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# SQL Learning from scratch

-- set 6

-- Join  
-- left join  
-- right join  
-- outer join  
-- inner join



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# Query

- -- 1. write a query to get all employee
- `select * from EMP;`

Results		Messages					
	EMP_ID	FNAME	LNAME	Salary	join_Date	DEPT	Gender
1	1	Vikas	Ahlawat	600000	2013-02-15	IT	Male
2	2	Nikita	Jain	530000	2014-01-09	HR	Female
3	3	Ashish	Kumar	10000000	2014-01-09	IT	Male
4	4	Nikhil	Sharma	480000	2014-01-09	HR	Male
5	5	Anish	Kadian	600000	2013-02-15	Payroll	Male



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# Query\_New\_table

- `CREATE table` prjct\_details
- (
  - prjct\_id `int`,
  - emp\_id `int`,
  - prjct\_name `char`(20)
- );

## Messages

Commands completed successfully.

Completion time: 2023-06-06T15:16:42.3561295-04:00



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# Query\_Insert\_Values

- `insert into prjct_details values ( 1,1, 'Task Track' );`
- `insert into prjct_details values (2, 1, 'CLP');`
- `insert into prjct_details values (3, 1, 'Survey_mngment');`
- `insert into prjct_details values (4, 2, 'HR_mngment');`
- `insert into prjct_details values (5, 3, 'Task_track');`
- `insert into prjct_details values (6, 3, 'GRS');`
- `insert into prjct_details values (7, 3, 'DDS');`
- `insert into prjct_details values (8, 4, 'HR_Mngment');`
- `insert into prjct_details values (9, 6, 'GL_mngmt');`

## Messages

(1 row affected)

(1 row affected)

(1 row affected)

(1 row affected)

(1 row affected)

(1 row affected)

(1 row affected)



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# Query\_table\_two

- -- 1. write a query to get all employee
- `select * from Prject_details;`

	prjct_id	emp_id	prjct_name
1	1	1	Task Track
2	2	1	CLP
3	3	1	Survey_mngment
4	4	2	HR_mngment
5	5	3	Task_track
6	6	3	GRS
7	7	3	DDS
8	8	4	HR_Mngment
9	9	6	GL_mngmt



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# Query\_1

- -- 1. print emp\_name, prjct name with their assigned project.
- `select rtrim(emp.fname+emp.lname), p.prjct_name`
- `from emp as emp`
- `inner join prjct_details as p`
- `ON p.emp_id = emp.emp_id`

Results Messages			
	(No column name)		prjct_name
1	Vikas	Ahlawat	Task Track
2	Vikas	Ahlawat	CLP
3	Vikas	Ahlawat	Survey_mngment
4	Nikita	Jain	HR_mngment
5	Ashish	Kumar	Task_track
6	Ashish	Kumar	GRS
7	Ashish	Kumar	DDS
8	Nikhil	Sharma	HR_Mngment



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# Query\_2

- -- 1. print emp\_name, prjct name with their assigned project.
- `select rtrim(emp.fname+emp.lname), p.prjct_name`
- `from emp as emp`
- `inner join prjct_details as p`
- `ON p.emp_id = emp.emp_id`

Results Messages		
	fname	prjct_name
1	Anish	NULL
2	Ashish	Task_track
3	Ashish	GRS
4	Ashish	DDS
5	Nikhil	HR_Mngment
6	Nikita	HR_mngment
7	Vikas	Task Track
8	Vikas	CLP
9	Vikas	Survey_mngment



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# Query\_3

- -- 3. print emp\_name, prjct\_name, even if not the project assigned print no project assigned.
- `select e. fname, isnull(prjct_name, 'No Project assigned') as project`
- `from emp as e`
- `Left Outer Join prjct_details as p`
- `ON e.emp_id = p.emp_id`
- `order by e.fname`

Results		Messages
	fname	project
1	Anish	No Project assigned
2	Ashish	Task_track
3	Ashish	GRS
4	Ashish	DDS
5	Nikhil	HR_Mngment
6	Nikita	HR_mngment
7	Vikas	Task Track
8	Vikas	CLP
9	Vikas	Survey_mngment



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# Query\_4

- -- 4. print all projects even if they has no assigned employees
- select e.fname, p.prjct\_name
- from emp as e
- Right Outer Join prjct\_details as p
- ON e.emp\_id = p.emp\_id
- order by e.fname

Results		Messages
	fname	prjct_name
1	NULL	GL_mngmt
2	Ashish	Task_track
3	Ashish	GRS
4	Ashish	DDS
5	Nikhil	HR_Mngment
6	Nikita	HR_mngment
7	Vikas	Task Track
8	Vikas	CLP
9	Vikas	Survey_mngment



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# Query\_5

- -- 5. print all records from both tables
- `select E.emp_id, E.fname, P.prjct_name`
- `FROM emp as E`
- `FULL outer join prjct_details as P`
- `ON e.emp_id = p.emp_id`
- `order by e.fname`

Results		Messages	
	emp_id	fname	prjct_name
1	NULL	NULL	GL_mngmt
2	5	Anish	NULL
3	3	Ashish	Task_track
4	3	Ashish	GRS
5	3	Ashish	DDS
6	4	Nikhil	HR_Mngment
7	2	Nikita	HR_mngment
8	1	Vikas	Task Track
9	1	Vikas	CLP
10	1	Vikas	Survey_mngment



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# Query\_6

- -- 6. print the employee has no assigned project
- `select E.fname,  
isnull(P.prjct_name, 'Null') as  
projects`
- `FROM emp as E`
- `left outer join prjct_details as P`
- `ON e.emp_id = P.emp_id`
- `WHERE P.prjct_name IS NULL`
- `Order by e.fname`

Results Messages		
	fname	projects
1	Anish	Null



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# Query\_7

- -- 7. print the name of projects which has no assigned employees
- `select P.prjct_name,  
isnull(E.fname, 'Null') as  
employees`
- `FROM emp as E`
- `full outer join prjct_details as P`
- `ON e.emp_id = P.emp_id`
- `WHERE e.fname IS NULL`

Results		Messages
	prjct_name	employees
1	GL_mngmt	Null



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# Query\_8

- -- 8. print the employees assigned for more than a project.
- `select E.fname, P.prjct_name as projects`
- `FROM emp as E`
- `inner join prjct_details as P`
- `ON E.emp_id = P.emp_id`
- `WHERE E.emp_ID IN (`
- `SELECT emp_ID`
- `FROM prjct_details`
- `GROUP BY emp_ID`
- `HAVING count(*) >2 );`

Results		Messages
	fname	projects
1	Vikas	Task Track
2	Vikas	CLP
3	Vikas	Survey_mngment
4	Ashish	Task_track
5	Ashish	GRS
6	Ashish	DDS



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# Query\_9

- -- 9. Print the name of projects who has more than 1 employees.
- `SELECT E.fname, P.prjct_name as projects`
- `FROM prjct_details as P`
- `INNER JOIN emp as e`
- `ON p.emp_id = E.emp_id`
- `WHERE p.prjct_name IN(`
- `SELECT prjct_name`
- `from prjct_details`
- `group by prjct_name);`

Results		Messages
	fname	projects
1	Vikas	Task Track
2	Vikas	CLP
3	Vikas	Survey_mngment
4	Nikita	HR_mngment
5	Ashish	Task_track
6	Ashish	GRS
7	Ashish	DDS
8	Nikhil	HR_Mngment



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