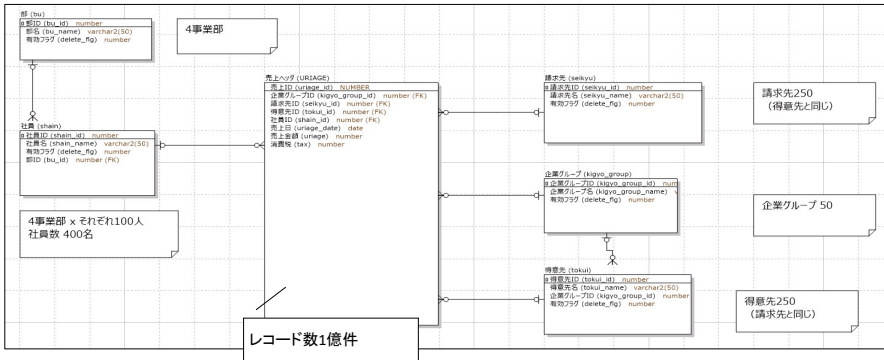


評価用データベースの構造

ER図



売上テーブルのサンプルレコード

```

1 select * from uriage where rownum < 30
    
```

uriage_id	kigyogroup_id	sekiyo_id	tokai_id	shain_id	uriage_date	uriage	tax	
1	2743	5	32	29	60	12/08/03 午前00:00:00	315109	100
2	2744	36	52	116	229	18/02/15 午前00:00:00	278832	100
3	2745	18	61	179	56	15/02/02 午前00:00:00	331591	100
4	2746	40	193	189	230	11/07/07 午前00:00:00	678684	100
5	2747	47	194	81	221	19/08/10 午前00:00:00	193163	100
6	2748	17	149	199	294	19/05/06 午前00:00:00	581627	100
7	2749	33	65	120	274	19/05/05 午前00:00:00	43293	100
8	2750	31	82	18	156	11/05/27 午前00:00:00	412330	100

ADWで変更可能な箇所

Vertica構成 (Single Nodes on AWS)

計測結果一覧 - 1,300万件

Oracle Autonomous Data Warehouse vs Vertica

No.	クエリイメージ	SQL	Oracle Autonomous Data Warehouse (1,300万件)			Vertica (1,300万件)		
			OCPU = 1	OCPU = 3	OCPU = 8	r5a.large 2vCPU 16GiB	r5a.2xlarge 8vCPU 64GiB	r5a.8xlarge 32vCPU 256GiB
			1回目	1回目	1回目	単位:秒		
1-1		select sum(uriage) from uriage	0.56			0.56	0.22	0.07
1-2		select tokui_id, sum(uriage) from uriage group by tokui_id	0.52			0.84	0.29	0.12
1-3		select tokui_id, sum(uriage) from uriage where uriage > 500000 group by tokui_id	0.34			0.60	0.21	0.15
1-4		select kigyogroup_id, seikyu_id, tokui_id, sum(uriage) from uriage group by kigyogroup_id, seikyu_id, tokui_id	3.55			7.37	2.29	1.62
1-5		select kigyogroup_id, seikyu_id, tokui_id, sum(uriage) from uriage where uriage > 500000 group by kigyogroup_id, seikyu_id, tokui_id	2.54			4.66	1.42	0.96
1-6		select kigyogroup_id, seikyu_id, tokui_id, sum(uriage) from uriage where uriage > 500000 and shain_id = 300 group by kigyogroup_id, seikyu_id, tokui_id	0.09			1.22	0.54	0.25
1-7		select kigyogroup_id, seikyu_id, tokui_id, sum(uriage) from uriage where uriage > 500000 and shain_id = 300 and kigyogroup_id = 30 group by kigyogroup_id, seikyu_id, tokui_id	0.05			0.59	0.15	0.13
2-1		select kigyogroup_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id group by kigyogroup_name	0.45			1.67	0.52	0.25
2-2		select kigyogroup_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id where k.kigyogroup_name = '企業G00030' group by kigyogroup_name	0.06			0.27	0.12	0.12
2-3		select kigyogroup_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id where k.kigyogroup_name like '%30%' group by kigyogroup_name	0.08			0.27	0.12	0.13
3-1		select kigyogroup_name, s.shain_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id left outer join shain s on u.shain_id = s.shain_id group by kigyogroup_name, s.shain_name	3.97			8.10	2.17	1.70
3-2		select kigyogroup_name, s.shain_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id left outer join shain s on u.shain_id = s.shain_id where k.kigyogroup_name = '企業G00030' group by kigyogroup_name, s.shain_name	0.13			0.38	0.15	0.13
3-3		select kigyogroup_name, s.shain_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id left outer join shain s on u.shain_id = s.shain_id where k.kigyogroup_name = '企業G00030' AND s.shain_name = '社員名00010' group by kigyogroup_name, s.shain_name	0.08			0.30	0.13	0.15

