Exercise 4 – Retrieving Data Using the SQL SELECT Statement

***Run script HR.sql before the exercise.**

1. There are four coding errors in the following statement. Can you identify them?

   ```
   SELECT employee_id, last_name salx12 ANNUAL SALARY
   FROM employees;
   ```

2. The HR department wants a query to display the last name, job id, hire date, and employee id for each employee, with the employee id appearing first. Provide an alias STARTDATE for the HIRE_DATE column.

   ```
   EMPLOYEE_ID LAST_NAME                 JOB_ID     STARTDATE
   ----------- ------------------------- ---------- ---------
           100 King                      AD_PRES    17-JUN-87
           101 Kochhar                   AD_VP      21-SEP-89
   ...
           204 Baer                      PR_REP     07-JUN-94
           205 Higgins                   AC_MGR     07-JUN-94

   22 rows selected.
   ```

3. The HR department wants a query to display all unique job ids from the EMPLOYEES table.

   ```
   JOB_ID
   ----------
   IT_PROG
   AC_MGR
   ...
   ST_CLERK
   HR_REP

   15 rows selected.
   ```

4. The HR department wants more descriptive column headings for its report on employees. Name the column headings Emp#, Last Name, Job and Hire Date, respectively.

   ```
        Emp # Employee                  Job        Hire Date
   ---------- ------------------------- ---------- ---------
          100 King                      AD_PRES    17-JUN-87
          101 Kochhar                   AD_VP      21-SEP-89
   ...
          204 Baer                      PR_REP     07-JUN-94
          205 Higgins                   AC_MGR     07-JUN-94

   22 rows selected.
   ```

5. Because of budget issues, the HR department needs a report that displays the last name and salary of employees who earn more than $12,000.

   ```
   LAST_NAME                     SALARY
   ------------------------- ----------
   King                           24000
   Kochhar                        17000
   De Haan                        17000
   Russell                        14000
   Hartstein                      13000
   ```

6. The HR department needs to know the last name and salary for any employee whose salary is not in the range of $5,000 to $12,000.

```
LAST_NAME                      SALARY
------------------------- ----------
Matos                            2600
Lorentz                          4200
...
Kochhar                         17000
King                            24000

8 rows selected.
```

7. Create a report to display the last name, job id and hire date for employees with last name of Matos or Taylor. Order the query in ascending order by the hire date.

```
LAST_NAME                 JOB_ID     HIRE_DATE
------------------------- ---------- ---------
Matos                     ST_CLERK   15-MAR-98
Taylor                    SA_REP     24-MAR-98
```

8. Display the last name and salary of employees who earn between $5,000 and $12,000, and also working in department 20 or 50. Label the columns as Employee and Monthly Salary, respectively.

```
Employee                  Monthly Salary
------------------------- --------------
Fripp                               8200
Kaufling                            7900
Mourgos                             5800
Fay                                 6000
```

9. Create a report to display the last name, salary and commission of all employees who earn commissions. Sort the data in descending order of salary and commissions.

```
LAST_NAME                      SALARY COMMISSION_PCT
------------------------- ---------- --------------
Russell                         14000             .4
Zlotkey                         10500             .2
Taylor                           8600             .2
Grant                            7000            .15
```

10. Display the last name of all employees in which third letter of the name is “a” or “e”.

```
LAST_NAME
------------
Greenberg
Grant
Whalen
Baer
```