TASK9 REPORT

1. DB LINKS

Step 1:Check before link create

*Select * from DBA_DB_LINKS ;*

Query Result

SQL | All Rows Fetched: 1 in 0.011 seconds

	OWNER	DB_LINK	USERNAME	CREDENTIAL_NAME	CREDENTIAL_OWNER	HOST	CREATED	HIDDEN	SHARD_INTERNAL	VALID	INTRA_CDB
1	PUBLIC	DBMS_CLRDBLINK	(null)	(null)	(null)	ORACLR_CONNECTION_DATA	23-FEB-22	NO	NO	YES	NO

*Select * from ALL_DB_LINKS ;*

Query Result

SQL | All Rows Fetched: 1 in 0.008 seconds

	OWNER	DB_LINK	USERNAME	CREDENTIAL_NAME	CREDENTIAL_OWNER	HOST	CREATED	HIDDEN	SHARD_INTERNAL	VALID	INTRA_CDB
1	PUBLIC	DBMS_CLRDBLINK	(null)	(null)	(null)	ORACLR_CONNECTION_DATA	23-FEB-22	NO	NO	YES	NO

*Select * from USER_DB_LINKS ;*

Query Result

SQL | All Rows Fetched: 0 in 0.001 seconds

DB_LINK	USERNA...	PASSW...	CREDEN...	CREDEN...	HOST	CREATED	HIDDEN	SHARD_...	VALID	INTRA_...

*SELECT * FROM BL_3nf.ce_stores;*

Script Output | Query Result

SQL | Executing:SELECT * FROM BL_3nf.ce_stores in 0 seconds

```
ORA-00942: table or view does not exist
00942. 00000 -  "table or view does not exist"
*Cause:
*Action:
Error at Line: 11 Column: 22
```

Step 2: create link

```
CREATE DATABASE LINK mydblink
CONNECT TO "BL_3NF" IDENTIFIED BY "BL_3NF"
USING '(DESCRIPTION =
(ADDRESS_LIST =
  (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
)
(CONNECT_DATA =
  (SERVICE_NAME = XE)
)
)';
```

Step 3: Check after create link

*Select * from DBA_DB_LINKS ;*

Script Output × Query Result ×

SQL | All Rows Fetched: 2 in 0.001 seconds

	OWNER	DB_LINK	USERNAME	CREDENTIAL_NAME	CREDENTIAL_OWNER	HOST
1	PUBLIC	DBMS_CLRDBLINK	(null)	(null)	(null)	ORACLR_CONNECTION_DATA
2	SA_SOURCE_SYSTEM_1	MYDBLINK	BL_3NF	(null)	(null)	(DESCRIPTION =(ADDRESS_LIST = (ADDRESS =

*Select * from USER_DB_LINKS ;*

Script Output × Query Result ×

SQL | All Rows Fetched: 2 in 0.006 seconds

	OWNER	DB_LINK	USERNAME	CREDENTIAL_NAME	CREDENTIAL_OWNER	HOST
1	PUBLIC	DBMS_CLRDBLINK	(null)	(null)	(null)	ORACLR_CONNECTION_DATA
2	SA_SOURCE_SYSTEM_1	MYDBLINK	BL_3NF	(null)	(null)	(DESCRIPTION =(ADDRESS_LIST = (ADDRES

*Select * from USER_DB_LINKS ;*

Script Output × Query Result ×

SQL | All Rows Fetched: 1 in 0.002 seconds

	DB_LINK	USERNAME	PASSWORD	CREDENTIAL_NAME	CREDENTIAL_OWNER	HOST
1	MYDBLINK	BL_3NF	(null)	(null)	(null)	(DESCRIPTION =(ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(

*SELECT * FROM BL_3nf.ce_stores@mydblink;*

```
SELECT * FROM BL_3nf.ce_stores@mydblink;
```

