Name: Panthiv Patel

Roll no: 72 Class: FYCS

Practical 5 JOINS

INNER:

• The INNER JOIN keyword selects all rows from both the tables as long as the condition satisfies.

• SYNTAX SELECT table1.column1,table1.column2,table2.column1,.... FROM table1 INNER JOIN table2 ON table1.matching_column = table2.matching_column:

SQL> select Ename , SAL , Job , Dname ,Loc 2 from panthiv_EMP inner join panthiv_DEPT 3 on panthiv_EMP.Dept_no=panthiv_DEPT.Dept_no;							
ENAME	SAL	ЈОВ	DNAME	LOC			
KING	5000	PRESIDENT	ACCOUNTING	NEW YORK			
BLAKE	2850	MANAGER	SALES	CHICAGO			
CLARK	2450	MANAGER	ACCOUNTING	NEW YORK			
JONES	2975	MANAGER	RESEARCH	DALLAS			
SCOTT	3000	ANALYST	RESEARCH	DALLAS			
FORD	3000	ANALYST	RESEARCH	DALLAS			
SMITH	800	CLERK	RESEARCH	DALLAS			
ALLEN	1600	SALESMAN	SALES	CHICAGO			
WARD	1250	SALESMAN	SALES	CHICAGO			
MARTIN	1250	SALESMAN	SALES	CHICAGO			
TURNER	1500	SALESMAN	SALES	CHICAGO			
ADAMS	1100	CLERK	RESEARCH	DALLAS			
JAMES	950	CLERK	SALES	CHICAGO			
MILLER	1300	CLERK	ACCOUNTING	NEW YORK			
14 rows sele	cted.						

NATURAL:

- A natural join is a type of equi join which occurs implicitly by comparing all the same names columns in both tables. The join result has only one column for each pair of equally named columns.
- SYNTAX Select * From table1 natural join table2;

OUTER:

- In an outer join, unmatched rows in one or both tables can be returned.
 Right: returns only unmatched rows from the right table
 - SYNTAX SELECT table1.column1,table1.column2,table2.column1,.... FROM table1 RIGHT [OUTER] JOIN table2 ON table1.matching_column = table2.matching_column;

MP_NO	ENAME	SAL	DEPT_NO	DEPT_NO	DNAME
7782	CLARK	2450	10	10	ACCOUNTING
7934	MILLER	1300	10	10	ACCOUNTING
7839	KING	5000	10	10	ACCOUNTING
7902	FORD	3000	20	20	RESEARCH
7788	SCOTT	3000	20	20	RESEARCH
7566	JONES	2975	20	20	RESEARCH
7369	SMITH	800	20	20	RESEARCH
7876	ADAMS	1100	20	20	RESEARCH
7521	WARD	1250	30	30	SALES
7654	MARTIN	1250	30	30	SALES
7844	TURNER	1500	30	30	SALES
7900	JAMES	950	30	30	SALES
7499	ALLEN	1600	30	30	SALES
7698	BLAKE	2850	30	30	SALES
				40	OPERATIONS

Left: returns only unmatched rows from the left table.

 SYNTAX SELECT table1.column1,table1.column2,table2.column1,.... FROM table1 LEFT [OUTER] JOIN table2 ON table1.matching_column = table2.matching_column; SQL> select Emp_no,Ename,SAL,panthiv_EMP.Dept_no,panthiv_DEPT.Dept_no,Dname from panthiv_EMP left outer join panthiv_DEPT on panthiv EMP.Dept no=panthiv DEPT.Dept no; EMP NO ENAME SAL DEPT NO DEPT NO DNAME 7839 KING 5000 10 ACCOUNTING 7698 BLAKE 30 SALES 7782 CLARK 2450 10 ACCOUNTING 7566 JONES 2975 20 RESEARCH 7788 SCOTT 3000 20 RESEARCH
20 RESEARCH
20 RESEARCH
30 SALES
30 SALES
30 SALES 20 RESEARCH 3000 7369 SMITH 800 7499 ALLEN 1600 7521 WARD 1250 7654 MARTIN 1250 7844 TURNER 30 SALES 1500 7876 ADAMS 1100 20 RESEARCH 7900 JAMES 30 SALES 7934 MILLER 1300 10 ACCOUNTING l4 rows selected.

