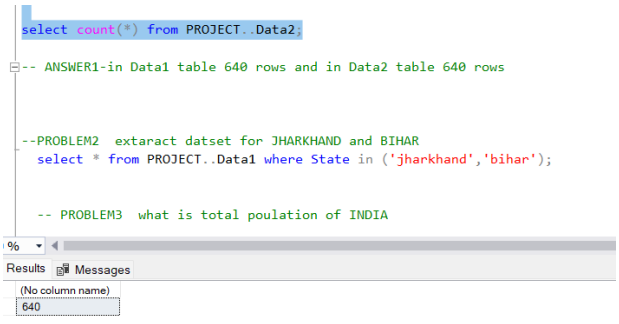
Query executed successfully.

- **PROBLEM-1- number of rows into our datasets**

```
select count(*) from PROJECT..Data1;
```



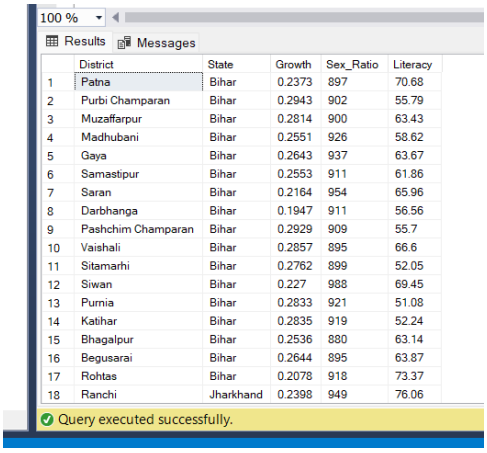

```
select count(*) from PROJECT..Data2;
```



- ANSWER1-in Data1 table 640 rows and in Data2 table 640 rows

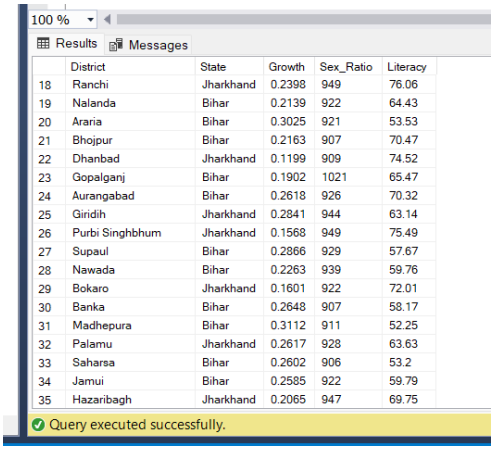
- **PROBLEM-2- Extract datset for JHARKHAND and BIHAR**

```
select * from PROJECT..Data1 where State in ('jharkhand','bihar');
```



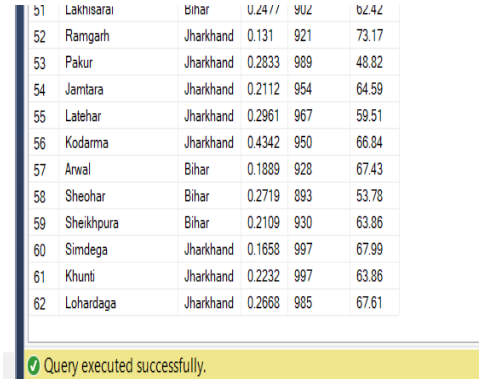
	District	State	Growth	Sex_Ratio	Literacy
1	Patna	Bihar	0.2373	897	70.68
2	Purbi Champaran	Bihar	0.2943	902	55.79
3	Muzaffarpur	Bihar	0.2814	900	63.43
4	Madhubani	Bihar	0.2551	926	58.62
5	Gaya	Bihar	0.2643	937	63.67
6	Samastipur	Bihar	0.2553	911	61.86
7	Saran	Bihar	0.2164	954	65.96
8	Darbhanga	Bihar	0.1947	911	56.56
9	Pashchim Champaran	Bihar	0.2929	909	55.7
10	Vaishali	Bihar	0.2857	895	66.6
11	Sitamarhi	Bihar	0.2762	899	52.05
12	Siwan	Bihar	0.227	988	69.45
13	Purnia	Bihar	0.2833	921	51.08
14	Katihar	Bihar	0.2835	919	52.24
15	Bhagalpur	Bihar	0.2536	880	63.14
16	Begusarai	Bihar	0.2644	895	63.87
17	Rohtas	Bihar	0.2078	918	73.37
18	Ranchi	Jharkhand	0.2398	949	76.06

Query executed successfully.



