

UNIVERSIDAD SALESIANA DE BOLIVIA

CARRERA: INGENIERIA DE SISTEMAS



TEMA:

LABORATORIO 5

ESTUDIANTE:

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DOCENTE:

ING. JESUS JUAN ROCHA VERA

SEMESTRE:

5-111

MATERIA:

BASE DE DATOS II

FECHA:

26/03/2025

1. Desplegar el nombre del departamento y el salario promedio de sus empleados, para aquellos departamentos que tengan una media de salario mayor que el salario medio de la organización o empresa.

```
1  --1
2  SELECT d.department_name, AVG(e.salary) AS avg_salary
3  FROM hr.employees e
4  JOIN hr.departments d ON e.department_id = d.department_id
5  GROUP BY d.department_name
6  HAVING AVG(e.salary) > (SELECT AVG(salary) FROM hr.employees);
```

	DEPARTMENT_NAME	AVG_SALARY
1	Marketing	9500
2	Human Resources	6500
3	Public Relations	10000
4	Sales	8955.882352941177
5	Executive	19333.333333333332
6	Finance	8601.333333333334
7	Accounting	10154

2. Mostrar por orden alfabético los nombres de los empleados cuyo salario supera al máximo salario de los empleados del departamento 20.



```
8  --2
9  SELECT first_name
10 FROM hr.employees
11 WHERE salary > (SELECT MAX(salary) FROM hr.employees WHERE department_id = 20)
12 ORDER BY first_name ASC;
```

	FIRST_NAME
1	John
2	Karen
3	Lex
4	Neena
5	Steven

3. Mostrar por orden alfabético los nombres de los empleados cuyo salario está entre 7200 a 12500.

```
14  --3
15  SELECT first_name
16  FROM hr.employees
17  WHERE salary BETWEEN 7200 AND 12500
18  ORDER BY first_name ASC;
```

Query result Script output DBMS output Explain Plan SQL history



  Download Execution time: 0.005 seconds

	FIRST_NAME
1	Adam
2	Alberto
3	Alexander
4	Allan
5	Alyssa
6	Christopher
7	Clara
8	Daniel
9	Danielle

4. Desplegar los nombres de los empleados cuyo nombre contenga la cadena "ld".

```
21  SELECT first_name
22  FROM hr.employees
23  WHERE first_name LIKE '%ld%';
24
```



Query result Script output DBMS output Explain Plan

  Download Execution time: 0.004 seconds

	FIRST_NAME
1	Gerald
2	Donald

5. Mostrar la diferencia existente entre el salario máximo y el mínimo de los empleados pertenecientes al departamento 50.

```
25  --5
26  SELECT MAX(salary) - MIN(salary) AS salary_difference
27  FROM hr.employees
28  WHERE department_id = 50;
29
```

Query result		Script output	DBMS output	Explain Plan	SQL history		
		Download	▼	Execution time: 0.001 seconds			
		SALARY_DIFFERENCE					
1		6100					

6. Desplegar los nombres de los empleados cuyo puesto de trabajo sea 'FI_ACCOUNT' o 'SA_MAN' o 'PU_CLERK' y que trabajen en el mismo departamento que el empleado 198.

```
30  --6
31  SELECT e.first_name
32  FROM hr.employees e
33  WHERE e.job_id IN ('FI_ACCOUNT', 'SA_MAN', 'PU_CLERK') AND e.department_id = (
34  SELECT department_id
35  FROM hr.employees
36  WHERE employee_id = 198
37  );
```



Query result

Script output

DBMS output

Explain Plan

SQL history

Download

▼

Execution time: 0.001 seconds

FIRST_NAME

No items to display.