Full: returns unmatched rows from both tables

SYNTAX SELECT table1.column1,table1.column2,table2.column1,.... FROM table1 FULL [OUTER] JOIN table2 ON table1.matching_column = table2.matching_column;

EMP_NO ENAME	SAL	DEPT_NO	DEPT_NO	DNAME
7839 KING	5000	10	10	ACCOUNTING
7698 BLAKE	2850	30	30	SALES
7782 CLARK	2450	10	10	ACCOUNTING
7566 JONES	2975	20	20	RESEARCH
7788 SCOTT	3000	20	20	RESEARCH
7902 FORD	3000	20	20	RESEARCH
7369 SMITH	800	20	20	RESEARCH
7499 ALLEN	1600	30	30	SALES
7521 WARD	1250	30	30	SALES
7654 MARTIN	1250	30	30	SALES
7844 TURNER	1500	30	30	SALES
7876 ADAMS	1100	20	20	RESEARCH
7900 JAMES	950	30	30	SALES
7934 MILLER	1300	10	10	ACCOUNTING
			40	OPERATIONS

CROSS:

- The CARTESIAN JOIN is also known as CROSS JOIN.
- In a CARTESIAN JOIN there is a join for each row of one table to every row of another table. This usually happens when the matching column or WHERE condition is not specified.
- SYNTAX SELECT * FROM TABLE1, TABLE2;

