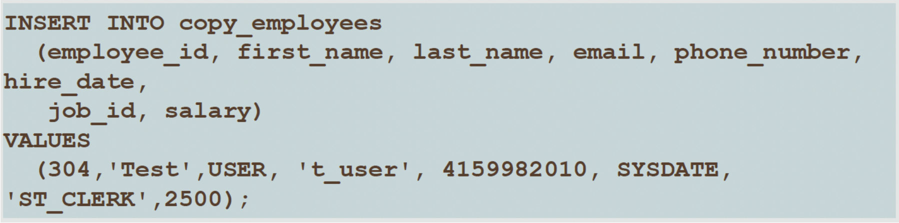
Modul Praktikum 8 – Oracle

Tujuan :

1. Mampu menggunakan Oracle Aplication Express (APEX)
2. Mampu membuat Query di APEX

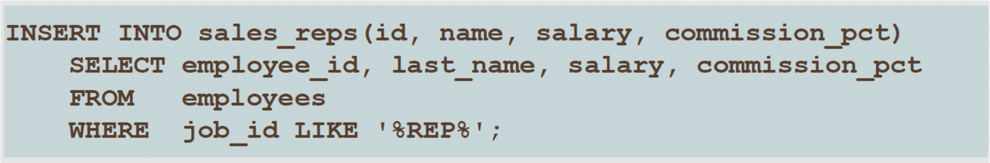
Buatlah query berikut di APEX, screenshot hasilnya dan jelaskan maksud dari query tersebut!

1.



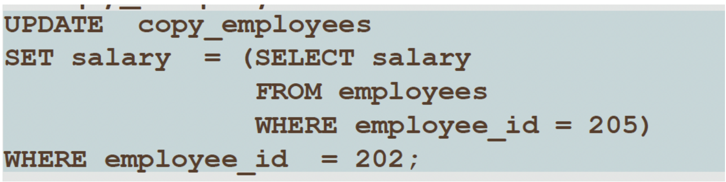
```
INSERT INTO copy_employees
  (employee_id, first_name, last_name, email, phone_number,
hire_date,
   job_id, salary)
VALUES
  (304,'Test',USER, 't_user', 4159982010, SYSDATE,
'ST_CLERK',2500);
```

2.



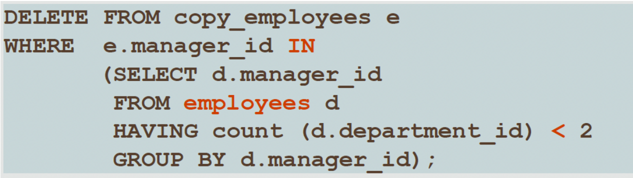
```
INSERT INTO sales_reps(id, name, salary, commission_pct)
    SELECT employee_id, last_name, salary, commission_pct
    FROM   employees
    WHERE  job_id LIKE '%REP%';
```

3.

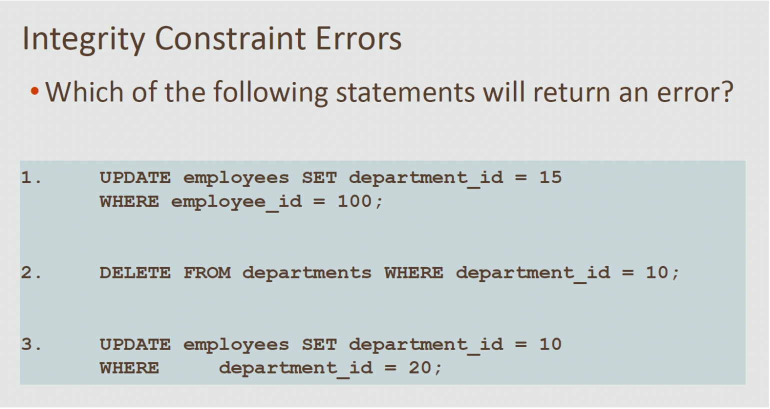


```
UPDATE  copy_employees
SET salary  = (SELECT salary
               FROM employees
               WHERE employee_id = 205)
WHERE employee_id  = 202;
```

4.



```
DELETE FROM copy_employees e
WHERE   e.manager_id IN
        (SELECT d.manager_id
         FROM employees d
         HAVING count (d.department_id) < 2
         GROUP BY d.manager_id);
```



Integrity Constraint Errors

- Which of the following statements will return an error?

