Kathmandu University

Dhulikhel, Kavre

Subject:COMP 232

Lab Work:II

Submitted by:

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Roll No:30

Group.:Computer Engineering

Level : 2nd year / 2nd sem

Submitted to:

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Department of Computer Science and Engineering

You are given database schema below. Convert the following schema into SQL tables and insert at least 5
relevant data values in each relation and perform the following activities.
payscale (position ,salary, grade)
teacher (teacher_id, name, salary, joining_date, birthdate, position)
class (class_scheduleno, teacher_id, room_no)
Create a database named yourname_school and create table and populate the relevant data for the
tables below and execute the following queries.

DataEntry and Table creation:

```
drop DATABASE prashant_school;
create DATABASE if not exists prashant_school;
use prashant_school;

CREATE table payscale(
   position varchar(50) PRIMARY key,
   salary int,
   grade char(1) NOT NULL
);

create table teachers (
   teacher_id int primary key,
   teacher_name varchar(50),
   salary int,
   joining_date date,
   birthdate date,
   position varchar(50),
   FOREIGN key (position) REFERENCES payscale(position)
on update cascade on delete cascade
);

create table class (
   class_scheduleno int,
   teacher_id int,
   room_no int,
   primary key (class_scheduleno, room_no),
   FOREIGN key (teacher_id) REFERENCES
teachers(teacher_id) on update cascade on delete cascade
);
```

```
INSERT INTO payscale
VALUES ("Lecturer", 80000, "B"),
   ("Associate Professor", 100000, "A"),
   ("Assistant Professor", 90000, "A"),
   ("Professor", 150000, "A"),
   ("Curriculum Developer", 75000, "D"),
   ("Educational Administrator", 100000, "C"),
   ("Education Consultant", 100000, "C"),
   ("Teaching Assistant", 70000, "B"),
   ("Dean", 200000, "D");

INSERT INTO teachers
values (
       1,
       "Harper Thompson",
       80000,
       '2013-02-20',
       '1985-07-21',
       "lecturer"
   ),
   (
       2,
       "Malik Patel",
       100000,
       "2012-05-11",
       "1988-03-12",
       "Associate Professor"
   ),
   (
       3,
       "Savannah Rodriguez",
       90000,
       "2010-12-03",
       "1963-11-29",
       "Assistant Professor"
   ),
   (
       4,
       "Leo Wong",
       150000,
       "2009-07-18",
       "1982-09-06",
       "Professor"
```

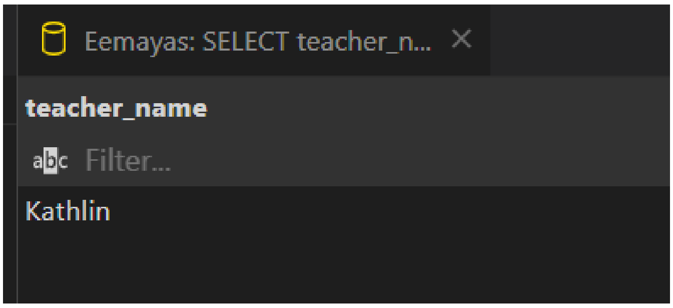
```
    ),
    (
        5,
        "Ram Singh",
        75000,
        "2012-03-29",
        "1992-12-05",
        "Curriculum Developer"
    ),
    (
        6,
        "Kathlin",
        100000,
        "2012-09-05",
        "1963-05-18",
        "Educational Administrator"
    ),
    (
        7,
        "Amara Johnson",
        100000,
        "2010-08-22",
        "1994-02-10",
        "Education Consultant"
    ),
    (
        8,
        "Ava Davis",
        70000,
        "2010-11-16",
        "1995-06-30",
        "Teaching Assistant"
    ),
    (
        9,
        "James",
        90000,
        "2013-01-08",
        "1983-10-26",
        "Assistant Professor"
    ),
    (
        10,
        "Owen Garcia",
        200000,
        "2012-06-30",
        "1987-01-17",
        "Dean"
    ),
    (
        11,
        "Janesh",
        100000,
        "2016-01-01",
        "1992-08-11",
        "Associate Professor"
    );

Insert into class
values (1, 3, 209),
    (2, 7, 300),
    (3, 8, 301),
    (4, 4, 205),
    (5, 10, 106),
    (6, 1, 309),
    (7, 11, 104),
    (8, 2, 207),
    (9, 5, 309),
    (10, 9, 201);
```

1. Display the name of the teacher who is oldest among all teachers.

```
    SELECT teacher_name
    from teachers
    where birthdate =(
            SELECT min(birthdate)
            from teachers
        );

    Output:
```



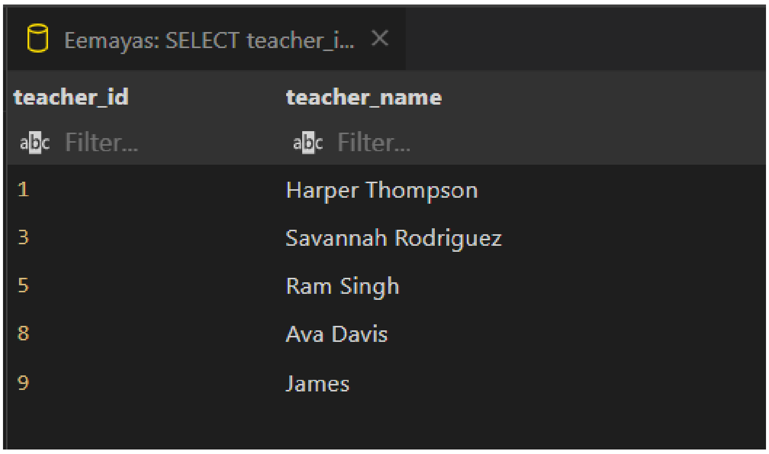
Eemayas: SELECT teacher_n...

```
teacher_name
Kathlin
```