7839 KING PRESIDENT 17- 7839 KING PRESIDENT 17- 7839 KING PRESIDENT 17- 7688 BLAKE MANAGER 7839 61- 7698 BLAKE MANAGER 7839 61- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7566 ONES MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7566 JONES MANAGER 7839 62- 7566 JONES MANAGER 7839 62- 7568 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7982 FORD ANALYST 7566 61- 7982 FORD ANALYST 7566 63- 7982 FORD ANALYST 7566 63-	NO E	ENAME		MGR HIREDATE	SAL	COMM	DEPT_NO	DEPT_NO DNAME	
7839 KING PRESIDENT 17- 7839 KING PRESIDENT 17- 7839 KING PRESIDENT 17- 7688 BLAKE MANAGER 7839 61- 7698 BLAKE MANAGER 7839 61- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7566 ONES MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7566 JONES MANAGER 7839 62- 7566 JONES MANAGER 7839 62- 7568 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7982 FORD ANALYST 7566 61- 7982 FORD ANALYST 7566 63- 7982 FORD ANALYST 7566 63-	7839 K	CTNG	PRESTDENT	17-NOV-81	5000			20 RESEARCH	DALLAS
7839 KING PRESIDENT 17. 7839 KING PRESIDENT 17. 7698 BLAKE MANAGER 7839 61. 7698 BLAKE MANAGER 7839 69. 7782 CLARK MANAGER 7839 69. 7782 CLARK MANAGER 7839 69. 7566 JONES MANAGER 7839 62. 7568 JONES MANAGER 7839 62.				17-NOV-81	5000		10	30 SALES	CHICAGO
7698 BLAKE MANAGER 7839 61- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7568 JONES MANAGER 7839 62- 7568 JONES MANAGER 7839 62- 7588 SCOTT ANALYST 7566 19- 7788 SCOTT <t< td=""><td></td><td></td><td></td><td>17-NOV-81</td><td>5000</td><td></td><td>10</td><td>10 ACCOUNTING</td><td>NEW YORK</td></t<>				17-NOV-81	5000		10	10 ACCOUNTING	NEW YORK
7698 BLAKE MANAGER 7839 91- 7698 BLAKE MANAGER 7839 91- 7698 BLAKE MANAGER 7839 91- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7566 JONES MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7566 JONES <t< td=""><td>7839 K</td><td>KING</td><td></td><td>17-NOV-81</td><td>5000</td><td></td><td></td><td>40 OPERATIONS</td><td>BOSTON</td></t<>	7839 K	KING		17-NOV-81	5000			40 OPERATIONS	BOSTON
7698 BLAKE MANAGER 7839 61- 7698 BLAKE MANAGER 7839 61- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7788 SCOTT <t< td=""><td>7698 B</td><td>BLAKE</td><td></td><td>7839 01-MAY-81</td><td>2850</td><td></td><td></td><td>20 RESEARCH</td><td>DALLAS</td></t<>	7698 B	BLAKE		7839 01-MAY-81	2850			20 RESEARCH	DALLAS
7668 BLAKE MANAGER 7839 61- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7786 JONES MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7588 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7782 FORD ANALYST 7566 63- 7902 FORD ANALYST 7566 63- 7902 FORD ANALYST 7566 63- 7902 FORD AN				7839 01-MAY-81	2850		30	30 SALES	CHICAGO
7782 CLARK MANAGER 7839 69- 7566 JONES MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7568 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7982 FORD ANALYST 7566 69- 7992 FORD ANALYST 7566 69- 7992 FORD ANALYST 7566 69- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK 7902 17- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20-				7839 01-MAY-81	2850		30	10 ACCOUNTING	NEW YORK
7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 69- 7902 FORD ANALYST 7566 03- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK 7902 17- <td></td> <td></td> <td></td> <td>7839 01-MAY-81</td> <td>2850</td> <td></td> <td>30</td> <td>40 OPERATIONS</td> <td>BOSTON</td>				7839 01-MAY-81	2850		30	40 OPERATIONS	BOSTON
7782 CLARK MANAGER 7839 69- 7782 CLARK MANAGER 7839 69- 7786 ONES MANAGER 7839 69- 7566 ONES MANAGER 7839 69- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 61- 7780 FORD ANALYST 7566 61- 7780 JAMES CLERK 7788 23- 7780 JAMES CLERK 7788 23- 7780 JAMES CLERK 7788 23- 7780 JAMES CLERK 7698 63-				7839 09-JUN-81	2450		10	20 RESEARCH	DALLAS
