

DBMS WEEK – 5

SATLAS ROHIT B

2024503305

Department Table Insert:

```
SQL> INTO DEPARTMENT3305 VALUES ('Research', 5, 333445555, DATE '1988-05-22')
SP2-0734: unknown command beginning "INTO DEPAR..." - rest of line ignored.
SQL> INSERT ALL
  2 INTO DEPARTMENT3305 VALUES ('Research', 5, 333445555, DATE '1988-05-22')
  3 INTO DEPARTMENT3305 VALUES ('Administration', 4, 987654321, DATE '1995-01-01')
  4 INTO DEPARTMENT3305 VALUES ('Headquarters', 1, 888665555, DATE '1981-06-19')
  5 SELECT * FROM DUAL;

3 rows created.
```

Employee Table Insertion:

```
SQL> INSERT ALL
  2 INTO EMPLOYEE3305 VALUES ('James', 'E', 'Borg', 888665555, DATE '1937-11-10', '450 Stone, Houston TX', 'M', 55000, null, 1)
  3 SELECT * FROM DUAL;

1 row created.
```

```
SQL> INSERT ALL
  2 INTO EMPLOYEE3305 VALUES ('Franklin', 'T', 'Wong', 333445555, DATE '1965-12-08', '638 Voss, Houston TX', 'M', 40000, 888665555, 5)
  3 INTO EMPLOYEE3305 VALUES ('Jennifer', 'S', 'Wallace', 987654321, DATE '1941-06-20', '291 Berry, Bellaire TX', 'F', 43000, 888665555, 4)
  4 SELECT * FROM DUAL;

2 rows created.
```

```
SQL> INSERT ALL
  2 INTO EMPLOYEE3305 VALUES ('Ramesh', 'K', 'Narayan', 666884444, DATE '1962-09-15', '975 Fire Oak, Humble TX', 'M', 38000, 333445555, 5)
  3 SELECT * FROM DUAL;

1 row created.
```

```
SQL> INSERT ALL
  2 INTO EMPLOYEE3305 VALUES ('Joyce', 'A', 'English', 453453453, DATE '1972-07-31', '5631 Rice, Houston TX', 'F', 25000, 333445555, 5)
  3 SELECT * FROM DUAL;

1 row created.

SQL> INSERT ALL INTO EMPLOYEE3305 VALUES ('Ahmad', 'V', 'Jabbar', 987987987, DATE '1969-03-29', '980 Dallas, Houston TX', 'M', 25000, 987654321, 4)
  2 SELECT * FROM DUAL;

1 row created.
```

```

SQL> INSERT ALL
  2 INTO EMPLOYEE3305 VALUES ('John','B','Smith',123456789, DATE '1965-01-09','731 Fondren, Houston TX','M',30000,333445555,5)
  3 SELECT * FROM DUAL;

1 row created.

SQL> INSERT ALL
  2 INTO EMPLOYEE3305 VALUES ('Alicia','J','Zelaya',999887777, DATE '1968-01-19','3321 Castle, Spring TX','F',25000,987654321,4)
  3 SELECT * FROM DUAL;

1 row created.

```

Project Table Insert:

```

SQL> INSERT ALL
  2 INTO PROJECT3305 VALUES ('ProductX', 1, 'Bellaire', 5)
  3 INTO PROJECT3305 VALUES ('ProductY', 2, 'Sugarland', 5)
  4 INTO PROJECT3305 VALUES ('ProductZ', 3, 'Houston', 5)
  5 INTO PROJECT3305 VALUES ('Computerization', 10, 'Stafford', 4)
  6 INTO PROJECT3305 VALUES ('Reorganization', 20, 'Houston', 1)
  7 INTO PROJECT3305 VALUES ('Newbenefits', 30, 'Stafford', 4)
  8 SELECT * FROM DUAL;

6 rows created.

```

Works On Table Insert:

```

SQL> INSERT ALL
  2 INTO WORKS_ON3305 VALUES (123456789,1,32.5)
  3 INTO WORKS_ON3305 VALUES (123456789,2,7.5)
  4 INTO WORKS_ON3305 VALUES (666884444,3,40.0)
  5 INTO WORKS_ON3305 VALUES (453453453,1,20.0)
  6 INTO WORKS_ON3305 VALUES (453453453,2,20.0)
  7 INTO WORKS_ON3305 VALUES (333445555,2,10.0)
  8 INTO WORKS_ON3305 VALUES (333445555,3,10.0)
  9 INTO WORKS_ON3305 VALUES (333445555,10,10.0)
 10 INTO WORKS_ON3305 VALUES (333445555,20,10.0)
 11 INTO WORKS_ON3305 VALUES (999887777,30,30.0)
 12 INTO WORKS_ON3305 VALUES (999887777,10,10.0)
 13 INTO WORKS_ON3305 VALUES (987987987,10,35.0)
 14 INTO WORKS_ON3305 VALUES (987987987,30,5.0)
 15 INTO WORKS_ON3305 VALUES (987654321,30,20.0)
 16 INTO WORKS_ON3305 VALUES (987654321,20,15.0)
 17 INTO WORKS_ON3305 VALUES (888665555,20,16.0)
 18 SELECT * FROM DUAL;

16 rows created.