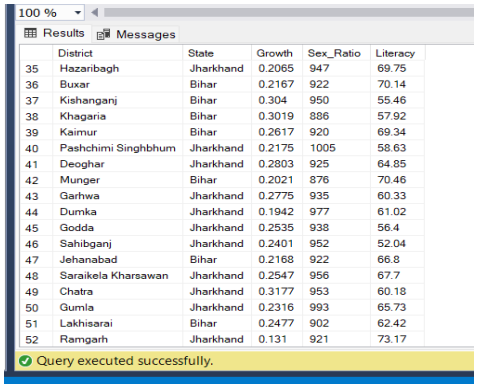
	District	State	Growth	Sex_Ratio	Literacy
18	Ranchi	Jharkhand	0.2398	949	76.06
19	Nalanda	Bihar	0.2139	922	64.43
20	Araria	Bihar	0.3025	921	53.53
21	Bhojpur	Bihar	0.2163	907	70.47
22	Dhanbad	Jharkhand	0.1199	909	74.52
23	Gopalganj	Bihar	0.1902	1021	65.47
24	Aurangabad	Bihar	0.2618	926	70.32
25	Giridih	Jharkhand	0.2841	944	63.14
26	Purbi Singhbhum	Jharkhand	0.1568	949	75.49
27	Supaul	Bihar	0.2866	929	57.67
28	Nawada	Bihar	0.2263	939	59.76
29	Bokaro	Jharkhand	0.1601	922	72.01
30	Banka	Bihar	0.2648	907	58.17
31	Madhepura	Bihar	0.3112	911	52.25
32	Palamu	Jharkhand	0.2617	928	63.63
33	Saharsa	Bihar	0.2602	906	53.2
34	Jamui	Bihar	0.2585	922	59.79
35	Hazaribagh	Jharkhand	0.2065	947	69.75

Query executed successfully.



51	Lakhisarai	Bihar	0.2477	902	62.42
52	Ramgarh	Jharkhand	0.131	921	73.17
53	Pakur	Jharkhand	0.2833	989	48.82
54	Jamtara	Jharkhand	0.2112	954	64.59
55	Latehar	Jharkhand	0.2961	967	59.51
56	Kodarma	Jharkhand	0.4342	950	66.84
57	Arwal	Bihar	0.1889	928	67.43
58	Sheohar	Bihar	0.2719	893	53.78
59	Sheikhpura	Bihar	0.2109	930	63.86
60	Simdega	Jharkhand	0.1658	997	67.99
61	Khunti	Jharkhand	0.2232	997	63.86
62	Lohardaga	Jharkhand	0.2668	985	67.61

Query executed successfully.



	District	State	Growth	Sex_Ratio	Literacy
35	Hazaribagh	Jharkhand	0.2065	947	69.75
36	Buxar	Bihar	0.2167	922	70.14
37	Kishanganj	Bihar	0.304	950	55.46
38	Khagaria	Bihar	0.3019	886	57.92
39	Kaimur	Bihar	0.2617	920	69.34
40	Pashchimi Singhbhum	Jharkhand	0.2175	1005	58.63
41	Deoghar	Jharkhand	0.2803	925	64.85
42	Munger	Bihar	0.2021	876	70.46
43	Garhwa	Jharkhand	0.2775	935	60.33
44	Dumka	Jharkhand	0.1942	977	61.02
45	Godda	Jharkhand	0.2535	938	56.4
46	Sahibganj	Jharkhand	0.2401	952	52.04
47	Jehanabad	Bihar	0.2168	922	66.8
48	Saraikela Kharsawan	Jharkhand	0.2547	956	67.7
49	Chatra	Jharkhand	0.3177	953	60.18
50	Gumla	Jharkhand	0.2316	993	65.73
51	Lakhisarai	Bihar	0.2477	902	62.42
52	Ramgarh	Jharkhand	0.131	921	73.17

Query executed successfully.

