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| --- | --- | --- | --- |
| **Group No** | **Student ID** | **Name** | **Project Topic** |
| **38** | **171805004** | **SEMİH AKIN** | **Online Banking System** |
| **171805020** | **YUSUF AKIN** |
|  |  |

|  |  |  |
| --- | --- | --- |
| **TABLE** | **PRIMARY KEY** | **FOREIGN KEY** |
| Personal | Personal\_no,ID\_no |  |
| Users | IBAN\_no | Person\_no->Personal.Person\_no |
| Property |  | IBAN\_no->User.IBAN\_no |
| Stock | Stock\_code |  |
| Checking\_account |  | IBAN\_no->User.IBAN\_no |
| Credit card | Credit\_card\_no |  |
| Staff | Staff\_no |  |
| Department | Department\_no |  |
| Login info | login\_info |  |

**Query1:** Finding the information of users whose first name is Yusuf and last name Akin.

**sql code:**

SELECT \* FROM personal WHERE (Fname='Yusuf' AND Lname = 'AKIN');

**screenshot of query’s output:**

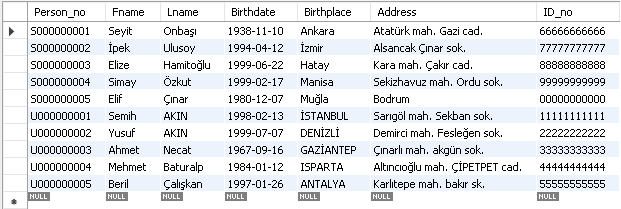


**Query2:** Print the attributes in the personnel table in order.

**sql code:**

SELECT \* FROM personal ORDER BY Person\_no;

**screenshot of query’s output:**

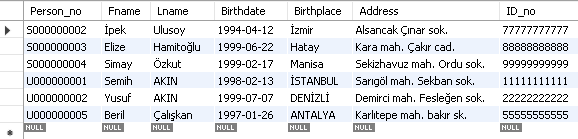


**Query3:** Print attributes for users with birthdates between 1990-01-01 and 2000-01-01.

**sql code:**

SELECT \* FROM personal WHERE Birthdate BETWEEN'1990-01-01' AND '2000-01-01';

**screenshot of query’s output:**

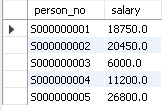


**Query4**: Print the person\_no and salary information of those whose salary is specified in the staff table**.**

**sql code:**

SELECT person\_no, salary FROM Staff WHERE salary is NOT NULL;

**screenshot of query’s output:**



**Query5:** Finding the highest, lowest and average salary among those with account numbers in the Checking account table.

**sql code:**

SELECT MIN(BALANCE) AS 'MIN BALANCE', MAX(BALANCE) AS 'MAX BALANCE', AVG(BALANCE) AS 'AVERAGE BALANCE' FROM checking\_account;

**screenshot of query’s output:**



**Query6:**

---Total salaries of employees sorting by department code in department table.

---Cartesien product with property and personal.

**sql code**:

SELECT D.Department\_no AS 'Department No', COUNT(\*) AS 'Piece', SUM(salary)

FROM department D, staff S

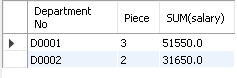
WHERE D.Department\_no=S.Department\_no

GROUP BY S.Department\_no;

SELECT COUNT(\*) AS 'number of cartesian products'

FROM property PR, personal P ;

**screenshot of query’s output:**





**Query7:** Total salaries of employees sorting by department code in department table.

**sql code:**

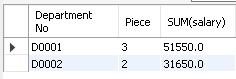
SELECT D.Department\_no AS 'Department No', COUNT(\*) AS 'Piece', SUM(salary)

FROM department D, staff S

WHERE D.Department\_no=S.Department\_no

GROUP BY S.Department\_no;

**screenshot of query’s output:**



**Query8:** Finding the number of employees in the D0001 department using HAVING.

**sql code:**

SELECT S.Department\_no AS 'Department No', COUNT(\*) AS 'number of D0001'

FROM staff S

HAVING S.Department\_no IN ('D0001');

**screenshot of query’s output:**



**Query9:** Finding people who write “Gazi” anywhere in their personal address.

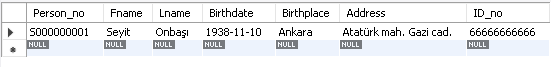
**sql code**:

SELECT \*

FROM personal

WHERE address LIKE "%Gazi%";

**screenshot of query’s output:**



**Query10:** Update the attributes in the staff table.

**sql code:**

UPDATE staff SET department\_no='D0002' WHERE staff\_no='100002';

UPDATE staff SET department\_no='D0002' WHERE staff\_no='100004';

