

# Gagnasafnsfræði Vikublað 10

brj46

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## 1

Finnun eftirnöfn allra millistjórnanda:

```
SELECT Lname
FROM EMPLOYEE
WHERE Ssn IN (
    SELECT Super_ssn
    FROM EMPLOYEE
    WHERE Super_ssn IS NOT NULL
);
```

```
sqlite> SELECT Lname
...> FROM EMPLOYEE
...> WHERE SSN IN (
(x1...> SELECT Super_ssn
(x1...> FROM EMPLOYEE
(x1...> WHERE Super_ssn IS NOT NULL
(x1...> );
Lname
-----
Wong
Borg
Wallace
sqlite>
```

## 2

Finnum eftirnöfn deildarstjóra sem vinna í verkefni sem er ekki stýrt af þeirra eigin deild:

```
SELECT E.Lname
FROM EMPLOYEE E
JOIN DEPARTMENT D ON E.Ssn = D.Mgr_ssn
JOIN WORKS_ON W ON E.Ssn = W.Essn
JOIN PROJECT P ON W.Pno = P.Pnumber
WHERE P.Dnum <> D.Dnumber;
```

```
sqlite> SELECT E.Lname
...> FROM EMPLOYEE E
...> JOIN DEPARTMENT D ON E.Ssn = D.Mgr_ssn
...> JOIN WORKS_ON W ON E.Ssn = W.Essn
...> JOIN PROJECT P ON W.Pno = P.Pnumber
...> WHERE P.Dnum <> D.Dnumber;
Lname
-----
Wong
Wong
Wallace
sqlite>
```

## 3

Finnum eftirnöfn starfsmanna sem vinna ekki í neinu verkefni:

```
SELECT Lname
FROM EMPLOYEE
WHERE NOT EXISTS (
    SELECT *
    FROM WORKS_ON
    WHERE Essn = Ssn
);
```

```
sqlite> SELECT Lname FROM EMPLOYEE
...> WHERE NOT EXISTS (
(x1...> SELECT *
(x1...> FROM WORKS_ON
(x1...> WHERE Essn = Ssn
(x1...> );
sqlite>
```

## 4

Finnum fornöfn og eftirnöfn starfsmanna sem vinna í öllum verkefnum:

```
SELECT Fname, Lname
FROM EMPLOYEE
WHERE NOT EXISTS (
    SELECT *
    FROM PROJECT P
    WHERE NOT EXISTS (
        SELECT *
        FROM WORKS_ON W
        WHERE W.Pno = P.Pnumber AND W.Essn = Ssn
    )
);
```

```
sqlite> SELECT Lname FROM EMPLOYEE
...> WHERE NOT EXISTS (
(x1...> SELECT *
(x1...> FROM WORKS_ON
(x1...> WHERE Essn = Ssn
(x1...> );
sqlite> SELECT Fname, Lname
...> FROM EMPLOYEE
...> WHERE NOT EXISTS (
(x1...> SELECT *
(x1...> FROM PROJECT P
(x1...> WHERE NOT EXISTS (
(x2...> SELECT *
(x2...> FROM WORKS_ON W
(x2...> WHERE W.Pno = P.Pnumber AND W.Essn = Ssn
(x2...> )
(x1...> );
sqlite>
```