Lab Report

Course Title: Database Management System Lab

Course Code: ICE 2208

Report No.: 02

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Remarks

Submitted To:

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Theory: 50L is a standard language for sorting, manipulating and restructing data in databases. In this lab, we will work as fundamental database operation including aggregate function (Numeric function—Max, Min, Avg. power, sqrt, etc. and strong function—upper, lower), Dud, Alianing, Like (-, x), In and Non In Operator.

Aggregate Function creation: An aggregate function performs a calculation on a set of values, and returns a single value.

property (coloranical) from tople - story

Numeric Function:

Max1): The Max1) function returns the largest value of the selected column.

Syntan: select Maxled-name) from table-name;

Min(): The Min() function returns the Largest smallest value of the selected column.

Syntain: select Minlcol-names from table-name;

Avg(): The a. Avg() function returns the average value of the numerical column.

Symtax: Select Avg(cel-name) from table-name;

POWER(): The POWER () functions recturens the value of a number readsed to the power of another number.

Synton: select power (col-name, a) from table-name;

Sgrif(): The sgrit 10 function returns the square root of a number.

Syntan: Select sqrt(col-name) from table-name;

String Function:

Upper(): The upper() function coveres the text to uppercuse.

Synton: Select upport col-name) from table-name;

Lower-case.

Syntax: select lower (col-name) from table-name;

Dual Table Creation: There may be a situation where we want to query smolething that is not from a table. It is a table that is autometically created by Orracle Destabase along with the data dietionary.

LE The porcent sign it responds some one on muldiple

Syntan: select & from Dual;

Alterer Creation: SOL alianer are used to give a toble, on a column in a toble, a temporery name. Aliasers are often wed to make column names more readable. An alians only exists for the dureation of that query. An alian is created with the 'An' keyword.

Syntan: select col-name An alian-name from table-name;

Like operation encotion! The Like operation is used in a where clowe to search for a specified pattern in a column.

: The percent sign y represents zero, one or multiple characters.

-: The undanscone sign - represents one, single character.

Syntax: select ed-name from tablee-name where patteren;

Starts with: To return records that starts with a specific letter on phrase, add the " at the end of the letter on phase.

Ends with: To return records that ends with a specific letter on phrase, add the ? at the beginning of the letter on phrase.

Contains: To return records that contains a specific letter on phrase, add the Y. both before and after the letter on phrase.

In operator creation: The In operator allows we to specify multiple values in a where dayse.

The In operator is a shorthand fore multiple on; conditions.

Syntax: scheet cal-name from table-name where col-name In (values, values, ...);

solvert Harl marky Fram STUDENT-JNFOI

Not In Operatore Creation: By using the Not Keyword in front of the In operatore, we return all records that are Not any at the values in the list.

Syntax: Select cal-name from table-name where cal-name
Not In (values, values, ...);

Problem Name: Create Aggregate (Numeric) Function

Solution: The create Aggregate (Numeric) Fuetion is used to

Ansilation 9

Max1), Min 1), Argl), Powerl), Sqrt() function.

Sample Input:

Mane:
Select Max (marks) from SFVDENT-INFO;

Minly:

select Min (marks) From STUDENT-INFO;

that In Openation Creeking the paper the the period select Avg (marks) from STUDENT-INFO; Complexes on the In opening me well so found