7782 CLARK MANAGER 7839 69- 7566 JONES MANAGER 7839 62- 7588 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 61- 7780 FORD ANALYST 7566 61- 7902 FORD ANALYST 7566 61- 7369 SMITH CLERK 7902 17- 7369 SMITH SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7521 WARD SALESMAN 7698 20- 7521 WARD SALESMAN 7698 22- 7521 WARD SALESMAN 7698 23- 7524 WARTIN SALESMAN 7698 23- 7525 WARTIN SALESMAN 7698 23- 7526 MARTIN SALESMAN 7698 23- 7527 WARTIN SALESMAN 7698 23- 7528 MARTIN SALESMAN 7698 23- 7529 JAMES CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7886 JAMES CLERK 7698 63- 7900 JAMES CLERK 7698 63- 7900 JAMES CLERK 7698 63- 7900 JAMES CLERK 7698 63-				7839 09-JUN-81	2450 2450		10	30 SALES	CHICAGO
7566 JONES MANAGER 7839 62- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7982 FORD ANALYST 7566 03- 7992 FORD ANALYST 7566 03- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK </td <td></td> <td></td> <td></td> <td>7839 09-JUN-81 7839 09-JUN-81</td> <td>2450</td> <td></td> <td>10 10</td> <td>10 ACCOUNTING 40 OPERATIONS</td> <td>NEW YORK</td>				7839 09-JUN-81 7839 09-JUN-81	2450		10 10	10 ACCOUNTING 40 OPERATIONS	NEW YORK
7566 JONES MANAGER 7839 62- 7588 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7902 FORD ANALYST 7566 63- 7369 FMITH CLERK 7902 17- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK 7902 17- 7499 ALLEN SALESMAN </td <td></td> <td></td> <td></td> <td>7839 02-APR-81</td> <td>2975</td> <td></td> <td>20</td> <td>20 RESEARCH</td> <td>BOSTON DALLAS</td>				7839 02-APR-81	2975		20	20 RESEARCH	BOSTON DALLAS
7566 JONES MANAGER 7839 62- 7566 JONES MANAGER 7839 62- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 03- 7902 FORD ANALYST 7566 03- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK 7902 17- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7521 WARD SALE				7839 02-APR-81	2975		20	30 SALES	CHICAGO
7566 JONES MANAGER 7839 62- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7788 SCOTT ANALYST 7566 19- 7789 FORD ANALYST 7566 03- 7902 FORD ANALYST 7566 03- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK 7902 17- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN </td <td></td> <td></td> <td></td> <td>7839 02-APR-81</td> <td>2975</td> <td></td> <td>20</td> <td>10 ACCOUNTING</td> <td>NEW YORK</td>				7839 02-APR-81	2975		20	10 ACCOUNTING	NEW YORK
7788 SCOTT ANALYST 7566 19- 7789 SMITH CLERK 7902 17- 7789 ALLEN SALESMAN 7698 20- 7781 WARD SALESMAN 7698 20- 7781 WARTIN SALESMAN 7698 20- 77814 TURNER SALESMAN 7698 20- 77816 ADAMS CLERK 7788 23- 77818 ADAMS CLERK 7788 23- 77800 JAMES CLERK 7698 03-				7839 02-APR-81	2975		20	40 OPERATIONS	BOSTON
7788 SCOTT ANALYST 7566 19- 7789 FORD ANALYST 7566 03- 7892 FORD ANALYST 7566 03- 7369 SMITH CLERK 7902 17- 7369 SMITH SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7521 WARD SALESMAN 7698 22- 7524 WARTIN SALESMAN 7698 23- 7525 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7655 MARTIN SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7845 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7890 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03-				7566 19-APR-87	3000			20 RESEARCH	DALLAS
7788 SCOTT ANALYST 7566 19- 77902 FORD ANALYST 7566 03- 77903 SMITH CLERK 77902 17- 77903 SMITH CLERK 77902 17- 77909 SMITH CLERK 77902 17- 77909 ALLEN SALESMAN 7698 20- 77909 ALLEN SALESMAN 7698 20- 77909 ALLEN SALESMAN 7698 20- 77901 WARD SALESMAN 7698 20- 77904 WARTIN SALESMAN 7698 20- 77904 WARTIN SALESMAN 7698 20- 77905 WARTIN SALESMAN 7698 20- 77906 WARTIN SALESMAN 7698 20- 77906 WARTIN SALESMAN 7698 20- 77906 WARTIN SALESMAN 7698 80- 77906 WARTIN SALESMAN 76				7566 19-APR-87	3000			30 SALES	CHICAGO
7902 FORD ANALYST 7566 03- 7369 SMITH CLERK 7902 17- 7369 SMITH CLERK 7698 26- 7499 ALLEN SALESMAN 7698 26- 7499 ALLEN SALESMAN 7698 26- 7521 WARD SALESMAN 7698 22- 7521 WARD SALESMAN 7698 22- 7521 WARD SALESMAN 7698 28-	7788 S	SCOTT	ANALYST	7566 19-APR-87	3000			10 ACCOUNTING	
7982 FORD ANALYST 7566 83- 7982 FORD ANALYST 7566 83- 7982 FORD ANALYST 7566 83- 7369 SMITH CLERK 7902 17- 7499 SMITH CLERK 7902 17- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7521 WARD SALESMAN 7698 22- 7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28-			ANALYST	7566 19-APR-87	3000			40 OPERATIONS	BOSTON
