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Assignment 6

Solution

1. Produce a list of all customer names in which the first letter of the first and last names is in uppercase and the rest are in lowercase.

- ❖ SQL query use the Select statement to retrieve the data from the table. Select is use to select the data from the database.
- ❖ INITCAP will return the first letter of the character in the upper case and remaining in the lower case.
- ❖ SUBSTR is use to extract the sub-string from the string. And it required three parameter string, start and length.

SQL query

- ❖ `SELECT INITCAP(firstname) AS santosh_Firstname, INITCAP(lastname) AS Lastname from customers where SUBSTR(firstname, 1, 1) = UPPER(SUBSTR(firstname,1,1)) AND SUBSTR(lastname,1,1)= UPPER(SUBSTR(lastname,1,1));`

ScreenShot of the SQL

The screenshot displays the SQL Developer interface. On the left, the 'Connections' pane shows a tree view with 'Orade Connections' expanded, containing 'practicedatabase' and 'santoshDb'. The 'santoshDb' connection is selected. The main workspace is divided into 'Worksheet' and 'Query Builder' tabs. The 'Query Builder' tab is active, showing a SQL query in the 'Script Output' pane. The query is:
`SELECT INITCAP(firstname) AS santosh_Firstname, INITCAP(lastname) AS Lastname FROM customers
WHERE SUBSTR(firstname, 1, 1) = UPPER(SUBSTR(firstname, 1, 1))
AND SUBSTR(lastname, 1, 1) = UPPER(SUBSTR(lastname, 1, 1));`
The 'Query Result' pane shows the output of the query, which is a table with two columns: 'SANTOSH_FIRSTNAME' and 'LASTNAME'. The table contains 20 rows of data. A red box highlights the 'Query Result' pane. A blue box with the text 'Output' is positioned to the right of the red box.

SQL Query

```
SELECT INITCAP(firstname) AS santosh_Firstname, INITCAP(lastname) AS Lastname FROM customers
WHERE SUBSTR(firstname, 1, 1) = UPPER(SUBSTR(firstname, 1, 1))
AND SUBSTR(lastname, 1, 1) = UPPER(SUBSTR(lastname, 1, 1));
```

Script Output x Query Result x

SQL All Rows Fetched: 20 in 0.012 seconds

	SANTOSH_FIRSTNAME	LASTNAME
1	Bonita	Morales
2	Ryan	Thompson
3	Leila	Smith
4	Thomas	Pierson
5	Cindy	Girard
6	Meshia	Cruz
7	Tammy	Giana
8	Kenneth	Jones
9	Jorge	Perez
10	Jake	Lucas
11	Reese	McGovern
12	William	McKenzie
13	Nicholas	Nguyen
14	Jasmine	Lee
15	Steve	Schell
16	Michell	Daum
17	Becca	Nelson
18	Greg	Montiasa
19	Jennifer	Smith
20	Kenneth	Falah

Output

2. Create a list of all customer numbers along with text indicating whether the customer has been referred by another customer. Display the text “NOT REFERRED” if the customer wasn’t referred to JustLee Books by another customer or “REFERRED” if the customer was referred.

- ❖ Case is the expression used in SQL which will go through certain condition and return the first condition it met while running the SQL
- ❖ IS NULL is use to determine whether the value is null or not in the table.
- ❖ THEN and ELSE are used as similar as IF-ELSE condition.

SQL Query

- ❖ SELECT customer#,firstname as santosh_firstname,lastname,CASE WHEN referred IS NULL THEN 'NOT REFERRED' ELSE 'REFERRED' END AS ReferralStatus FROM Customers;

Screen Shoot Of the SQL query

The screenshot displays the Oracle SQL Developer environment. On the left, the 'Connections' pane shows a connection to 'santoshDb'. The main window is divided into a 'Worksheet' and a 'Query Builder'. The 'Worksheet' tab is active, showing the following SQL query:

```
SELECT customer#,firstname as santosh_firstname,lastname,CASE WHEN referred IS NULL THEN 'NOT REFERRED'
ELSE 'REFERRED' END AS ReferralStatus FROM Customers;
```

Below the query, the 'Query Result' pane shows the output of the query. It indicates that 20 rows were fetched in 0.009 seconds. The results are displayed in a table with the following columns: CUSTOMER#, SANTOSH_FIRSTNAME, LASTNAME, and REFERRALSTATUS.

