CTIS259 Database Management Systems and Applications
2025 – 2026 Fall

Lab Guide 19

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Aim of this lab session: **1.** PL/SQL Exercises

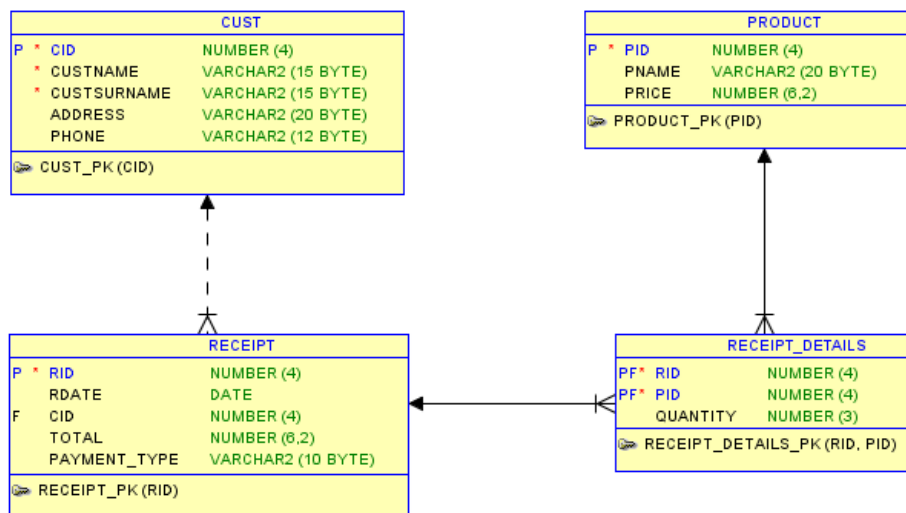---

ORACLE Server Configurations:

IP Address: 139.179.33.231

Port number: 1522

SID: orclctis

Please use student (fYourStudentId) accounts

➢   Download the **MarketDb.zip** file from moodle: **LabGuides\Lab18** and run the scripts and create the MarketDb and insert data using the given scripts.

CUST

P	*	CID	NUMBER (4)
	*	CUSTNAME	VARCHAR2 (15 BYTE)
	*	CUSTSURNAME	VARCHAR2 (15 BYTE)
		ADDRESS	VARCHAR2 (20 BYTE)
		PHONE	VARCHAR2 (12 BYTE)

CUST_PK (CID)

PRODUCT

P	*	PID	NUMBER (4)
		PNAME	VARCHAR2 (20 BYTE)
		PRICE	NUMBER (6,2)

PRODUCT_PK (PID)

RECEIPT

P	*	RID	NUMBER (4)
		RDATE	DATE
F		CID	NUMBER (4)
		TOTAL	NUMBER (6,2)
		PAYMENT_TYPE	VARCHAR2 (10 BYTE)

RECEIPT_PK (RID)

RECEIPT_DETAILS

PF	*	RID	NUMBER (4)
PF	*	PID	NUMBER (4)
		QUANTITY	NUMBER (3)

RECEIPT_DETAILS_PK (RID, PID)

DATA in the tables

CUST

CID	CUSTNAME	CUSTSURNAME	ADDRESS	PHONE
1	Ayla	Yilmaz	Bilkent/Ankara	3122661245
2	Zeki	Sozer	Bahceli/Ankara	3122857415
3	Jale	Sever	Bilkent/Ankara	3122668574
4	Emre	Turesin	Kizilay/Ankara	3124212514

RECEIPT

RID	RDATE	CID	TOTAL	PAYMENT_TYPE
1	07-OCT-25	1	72.8	VISA
2	07-NOV-25	1	17.01	CASH
3	10-SEP-25	2	34.8	VISA
4	15-AUG-25	4	59.3	VISA
5	08-NOV-25	3	38.7	VISA
6	04-OCT-25	1	233.1	VISA
7	04-NOV-25	2	194.7	VISA
8	04-SEP-24	4	113.4	VISA

RECEIPT_DETAILS

RID	PID	QUANTITY
1	111	1
1	115	2
1	118	1
2	113	1
3	114	1
3	116	1
4	113	1
4	115	1
4	119	1
5	114	1
5	118	2
6	111	3
6	115	2
6	117	4
6	116	2
7	113	2
7	114	3
7	117	3
8	114	2
8	119	4
7	115	3