5.

```
1.     UPDATE employees SET department_id = 15
       WHERE employee_id = 100;
```

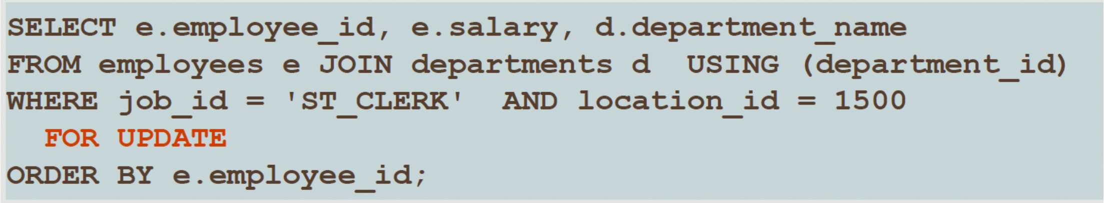
6.

```
2.     DELETE FROM departments WHERE department_id = 10;
```

7.

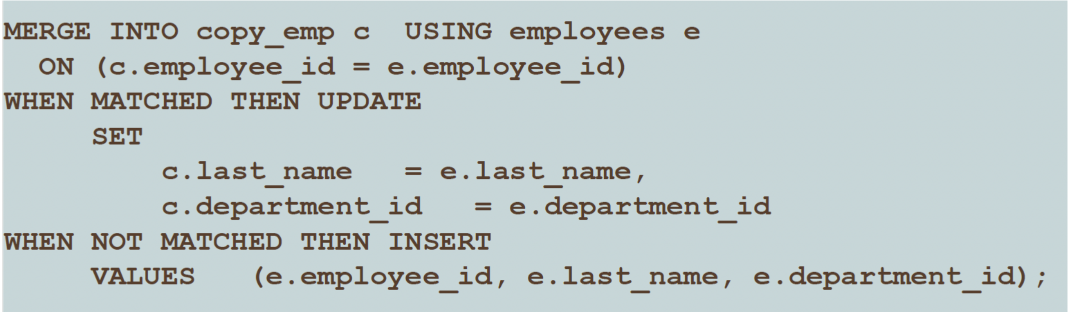
```
3.     UPDATE employees SET department_id = 10
       WHERE     department_id = 20;
```

8.



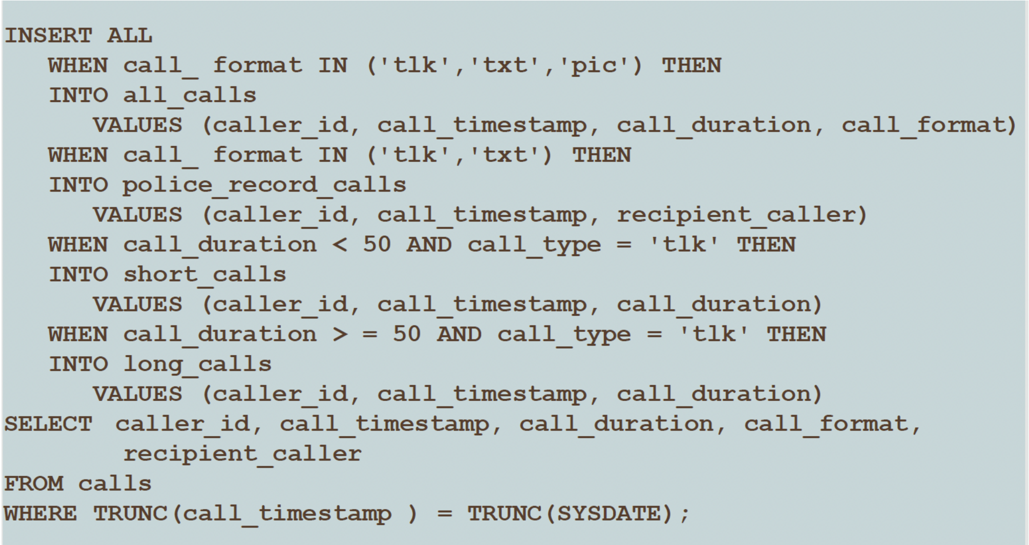
```
SELECT e.employee_id, e.salary, d.department_name
FROM employees e JOIN departments d  USING (department_id)
WHERE job_id = 'ST_CLERK'  AND location_id = 1500
  FOR UPDATE
ORDER BY e.employee_id;
```

9.