Ahora con employee_id=108:

```
30  --6
31  SELECT e.first_name
32  FROM hr.employees e
33  WHERE e.job_id IN ('FI_ACCOUNT', 'SA_MAN', 'PU_CLERK') AND e.department_id = (
34  SELECT department_id
35  FROM hr.employees
36  WHERE employee_id = 108
37  );
38
```

Query result

Script output

DBMS output

Explain Plan

SQL history

Download

▼

Execution time: 0.002 seconds

	FIRST_NAME
1	Daniel
2	John
3	Ismael
4	Jose Manuel
5	Luis

7. Mostrar los códigos de los empleados contratados entre el 21/05/2000 a 26/09/2009.

```
48 SELECT employee_id
49 FROM hr.employees
50 WHERE hire_date BETWEEN TO_DATE('2000-05-21', 'YYYY-MM-DD')
51 AND TO_DATE('2009-09-26', 'YYYY-MM-DD');
```

EMPLOYEE_ID
100
101
102
103
104
105
106

8. Mostrar el nombre, el código del oficio y el código del departamento de aquellos empleados que tienen el mismo puesto laboral y trabajan en el mismo departamento que un empleado cuyo código se ingresa por teclado.

Para employee_id=100:

Substitution Variables

a

100

Cancel

OK

44	--8
45	SELECT e.first_name, e.job_id, e.department_id
46	FROM hr.employees e
47	WHERE (e.job_id, e.department_id) IN (
48	SELECT job_id, department_id
49	FROM hr.employees
50	WHERE employee_id = &a
51);
52	

Query result	Script output	DBMS output	Explain Plan	SQL his
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		Download	Execution time: 0.001 seconds	
--	--	----------	-------------------------------	--

	FIRST_NAME	JOB_ID	DEPARTMENT_ID
1	Steven	AD_PRES	90

9. Mostrar el nombre y apellido de los empleados, para aquellos que pertenecen al departamento 10,20,30,40 que fueron contratados un día martes y que tienen una comisión de más del 20% y cuyo nombre inicia con la letra L o M.

54	SELECT e.first_name, e.last_name, e.hire_date
55	FROM hr.employees e
56	WHERE e.department_id IN (
57	SELECT department_id
58	FROM hr.employees
59	WHERE TO_CHAR(hire_date, 'DAY') = 'TUESDAY'
60)
61	AND e.commission_pct > 0.2
62	AND first_name LIKE 'L%' OR first_name LIKE 'M%';
63	

Query result	Script output	DBMS output	Explain Plan	SQL histo
--------------	---------------	-------------	--------------	-----------

		Download	Execution time: 0.006 seconds	
--	--	----------	-------------------------------	--

	FIRST_NAME	LAST_NAME	HIRE_DATE
1	Matthew	Weiss	7/18/2014, 12:00:00
2	Mozhe	Atkinson	10/30/2015, 12:00:00
3	Michael	Rogers	8/26/2016, 12:00:00
4	Mattea	Marvins	1/24/2018, 12:00:00
5	Martha	Sullivan	6/21/2017, 12:00:00
6	Michael	Martinez	2/17/2014, 12:00:00

10. Desplegar los códigos, nombres, apellidos de aquellos empleados cuyo salario es mayor al promedio salarial general.

```
64 --10
65 SELECT employee_id, first_name, last_name
66 FROM hr.employees
67 WHERE salary > (SELECT AVG(salary) FROM hr.employees);
68
```

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME
1	100	Steven	King
2	101	Neena	Yang
3	102	Lex	Garcia
4	103	Alexander	James
5	108	Nancy	Gruenberg
6	109	Daniel	Faviet
7	110	John	Chen
8	111	Ismael	Sciarra
9	112	Jose Manuel	Urman
10	113	Luis	Popp

11. Mostrar el código del empleado, nombre, apellido y salario, además del código y nombre del departamento, para aquellos empleados que ganan más en cada departamento.

```
69 --11
70 SELECT e.employee_id, e.first_name, e.last_name, e.salary, d.department_id, d.
71 FROM hr.employees e
72 JOIN hr.departments d ON e.department_id = d.department_id
73 WHERE e.salary = (
74 SELECT MAX(salary)
75 FROM hr.employees
76 WHERE department_id = e.department_id
77 );
78
```