7902 FORD ANALYST 7566 03 7902 FORD ANALYST 7566 03 7902 FORD ANALYST 7566 03 7369 SMITH CLERK 7902 17 7369 SMITH CLERK 7902 17 7369 SMITH CLERK 7902 17 7499 SMITH CLERK 7902 17 7499 ALLEN SALESMAN 7698 20 7499 ALLEN SALESMAN 7698 20 7499 ALLEN SALESMAN 7698 20 7521 WARD SALESMAN 7698 22 7654 MARTIN SALESMAN 7698 28 7654 MARTIN SALESMAN 7698 28 7654 MARTIN SALESMAN 7698 28 7844 TURNER SALESMAN 7698 88 7844 TURNER SALESMAN 7698 88 <			ANALYST	7566 03-DEC-81	3000			20 RESEARCH	DALLAS
7902 FORD ANALYST 7566 63- 7369 SMITH CLERK 7902 17- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7521 WARD SALESMAN 7698 20- 7521 WARD SALESMAN 7698 22- 7521 WARD SALESMAN 7698 28- 7654 MARTIN SALESM				7566 03-DEC-81	3000		20	30 SALES	CHICAGO
7369 SMITH CLERK 7962 17- 7499 ALLEN SALESMAN 7698 26- 7499 ALLEN SALESMAN 7698 26- 7499 ALLEN SALESMAN 7698 22- 7521 WARD SALESMAN 7698 22- 7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 88- 7844 TURNER SALESMAN 7698				7566 03-DEC-81	3000		20	10 ACCOUNTING	NEW YORK
7369 SMITH CLERK 7902 17- 7369 ALLEN SALESMAN 7698 20- 7361 WARD SALESMAN 7698 20- 7364 WARTIN SALESMAN 7698 20- 73654 MARTIN SALESMAN 7698 20- 73654 MARTIN SALESMAN 7698 20- 73654 WARTIN SALESMAN 7698 20- 73654 TURNER SALESMAN 7698 00- 7364 TURNER SALESMAN 7698 00- 7364 ADAMS CLERK 7788 23- 7366 ADAMS CLERK 7788 23- 7366 ADAMS CLERK 7788 23- 7360 JAMES CLERK 7698 00- 73900 JAMES CLERK 7698 00-				7566 03-DEC-81	3000		20	40 OPERATIONS	BOSTON
7369 SMITTH CLERK 7902 17- 7369 SMITTH CLERK 7902 17- 7369 SMITTH CLERK 7902 17- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7521 WARD SALESMAN 7698 22- 7524 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 68- 7844 TURNER				7902 17-DEC-80	800		20	20 RESEARCH	DALLAS
7369 SMITTH CLERK 7902 17.7499 ALLEN SALESMAN 7698 20.7499 ALLEN SALESMAN 7698 20.7499 ALLEN SALESMAN 7698 20.7499 ALLEN SALESMAN 7698 20.7521 WARD SALESMAN 7698 22.7521 WARTIN SALESMAN 7698 22.7524 WARTIN SALESMAN 7698 28.7654 MARTIN SALESMAN 7698 28.7654 WARTIN SALESMAN 7698 28.7654<				7902 17-DEC-80	800 800		20 20	30 SALES 10 ACCOUNTING	CHICAGO
7499 ALLEN SALESMAN 7698 26- 7521 WARD SALESMAN 7698 22- 7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 88- 7844 TURNER SALESMAN 7698 88- 7844 TURNER SALESMAN 7698 88- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7890 JAMES CLERK 7698 83- 7900 JAMES CLERK 7698 83- 7900 JAMES CLERK 7698				7902 17-DEC-80	800		20	40 OPERATIONS	NEW YORK BOSTON
7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7521 WARD SALESMAN 7698 22- 7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 88- 7844 TURNER SALESMAN 7698 88- 7866 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7860 DAMS CLERK 7788 23- 7900 JAMES CLERK 7698 83- 7900 JAMES CLERK 76				7698 20-FEB-81	1600	300	30	20 RESEARCH	DALLAS
7499 ALLEN SALESMAN 7698 20- 7499 ALLEN SALESMAN 7698 20- 7521 WARD SALESMAN 7698 22- 7654 MARTIN SALESMAN 7698 28- 7654 MIRTIN SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7860 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7870 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 76				7698 20-FEB-81	1600	300	30	30 SALES	CHICAGO
7499 ALLEN SALESMAN 7698 26- 7521 WARD SALESMAN 7698 22- 7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7876 ADAMS CLERK 7788 23- 7890 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03-				7698 20-FEB-81	1600	300	30	10 ACCOUNTING	NEW YORK
7521 WARD SALESMAN 7698 22- 7524 WARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 88- 7846 TURNER SALESMAN 7698 88- 7847 TURNER SALESMAN 7698 88- 7848 TURNER SALESMAN 7698 88- 7849 TURNER SALESMAN 7698 88- 7840 DAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 JAMES CLERK 7698 83- 7900 JAMES CLERK 7698 83-				7698 20-FEB-81	1600	300	30	40 OPERATIONS	BOSTON
7521 WARD SALESMAN 7698 22- 7521 WARD SALESMAN 7698 22- 7521 WARD SALESMAN 7698 22- 7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 68- 7864 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7800 JAMES CLERK 7698 63- 7900 JAMES CLERK 7698 63- 7900 JAMES CLERK 7698 63- 7900 JAMES CLERK 7698				7698 22-FEB-81	1250	500	30	20 RESEARCH	DALLAS