2. Display teacher numbers and names of those teachers who are earning less than ‘Kathlin’.

```
SELECT teacher_id,
   teacher_name
from teachers
where salary <(
       SELECT salary
       from teachers
       where teacher_name = "kathlin"
   );
```

```
Output:
```



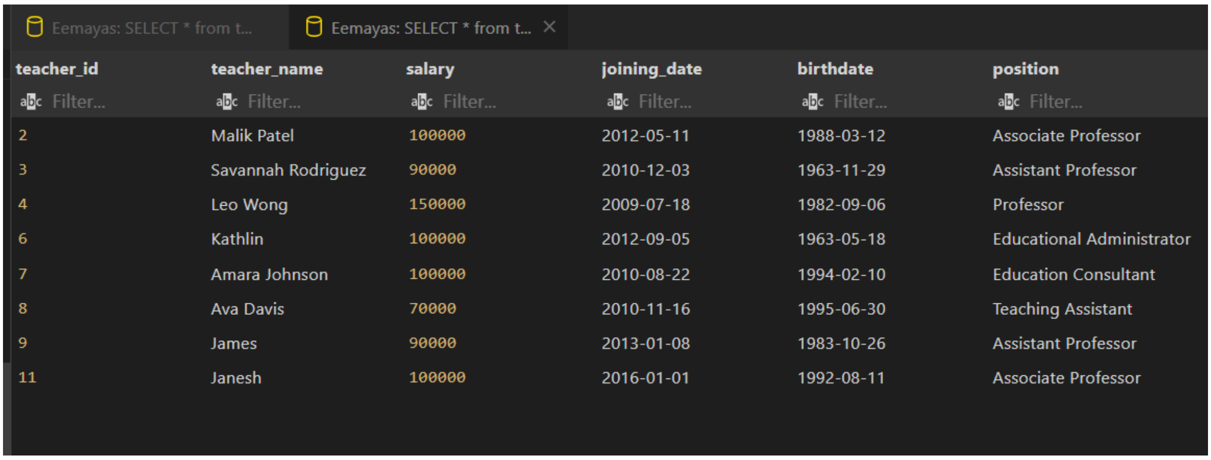
Eemayas: SELECT teacher_i...

teacher_id	teacher_name
1	Harper Thompson
3	Savannah Rodriguez
5	Ram Singh
8	Ava Davis
9	James

3. Display the list of all teachers who are earning equal to any teacher who have joined before ‘31-dec-2010’

```
SELECT *
from teachers
where salary = any (
       SELECT salary
       from teachers
       where joining_date < "2010-12-31"
   );
```

```
Output:
```

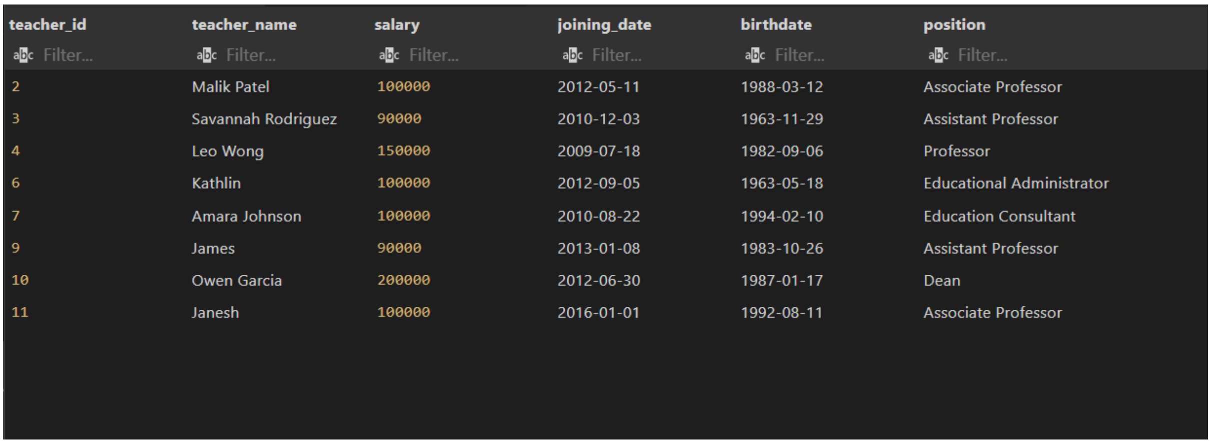


teacher_id	teacher_name	salary	joining_date	birthdate	position
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administrator
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant
8	Ava Davis	70000	2010-11-16	1995-06-30	Teaching Assistant
9	James	90000	2013-01-08	1983-10-26	Assistant Professor
11	Janesh	100000	2016-01-01	1992-08-11	Associate Professor

4. Display the list of all those teachers whose salary is greater than any other teacher with job title ‘Lecturer’.

```
SELECT *
from teachers
where salary > any (
       SELECT salary
       from teachers
       where position = "lecturer"
   );
```

Output:



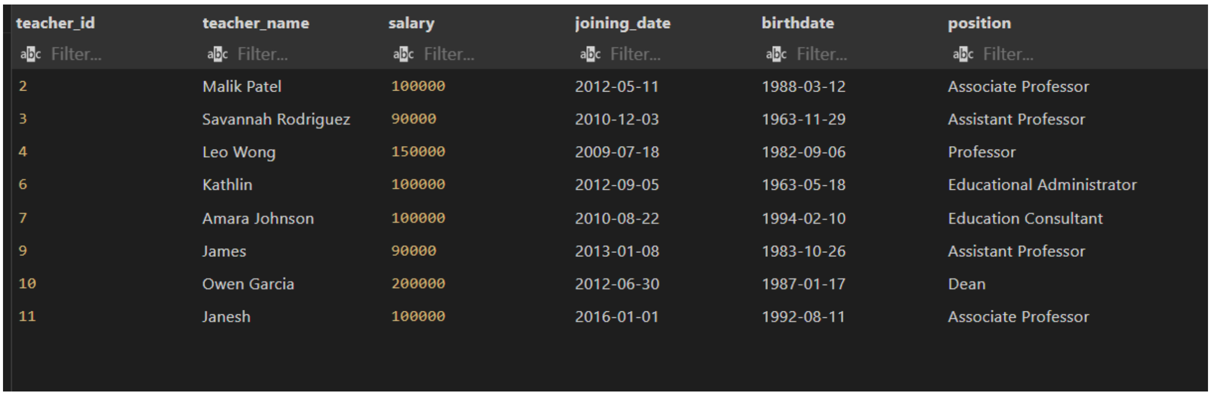
teacher_id	teacher_name	salary	joining_date	birthdate	position
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administrator
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant
9	James	90000	2013-01-08	1983-10-26	Assistant Professor
10	Owen Garcia	200000	2012-06-30	1987-01-17	Dean
11	Janesh	100000	2016-01-01	1992-08-11	Associate Professor

5. Display the list of all those teachers whose salary is greater than all the teachers with job title as ‘Lecturer’.

```
SELECT *
from teachers
where salary > all (
       SELECT salary
```

```
        from teachers
        where position = "lecturer"
    );
```

Output:

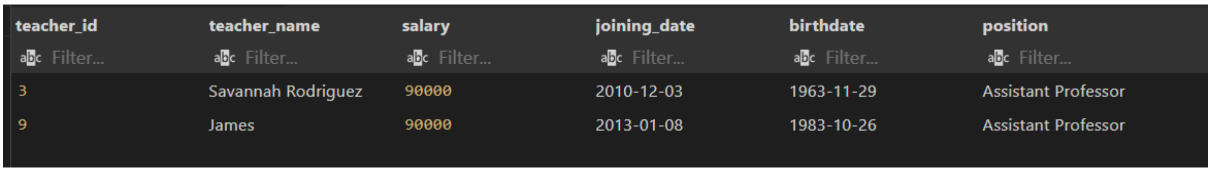


teacher_id	teacher_name	salary	joining_date	birthdate	position
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administrator
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant
9	James	90000	2013-01-08	1983-10-26	Assistant Professor
10	Owen Garcia	200000	2012-06-30	1987-01-17	Dean
11	Janesh	100000	2016-01-01	1992-08-11	Associate Professor

6. Display the list of all teachers whose job title and salary is same as that of the teacher whose name is 'James'.

```
SELECT *
from teachers
where salary = (
        SELECT salary
        from teachers
        where teacher_name like "James"
    )
    and position = (
        SELECT position
        from teachers
        where teacher_name like "James"
    );
```

Output:

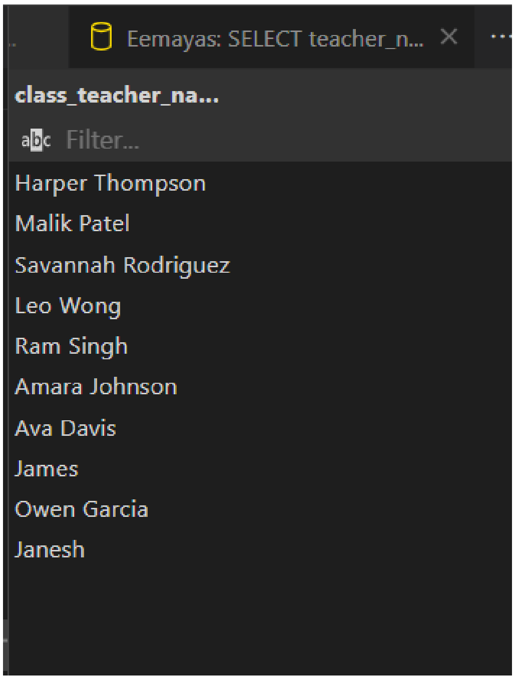


teacher_id	teacher_name	salary	joining_date	birthdate	position
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor
9	James	90000	2013-01-08	1983-10-26	Assistant Professor

7. Display names of all the teachers who are class teachers.

```
SELECT teacher_name as class_teacher_name
from teachers
   join class on teachers.teacher_id = class.teacher_id;
```

Output:

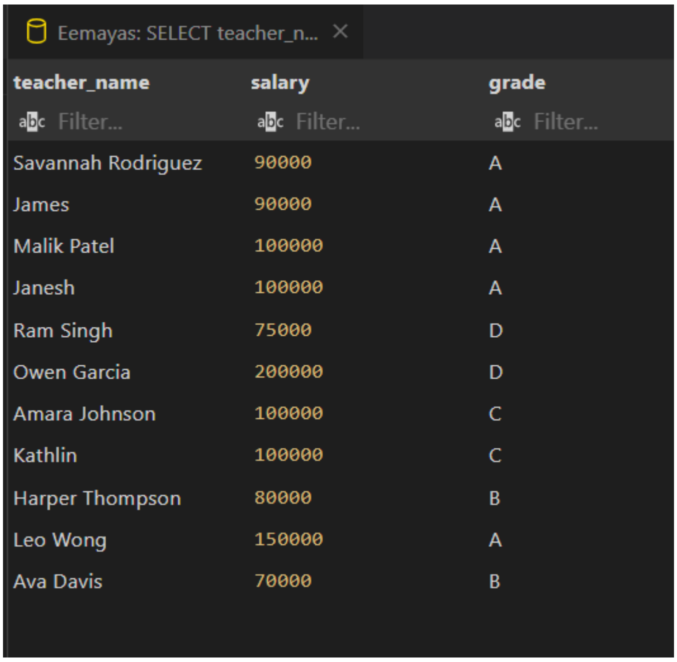


```
class_teacher_na...
Harper Thompson
Malik Patel
Savannah Rodriguez
Leo Wong
Ram Singh
Amara Johnson
Ava Davis
James
Owen Garcia
Janesh
```

8. Display names, salaries and salary grades of all teachers.

```
SELECT teacher_name,
   payscale.salary,
   payscale.grade
   from teachers
   join payscale on teachers.position = payscale.position;
```

Output:

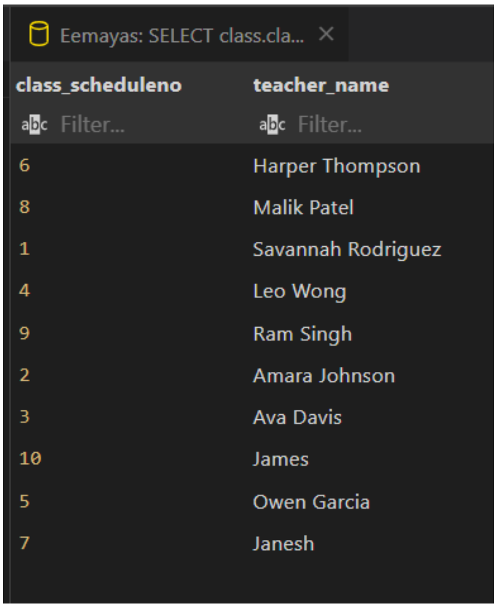


teacher_name	salary	grade
Savannah Rodriguez	90000	A
James	90000	A
Malik Patel	100000	A
Janesh	100000	A
Ram Singh	75000	D
Owen Garcia	200000	D
Amara Johnson	100000	C
Kathlin	100000	C
Harper Thompson	80000	B
Leo Wong	150000	A
Ava Davis	70000	B

9. Display names and class schedule numbers of all the teachers.

```
SELECT class.class_scheduleno,
   teachers.teacher_name
   from teachers
   join class on class.teacher_id = teachers.teacher_id;
```

Output:

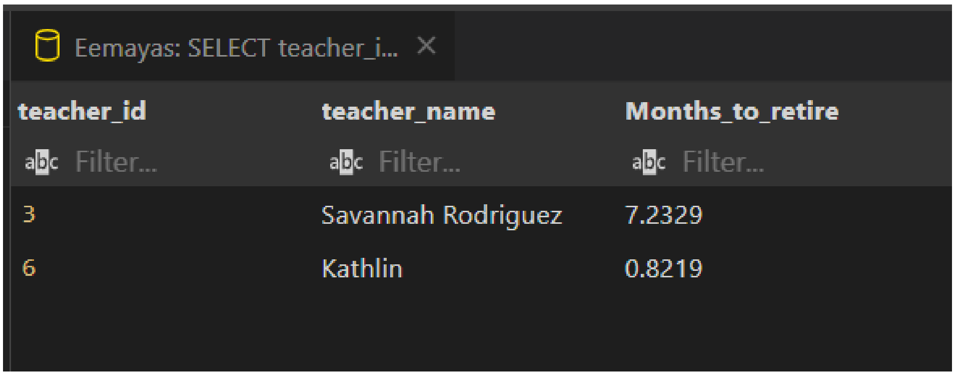


class_scheduleno	teacher_name
6	Harper Thompson
8	Malik Patel
1	Savannah Rodriguez
4	Leo Wong
9	Ram Singh
2	Amara Johnson
3	Ava Davis
10	James
5	Owen Garcia
7	Janesh

10. Display teacher ID and names of all teachers who are going to be retired by next year.

```
SELECT teacher_id,
   teacher_name,
    (60 - (datediff(curdate(), birthdate) / 365)) * 12 AS
Months_to_retire
FROM teachers
WHERE 60 - (datediff(curdate(), birthdate) / 365) < 1;
```

Output:

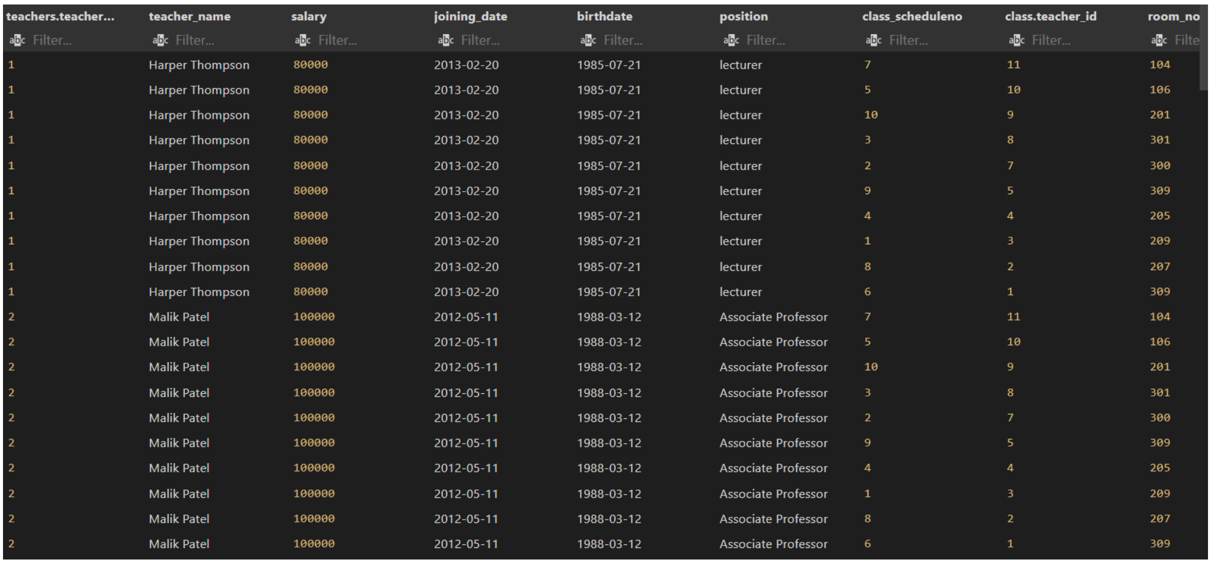


teacher_id	teacher_name	Months_to_retire
3	Savannah Rodriguez	7.2329
6	Kathlin	0.8219

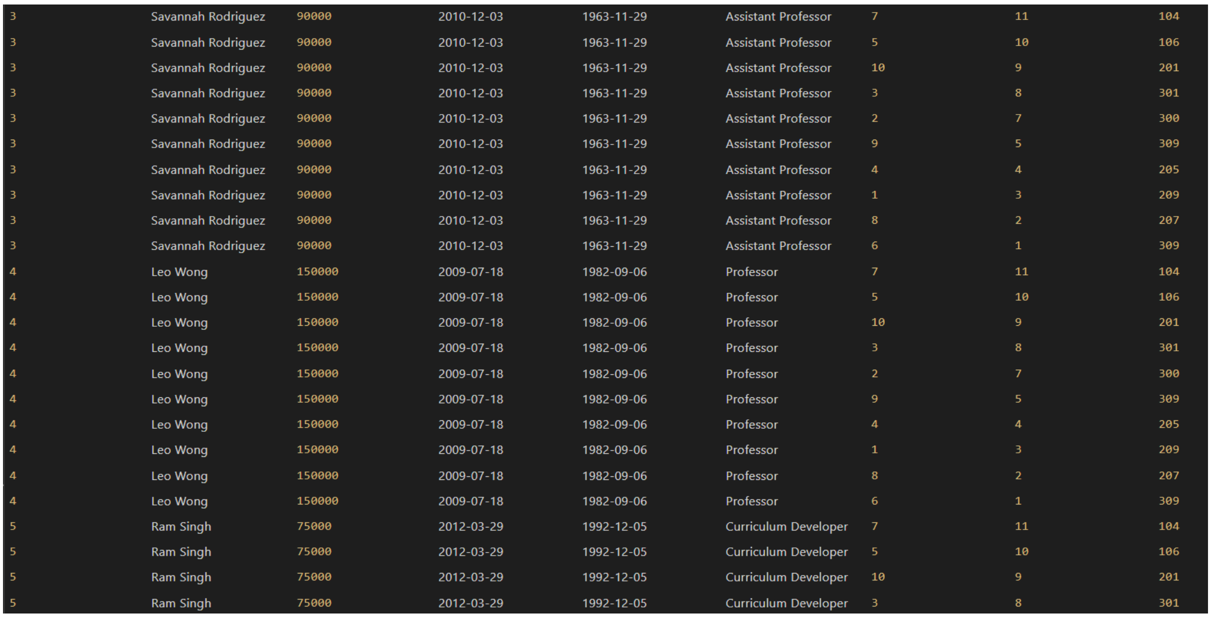
11. Show all possible teacher – class values.

```
SELECT *
from teachers
   join class;
```

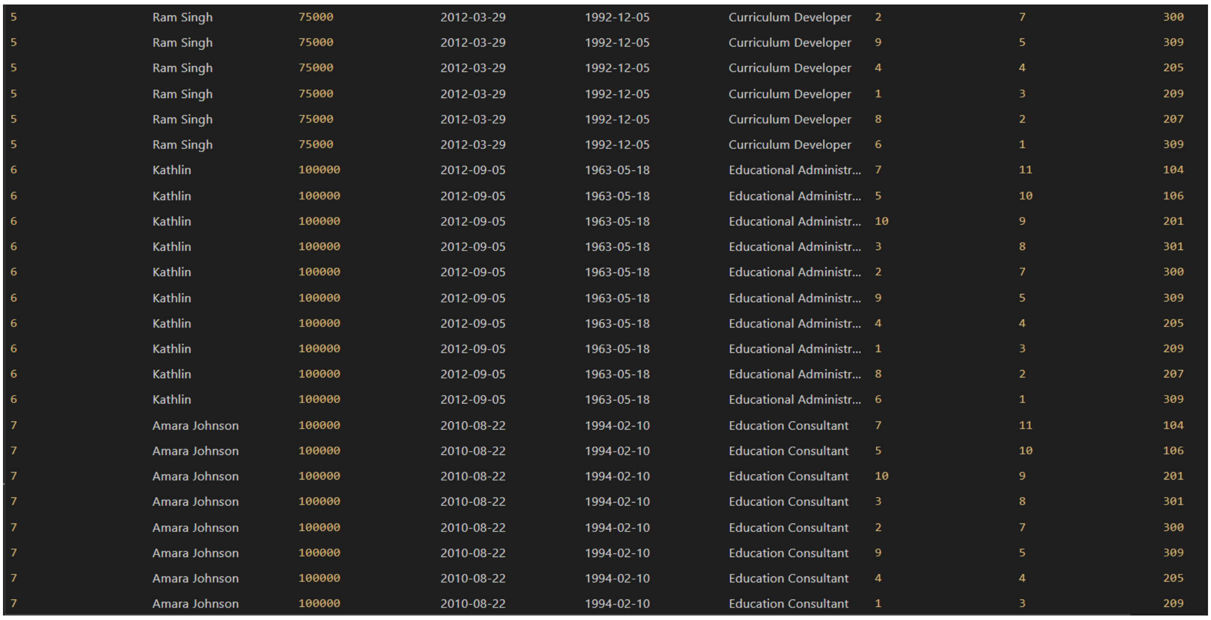
Output:



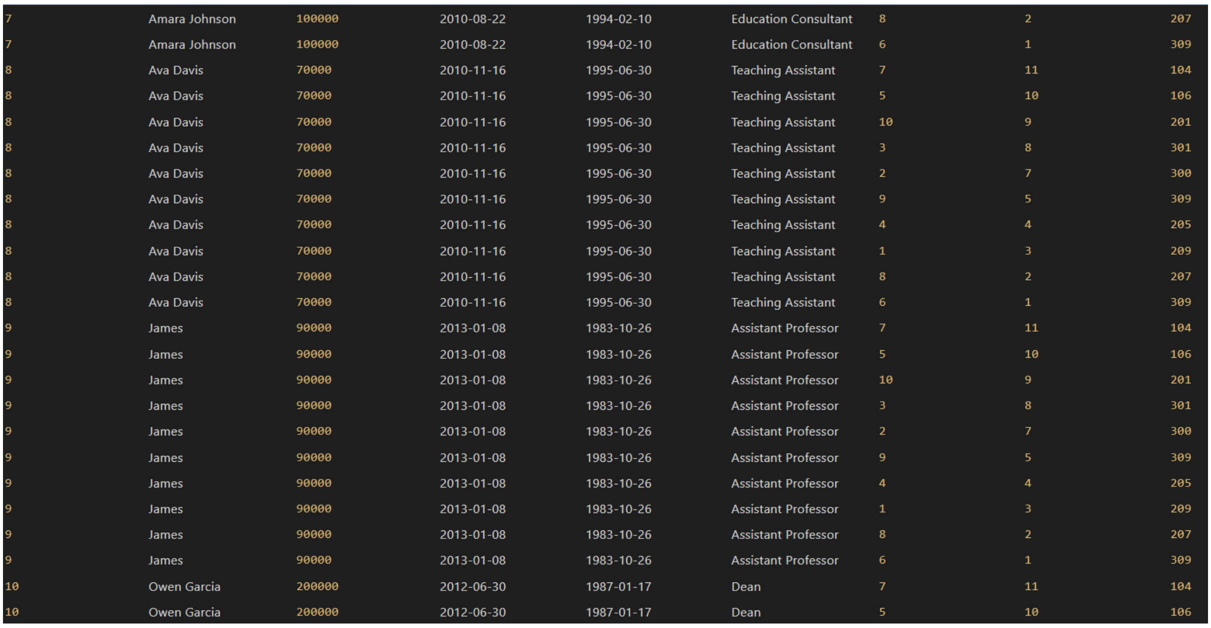
teachers.teacher...	teacher_name	salary	joining_date	birthdate	position	class_scheduleno	class.teacher_id	room_no
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	7	11	104
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	5	10	106
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	10	9	201
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	3	8	301
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	2	7	300
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	9	5	309
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	4	4	205
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	1	3	209
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	8	2	207
1	Harper Thompson	80000	2013-02-20	1985-07-21	lecturer	6	1	309
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	7	11	104
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	5	10	106
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	10	9	201
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	3	8	301
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	2	7	300
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	9	5	309
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	4	4	205
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	1	3	209
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	8	2	207
2	Malik Patel	100000	2012-05-11	1988-03-12	Associate Professor	6	1	309