	YEE_ID	FIRST_NAME	LAST_NAME	SALARY	DEPARTMENT_ID	DEPARTMENT_NAM
1	200	Jennifer	Whalen	4400	10	Administration
2	201	Michael	Martinez	13000	20	Marketing
3	114	Den	Li	11000	30	Purchasing
4	203	Susan	Jacobs	6500	40	Human Resources
5	121	Adam	Fripp	8200	50	Shipping
6	103	Alexander	James	9000	60	IT
7	204	Hermann	Brown	10000	70	Public Relations
8	145	John	Singh	14000	80	Sales

12. Se desea mostrar los nombres de los departamentos que se encuentran fuera de EEUU, y además debe desplegar el nombre de la respectiva ciudad.

```
79  --12
80  SELECT d.department_name, l.city, c.country_name
81  FROM hr.departments d
82  JOIN hr.locations l ON d.location_id = l.location_id
83  JOIN hr.countries c ON l.country_id = c.country_id
84  WHERE l.country_id <> 'US';
85
```

	DEPARTMENT_NAME	CITY	COUNTRY_NAME
1	Marketing	Toronto	Canada
2	Human Resources	London	United Kingdom of G
3	Sales	Oxford	United Kingdom of G
4	Public Relations	Munich	Germany

13. Mostrar los nombres de los departamentos que se encuentran en EEUU, y además debe desplegar el nombre de la respectiva ciudad.

```
86  --13
87  SELECT d.department_name, l.city, c.country_name
88  FROM hr.departments d
89  JOIN hr.locations l ON d.location_id = l.location_id
90  JOIN hr.countries c ON l.country_id = c.country_id
91  WHERE l.country_id = 'US';
92
```

	DEPARTMENT_NAME	CITY	COUNTRY_NAME
1	IT	Southlake	United States of Ame
2	Shipping	South San Francisco	United States of Ame
3	Administration	Seattle	United States of Ame
4	Purchasing	Seattle	United States of Ame
5	Executive	Seattle	United States of Ame
6	Finance	Seattle	United States of Ame
7	Accounting	Seattle	United States of Ame
8	Treasury	Seattle	United States of Ame

1.

[illegible]

2.

FIRST_NAME
John
Karen
Lex
Neena
Steven

3.

```
20 v CREATE VIEW vista_empleados_salario_entre_7200_12500 AS
21 SELECT first_name
22 FROM hr.employees
23 WHERE salary BETWEEN 7200 AND 12500
24 ORDER BY first_name ASC;
25
26 SELECT * FROM vista_empleados_salario_entre_7200_12500;
```

FIRST_NAME
Adam
Alberto
Alexander
Allan
Alyssa
Christopher

4.

```
27 --4
28 v CREATE VIEW vista_empleados_nombre_contiene_ld AS
29 SELECT first_name
30 FROM hr.employees
31 WHERE first_name LIKE '%ld%';
32
33 SELECT * FROM vista_empleados_nombre_contiene_ld;
```

FIRST_NAME
Gerald
Donald

5.

```
34  --5
35  v CREATE VIEW vista_diferencia_salario_maximo_minimo_departamento_50 AS
36  SELECT MAX(salary) - MIN(salary) AS diferencia_salario
37  FROM hr.employees
38  WHERE department_id = 50;
39
40  SELECT * FROM vista_diferencia_salario_maximo_minimo_departamento_50;
```

DIFERENCIA_SALARIO
6100

6.

```
41  --6
42  v CREATE VIEW vista_empleados_puestos_especificos_mismo_departamento_198 AS
43  SELECT e.first_name
44  FROM hr.employees e
45  WHERE e.job_id IN ('FI_ACCOUNT', 'SA_MAN', 'PU_CLERK') AND e.department_id = (
46  SELECT department_id
47  FROM hr.employees
48  WHERE employee_id = 198
49  );
50
51  SELECT * FROM vista_empleados_puestos_especificos_mismo_departamento_198;
```

no data found

7.

```
52  --7
53  v CREATE VIEW vista_empleados_contratados_entre_2000_2009 AS
54  SELECT employee_id
55  FROM hr.employees
56  WHERE hire_date BETWEEN TO_DATE('2000-05-21', 'YYYY-MM-DD')
57  AND TO_DATE('2009-09-26', 'YYYY-MM-DD');
58
59  SELECT * FROM vista_empleados_contratados_entre_2000_2009;
60
```