Script Output × Query Result ×

SQL | Fetched 50 rows in 0.006 seconds

	STORE_ID	STORE_SRCID	STORE_SOURCE_SYSTEM	STORE_SOURCE_ENTITY	PHONE	ADDRESS_ID	TA_UPDATE_DT	TA_INSERT_DT
1	1	15	personnel_sales	src_stores	2072590747	23	24-FEB-22	24-FEB-22
2	2	16	personnel_sales	src_stores	2076294911	24	24-FEB-22	24-FEB-22
3	3	32	personnel_sales	src_stores	661-765-4944	40	24-FEB-22	24-FEB-22
4	4	33	personnel_sales	src_stores	818-881-1639	41	24-FEB-22	24-FEB-22
5	5	39	personnel_sales	src_stores	96615453116	47	24-FEB-22	24-FEB-22
6	6	1	personnel_sales	src_stores	91.275.21.85	9	24-FEB-22	24-FEB-22
7	7	12	personnel_sales	src_stores	493412251481	20	24-FEB-22	24-FEB-22
8	8	44	personnel_sales	src_stores	27873500215	52	24-FEB-22	24-FEB-22
9	9	41	personnel_sales	src_stores	2164287573	49	24-FEB-22	24-FEB-22
10	10	42	personnel_sales	src_stores	902164741030	50	24-FEB-22	24-FEB-22
11	11	6	personnel_sales	src_stores	96.309.29.61	14	24-FEB-22	24-FEB-22
12	12	11	personnel_sales	src_stores	4934196298335	19	24-FEB-22	24-FEB-22
13	13	23	personnel_sales	src_stores	2079284557	31	24-FEB-22	24-FEB-22

2.1 CREATE MATERIALIZED VIEWS - ON DEMAND

Step 1: Create view

CREATE MATERIALIZED VIEW bl_cl.sales_by_channels
REFRESH complete ON demand AS
SELECT c.channel_id,c.channel_description,sum(s.sale_cost) as cost_by_channel,
sum(s.sale_price) as sale_by_channel
FROM bl_3nf.ce_sales s
INNER JOIN bl_3nf.ce_channels c
ON s.channel_id=c.channel_id
GROUP BY c.channel_id,c.channel_description;

Step 2:modify table

DELETE FROM bl_3nf.ce_sales
WHERE channel_id=2;
commit;

Step 3: check view

```
Select * from sales_by_channels;
```

Script Output × Query Result ×

SQL | All Rows Fetched: 3 in 0.003 seconds

	CHANNEL_ID	CHANNEL_DESCRIPTION	COST_BY_CHANNEL	SALE_BY_CHANNEL
1	3	Catalog	503260904.2	629076130.05
2	2	Tele Sales	245071153.26	306338937.19
3	4	Internet	112537598.97	140671998.9

Step 4:refresh view

BEGIN
DBMS_SNAPSHOT.REFRESH('sales_by_channels');
END;

Step 5: check

```
Select * from sales_by_channels;
```

Script Output × Query Result ×

SQL | All Rows Fetched: 2 in 0.001 seconds

	CHANNEL_ID	CHANNEL_DESCRIPTION	COST_BY_CHANNEL	SALE_BY_CHANNEL
1	3	Catalog	503260904.2	629076130.05
2	4	Internet	112537598.97	140671998.9

2.2 CREATE MATERIALIZED VIEWS - ON COMMIT

CREATE MATERIALIZED VIEW bl_cl.sales_by_channels_com
REFRESH ON COMMIT
AS
SELECT c.channel_id,c.channel_description,sum(s.sale_cost) as cost_by_channel,
sum(s.sale_price) as sale_by_channel
FROM bl_3nf.ce_sales s
INNER JOIN bl_3nf.ce_channels c
ON s.channel_id=c.channel_id
GROUP BY c.channel_id,c.channel_description;

Step 2: check view

```
--check
Select * from sales_by_channels_com;
```

Script Output × | Query Result ×

SQL | All Rows Fetched: 2 in 0.097 seconds

	CHANNEL_ID	CHANNEL_DESCRIPTION	COST_BY_CHANNEL	SALE_BY_CHANNEL
1	3	Catalog	503260904.2	629076130.05
2	4	Internet	112537598.97	140671998.9

Step 3:modify table

DELETE FROM bl_3nf.ce_sales
WHERE channel_id=3;
commit;