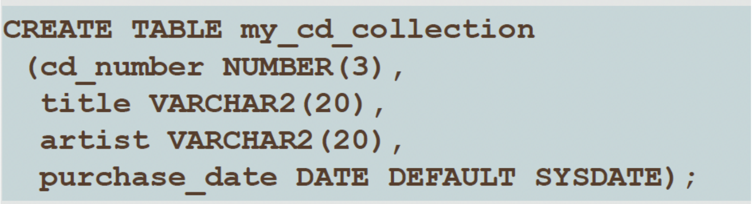
```
MERGE INTO copy_emp c  USING employees e
  ON (c.employee_id = e.employee_id)
WHEN MATCHED THEN UPDATE
     SET
         c.last_name    = e.last_name,
         c.department_id    = e.department_id
WHEN NOT MATCHED THEN INSERT
     VALUES    (e.employee_id, e.last_name, e.department_id);
```

10.



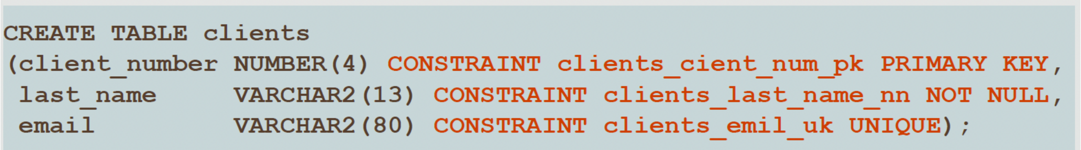
```
INSERT ALL
   WHEN call_ format IN ('tlk','txt','pic') THEN
   INTO all_calls
      VALUES (caller_id, call_timestamp, call_duration, call_format)
   WHEN call_ format IN ('tlk','txt') THEN
   INTO police_record_calls
      VALUES (caller_id, call_timestamp, recipient_caller)
   WHEN call_duration < 50 AND call_type = 'tlk' THEN
   INTO short_calls
      VALUES (caller_id, call_timestamp, call_duration)
   WHEN call_duration > = 50 AND call_type = 'tlk' THEN
   INTO long_calls
      VALUES (caller_id, call_timestamp, call_duration)
SELECT  caller_id, call_timestamp, call_duration, call_format,
        recipient_caller
FROM calls
WHERE TRUNC(call_timestamp ) = TRUNC(SYSDATE);
```

11.



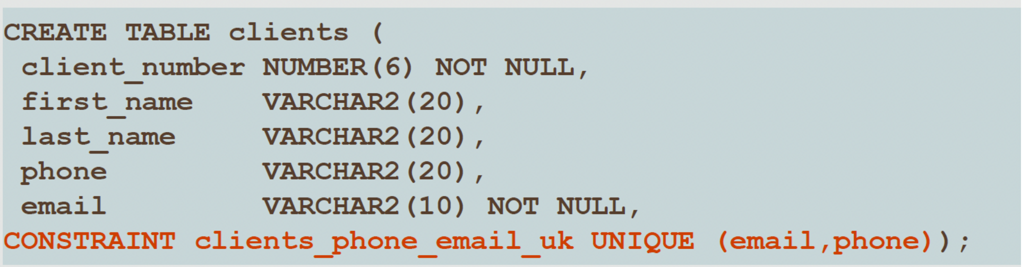
```
CREATE TABLE my_cd_collection
 (cd_number NUMBER(3),
  title VARCHAR2(20),
  artist VARCHAR2(20),
  purchase_date DATE DEFAULT SYSDATE);
```

12.



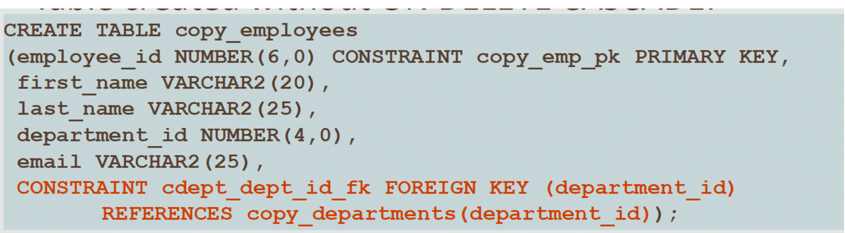
```
CREATE TABLE clients
(client_number NUMBER(4) CONSTRAINT clients_cient_num_pk PRIMARY KEY,
 last_name      VARCHAR2(13) CONSTRAINT clients_last_name_nn NOT NULL,
 email          VARCHAR2(80) CONSTRAINT clients_emil_uk UNIQUE);
```

13.