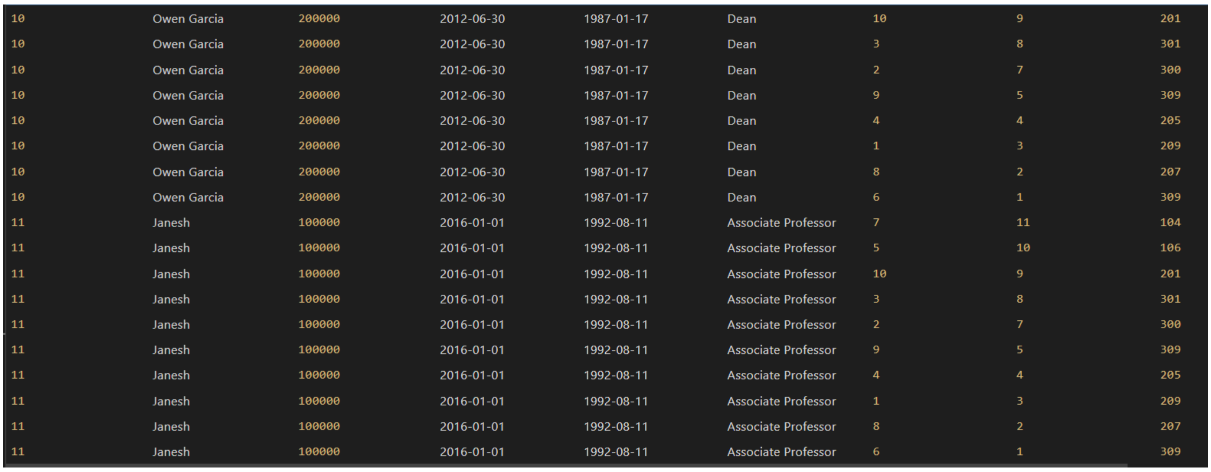
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	7	11	104
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	5	10	106
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	10	9	201
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	3	8	301
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	2	7	300
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	9	5	309
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	4	4	205
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	1	3	209
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	8	2	207
3	Savannah Rodriguez	90000	2010-12-03	1963-11-29	Assistant Professor	6	1	309
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	7	11	104
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	5	10	106
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	10	9	201
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	3	8	301
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	2	7	300
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	9	5	309
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	4	4	205
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	1	3	209
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	8	2	207
4	Leo Wong	150000	2009-07-18	1982-09-06	Professor	6	1	309
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	7	11	104
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	5	10	106
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	10	9	201
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	3	8	301



5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	2	7	300
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	9	5	309
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	4	4	205
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	1	3	209
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	8	2	207
5	Ram Singh	75000	2012-03-29	1992-12-05	Curriculum Developer	6	1	309
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	7	11	104
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	5	10	106
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	10	9	201
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	3	8	301
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	2	7	300
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	9	5	309
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	4	4	205
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	1	3	209
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	8	2	207
6	Kathlin	100000	2012-09-05	1963-05-18	Educational Administr...	6	1	309
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant	7	11	104
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant	5	10	106
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant	10	9	201
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant	3	8	301
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant	2	7	300
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant	9	5	309
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant	4	4	205
7	Amara Johnson	100000	2010-08-22	1994-02-10	Education Consultant	1	3	209



```
7    Amara Johnson   100000   2010-08-22   1994-02-10   Education Consultant   8    2    207
7    Amara Johnson   100000   2010-08-22   1994-02-10   Education Consultant   6    1    309
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     7    11   104
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     5    10   106
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     10   9    201
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     3    8    301
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     2    7    300
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     9    5    309
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     4    4    205
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     1    3    209
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     8    2    207
8    Ava Davis       70000    2010-11-16   1995-06-30   Teaching Assistant     6    1    309
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    7    11   104
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    5    10   106
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    10   9    201
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    3    8    301
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    2    7    300
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    9    5    309
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    4    4    205
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    1    3    209
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    8    2    207
9    James           90000    2013-01-08   1983-10-26   Assistant Professor    6    1    309
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   7    11   104
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   5    10   106
```



```
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   10   9    201
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   3    8    301
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   2    7    300
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   9    5    309
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   4    4    205
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   1    3    209
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   8    2    207
10   Owen Garcia     200000   2012-06-30   1987-01-17   Dean                   6    1    309
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    7    11   104
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    5    10   106
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    10   9    201
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    3    8    301
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    2    7    300
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    9    5    309
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    4    4    205
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    1    3    209
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    8    2    207
11   Janesh          100000   2016-01-01   1992-08-11   Associate Professor    6    1    309
```

12. Create a View of above relational schema and do the following opereations on it.

```
create view view1 as
SELECT *
from teachers;
```

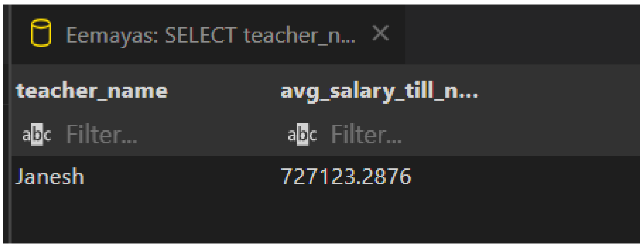
13. Devoluder has upgraded to Assistant professor from lecturer.
I have used Harper Thompson instead of Devoluder

```
Update teachers
set position = "Assistant professor",
   salary = 90000
Where teacher_name = "Harper Thompson";
```

14. Find the average salary till now, earned by Janesh who has joined on January 01 2016.

```
SELECT teacher_name,
   salary * (datediff(curdate(), joining_date) / 365) AS
avg_salary_till_now
FROM teachers
WHERE teacher_name like "Janesh";

Output:
```

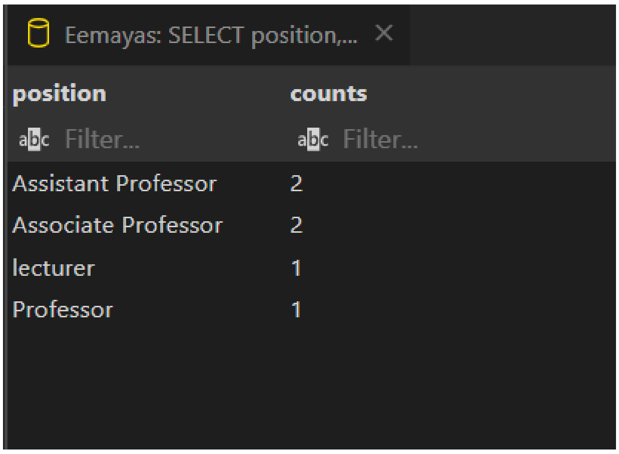


teacher_name	avg_salary_till_n...
Janesh	727123.2876

15. Find the number of lecturer, Assistant Professor, Associate Professor, Professor.

```
SELECT position,
   COUNT(teacher_id) AS counts
FROM teachers
WHERE position = "lecturer"
   OR position = "Assistant Professor"
   OR position = "Associate Professor"
   OR position = "Professor"
GROUP BY position;

Output:
```



position	counts
Assistant Professor	2
Associate Professor	2
lecturer	1
Professor	1

