

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

FNAME	LNAME
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