

## آزمایش سری پنجم پایگاه داده

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```
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 |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | ALAVI | ALI | 1990-11-12 | NULL | MALE | 2 |
| 2 | MASUMI | FATEMEH | 1986-05-21 | NULL | FEMALE | NULL |
| 4 | EHSANI | NAZANIN | 2001-08-16 | NULL | FEMALE | NULL |
| 5 | SOLEIMANI | MOHAMMAD | 1995-03-01 | NULL | MALE | 1 |
| 6 | SANAYI | SOLMAZ | 2005-09-09 | NULL | FEMALE | NULL |
| 7 | HOSSEINI | NASER | 1974-12-26 | NULL | MALE | NULL |
| 9 | OLADI | AMIR | 2010-02-06 | NULL | MALE | 2 |
| 10 | BASATI | ATOUSA | 1996-10-28 | NULL | FEMALE | 3 |
+-----+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)

Query OK, 0 rows affected (0.02 sec)
```

```
For the right syntax to use near 'at line 1
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      | DEATH      | GENDER | VACCINE_ID |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | ALAVI | ALI | 1990-11-12 | NULL | MALE | 2 |
| 2 | MASUMI | FATEMEH | 1986-05-21 | NULL | FEMALE | NULL |
| 3 | RAFIEI | REZA | 1967-01-08 | 2022-07-10 | MALE | NULL |
| 4 | EHSANI | NAZANIN | 2001-08-16 | NULL | FEMALE | NULL |
| 5 | SOLEIMANI | MOHAMMAD | 1995-03-01 | NULL | MALE | 1 |
| 7 | 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 TIMESTAMPDIF(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     | ALI        | 1990-11-12 | NULL       | MALE   | 2          |
| 2         | MASUMI    | FATEMEH    | 1986-05-21 | NULL       | FEMALE | NULL       |
| 3         | RAFIEI    | REZA       | 1967-01-08 | 2022-07-10 | MALE   | NULL       |
| 4         | EHSANI    | NAZANIN    | 2001-08-16 | NULL       | FEMALE | NULL       |
| 5         | SOLEIMANI | MOHAMMAD   | 1995-03-01 | NULL       | MALE   | 1          |
| 7         | 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)
```

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

```
mysql> SELECT GET_AGE(BIRTH) FROM PERSON; //
+-----+
| GET_AGE(BIRTH) |
+-----+
| 32              |
| 36              |
| 56              |
| 21              |
| 28              |
| 17              |
| 48              |
| 41              |
| 13              |
| 26              |
+-----+
10 rows in set (0.00 sec)
```

```
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	ALAVI	ALI	1990-11-12	NULL	MALE	2
2	MASUMI	FATEMEH	1986-05-21	NULL	FEMALE	NULL
3	RAFIEI	REZA	1967-01-08	2022-07-10	MALE	NULL
7	HOSSEINI	NASER	1974-12-26	NULL	MALE	NULL
8	JABBARI	HEDIYEH	1981-07-18	2020-04-03	FEMALE	NULL

```
5 rows in set (0.00 sec)
```