Step 4:check

```
commit;

--check
Select * from sales_by_channels_com;
```

Script Output × | Query Result × | Query Result 1 ×

SQL | All Rows Fetched: 1 in 0.002 seconds

	CHANNEL_ID	CHANNEL_DESCRIPTION	COST_BY_CHANNEL	SALE_BY_CHANNEL
1	4	Internet	112537598.97	140671998.9

2.3 ENABLE QUERY REWRITE

Step 1: write query and show the time

SELECT c2.country, sum(s.sale_cost) as cost_by_channel, sum(s.sale_price) as sale_by_channel
FROM bl_3nf.ce_sales s
inner join bl_3nf.ce_stores s2
on s.store_id=s2.store_id
inner join bl_3nf.ce_addresses a
on s2.addres_countries c2
on c2.country_id=c2.country_id

group by c2.country;

s_id=a.address_id
inner join bl_3nf.ce_cities c
on a.city_id = c.city_id
inner join bl_3nf.ce_states s3
on s3.state_id=c.state_id
inner join BL_3NF.ce

Script Output × | Query Result × | Query Result 1 × | Query Result 2 ×

SQL | All Rows Fetched: 23 in 3.928 seconds

	COUNTRY	COST_BY_CHANNEL	SALE_BY_CHANNEL
1	Germany	1721739312.86	2152174132.28
2	Malaysia	1721739312.86	2152174132.28
3	The Netherlands	1721739312.86	2152174132.28
4	Ireland	1721739312.86	2152174132.28
5	France	1721739312.86	2152174132.28
6	Saudi Arabia	1721739312.86	2152174132.28
7	Poland	1721739312.86	2152174132.28
8	China	1721739312.86	2152174132.28
9	Canada	1721739312.86	2152174132.28
10	New Zealand	1721739312.86	2152174132.28
11	United Kingdom	1721739312.86	2152174132.28
12	Italy	1721739312.86	2152174132.28
13	Brazil	1721739312.86	2152174132.28
14	India	1721739312.86	2152174132.28
15	United States of America	1721739312.86	2152174132.28
16	Argentina	1721739312.86	2152174132.28
17	Denmark	1721739312.86	2152174132.28

Step 2: write enable query rewrite view
CREATE MATERIALIZED VIEW bl_cl.sales_by_countries
ENABLE QUERY REWRITE
AS SElECT c2.country, sum(s.sale_cost) as cost_by_channel, sum(s.sale_price) as sale_by_channel
FROM bl_3nf.ce_sales s
inner join bl_3nf.ce_stores s2
on s.store_id=s2.store_id
inner join bl_3nf.ce_addresses a
on s2.address_id=a.address_id
inner join bl_3nf.ce_cities c
on a.city_id = c.city_id
inner join bl_3nf.ce_states s3
on s3.state_id=c.state_id
inner join BL_3NF.ce_countries c2
on c2.country_id=c2.country_id
group by c2.country;

Step 3: run query and compare times
SElECT c2.country, sum(s.sale_cost) as cost_by_channel, sum(s.sale_price) as sale_by_channel

```
FROM bl_3nf.ce_sales s
inner join bl_3nf.ce_stores s2
on s.store_id=s2.store_id
inner join bl_3nf.ce_addresses a
on s2.address_id=a.address_id
inner join bl_3nf.ce_cities c
on a.city_id = c.city_id
inner join bl_3nf.ce_states s3
on s3.state_id=c.state_id
inner join BL_3NF.ce_countries c2
on c2.country_id=c2.country_id
group by c2.country;
```

Script Output × | Query Result × | Query Result 1 × | Query Result 2 ×

SQL | All Rows Fetched: 23 in 0.061 seconds

	COUNTRY	COST_BY_CHANNEL	SALE_BY_CHANNEL
1	Germany	1721739312.86	2152174132.28
2	Malaysia	1721739312.86	2152174132.28
3	The Netherlands	1721739312.86	2152174132.28
4	Ireland	1721739312.86	2152174132.28
5	France	1721739312.86	2152174132.28
6	Saudi Arabia	1721739312.86	2152174132.28
7	Poland	1721739312.86	2152174132.28
8	China	1721739312.86	2152174132.28
9	Canada	1721739312.86	2152174132.28
10	New Zealand	1721739312.86	2152174132.28
11	United Kingdom	1721739312.86	2152174132.28
12	Italy	1721739312.86	2152174132.28
13	Brazil	1721739312.86	2152174132.28
14	India	1721739312.86	2152174132.28
15	United States of America	1721739312.86	2152174132.28
16	Argentina	1721739312.86	2152174132.28
17	Denmark	1721739312.86	2152174132.28

Messages - Log

Before query rewrite query fetched in 3.928 seconds and after query rewrite query fetched in 0.061 seconds