- **PROBLEM-3 - what is total poulation of INDIA**

```
select sum(population) from PROJECT..Data2;
```

- **Answer 3- total population of india is 1210854977**

```
select sum(population) from PROJECT..Data2;

--Answer3   total population of india is 1210854977


--PROBLEM4 what is the average growth of INDIA
```

100 %

Results | Messages

	(No column name)
1	1210854977

- **PROBLEM-4- what is the average growth of INDIA**

```
select AVG(growth)*100 avg_growth from PROJECT..Data1;
```

- Answer 4- INDIA has been growing at an avg growth of 19.24%

```
--PROBLEM4 what is the average growth of INDIA

select AVG(growth)*100 avg_growth from PROJECT..Data1;
--Answer4 INDIA has been growing at an avg growth of 19.24%


--PROBLEM5 what is average growth% by state?
```

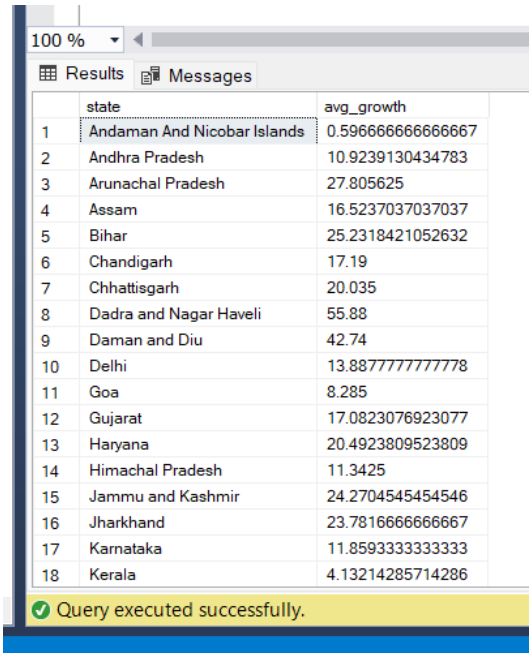
100 %

Results | Messages

	avg_growth
1	19.245921875

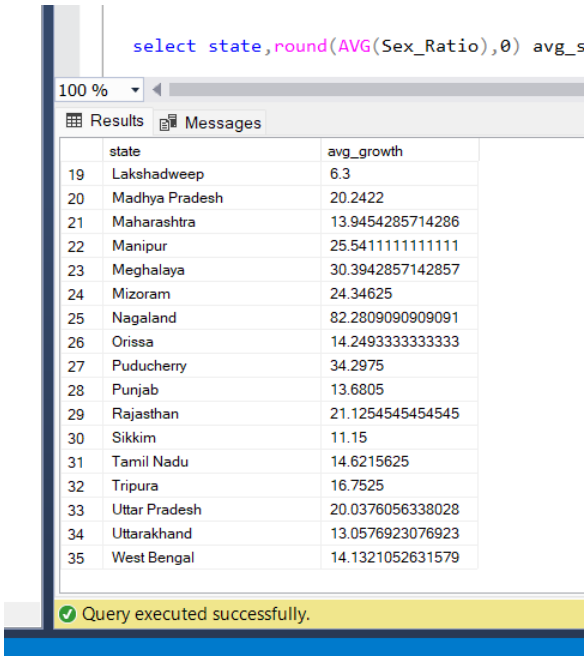
- **PROBLEM-5-what is average growth% by state?**

```
select state,AVG(growth)*100 avg_growth from PROJECT..Data1 group by State;
```



	state	avg_growth
1	Andaman And Nicobar Islands	0.596666666666667
2	Andhra Pradesh	10.9239130434783
3	Arunachal Pradesh	27.805625
4	Assam	16.5237037037037
5	Bihar	25.2318421052632
6	Chandigarh	17.19
7	Chhattisgarh	20.035
8	Dadra and Nagar Haveli	55.88
9	Daman and Diu	42.74
10	Delhi	13.8877777777778
11	Goa	8.285
12	Gujarat	17.0823076923077
13	Haryana	20.4923809523809
14	Himachal Pradesh	11.3425
15	Jammu and Kashmir	24.2704545454546
16	Jharkhand	23.7816666666667
17	Karnataka	11.8593333333333
18	Kerala	4.13214285714286

Query executed successfully.