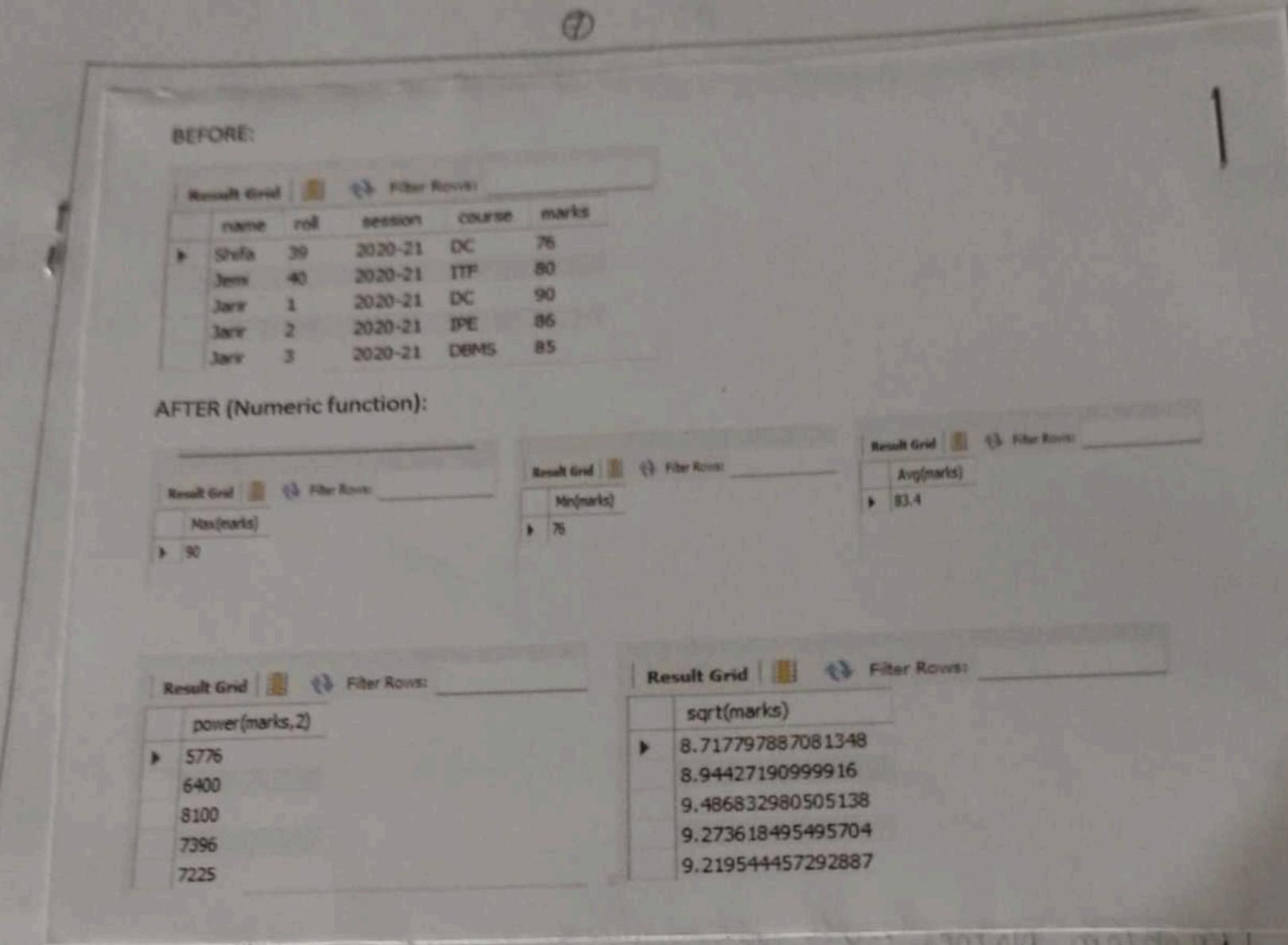
Powers):

ARRIVED OF COMPANY AND IS HAVE TOM Select power (marks, 2) from STUDENT-INFO;

Explant scheet tot-come team total maine whene est-mone sqraf():

The state of the s select sgrit (marks) from STUDENT_INFO;

Sample Output:



Problem Name: Create Aggregate (String) Function

Solution: The create Aggregate (String) Function is used to Upperl), Lowerl) function.

Sample Input

stock ges from Luch

Sample Input!

Lowerl):

Select lower (name) from STUDENT-INFO;

Upports:

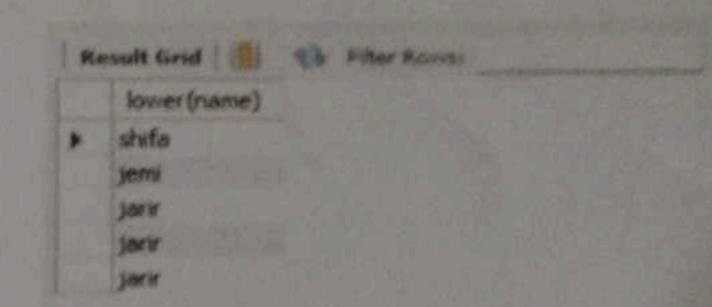
Select upper [names from STUDENT_INFO;

BEFORE:

1 4	usult tire	41 [th Faur	Barres	
	name	ros	session	course	marks
	Shyfe	39	2020-21	DC	76
	Jenv	40	2020-21	ITF	80
	Jark	1	2020-21	DC	90
	3arir	2	2020-21	TPE	86
	Jarr	3	2020-21	DBMS	85

AFTER (String function):

Upper(name) SHIFA JEMI JARIR JARIR		tesult Grid	. 55			
JEMI JARIR		upper(name)				
JARIR	×	SHIFA				
		JEMI				
TARTR		JARIR				
- Proposition		JARIR				



and the street of the same

Problem Name! Dund table creation

Solution! The Dual table creation is used to 'Dual' keyword.