```

Dependent Table Insert:

```
SQL> INSERT ALL
  2   INTO DEPENDENT3305 VALUES (333445555,'Alice','F',DATE'1986-04-04','Daughter')
  3   INTO DEPENDENT3305 VALUES (333445555,'Theodore','M',DATE'1983-10-25','Son')
  4   INTO DEPENDENT3305 VALUES (333445555,'Joy','F',DATE'1958-05-03','Spouse')
  5   INTO DEPENDENT3305 VALUES (987654321,'Abner','M',DATE'1942-02-28','Spouse')
  6   INTO DEPENDENT3305 VALUES (123456789,'Michael','M',DATE'1988-01-04','Son')
  7   INTO DEPENDENT3305 VALUES (123456789,'Alice','F',DATE'1988-12-30','Daughter')
  8   INTO DEPENDENT3305 VALUES (123456789,'Elizabeth','F',DATE'1967-05-05','Spouse')
  9   SELECT * FROM dual;

7 rows created.
```

Insert Table:

```
SQL> INSERT ALL INTO EMPLOYEE3305 (Fname, Lname, Ssn, Bdate, Address, Sex, Salary, Super_ssn, Dno)
  2   VALUES ('Priya', 'Sharma', '111223344', TO_DATE('1995-03-20', 'YYYY-MM-DD'),
  3           '123 Park Avenue, Houston TX', 'F', 32000, '333445555', 5)
  4   SELECT * FROM DUAL;

1 row created.
```

```
SQL>
SQL> SELECT Fname, Lname, Ssn, Sex, Salary, Super_ssn, Dno
  2   FROM EMPLOYEE3305
  3   WHERE Ssn = '111223344';
```

FNAME	LNAME	SSN	S	SALARY	SUPER_SSN	DNO
Priya	Sharma	111223344	F	32000	333445555	5

```
SQL> INSERT INTO PROJECT3305 (Pname, Pnumber, Plocation, Dnum)
  2   VALUES ('AI Initiative', 40, 'Houston', 5);
```

1 row created.

```
SQL> SELECT Pname, Pnumber, Plocation, Dnum FROM PROJECT3305 WHERE
  2   Pnumber = 40;
```

PNAME	PNUMBER	PLOCATION	DNUM
AI Initiative	40	Houston	5

```
SQL> INSERT INTO WORKS_ON3305 (Essn, Pno, Hours)
  2   VALUES ('987987987', 40, 15.0);
```

1 row created.

```
SQL> SELECT Essn, Pno, Hours FROM WORKS_ON3305 WHERE Essn = '987987987'
2 AND Pno = 40;
```

ESSN	PNO	HOURS
987987987	40	15

```
SQL> INSERT INTO DEPENDENT3305 (Essn, Dependent_name, Sex, Bdate, Relationship)
2 VALUES ('987654321', 'Robert Wallace', 'M', TO_DATE('1940-05-15', 'YYYY-MM-DD'), 'Spouse');
1 row created.
```

```
SQL> SELECT Essn, Dependent_name, Sex, Bdate, Relationship FROM
2 DEPENDENT3305 WHERE Essn = '987654321' AND Dependent_name = 'Robert Wallace';
```

ESSN	DEPENDENT_NAME	S	BDATE	RELATIONSHIP
987654321	Robert Wallace	M	15-MAY-40	Spouse

```
SQL> INSERT INTO DEPARTMENT3305 (Dname, Dnumber, Mgr_ssn, Mgr_start_date)
2 VALUES ('Data Analytics', 6, '666884444', TO_DATE('2024-01-01', 'YYYY-MM-DD'));
1 row created.
```

```
SQL> SELECT Dname, Dnumber, Mgr_ssn, Mgr_start_date FROM DEPARTMENT3305
2 WHERE Dnumber = 6;
```

DNAME	DNUMBER	MGR_SSN	MGR_START
Data Analytics	6	666884444	01-JAN-24

Update Operations:

```
SQL> UPDATE EMPLOYEE3305 SET Salary = Salary * 1.12 WHERE Dno = 5;
5 rows updated.
```

```
SQL> SELECT Fname, Lname, Salary, Dno FROM EMPLOYEE3305 WHERE Dno = 5
2 ORDER BY Ssn;
```

FNAME	LNAME	SALARY	DNO
Priya	Sharma	35840	5
John	Smith	33600	5
Franklin	Wong	44800	5
Joyce	English	28000	5
Ramesh	Narayan	42560	5

```
SQL> UPDATE EMPLOYEE3305 SET Super_ssn = '888665555' WHERE Ssn = '333445555';

1 row updated.
```

```
SQL> SELECT Fname, Lname, Ssn, Super_ssn FROM EMPLOYEE3305 WHERE Ssn =
2 '333445555';
```

