Oracle LAB 10

**Exercise 1:**

a- CREATE TABLE sales_source_data

<table>
<thead>
<tr>
<th>employee_id</th>
<th>week_id</th>
<th>sales_MON</th>
<th>sales_TUE</th>
<th>sales_WED</th>
<th>sales_THUR</th>
<th>sales_FRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER (6)</td>
<td>NUMBER (2)</td>
<td>NUMBER (8,2)</td>
<td>NUMBER (8,2)</td>
<td>NUMBER (8,2)</td>
<td>NUMBER (8,2)</td>
<td>NUMBER (8,2)</td>
</tr>
</tbody>
</table>

**The Result:**

b- INSERT INTO sales_source_data VALUES (178, 6, 1750, 2200, 1500, 1500, 3000);

**The Result:**

```
CREATE TABLE sales_source_data
(employee_id NUMBER (6),
week_id NUMBER (2),
sales_MON NUMBER (8,2),
sales_TUE NUMBER (8,2),
sales_WED NUMBER (8,2),
sales_THUR NUMBER (8,2),
sales_FRI NUMBER (8,2));
```
c- CREATE TABLE sales_info
employee_id  NUMBER (6)
week_id      NUMBER (2)
sales        NUMBER (8,2)

The Result:

CREATE TABLE sales_info
(employee_id  NUMBER (6),
  week_id      NUMBER (2),
sales        NUMBER (8,2));

The Result:

d- Write a query to do the following:
Retrieve the details of employee ID, week ID, sales on Monday, sales on Tuesday,
sales on Wednesday, sales on Thursday, and sales on Friday from the SALES_SOURCE_DATA table.
Build a transformation such that each record retrieved from the SALES_SOURCE_DATA table is converted into multiple records for the SALES_INFO table.
Hint: Use a pivoting INSERT statement.

The Result:
Exercise 2:
Create Tables:

1. **SAL_HISTORY**
   - Employees salary history
   - Columns: `EMPLOYEE_ID`, `HIRE_DATE`, `SALARY`
   - Key: `EMPLOYEE_ID`
   - Unique keys: none
   - Foreign keys: `HIRE_DATE`

   ```sql
   CREATE TABLE sal_history
   (employee_id NUMBER (6),
    hire_date DATE,
    salary NUMBER (8,2));
   ```

2. **SPECIAL_SAL**
   - Special salaries
   - Columns: `EMPLOYEE_ID`, `SALARY`
   - Key: `EMPLOYEE_ID`
   - Unique keys: `SALARY`
   - Foreign keys: `SALARY`

   ```sql
   CREATE TABLE special_sal
   (employee_id NUMBER (6),
    salary NUMBER (8,2));
   ```

3. **MGR_HISTORY**
   - Manager history
   - Columns: `EMPLOYEE_ID`, `MANAGER_ID`, `SALARY`
   - Key: `EMPLOYEE_ID`, `MANAGER_ID`
   - Unique keys: `SALARY`
   - Foreign keys: `MANAGER_ID`

   ```sql
   CREATE TABLE mgr_history
   (employee_id NUMBER (6),
    manager_id NUMBER (6),
    salary NUMBER (8,2));
   ```

4. **HIREDATE_HISTORY**
   - Employee hire date history
   - Columns: `DEPTID`, `HIREDATE`
   - Key: `DEPTID`
   - Unique keys: `HIREDATE`
   - Foreign keys: `DEPTID`

   ```sql
   CREATE TABLE hirdate_history
   (deptid NUMBER (6),
    hirdate DATE);
   ```

5. **HIREDATE_HISTORY_00**
   - Additional hire date history
   - Columns: `DEPTID`, `HIREDATE`
   - Key: `DEPTID`
   - Unique keys: `HIREDATE`

   ```sql
   CREATE TABLE hirdate_history_00
   (deptid NUMBER (6),
    hirdate DATE);
   ```
• **Unconditional INSERT ALL**

```sql
INSERT ALL
INTO sal_history VALUES(EMPID, HIREDATE, SAL)
INTO mgr_history VALUES(EMPID, MGR, SAL)
SELECT employee_id EMPID, hire_date HIREDATE, salary SAL, manager_id MGR
FROM employees
WHERE employee_id > 200;
```

