آزمایش سری پنجم پایگاه داده

عرفان رفيعي اسكويي - 98243027

```
mysql> delimiter //
mysql> CREATE PROCEDURE SELECT_ALIVE()
-> BEGIN
-> SELECT *
-> FROM PERSON
-> WHERE DEATH IS NULL;
-> END // delimiter;
```

```
mysql> CALL SELECT_ALIVE; //
  PERSON_ID | LAST_NAME | FIRST_NAME | BIRTH
                                                | DEATH | GENDER | VACCINE ID |
                                                  NULL
             ALAVI
                                     1990-11-12
                                                                           2
                         ALI
                                                         MALE
                         FATEMEH
             MASUMI
                                     1986-05-21
                                                          FEMALE
         2
                                                  NULL
                                                                        NULL
            EHSANI
                         NAZANIN
                                     2001-08-16
                                                  NULL
                                                          FEMALE
                                                                        NULL
         5
             SOLEIMANI
                         MOHAMMAD
                                     1995-03-01
                                                  NULL
                                                          MALE
                                                                        NULL
            SANAYI
                         SOLMAZ
                                     2005-09-09
                                                  NULL
                                                          FEMALE
            HOSSEINI
                                     1974-12-26
                                                  NULL
                                                          MALE
                                                                        NULL
                         NASER
         9
            OLADI
                         AMIR
                                     2010-02-06
                                                  NULL
                                                          MALE
                                                                           2
                                                                           3
        10 BASATI
                         ATOUSA
                                    1996-10-28
                                                  NULL
                                                        FEMALE
8 rows in set (0.00 sec)
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> delimiter //
mysql> CREATE PROCEDURE SELECT_PERSON_BY_MIN_AGE(IN MIN_AGE INT)
   -> BEGIN
   -> SELECT *
   -> FROM PERSON
   -> WHERE TIMESTAMPDIFF(YEAR, BIRTH, CURDATE()) >= MIN_AGE;
   -> END // delimiter;
```

```
mysql> CALL SELECT_PERSON_BY_MIN_AGE(18);//
 PERSON_ID | LAST_NAME | FIRST_NAME | BIRTH
                                                             | GENDER | VACCINE ID
                                                DEATH
         1 |
             ALAVI
                         ALI
                                     1990-11-12 | NULL
                                                              MALE
                                                                                2
                                     1986-05-21 NULL
         2
             MASUMI
                         FATEMEH
                                                              FEMALE
                                                                            NULL
                                     1967-01-08
                                                  2022-07-10 | MALE
         3
            RAFIEI
                         REZA
                                                                            NULL
         4
            EHSANI
                        NAZANIN
                                     2001-08-16 | NULL
                                                              FEMALE
                                                                            NULL
                        MOHAMMAD
         5
            SOLEIMANI
                                     1995-03-01 | NULL
                                                              MALE
                                                                               1
           HOSSEINI
                        NASER
                                     1974-12-26 | NULL
                                                              MALE
                                                                            NULL
         8 JABBARI
                        HEDIYEH
                                    | 1981-07-18 | 2020-04-03 | FEMALE
                                                                            NULL
        10 BASATI
                        ATOUSA
                                    1996-10-28 NULL
                                                             FEMALE
                                                                                3
8 rows in set (0.00 sec)
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> delimiter //
mysql> CREATE FUNCTION CAN_VOTE(BIRTH DATE)
   -> RETURNS BOOL
   -> DETERMINISTIC
   -> BEGIN
   -> IF TIMESTAMPDIFF(YEAR, BIRTH, CURDATE()) > 18 THEN
   -> RETURN 1;
   -> ELSE
   -> RETURN 0;
   -> END IF;
   -> END // delimiter;
```

```
mysql> SELECT * FROM PERSON WHERE CAN VOTE(BIRTH);//
 PERSON_ID | LAST_NAME | FIRST_NAME | BIRTH
                                            DEATH
                                                       GENDER VACCINE ID
        1 | ALAVI
MASUMI
                     ALI
                                | 1990-11-12 | NULL
                                                         MALE
                                                                         2
                                | 1986-05-21 | NULL
                                                         FEMALE
                                                                      NULL
                      FATEMEH
                     REZA
                                 1967-01-08 | 2022-07-10 |
        3
            RAFIEI
                                                         MALE
                                                                      NULL
                     NAZANIN
        4 EHSANI
                                | 2001-08-16 | NULL
                                                         FEMALE
                                                                      NULL
        5 | SOLEIMANI | MOHAMMAD
                                 | 1995-03-01 | NULL
                                                        MALE
                                                                        1
          HOSSEINI NASER
                                 | 1974-12-26 | NULL
                                                        MALE
                                                                      NULL
        8 JABBARI
                     HEDIYEH
                                 | 1981-07-18 | 2020-04-03 | FEMALE |
                                                                      NULL
       10 | BASATI
                                | 1996-10-28 | NULL
                                                       | FEMALE |
                     ATOUSA
                                                                         3
8 rows in set (0.00 sec)
```

```
mysql> delimiter //
mysql> CREATE FUNCTION GET_AGE(BIRTH DATE)
   -> RETURNS INT
   -> DETERMINISTIC
   -> BEGIN
   -> RETURN TIMESTAMPDIFF(YEAR, BIRTH, CURDATE());
   -> END // delimiter;
```

mysql> SET @AVG_AGE = (SELECT AVG(GET_AGE(BIRTH)) FROM PERSON);//
Query OK, 0 rows affected (0.00 sec)

mysql> SELECT * FROM PERSON WHERE GET_AGE(BIRTH) > @AVG_AGE; //						
PERSON_ID	LAST_NAME	FIRST_NAME	BIRTH	DEATH	GENDER	VACCINE_ID
1 2 3 7 8	ALAVI MASUMI RAFIEI HOSSEINI JABBARI	ALI FATEMEH REZA NASER HEDIYEH	1990-11-12 1986-05-21 1967-01-08 1974-12-26 1981-07-18	NULL NULL 2022-07-10 NULL 2020-04-03	MALE FEMALE MALE MALE FEMALE	2 NULL NULL NULL NULL
5 rows in set (0.00 sec)						