**screenshot of query’s output:**



**Query11:**Retrieving S.Person\_no, P.Fname, P.Lname information from 2 tables connected to each other using join.

**sql code**:

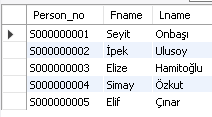
SELECT S.Person\_no, P.Fname, P.Lname

FROM personal P

JOIN Staff S

ON P.Person\_no=S.Person\_no;

**screenshot of query’s output:**



**Query12**: find the average salary in the department table, sorted by department\_no.

**sql code:**

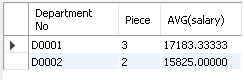
SELECT D.Department\_no AS 'Department No', COUNT(\*) AS 'Piece', SUM(salary)

FROM department D, staff S

WHERE D.Department\_no=S.Department\_no

GROUP BY S.Department\_no;

**screenshot of query’s output:**



**Query13:** Finding assets in property table of person with staff number 'U000000002' with join rule.

**sql code:**

SELECT \*

FROM property P

WHERE P.IBAN\_no IN(SELECT IBAN\_no

FROM users S

WHERE S.person\_no='U000000002' AND S.IBAN\_no=P.IBAN\_no);

**screenshot of query’s output:**



**Query14:** Find the staff\_no information of the people working in the 'D0001' department code by connecting the staff and department table with the left join rule.

sql code:

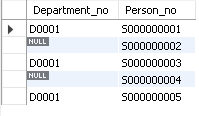
SELECT D.Department\_no, S.Person\_no

FROM Staff S

LEFT JOIN Department D

ON S.department\_no=D.Department\_no AND D.Department\_no='D0001';

**screenshot of query’s output:**



**Query15:** Find the staff\_no information of the people working in the 'D0001' department code by connecting the staff and department table with the right join rule.

**sql code:**

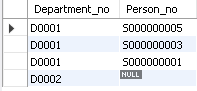
SELECT D.Department\_no, S.Person\_no

FROM Staff S

RIGHT JOIN Department D

ON S.department\_no=D.Department\_no AND D.Department\_no='D0001';

**screenshot of query’s output:**



**Query16:** Linking left join and right join tables.

**sql code:**

SELECT D.Department\_no, S.Person\_no

FROM Staff S

LEFT JOIN Department D

ON S.department\_no=D.Department\_no AND D.Department\_no='D0001'

UNION

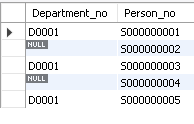
SELECT D.Department\_no, S.Person\_no

FROM Staff S

LEFT JOIN Department D

ON S.department\_no=D.Department\_no AND D.Department\_no='D0001';

**screenshot of query’s output:**



**Query17:** Create a stored procedure that retrieves Fname, Lname, Address of all personal.

**sql code:**

DELIMITER &&

CREATE PROCEDURE GetInformation()

BEGIN

SELECT p.Fname, p.Lname, p.Address

FROM personal P;

END &&

DELIMITER ;

CALL GetInformation();

**screenshot of query’s output:**



**Query18:** Create a stored procedure that retrieves “staff\_no, Salary, Fname, Lname” according to given “Department\_no“.

**sql code:**

DELIMITER ##

CREATE PROCEDURE GetDepartmentPerson(IN departmentNo varchar(10))

BEGIN

SELECT S.Staff\_no, S.Salary, P.Fname, P.Lname

FROM Staff S, Personal P

WHERE S.Department\_no=departmentNo AND P.Person\_no=S.Person\_no;

END ##

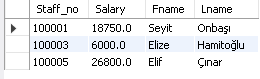
DELIMITER ;

CALL GetDepartmentPerson("D0001");

CALL GetDepartmentPerson("D0002");

**screenshot of query’s output:**

CALL GetDepartmentPerson("D0001");



CALL GetDepartmentPerson("D0002");



**Query19:** Create View from Staff table as: Personal First name, Personal Last name, Staff Salary, Authority.

**sql code:**

CREATE VIEW vıew\_staff\_info AS

SELECT P.Fname, P.Lname, S.Salary, D.Authority

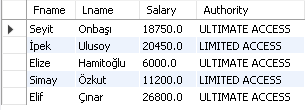
FROM Staff S, Personal P, Department D

WHERE P.Person\_no=S.Person\_no AND S.department\_no=D.department\_no;

SELECT \*

FROM vıew\_staff\_info;

**screenshot of query’s output:**



**Query20:** Create the View from the department table as: Department\_id, Authority, COUNTS.department\_id, SUM(S.salary) sorted by department\_no.

**sql code:**

CREATE VIEW vıew\_group\_department(Dept\_No, Dept\_Authority, No\_of\_Staff, Salary\_Sum ) AS

SELECT D.department\_no, D.Authority, COUNT(S.department\_no), SUM(S.salary)

FROM Staff S, Personal P, Department D

WHERE P.Person\_no=S.Person\_no AND S.department\_no=D.department\_no

GROUP BY D.department\_no

ORDER BY COUNT(S.department\_no);

SELECT \*

FROM vıew\_group\_department;

**screenshot of query’s output:**