7521 WARD SALESMAN 7698 22- 7654 MARTIN SALESMAN 7698 28- 7854 TURNER SALESMAN 7698 88- 7844 TURNER SALESMAN 7698 88- 7844 TURNER SALESMAN 7698 88- 7844 TURNER SALESMAN 7698 88- 7846 TURNER SALESMAN 7698 88- 7847 TURNER SALESMAN 7698 88- 7847 TURNER SALESMAN 7698 88- 7847 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7698 83- 7960 JAMES CLERK 7698 83-	7521 W	MARD	SALESMAN	7698 22-FEB-81	1250	500	30	30 SALES	CHICAGO
7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 08- 7846 TURNER SALESMAN 7698 08- 7847 TURNER SALESMAN 7698 08- 7846 ADAM'S CLERK 7788 23- 7876 ADAM'S CLERK 7698 03- 7900 JAMES CLERK 7698 03-	7521 W	MARD	SALESMAN	7698 22-FEB-81	1250	500		10 ACCOUNTING	
7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7890 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03-	7521 W	MARD	SALESMAN	7698 22-FEB-81	1250	500		40 OPERATIONS	BOSTON
7654 MARTIN SALESMAN 7698 28- 7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 08- 7846 TURNER SALESMAN 7698 08- 7847 TURNER SALESMAN 7698 08- 7847 ADAMS CLERK 7788 23- 7847 ADAMS CLERK 7788 23- 7846 ADAMS CLERK 7788 23- 7846 ADAMS CLERK 7788 23- 7846 DAMS CLERK 7698 03- 7840 JAMES CLERK 7698 03- 7840 JAMES CLERK 7698 03- 7840 JAMES CLERK 7698 03-				7698 28-SEP-81	1250	1400	30	20 RESEARCH	DALLAS
7654 MARTIN SALESMAN 7698 28- 7844 TURNER SALESMAN 7698 08- 7867 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7698 03- 7900 JAMES CLERK 7698 03-				7698 28-SEP-81	1250	1400	30	30 SALES	CHICAGO
7844 TURNER SALESMAN 7698 08- 7876 ADAMS CLERK 7788 23- 7960 JAMES CLERK 7698 03-				7698 28-SEP-81	1250	1400	30	10 ACCOUNTING	NEW YORK
7844 TURNER SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7876 ADAMS CLERK 7788 23- 7960 JAMES CLERK 7698 03-				7698 28-SEP-81	1250	1400	30	40 OPERATIONS	BOSTON
7844 TURNER SALESMAN 7698 08- 7844 TURNER SALESMAN 7698 08- 7876 ADAMS CLERK 7788 23- 7900 JAMES CLERK 7698 03-				7698 08-SEP-81 7698 08-SEP-81	1500 1500	0 0	30	20 RESEARCH	DALLAS CHICAGO
7844 TURNER SALESMAN 7698 68- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7890 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03-				7698 08-SEP-81 7698 08-SEP-81	1500		30 30	30 SALES 10 ACCOUNTING	NEW YORK
7876 ADAMS CLERK 7788 23- 7900 JAMES CLERK 7698 03-				7698 08-SEP-81	1500	9	30	40 OPERATIONS	BOSTON
7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7800 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03-				7788 23-MAY-87	1100		20	20 RESEARCH	DALLAS
7876 ADAMS CLERK 7788 23- 7876 ADAMS CLERK 7788 23- 7800 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03-				7788 23-MAY-87	1100		20	30 SALES	CHICAGO
7876 ADAMS CLERK 7788 23- 7900 JAMES CLERK 7698 03-				7788 23-MAY-87	1100		20	10 ACCOUNTING	NEW YORK
7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03-				7788 23-MAY-87	1100			40 OPERATIONS	BOSTON
7900 JAMES CLERK 7698 03- 7900 JAMES CLERK 7698 03-				7698 03-DEC-81				20 RESEARCH	DALLAS
7900 JAMES CLERK 7698 03-			CLERK	7698 03-DEC-81				30 SALES	CHICAGO
				7698 03-DEC-81				10 ACCOUNTING	
7934 MILLER CLERK 7782 23-				7698 03-DEC-81				40 OPERATIONS	BOSTON
			CLERK	7782 23-JAN-82	1300		10	20 RESEARCH	DALLAS
				7782 23-JAN-82	1300		10	30 SALES	CHICAGO
				7782 23-JAN-82 7782 23-JAN-82	1300 1300		10 10	10 ACCOUNTING 40 OPERATIONS	NEW YORK BOSTON

SELF:

- As the name signifies, in SELF JOIN a table is joined to itself. That is, each row of the table is joined with itself and all other rows depending on some conditions
- SYNTAX SELECT a.column 1, b.column2 FROM table_name a, table_name b WHERE some_condition;

```
SQL> select e2.ename employee, e1.ename manager
    from panthiv_EMP e1, panthiv_EMP e2
    where e1.Emp_no = e2.mgr;
EMPLOYEE
           MANAGER
BLAKE
           KING
CLARK
           KING
JONES
           KING
SCOTT
           JONES
           JONES
FORD
SMITH
           FORD
ALLEN
           BLAKE
WARD
           BLAKE
MARTIN
           BLAKE
TURNER
           BLAKE
ADAMS
           SCOTT
JAMES
           BLAKE
MILLER
           CLARK
13 rows selected.
```