MySQL Project : Insurance

"From Queries to Corporate: Elevating My Skills with MySQL!"

"Look inside to explore my journey with MySQL and discover how I’ve turned data into actionable insights!"

"Mastering SQL with advanced techniques:

- **Correlated Subqueries**: Inner query depends on the outer query.
- **Window Functions**: Analyze claims, rank patients globally and by region.

Explore the code and insights!"

INTRODUCTION

"Explore advanced SQL techniques with my project on insurance data analysis:

- Correlated Subqueries: Demonstrating how inner queries depend on outer queries for context.
- Window Functions: Leveraging powerful analytics to rank patients by claim amounts and calculate averages within regions.

Key Highlights:

- Identify claims above regional averages.
- Rank patients globally and regionally by claim amount.

Dive into the code snippets and discover efficient ways to analyze and derive insights from complex datasets!"

Query Select the details of patients along with their claim amount, and their rank based on claim amount within their region.

Syntax

```
select *, rank() over(partition by region order by claim DESC) from insurance_data;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

index	PatientID	age	gender	bmi	bloodpressure	diabetic	children	smoker	region	claim	rank() over(partition by region order by claim DESC)
1336	1337	59	female	38.1	120	No	1	Yes	northeast	58571.07	1
1326	1327	26	male	40.6	113	Yes	3	Yes	northeast	48549.18	2
1325	1326	52	female	36.4	133	Yes	1	Yes	northeast	48517.56	3
1322	1323	33	female	36.8	117	Yes	1	Yes	northeast	47896.79	4
1310	1311	26	female	37.1	95	No	3	Yes	northeast	46255.11	5
1304	1305	42	male	32	83	Yes	0	Yes	northeast	45710.21	6
1301	1302	60	female	35	92	Yes	2	Yes	northeast	44641.2	7
1290	1291	47	male	41.9	140	Yes	3	Yes	northeast	43753.34	8
1288	1289	22	male	34.1	108	No	0	Yes	northeast	43254.42	9

Result 1

Query

Select the details of patient who have a claim amount greater than average claim amount for their region.

Syntax

select * from insurance_data t1 where claim > (select avg(claim) from insurance_data t2 where t2.region = t1.region);

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

index	PatientID	age	gender	bmi	bloodpressure	diabetic	children	smoker	region	claim
824	825	29	male	28.6	85	Yes	0	No	northwest	11735.88
828	829	29	male	34.4	108	No	0	No	northwest	11743.93
830	831	50	female	23.2	89	No	0	No	northwest	11830.61
833	834	25	female	30.5	110	No	0	No	northwest	11840.78
835	836	33	female	31.8	95	No	0	No	northwest	11842.62
845	846	48	male	33.6	97	No	1	No	northwest	11945.13
850	851	31	female	26.6	90	Yes	1	No	northwest	12044.34
854	855	50	male	25.5	87	No	0	No	northwest	12124.99
855	856	23	male	28.8	86	No	0	No	northwest	12129.61
858	859	34	female	27.2	96	No	0	No	northwest	12222.9

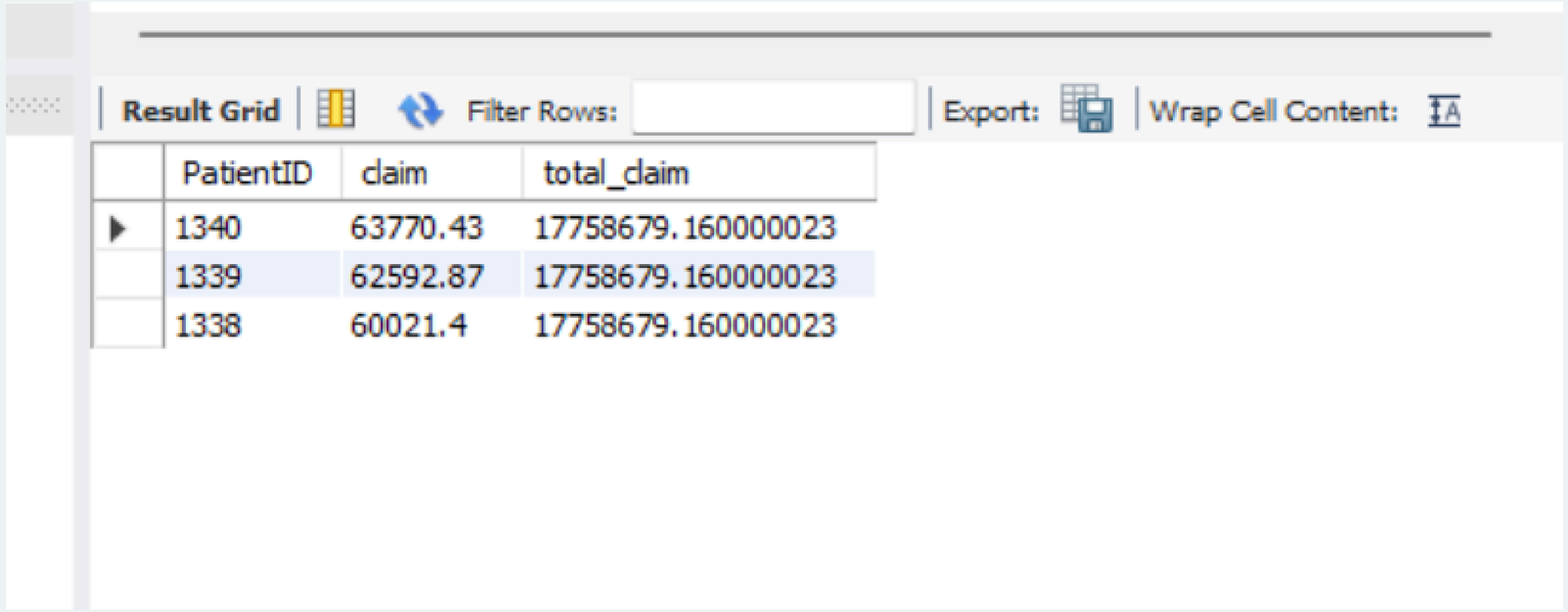
insurance_data 4

Query

Retrieve the top 3 patients with the highest claim amount, along with their respective claim amounts and the total claim amount for all patients.

Syntax

```
select PatientID, claim, sum(claim) over() as total_claim
from insurance_data order by claim desc limit 3;
```



PatientID	claim	total_claim
1340	63770.43	17758679.160000023
1339	62592.87	17758679.160000023
1338	60021.4	17758679.160000023