CUSTOMER#	SANTOSH_FIRSTNAME	LASTNAME	REFERRALSTATUS
1	1001 BONITA	MORALES	NOT REFERRED
2	1002 RYAN	THOMPSON	NOT REFERRED
3	1003 LEILA	SMITH	NOT REFERRED
4	1004 THOMAS	PIERSON	NOT REFERRED
5	1005 CINDY	GIRARD	NOT REFERRED
6	1006 MESHIA	CRUZ	NOT REFERRED
7	1007 TAMMY	GIANA	REFERRED
8	1008 KENNETH	JONES	NOT REFERRED
9	1009 JORGE	PEREZ	REFERRED
10	1010 JAKE	LUCAS	NOT REFERRED
11	1011 REESE	MCGOVERN	NOT REFERRED
12	1012 WILLIAM	MCKENZIE	NOT REFERRED
13	1013 NICHOLAS	NGUYEN	REFERRED
14	1014 JASMINE	LEE	NOT REFERRED
15	1015 STEVE	SHELL	NOT REFERRED
16	1016 MICHELL	DAUM	REFERRED
17	1017 BECCA	NELSON	NOT REFERRED
18	1018 GREG	MONTIASA	NOT REFERRED
19	1019 JENNIFER	SMITH	REFERRED
20	1020 KENNETH	FALAH	NOT REFERRED

3. Display a list of all book titles and the percentage of markup for each book. The percentage of markup should be displayed as a whole number (that is, multiplied by 100) with no decimal position, followed by a percent sign (for example, .2793 = 28%). (The percentage of markup should reflect the difference between the retail and cost Sagara Samarawickrama | 2023W amounts as a percent of the cost.) of markup should reflect the difference between the retail and cost amounts as a percent of the cost.)

- ❖ CONCAT is the function in the sql that is use to connect the string or the character in the SQL.
- ❖ ROUND is use to remove the floating value in the SQL. Round is the inbuilt function in the SQL.

SQL query

- ❖ select title as santosh_title, CONCAT(ROUND(((RETAIL-COST)/ COST)*100), '%') AS "MARKUP PERCENTAGE" from books;

Screen Shot of Sql

The screenshot displays the Oracle SQL Developer environment. On the left, the 'Connections' pane shows the 'santoshDb' connection. The main window is split into a 'Worksheet' and a 'Query Builder'. The 'Query Builder' tab is active, showing the following SQL query:

```
select title as santosh_title, CONCAT(ROUND(((RETAIL-COST)/ COST)*100), '%') AS "MARKUP PERCENTAGE" from books;
```

Below the query, the 'Query Result' pane shows the output of the query. It indicates that 14 rows were fetched in 0.005 seconds. The results are displayed in a table with two columns: 'SANTOSH_TITLE' and 'MARKUP PERCENTAGE'.

SANTOSH_TITLE	MARKUP PERCENTAGE
1 BODYBUILD IN 10 MINUTES A DAY	65%
2 REVENGE OF MICKEY	55%
3 BUILDING A CAR WITH TOOTHPICKS	59%
4 DATABASE IMPLEMENTATION	78%
5 COOKING WITH MUSHROOMS	60%
6 HOLY GRAIL OF ORACLE	61%
7 HANDCRANKED COMPUTERS	15%
8 E-BUSINESS THE EASY WAY	44%
9 PAINLESS CHILD-REARING	87%
10 THE WOK WAY TO COOK	51%
11 BIG BEAR AND LITTLE DOVE	68%
12 HOW TO GET FASTER PIZZA	68%
13 HOW TO MANAGE THE MANAGER	107%
14 SHORTEST POEMS	83%

A blue box labeled 'Output' points to the query result table.

4. Display the current day of the week, hour, minutes, and seconds of the current date setting on the computer you're using.

- ❖ TO_CHAR is use to change the value in the character form in the SQL.
- ❖ SYSDATE is the system date that is provided through the computer.
- ❖ DUAL is the table that oracle has within it. It is kind of dummy table.