- 6 rows inserted in 0.032 seconds

• **Conditional INSERT ALL**

```sql
INSERT ALL
WHEN SAL > 100000 THEN
INTO sal_history VALUES(EMPID, HIREDATE, SAL)
WHEN MGR > 200 THEN
INTO mgr_history VALUES(EMPID, MGR, SAL)
SELECT employee_id EMPID, hire_date HIREDATE, salary SAL, manager_id MGR
FROM employees
WHERE employee_id > 200;
```

- 3 rows inserted in 0 seconds
Exercise 3:

```
CREATE TABLE empl3 AS
SELECT employee_id, first_name, last_name, email, hire_date, job_id, salary, department_id
FROM employees;
```

- **Merging Rows**

```
MERGE INTO empl3 c
USING employees e
ON (c.employee_id = e.employee_id)
WHEN MATCHED THEN
  UPDATE SET
c.first_name = e.first_name,
c.last_name = e.last_name,
c.department_id = e.department_id
WHEN NOT MATCHED THEN
  INSERT VALUES(e.employee_id, e.first_name, e.last_name, e.email, e.hire_date, e.job_id, e.salary, e.department_id);
```
### SQL Window - SELECT * FROM emp13:

```sql
SELECT * 
FROM emp13;
```

<table>
<thead>
<tr>
<th>EMPLOYEE_ID</th>
<th>FIRST_NAME</th>
<th>LAST_NAME</th>
<th>EMAIL</th>
<th>HIRE_DATE</th>
<th>JOB_ID</th>
<th>SALARY</th>
<th>DEPARTMENT_ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Donald</td>
<td>DVINNELL</td>
<td>DVINNELL</td>
<td>21/06/1989</td>
<td>SH_CLERK</td>
<td>2000,00</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Douglas</td>
<td>Grant</td>
<td>GRANT</td>
<td>13/01/2000</td>
<td>SH_CLERK</td>
<td>2500,00</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Jennifer</td>
<td>Whalen</td>
<td>WHALEN</td>
<td>17/09/1987</td>
<td>AD_ASSIST</td>
<td>4000,00</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Michael</td>
<td>Keyther</td>
<td>WAYARTSTE</td>
<td>17/02/1988</td>
<td>MK_MAN</td>
<td>8000,00</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Pat</td>
<td>Fay</td>
<td>FYAV</td>
<td>17/08/1987</td>
<td>MK_REP</td>
<td>5000,00</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>Susan</td>
<td>Moyns</td>
<td>SMAYRIS</td>
<td>07/06/1984</td>
<td>HR_REP</td>
<td>6500,00</td>
<td>40</td>
</tr>
<tr>
<td>7</td>
<td>Hermann</td>
<td>Boel</td>
<td>HOEER</td>
<td>07/06/1984</td>
<td>PR_REP</td>
<td>10000,00</td>
<td>70</td>
</tr>
<tr>
<td>8</td>
<td>Shelley</td>
<td>Higgins</td>
<td>SHIDDINS</td>
<td>07/08/1984</td>
<td>AC_MGR</td>
<td>12000,00</td>
<td>110</td>
</tr>
<tr>
<td>9</td>
<td>William</td>
<td>Gierz</td>
<td>WGETZ</td>
<td>07/08/1984</td>
<td>AC_ACCOUNT</td>
<td>8000,00</td>
<td>110</td>
</tr>
<tr>
<td>10</td>
<td>Steven</td>
<td>Kinng</td>
<td>SINGK</td>
<td>17/08/1987</td>
<td>AD_PRES</td>
<td>24000,00</td>
<td>90</td>
</tr>
<tr>
<td>11</td>
<td>Norman</td>
<td>Kochhar</td>
<td>NKOKCHAR</td>
<td>21/08/1989</td>
<td>AD_VP</td>
<td>17000,00</td>
<td>90</td>
</tr>
<tr>
<td>12</td>
<td>Lax</td>
<td>De Haan</td>
<td>LDHAAN</td>
<td>13/01/1993</td>
<td>AD_VP</td>
<td>17000,00</td>
<td>90</td>
</tr>
<tr>
<td>13</td>
<td>Alexander</td>
<td>Humdold</td>
<td>AHUMOLD</td>
<td>03/01/1980</td>
<td>IT_PROG</td>
<td>9000,00</td>
<td>60</td>
</tr>
<tr>
<td>14</td>
<td>Bruno</td>
<td>Ermst</td>
<td>ERENST</td>
<td>21/05/1991</td>
<td>IT_PROG</td>
<td>6000,00</td>
<td>60</td>
</tr>
</tbody>
</table>

- **Total Rows Selected:** 14
- **Time Taken:** 0.047 seconds