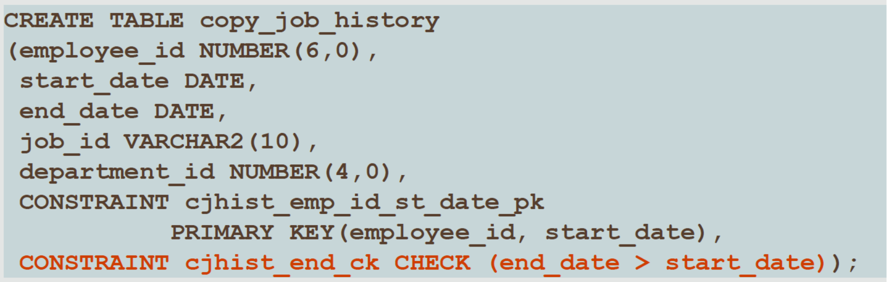
```
CREATE TABLE clients (
 client_number NUMBER(6) NOT NULL,
 first_name     VARCHAR2(20),
 last_name      VARCHAR2(20),
 phone          VARCHAR2(20),
 email          VARCHAR2(10) NOT NULL,
CONSTRAINT clients_phone_email_uk UNIQUE (email,phone));
```

14.



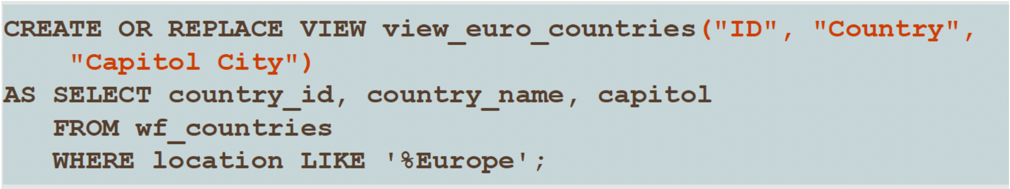
```
CREATE TABLE copy_employees
(employee_id NUMBER(6,0) CONSTRAINT copy_emp_pk PRIMARY KEY,
 first_name VARCHAR2(20),
 last_name VARCHAR2(25),
 department_id NUMBER(4,0),
 email VARCHAR2(25),
 CONSTRAINT cdept_dept_id_fk FOREIGN KEY (department_id)
        REFERENCES copy_departments(department_id));
```

15.



```
CREATE TABLE copy_job_history
(employee_id NUMBER(6,0),
 start_date DATE,
 end_date DATE,
 job_id VARCHAR2(10),
 department_id NUMBER(4,0),
 CONSTRAINT cjhist_emp_id_st_date_pk
           PRIMARY KEY(employee_id, start_date),
 CONSTRAINT cjhist_end_ck CHECK (end_date > start_date));
```

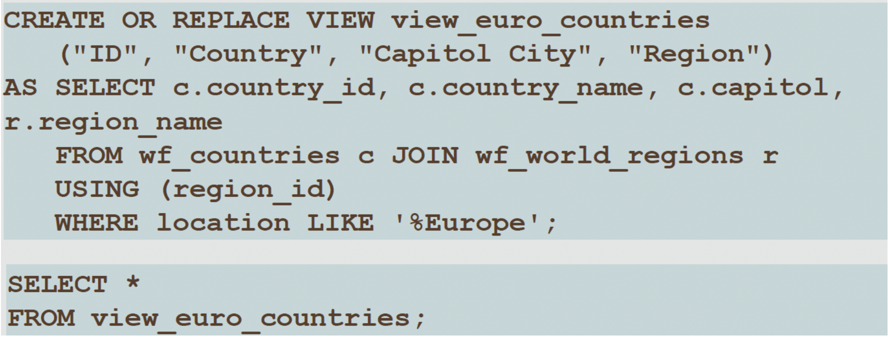
16.



```
CREATE OR REPLACE VIEW view_euro_countries("ID", "Country",
    "Capitol City")
AS SELECT country_id, country_name, capitol
   FROM wf_countries
   WHERE location LIKE '%Europe';
```

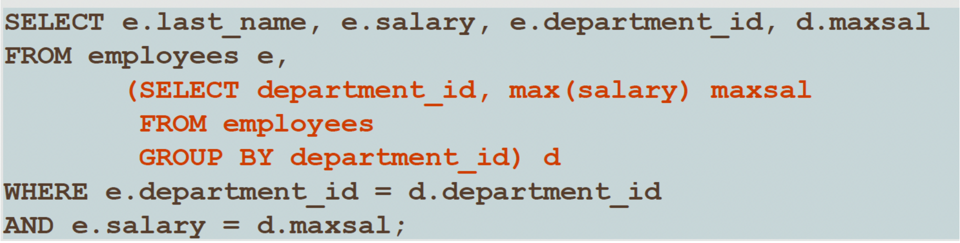
Select * from view_euro_countries

17.