EMPLOYEE_ID
100
101
102
103
104

8.

```
61  --8
62  v CREATE VIEW vista_empleados_mismo_puesto_departamento_que_empleado_especifico AS
63  SELECT e.first_name, e.job_id, e.department_id
64  FROM hr.employees e
65  WHERE (e.job_id, e.department_id) IN (
66  SELECT job_id, department_id
67  FROM hr.employees
68  WHERE employee_id = 100
69  );
70
71  SELECT * FROM vista_empleados_mismo_puesto_departamento_que_empleado_especifico;
```

FIRST_NAME	JOB_ID	DEPARTMENT_ID
Steven	AD_PRES	90

9.

```
72 --9
73 v CREATE VIEW vista_empleados_departamento_contratados_martes_comision_mayor_20_nombre_l_m AS
74 SELECT e.first_name, e.last_name, e.hire_date
75 FROM hr.employees e
76 WHERE e.department_id IN (
77 SELECT department_id
78 FROM hr.employees
79 WHERE TO_CHAR(hire_date, 'DAY') = 'TUESDAY'
80 )
81 AND e.commission_pct > 0.2
82 AND (first_name LIKE 'L%' OR first_name LIKE 'M%');
83
84 SELECT * FROM vista_empleados_departamento_contratados_martes_comision_mayor_20_nombre_l_m;
```

no data found

10.

```
85 --10
86 v CREATE VIEW vista_empleados_salario_mayor_promedio AS
87 SELECT employee_id, first_name, last_name
88 FROM hr.employees
89 WHERE salary > (SELECT AVG(salary) FROM hr.employees);
90
91 SELECT * FROM vista_empleados_salario_mayor_promedio;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME
100	Steven	King
101	Neena	Kochhar
102	Lex	De Haan
103	Alexander	Hunold
108	Nancy	Greenberg

11.

```

92  --11
93  v CREATE VIEW vista_empleados_salario_maximo_por_departamento AS
94  SELECT e.employee_id, e.first_name, e.last_name, e.salary, d.department_id, d.department_name
95  FROM hr.employees e
96  JOIN hr.departments d ON e.department_id = d.department_id
97  WHERE e.salary = (
98  SELECT MAX(salary)
99  FROM hr.employees
100 WHERE department_id = e.department_id
101 );
102
103 SELECT * FROM vista_empleados_salario_maximo_por_departamento;

```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	SALARY	DEPARTMENT_ID	DEPARTMENT_NAME
121	Adam	Fripp	8200	50	Shipping
203	Susan	Mavris	6500	40	Human Resources
205	Shelley	Higgins	12008	110	Accounting
100	Steven	King	24000	90	Executive
114	Den	Raphaely	11000	30	Purchasing

12.

```

104  --12
105  v CREATE VIEW vista_departamentos_fuera_de_eeuu AS
106  SELECT d.department_name, l.city, c.country_name
107  FROM hr.departments d
108  JOIN hr.locations l ON d.location_id = l.location_id
109  JOIN hr.countries c ON l.country_id = c.country_id
110  WHERE l.country_id <> 'US';
111
112  SELECT * FROM vista_departamentos_fuera_de_eeuu;

```

DEPARTMENT_NAME	CITY	COUNTRY_NAME
Marketing	Toronto	Canada
Human Resources	London	United Kingdom
Sales	Oxford	United Kingdom
Public Relations	Munich	Germany

13.

```
113  --13
114  v CREATE VIEW vista_departamentos_en_eeuu AS
115  SELECT d.department_name, l.city, c.country_name
116  FROM hr.departments d
117  JOIN hr.locations l ON d.location_id = l.location_id
118  JOIN hr.countries c ON l.country_id = c.country_id
119  WHERE l.country_id = 'US';
120
121  SELECT * FROM vista_departamentos_en_eeuu;
122
```

DEPARTMENT_NAME	CITY	COUNTRY_NAME
IT	Southlake	United States of America
Shipping	South San Francisco	United States of America
Administration	Seattle	United States of America
Purchasing	Seattle	United States of America
Executive	Seattle	United States of America