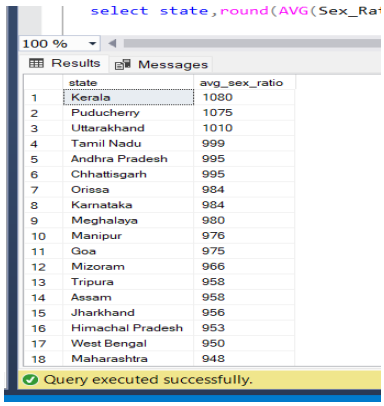
```
select state,round(AVG(Sex_Ratio),0) avg_s
```

	state	avg_growth
19	Lakshadweep	6.3
20	Madhya Pradesh	20.2422
21	Maharashtra	13.9454285714286
22	Manipur	25.5411111111111
23	Meghalaya	30.3942857142857
24	Mizoram	24.34625
25	Nagaland	82.2809090909091
26	Orissa	14.2493333333333
27	Puducherry	34.2975
28	Punjab	13.6805
29	Rajasthan	21.1254545454545
30	Sikkim	11.15
31	Tamil Nadu	14.6215625
32	Tripura	16.7525
33	Uttar Pradesh	20.0376056338028
34	Uttarakhand	13.0576923076923
35	West Bengal	14.1321052631579

Query executed successfully.

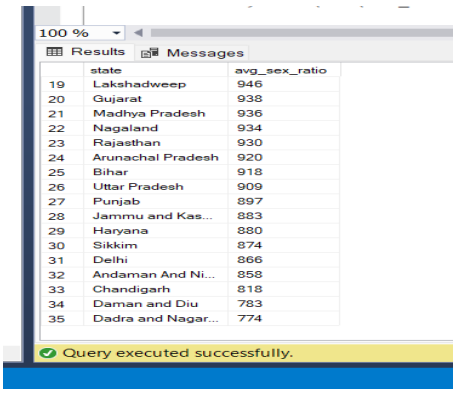
- **PROBLEM-6- What is the average sex ratio by state?answer should be in higher to lower order?**

```
select state,round(AVG(Sex_Ratio),0) avg_sex_ratio from PROJECT..Data1 group by State order by avg_sex_ratio desc;
```



	state	avg_sex_ratio
1	Kerala	1080
2	Puducherry	1075
3	Uttarakhand	1010
4	Tamil Nadu	999
5	Andhra Pradesh	995
6	Chhattisgarh	995
7	Orissa	984
8	Karnataka	984
9	Meghalaya	980
10	Manipur	976
11	Goa	975
12	Mizoram	966
13	Tripura	958
14	Assam	958
15	Jharkhand	956
16	Himachal Pradesh	953
17	West Bengal	950
18	Maharashtra	948

Query executed successfully.



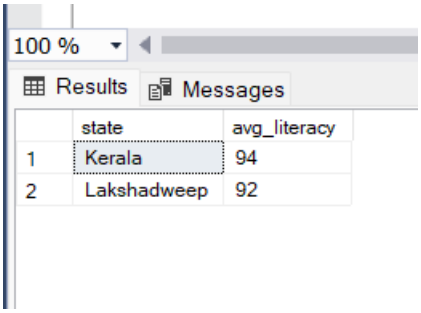
	state	avg_sex_ratio
19	Lakshadweep	946
20	Gujarat	938
21	Madhya Pradesh	936
22	Nagaland	934
23	Rajasthan	930
24	Arunachal Pradesh	920
25	Bihar	918
26	Uttar Pradesh	909
27	Punjab	897
28	Jammu and Kas...	883
29	Haryana	880
30	Sikkim	874
31	Delhi	866
32	Andaman And Ni...	858
33	Chandigarh	818
34	Daman and Diu	783
35	Dadra and Nagar...	774

Query executed successfully.

- **PROBLEM-7- list out the state name with average literacy rate greater than 90?**

```
select state,round(AVG(Literacy),0) avg_literacy from PROJECT..Data1
group by State having round(AVG(Literacy),0)>90 order by avg_literacy
desc;
```