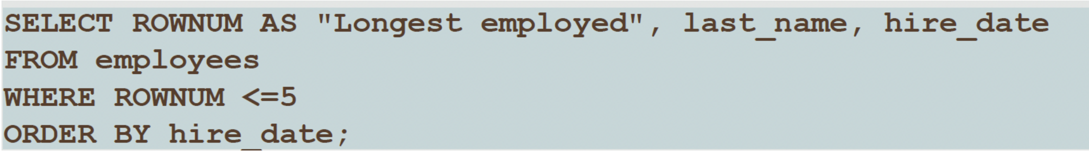
```
CREATE OR REPLACE VIEW view_euro_countries
    ("ID", "Country", "Capitol City", "Region")
AS SELECT c.country_id, c.country_name, c.capitol,
r.region_name
   FROM wf_countries c JOIN wf_world_regions r
   USING (region_id)
   WHERE location LIKE '%Europe';

SELECT *
FROM view_euro_countries;
```

18.



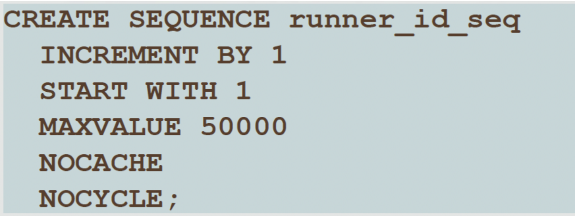
```
SELECT e.last_name, e.salary, e.department_id, d.maxsal
FROM employees e,
       (SELECT department_id, max(salary) maxsal
        FROM employees
        GROUP BY department_id) d
WHERE e.department_id = d.department_id
AND e.salary = d.maxsal;
```

19.



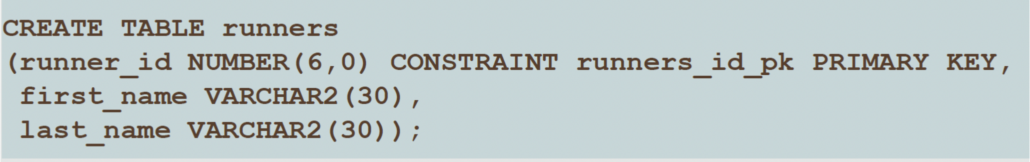
```
SELECT ROWNUM AS "Longest employed", last_name, hire_date
FROM employees
WHERE ROWNUM <=5
ORDER BY hire_date;
```

20.



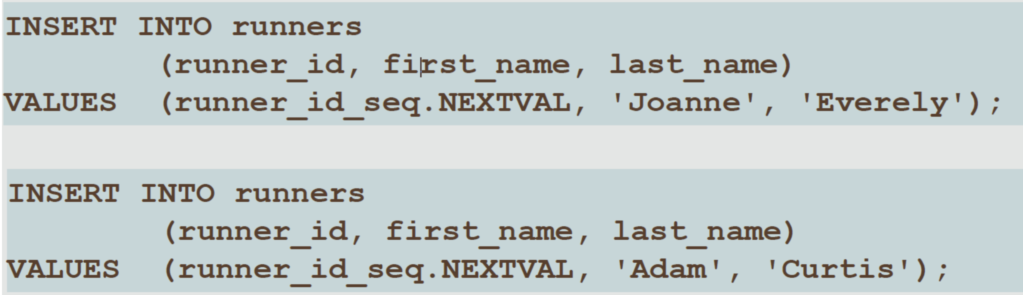
```
CREATE SEQUENCE runner_id_seq
  INCREMENT BY 1
  START WITH 1
  MAXVALUE 50000
  NOCACHE
  NOCYCLE;
```

21.



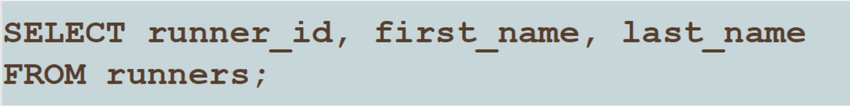
```
CREATE TABLE runners
(runner_id NUMBER(6,0) CONSTRAINT runners_id_pk PRIMARY KEY,
 first_name VARCHAR2(30),
 last_name VARCHAR2(30));
```

22.