計測結果一覧 - 1億件

Oracle Autonomous Data Warehouse vs Vertica

No.	クエリイメージ	SQL	Oracle Autonomous Data Warehouse (1億件)			Vertica (1億件)		
			OCPU = 1	OCPU = 3	OCPU = 8	r5a.large 2vCPU 16GiB	r5a.2xlarge 8vCPU 64GiB	r5a.8xlarge 32vCPU 256GiB
			1回目	1回目	1回目	単位:秒		
			単位:秒			単位:秒		
1-1		select sum(uriage) from uriage	11.51	7.96	2.29	3.41	1.11	0.44
1-2		select tokui_id, sum(uriage) from uriage group by tokui_id	15.81	14.73	2.71	6.63	2.32	1.67
1-3		select tokui_id, sum(uriage) from uriage where uriage > 500000 group by tokui_id	7.98	8.34	1.55	8.28	2.75	0.93
1-4		select kigyogroup_id, seikyuid, tokuid, sum(uriage) from uriage group by kigyogroup_id, seikyuid, tokuid	25.60	25.43	23.19	47.79	13.86	11.77
1-5		select kigyogroup_id, seikyuid, tokuid, sum(uriage) from uriage where uriage > 500000 group by kigyogroup_id, seikyuid, tokuid	13.48	14.10	12.53	35.97	9.90	5.89
1-6		select kigyogroup_id, seikyuid, tokuid, sum(uriage) from uriage where uriage > 500000 and shain_id = 300 group by kigyogroup_id, seikyuid, tokuid	8.03	1.01	0.35	11.95	3.90	1.65
1-7		select kigyogroup_id, seikyuid, tokuid, sum(uriage) from uriage where uriage > 500000 and shain_id = 300 and kigyogroup_id = 30 group by kigyogroup_id, seikyuid, tokuid	4.53	0.96	0.28	8.15	2.90	1.12
2-1		select kigyogroup_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id group by kigyogroup_name	14.01	17.31	17.66	14.82	4.69	1.53
2-2		select kigyogroup_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id where k.kigyogroup_name = '企業G00030' group by kigyogroup_name	0.31	2.00	1.27	5.68	1.94	0.77
2-3		select kigyogroup_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id where k.kigyogroup_name like '%30%' group by kigyogroup_name	0.16	1.80	0.47	5.59	1.89	0.70
3-1		select kigyogroup_name, s.shain_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id left outer join shain s on u.shain_id = s.shain_id group by kigyogroup_name, s.shain_name	35.63	36.62	30.12	64.00	17.47	9.67
3-2		select kigyogroup_name, s.shain_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id left outer join shain s on u.shain_id = s.shain_id where k.kigyogroup_name = '企業G00030' group by kigyogroup_name, s.shain_name	3.52	2.07	0.63	9.34	2.79	0.99
3-3		select kigyogroup_name, s.shain_name, sum(uriage) from uriage u left outer join kigyogroup k on u.kigyogroup_id = k.kigyogroup_id left outer join shain s on u.shain_id = s.shain_id where k.kigyogroup_name = '企業G00030' AND s.shain_name = '社員名00010' group by kigyogroup_name, s.shain_name	2.95	1.00	0.30	5.92	2.69	0.81