- Answer7 kerala-94% and lakshadweep-92%



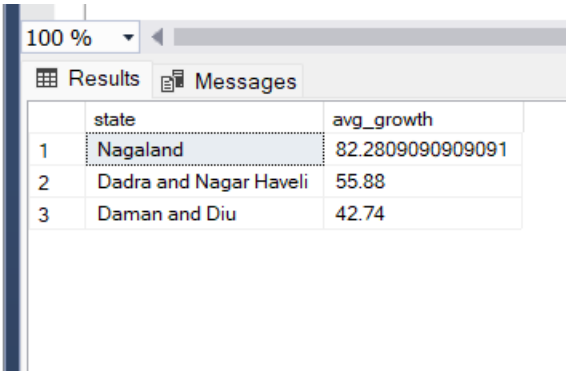
100 %

Results | Messages

	state	avg_literacy
1	Kerala	94
2	Lakshadweep	92

- **PROBLEM-8- NAME OF TOP 3 STATE HAVING HIGHEST AVERAGE GROWTH RATE?**

```
select top 3 state,AVG(growth)*100 avg_growth from PROJECT..Data1
group by State order by avg_growth desc;
```



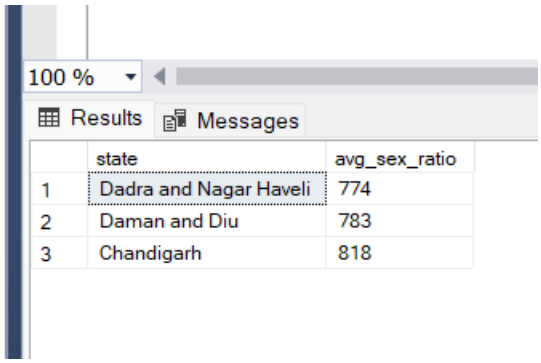
100 %

Results | Messages

	state	avg_growth
1	Nagaland	82.2809090909091
2	Dadra and Nagar Haveli	55.88
3	Daman and Diu	42.74

- **PROBLEM-9- name the bottom 3 state displaying loweest average sex ratio?**

```
select  top 3 state,round(AVG(Sex_Ratio),0) avg_sex_ratio from PROJECT..Data1 group by State order by avg_sex_ratio Asc;
```



100 %

Results | Messages

	state	avg_sex_ratio
1	Dadra and Nagar Haveli	774
2	Daman and Diu	783
3	Chandigarh	818

- **PROBLEM-10- name the states displaying top 3 and bottom 3 average literacy rate?**

```
drop table if exists #topstates
create table #topstates

(state nvarchar(255),topstates float)

insert into #topstates

select state,round(AVG(Literacy),0) avg_literacy from PROJECT..Data1 group by State order by avg_literacy  desc

select top 3 * from #topstates order by #topstates.topstates desc;


   drop table if exists #btmstates
create table #btmstates

(state nvarchar(255),btmstates float)

insert into #btmstates

select state,round(AVG(Literacy),0) avg_literacy from PROJECT..Data1 group by State order by avg_literacy  desc

select top 3 * from #btmstates order by #btmstates.btmstates asc;


--union operator
select * from(
select top 3 * from #topstates order by #topstates.topstates desc)a
union
```

```
select * from(
select top 3 * from #btmstates order by #btmstates.btmstates asc)b
```

```
--union operator
select * from(
select top 3 * from #topstates order by #topstates.topstates desc)a
union
select * from(
select top 3 * from #btmstates order by #btmstates.btmstates asc)b
```

100 %

Results | Messages

	state	topstates
1	Arunachal Pradesh	64
2	Bihar	62
3	Goa	89
4	Jammu and Kashmir	65
5	Kerala	94
6	Lakshadweep	92

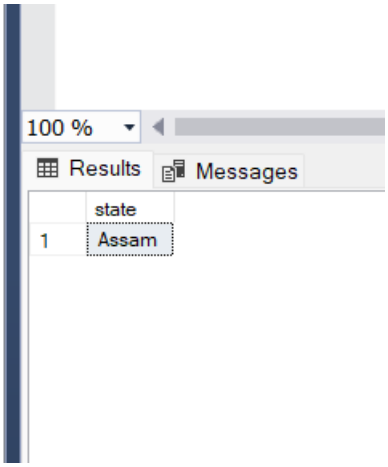
- **PROBLEM-11-fetch all name of the state starting with letter a or b?**

```
select distinct state from PROJECT..Data1 where lower(state) like 'a%' or
lower(state)like 'b%'
```

100 %

Results | Messages

	state
1	Andaman And Nicobar Islands
2	Andhra Pradesh
3	Arunachal Pradesh
4	Assam
5	Bihar

- **PROBLEM-12- fetch all name of the state starting with letter a but ending with letter m?**

```
select distinct state from PROJECT..Data1 where lower(state) like 'a%' and lower(state)like '%m'
```