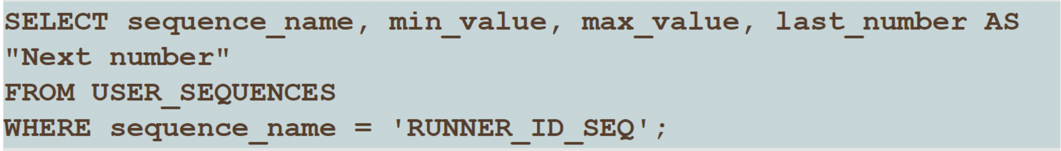
```
INSERT INTO runners
         (runner_id, first_name, last_name)
VALUES   (runner_id_seq.NEXTVAL, 'Joanne', 'Everely');

INSERT INTO runners
         (runner_id, first_name, last_name)
VALUES   (runner_id_seq.NEXTVAL, 'Adam', 'Curtis');
```

23.



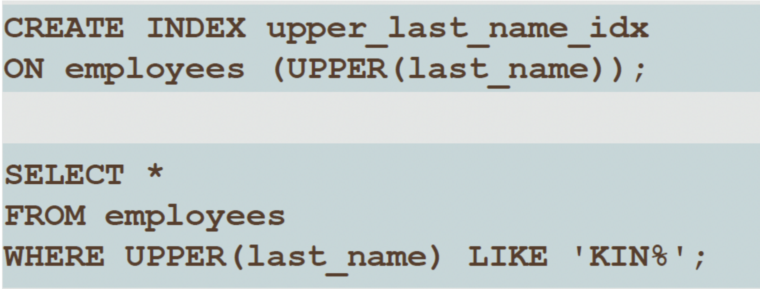
```
SELECT runner_id, first_name, last_name
FROM runners;
```

24.



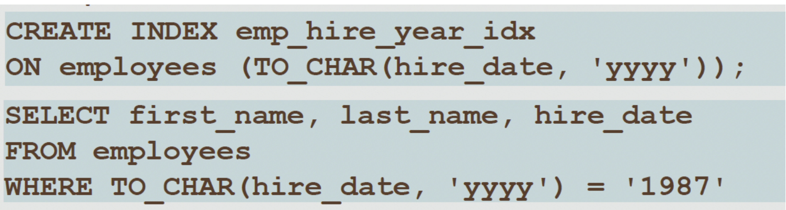
```
SELECT sequence_name, min_value, max_value, last_number AS
"Next number"
FROM USER_SEQUENCES
WHERE sequence_name = 'RUNNER_ID_SEQ';
```

25.



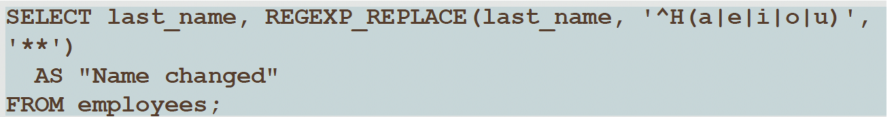
```
CREATE INDEX upper_last_name_idx
ON employees (UPPER(last_name));

SELECT *
FROM employees
WHERE UPPER(last_name) LIKE 'KIN%';
```

26.



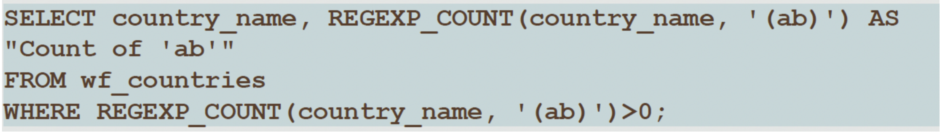
```
CREATE INDEX emp_hire_year_idx
ON employees (TO_CHAR(hire_date, 'yyyy'));
SELECT first_name, last_name, hire_date
FROM employees
WHERE TO_CHAR(hire_date, 'yyyy') = '1987'
```

27.



```
SELECT last_name, REGEXP_REPLACE(last_name, '^H(a|e|i|o|u)',
'**')
  AS "Name changed"
FROM employees;
```

28.



```
SELECT country_name, REGEXP_COUNT(country_name, '(ab)') AS
"Count of 'ab'"
FROM wf_countries
WHERE REGEXP_COUNT(country_name, '(ab)')>0;
```