10-1111 - FIL 3-131 T. 2

Sample Input!

select 2*2 from dued;

Select 2x2, 5+8 from dual;

Sample Output:

BEFORE:

100	secolt Gris	TIME	45 Hours	KOVAY	
	name	rol	session	COLFEE	marks
	Silvifo	39	2020-21	DC	76
	Jave Jave	1 2	2020-21	DC	90
	SWY	3	2020-21	DBMS	85

AFTER (dual):

Result Grid	(A Fiber Roles	_11	ters	ult Gri	6)
242				2*2	5
1 4				4	1

soles of the students and to below

Select of trees STUPENT-THEO

Problem Name! Alianes creation.

Solution: Alianer creation is used to as keyword.

Sample Input!

Select 2*2 as result from dual;

Select 2*2 as result, 2+1 as Credit from dual; i tugleyo algorid

serve or amortis

Sample Output!

BEFORE:

Filter Rows: Result Grid marks course 2020-21 2020-21 2020-21 2020-21 2020-21 DBMS

AFTER (Aliasing):

Re	sult Grid	-	Fitter Rows:	Re	sult Grid	图的	Fiber Royss
	result				result	Credit	
	4			1	4	3	

Problem Name: Like operator creation like operator.

Solution: Like operator creation is used to stanta with,

Ends with and both before and atten the letter on phrase.

Sample Input:

Select * from STUDENT-INFO where name like '%a';

Select * from STUDENT-INFO where name like 'JT.';

select + from STUDENT-INFO where name like 'Y.ey.';

select * from STUDENT-INFO where name like '-o'!';

select & from STUPENT-INFO where name like '-- i'!;

School * from STUPENT-INFO where name like '-e'l';

Lamala Output!

BEFORE:

			THE RESERVE	day were	married
_	Broken	roll	session	course	marks
	irate	39	2023-21	DC	76
12	ens	40	2020-21	ITF	80
24	STIF	1	2020-21	DC	90
20	WW.	2	2020-21	IPE	86

AFTER(Like):

A	lesult Gri	d	() Fiter	Roviss	
			session		marks
2			2020-21	ne	

A	lesult Gri	d III	th Fiter	Rovisi	
	name	roll	session	course	marks
	Jemi	40	2020-21		80

11	Result Gri	d I	th Fiter	Roves:	
	name	roll	session	course	marke
*	Shifa	39	2020-21		76

	name	roll	session	course	-
7	Jemi	40		course	marks
	12750	40	2020-21	ITF	30
	Jarir	1	2020-21	DC	90
	Jarir	2	2020-21		
	Jarir	-		IPE	86
	1 act it	3	2020-21	DBMS	95

1 K	esuit Gric	1 1 1 1	14 Fitter I	Rows	
	name		session		made
1	Jark	1	2020-21		
	Jarir	2			90
	Jarir	2	2020-21		86
	1-0-1	2	2020-21	DBMS	85

R	esult Gric	1 1	th Fitter F	
	name		session	-
	Jemi	6m 40	2020-21	an a

Problem Name: In Operators Creation

Solution: In operator creation is used to where clause.

i hogist signor

Sample Input:

Select * from STUDENT-INFO where name in ('jarrin');

select * from STUDENT-INFO where none noll in (39,40);

Sample Output:

BEFORE:

	name	roll	session	course	marks
7	Shifa	39	2020-21	DC	76
	Jemi	40	2020-21	ITF	80
	Jarir	1	2020-21	DC	90
	Jarir	2	2020-21	IPE	86
	Jarir	3	2020-21	DBMS	85

AFTER(In):

1	Result Grid					
	name	roll	session	course	marks	
	Jarir	1	2020-21	DC	90	
	Janr	2	2020-21	IPE	86	
	Jarir	3	2020-21	DBMS	85	

R	esult Grid		() Filter R		
	name	roll	session	course	marks
3	Shifa	39	2020-21	DC	76
	Jemi	40	2020-21		80

Problem Name! Not In Operator Caeston

Solution! Not In operator creation is used to where clouse.

Sample Input:

the select the Opening on the select makes school & from STUDENT INFO where name not in ('jonesa');

select & from STUDENT-INFO where real not in (39);

Sample Output

BEFORE:

	Dame	roll	The section is		
A: 185	hifa	-	session	course	marks
3	nita	38	2020-21	DC	76
120	SON	40	2020-21	ITF	80
Ja	rir	1	2020-21	DC	90
38	nie	2	2020-21	IPE	86

AFTER (Not In):

	Result Gr	id III	€¥ Fiter	Rowsz	
	пате	roll	session	course	marks
3	Shifa	39	2020-21		76
	Jemi	40	2020-21		80

	name	roll	session	course	marks
2	Jemi	40	2020-21	ITF	80
	Jarir	1	2020-21	DC	90
	Jarir	2	2020-21	IPE	86
	Janir	3	2020-21	DBMS	85

burne signed

Discussion: This lab report provide a conclise overview of tundamental destabase operation. These operation are crucial for efficiency managing dat with database for various application. Underestanding these concepts is essential for mountaining data integratly and optimizing database performance.