PRODUCT

PID	PNAME	PRICE
111	Ariel Deterjan 5kg	22.9
112	Ariel Deterjan 10 kg	40.9
113	Omomatik Sivi 1 kg.	18.9
114	Suzme Peynir 800 gr	12.9
115	Gemlik Zeytin	18.5
116	Gursut Telli Kasar	21.9
117	Tiryaki cay 1kg.	20.9
118	Filiz Cay 500gr.	12.9
119	Dogus Çay 1 kg.	21.9
120	Biskuvi 1 kg.	8.9

Create a view called **find_total** based on the customer id, name and surname and the total number of items bought for each customer, sort the customer list in ascending order by customer id. Display the contents of the view **find_total**.

CID	CUSTNAME	CUSTSURNAME	#of items bought
1	Ayla	Yilmaz	16
2	Zeki	Sozer	13
3	Jale	Sever	3
4	Emre	Turesin	9

Create a view called **product_report** based on the product id, product name and the total quantity sold for each product. Display the contents of the view **product_report** in ascendingly sorted by product id and product name.
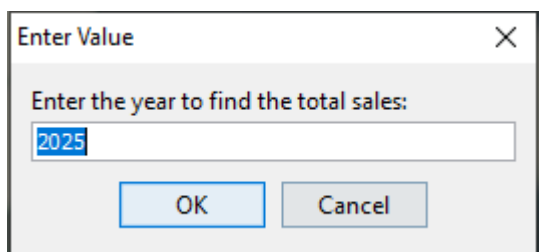
PID	PNAME	#ofSold
111	Ariel Deterjan 5kg	4
113	Omomatik Sivi 1 kg.	4
114	Suzme Peynir 800 gr	7
115	Gemlik Zeytin	8
116	Gursut Telli Kasar	3
117	Tiryaki cay 1kg.	7
118	Filiz Cay 500gr.	3
119	Dogus Çay 1 kg.	5

Write the **function find_total_sales** that gets the year as input parameter, finds and returns the total sales amount for the specified year.

Write a PL/SQL program block that displays a prompt on the screen and reads the report year from the user, finds and displays the total sales amount for the given year.
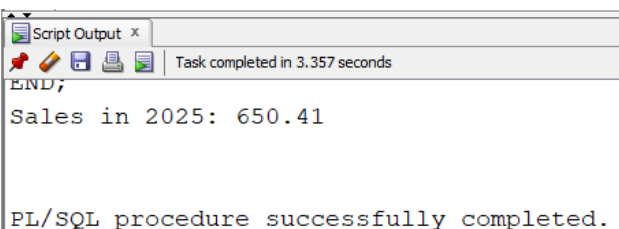
Example Run:

Enter Value ✕

Enter the year to find the total sales:

2025

OK   Cancel

Script output:

Script Output ✕

Task completed in 3.357 seconds

END;
Sales in 2025: 650.41

PL/SQL procedure successfully completed.

2

The company decides to give market coupons to their customers according to their total shopping amounts.

Total Amount	Market Coupon
>= 300	%20
200 – 299	%10
100 – 199	%5
<100	0 (No Coupon)

e.g. if the total shopping amount is 200 TL, 20 TL market coupon will be given.

Write a function that calculates the total shopping amount for each customer, finds the market coupon amount and displays the appropriate messages. The function also counts and returns the number of coupons given.

Write a program block to test your function and display the number of coupons.

```
Script Output ×
Task completed in 0.28 seconds

Function MARKET_COUPON compiled

2 Zeki Sozer: your total shopping amount is:  229.5
YOU WON 22.95 TL MARKET COUPON :)


4 Emre Turesin: your total shopping amount is:  172.7
YOU WON 8.64 TL MARKET COUPON :)


1 Ayla Yilmaz: your total shopping amount is:  322.91
YOU WON 64.58 TL MARKET COUPON :)


3 Jale Sever: your total shopping amount is:  38.7
Your total shopping amount is < 100, sorry!


Total number of coupons: 3



PL/SQL procedure successfully completed.
```

P.S: you may display a new line using CHR(10) in DBMS_OUTPUT.PUT_LINE function.
Example:
When you write statement like;
        DBMS_OUTPUT.PUT_LINE('Hatice Zehra'||CHR(10)||'YILMAZ');
Your output will be as follows:

        Hatice Zehra
        YILMAZ