SQL query

- ❖ SELECT TO_CHAR(SYSDATE, 'DAY') || ',' || TO_CHAR(SYSDATE, 'HH24:MI:SS') AS santosh_CurrentDate FROM DUAL;

Screen Shot Of the SQL Query

The screenshot displays the Oracle SQL Developer environment. On the left, the 'Connections' pane shows a tree view of the database schema, including tables, views, and procedures. The main workspace is divided into two panes: 'Worksheet' and 'Query Builder'. The 'Worksheet' pane contains the following SQL query:

```
SELECT TO_CHAR(SYSDATE, 'DAY') || ',' || TO_CHAR(SYSDATE, 'HH24:MI:SS') AS santosh_CurrentDate FROM DUAL;
```

The 'Query Result' pane shows the output of the query, which is a single row with the column name 'SANTOSH_CURRENTDATE' and the value '1 FRIDAY , 11:28:53'.

SANTOSH_CURRENTDATE
1 FRIDAY , 11:28:53

A blue box labeled 'Output' is positioned to the right of the query result table.

5. Create a list of all book titles and costs. Precede each book's cost with asterisks so that the width of the displayed Cost field is 12.

- ❖ LPAD is the function that is use for left padding the string with another string.
- ❖ It use three parameter string, length and lpad string. Where lpad string is the string required to be left pad

SQL Query

❖ SELECT title as santosh_title, LPAD(CONCAT('*', cost), 12, '*') AS Cost FROM books;

Screen Shot of the Query

The screenshot displays the SQL Developer interface. On the left, the 'Connections' pane shows the 'santoshDb' connection. The main window is divided into a 'Worksheet' and a 'Query Builder' tab. The 'Query Builder' tab contains the following SQL query:

```
SELECT title as santosh_title, LPAD(CONCAT('*', cost), 12, '*') AS Cost
FROM books;
```

Below the query, the 'Query Result' pane shows the output of the query. The results are displayed in a table with two columns: 'SANTOSH_TITLE' and 'COST'. The 'COST' column is padded with asterisks to a width of 12. The results are as follows:

SANTOSH_TITLE	COST
1 BODYBUILD IN 10 MINUTES A DAY	*****18.75
2 REVENGE OF MICKEY	*****14.2
3 BUILDING A CAR WITH TOOTHPICKS	*****37.8
4 DATABASE IMPLEMENTATION	*****31.4
5 COOKING WITH MUSHROOMS	*****12.5
6 HOLY GRAIL OF ORACLE	*****47.25
7 HANDCRANKED COMPUTERS	*****21.8
8 E-BUSINESS THE EASY WAY	*****37.9
9 PAINLESS CHILD-REARING	*****48
10 THE WOK WAY TO COOK	*****19
11 BIG BEAR AND LITTLE DOVE	*****5.32
12 HOW TO GET FASTER PIZZA	*****17.85
13 HOW TO MANAGE THE MANAGER	*****15.4
14 SHORTEST POEMS	*****21.85

6. Using today's date, determine the age (in months) of each book that JustLee sells. Make sure only whole months are displayed; ignore any portions of months. Display the book title, publication date, current date, and age6.

- ❖ Month between is the function that return the estimated number between date 1 and date 2.
- ❖ Round is used to round-off the decimal value in the query.

SQL Query

- ❖ `SELECT title as santosh_title, pubdate,SYSDATE AS current_date, ROUND(MONTHS_BETWEEN(SYSDATE, pubdate)) AS age FROM books;`

Screen Shot of the Output

The screenshot displays the Oracle SQL Developer environment. On the left, the 'Connections' pane shows a connection to 'santoshDb'. The main window is divided into a 'Worksheet' area at the top and a 'Query Result' area below. The 'Worksheet' area contains the following SQL query:

```
SELECT title as santosh_title, pubdate,SYSDATE AS current_date, ROUND(MONTHS_BETWEEN(SYSDATE, pubdate)) AS age FROM books;
```

The 'Query Result' area shows the output of the query, which consists of 14 rows. The columns are labeled: SANTOSH_TITLE, PUBDATE, CURRENT_DATE, and AGE. The data is as follows:

SANTOSH_TITLE	PUBDATE	CURRENT_DATE	AGE
1 BODYBUILD IN 10 MINUTES A DAY	21-JAN-05	29-MAR-24	230
2 REVENGE OF MICKEY	14-DEC-05	29-MAR-24	219
3 BUILDING A CAR WITH TOOTHPICKS	18-MAR-06	29-MAR-24	216
4 DATABASE IMPLEMENTATION	04-JUN-03	29-MAR-24	250
5 COOKING WITH MUSHROOMS	28-FEB-04	29-MAR-24	241
6 HOLY GRAIL OF ORACLE	31-DEC-05	29-MAR-24	219
7 HANDCRANKED COMPUTERS	21-JAN-05	29-MAR-24	230
8 E-BUSINESS THE EASY WAY	01-MAR-06	29-MAR-24	217
9 PAINLESS CHILD-REARING	17-JUL-04	29-MAR-24	236
10 THE WOK WAY TO COOK	11-SEP-04	29-MAR-24	235
11 BIG BEAR AND LITTLE DOVE	08-NOV-05	29-MAR-24	221
12 HOW TO GET FASTER PIZZA	11-NOV-06	29-MAR-24	209
13 HOW TO MANAGE THE MANAGER	09-MAY-03	29-MAR-24	251
14 SHORTEST POEMS	01-MAY-05	29-MAR-24	227

The 'Query Result' area also indicates that 14 rows were fetched in 0.004 seconds.

7. Determine the calendar date of the next occurrence of Wednesday, based on today's date.

- ❖ NEXT_DAY is the function used to determine the upcoming date from the current system date.
- ❖ It will take the two parameter with in it.
- ❖ It is also built in function in the sql

SQL query

- ❖ `SELECT NEXT_DAY(SYSDATE, 'WEDNESDAY') AS "Santosh_Next Wednesday" FROM DUAL;`

Screen Shot of the SQL

The screenshot displays the Oracle SQL Developer interface. On the left, the 'Connections' pane shows a tree view of the database schema for 'santoshDb'. The main workspace is divided into three panes: 'Worksheet', 'Query Builder', and 'Query Result'. The 'Worksheet' pane contains the SQL query: `SELECT NEXT_DAY(SYSDATE, 'WEDNESDAY') AS "Santosh_Next Wednesday" FROM DUAL;`. The 'Query Result' pane shows the output of the query, which is a single row with the column name 'Santosh_Next Wednesday' and the value '1 03-APR-24'. The status bar indicates 'All Rows Fetched: 1 in 0.004 seconds'. A blue box labeled 'Output' is positioned to the right of the query result.

Santosh_Next Wednesday
1 03-APR-24

8. Produce a list of each customer number and the third and fourth digits of his or her zip code. The query should also display the position of the first occurrence of a 3 in the customer number, if it exists.

- ❖ INSTR return the first occurrence of the position of the string in the another string.
- ❖ INSTR is the function of the SQL

SQL Query

- ❖ select customer#,zip,SUBSTR(zip, 3, 2) AS santosh_zip, INSTR(customer#, '3', 1, 1) AS santosh_position from customers;

Screen Shot of the SQL

The screenshot displays the SQL Developer interface. On the left, the 'Connections' pane shows the 'santoshDb' connection. The main window is split into a 'Worksheet' and a 'Query Result' pane. The 'Worksheet' pane contains the following SQL query:

```
select customer#,zip,SUBSTR(zip, 3, 2) AS santosh_zip,
INSTR(customer#, '3', 1, 1) AS santosh_position from customers;
```

The 'Query Result' pane shows the output of the query, with 20 rows fetched in 0.003 seconds. The results are as follows:

	CUSTOMER#	ZIP	SANTOSH_ZIP	SANTOSH_POSITION
1	1001	32328	32	0
2	1002	90404	40	0
3	1003	32306	30	4
4	1004	83707	70	0
5	1005	98115	11	0
6	1006	12211	21	0
7	1007	78710	71	0
8	1008	82003	00	0
9	1009	91510	51	0
10	1010	30314	31	0
11	1011	60606	60	0
12	1012	02110	11	0
13	1013	34711	71	4
14	1014	82414	41	0
15	1015	33111	11	0
16	1016	91508	50	0
17	1017	49006	00	0
18	1018	31206	20	0
19	1019	07962	96	0
20	1020	08607	60	0

A blue box labeled 'Output' is positioned to the right of the query result table.