FNAME	LNAME	SSN	SUPER_SSN
Franklin	Wong	333445555	888665555

```
SQL> UPDATE EMPLOYEE3305
2 SET Minit = 'X'
3 WHERE Minit IS NULL;
```

```
1 row updated.
```

```
SQL> SELECT Fname, Lname, Minit FROM EMPLOYEE3305 WHERE Minit = 'X';
```

FNAME	LNAME	M
Priya	Sharma	X

```
SQL> UPDATE EMPLOYEE3305
2 SET Salary = Salary + 3500
3 WHERE Sex = 'F'
4 AND Salary < 30000
5 AND Dno = 4;
```

```
1 row updated.
```

```
SQL> UPDATE PROJECT3305
2 SET Plocation = 'Dallas'
3 WHERE Pnumber = 2;
```

```
1 row updated.
```

```
SQL> SELECT * FROM PROJECT3305;
```

PNAME	PNUMBER	PLOCATION	DNUM
ProductX	1	Bellaire	5
ProductY	2	Dallas	5
ProductZ	3	Houston	5
Computerization	10	Stafford	4
Reorganization	20	Houston	1
Newbenefits	30	Stafford	4

```
6 rows selected.
```

```
SQL> SELECT Fname, Lname, Sex, Salary, Dno FROM EMPLOYEE3305 WHERE Sex =
2 'F' AND Dno = 4;
```

FNAME	LNAME	S	SALARY	DNO
Jennifer	Wallace	F	43000	4
Alicia	Zelaya	F	28500	4

Delete Operations:

```
SQL> DELETE FROM WORKS_ON3305
2 WHERE Hours < 10;
```

2 rows deleted.

```
SQL> SELECT MIN(Hours) AS Min_Hours, COUNT(*) AS Total_Assignments FROM
2 WORKS_ON3305;
```

MIN_HOURS	TOTAL_ASSIGNMENTS
10	14

```
SQL> DELETE FROM WORKS_ON3305
2 WHERE Essn = '453453453';
```

2 rows deleted.

```
SQL> SELECT COUNT(*) AS Joyce_Assignments FROM WORKS_ON3305 WHERE
2 Essn = '453453453';
```

JOYCE_ASSIGNMENTS
0

```
SQL> DELETE FROM DEPENDENT3305
2 WHERE Relationship = 'Spouse'
3 AND Bdate < TO_DATE('1950-01-01', 'YYYY-MM-DD');
```

1 row deleted.

```
SQL> SELECT Essn, Dependent_name, Bdate, Relationship FROM DEPENDENT3305
2 WHERE Relationship = 'Spouse' AND Bdate < DATE '1950-01-01';
```

no rows selected

```
SQL> DELETE FROM EMPLOYEE2024503305
2 WHERE Super_ssn IS NULL
3 AND Salary < 50000;

0 rows deleted.
```

Select Operations:

```
SQL> SELECT Fname, Lname, Address
2 FROM EMPLOYEE2024503305
3 WHERE Address LIKE '%Houston%';
```

FNAME	LNAME	ADDRESS
James	Borg	450 Stone, Houston TX
Franklin	Wong	638 Voss, Houston TX
Ahmad	Jabbar	980 Dallas, Houston TX

FNAME	LNAME	ADDRESS
John	Smith	731 Fondren, Houston TX

```
SQL> SELECT Fname, Lname, Salary
2 FROM EMPLOYEE2024503305
3 WHERE Salary BETWEEN 25000 AND 35000;
```

FNAME	LNAME	SALARY
Ahmad	Jabbar	25000
John	Smith	30000
Alicia	Zelaya	25000

```
SQL> SELECT Fname, Lname, Sex, Dno
2 FROM EMPLOYEE2024503305
3 WHERE Sex = 'F' AND Dno = 4;
```

FNAME	LNAME	S	DNO
Jennifer	Wallace	F	4
Alicia	Zelaya	F	4

```
SQL> |
```

FNAME	LNAME	SUPER_SSN
James	Borg	

```
SQL> SELECT Pname, Plocation
2 FROM PROJECT2024503305
3 WHERE Plocation IN ('Houston', 'Stafford');
```

PNAME	PLOCATION
ProductZ	Houston
Computerization	Stafford
Reorganization	Houston
Newbenefits	Stafford

```
SQL> SELECT Pname, Pnumber, Dnum
2 FROM PROJECT2024503305
3 WHERE Dnum <> 5;
```

PNAME	PNUMBER	DNUM
Computerization	10	4
Reorganization	20	1
Newbenefits	30	4

```
SQL> |
```


FNAME	LNAME	M	SALARY
James	Borg	E	55000
Franklin	Wong	T	40000
Jennifer	Wallace	S	43000
Ramesh	Narayan	K	38000