Final Code:

```
--@blockname

drop DATABASE prashant_school;
create DATABASE if not exists prashant_school;
use prashant_school;



--@blockname Table Create and Data Entry


CREATE table payscale(
   position varchar(50) PRIMARY key,
   salary int,
   grade char(1) NOT NULL
);
create table teachers (
   teacher_id int primary key,
   teacher_name varchar(50),
   salary int,
   joining_date date,
   birthdate date,
   position varchar(50),
   FOREIGN key (position) REFERENCES payscale(position) on update
cascade on delete cascade
);
create table class (
   class_scheduleno int,
   teacher_id int,
   room_no int,
   primary key (class_scheduleno, room_no),
   FOREIGN key (teacher_id) REFERENCES teachers(teacher_id) on
update cascade on delete cascade
);
INSERT INTO payscale
VALUES ("Lecturer", 80000, "B"),
   ("Associate Professor", 100000, "A"),
   ("Assistant Professor", 90000, "A"),
   ("Professor", 150000, "A"),
   ("Curriculum Developer", 75000, "D"),
   ("Educational Administrator", 100000, "C"),
   ("Education Consultant", 100000, "C"),
   ("Teaching Assistant", 70000, "B"),
   ("Dean", 200000, "D");
INSERT INTO teachers
values (
       1,
       "Harper Thompson",
       80000,
       '2013-02-20',
       '1985-07-21',
       "lecturer"
   ),
   (
       2,
       "Malik Patel",
       100000,
       "2012-05-11",
       "1988-03-12",
       "Associate Professor"
   ),
   (
       3,
       "Savannah Rodriguez",
       90000,
       "2010-12-03",
       "1963-11-29",
       "Assistant Professor"
   ),
   (
       4,
       "Leo Wong",
       150000,
       "2009-07-18",
       "1982-09-06",
       "Professor"
   ),
   (
       5,
       "Ram Singh",
       75000,
       "2012-03-29",
       "1992-12-05",
       "Curriculum Developer"
   ),
   (
       6,
       "Kathlin",
       100000,
       "2012-09-05",
       "1963-05-18",
       "Educational Administrator"
   ),
   (
       7,
       "Amara Johnson",
       100000,
       "2010-08-22",
       "1994-02-10",
       "Education Consultant"
   ),
(
  8,
  "Ava Davis",
  70000,
  "2010-11-16",
  "1995-06-30",
  "Teaching Assistant"
),
(
  9,
  "James",
  90000,
  "2013-01-08",
  "1983-10-26",
  "Assistant Professor"
),
(
  10,
  "Owen Garcia",
  200000,
  "2012-06-30",
  "1987-01-17",
  "Dean"
),
(
  11,
  "Janesh",
  100000,
  "2016-01-01",
  "1992-08-11",
  "Associate Professor"
);
Insert into class
values (1, 3, 209),
(2, 7, 300),
(3, 8, 301),
(4, 4, 205),
(5, 10, 106),
(6, 1, 309),
(7, 11, 104),
(8, 2, 207),
(9, 5, 309),
(10, 9, 201);


--@blockname Q1. Display the name of the teacher who is oldest
among all teachers.


SELECT teacher_name
from teachers
```

```
where birthdate =(
       SELECT min(birthdate)
       from teachers
   );


--@blockname Q2. Display teacher numbers and names of those
teachers who are earning less than 'Kathlin'.


SELECT teacher_id,
   teacher_name
from teachers
where salary <(
       SELECT salary
       from teachers
       where teacher_name = "kathlin"
   );


--@blockname Q3. Display the list of all teachers who are earning
equal to any teacher who have joined before '31-dec-2010'


SELECT *
from teachers
where salary = any (
       SELECT salary
       from teachers
       where joining_date < "2010-12-31"
   );


--@blockname Q4. Display the list of all those teachers whose
salary is greater than any other teacher with job title
'Lecturer'.


SELECT *
from teachers
where salary > any (
       SELECT salary
       from teachers
       where position = "lecturer"
   );


--@blockname Q5. Display the list of all those teachers whose
salary is greater than all the teachers with job title as
'Lecturer'.
```

```
SELECT *
from teachers
where salary > all (
       SELECT salary
       from teachers
       where position = "lecturer"
   );


--@blockname Q6. Display the list of all teachers whose job title and salary is same as that of the teacher whose name is‘James’.


SELECT *
from teachers
where salary = (
       SELECT salary
       from teachers
       where teacher_name like "James"
   )
   and position = (
       SELECT position
       from teachers
       where teacher_name like "James"
   );


--@blockname Q7. Display names of all the teachers who are class teachers.


SELECT teacher_name as class_teacher_name
from teachers
   join class on teachers.teacher_id = class.teacher_id;


--@blockname Q8. Display names, salaries and salary grades of all teachers.


SELECT teacher_name,
   payscale.salary,
   payscale.grade
from teachers
   join payscale on teachers.position = payscale.position;


--@blockname Q9. Display names and class schedule numbers of all the teachers.
```

```
SELECT class.class_scheduleno,
   teachers.teacher_name
from teachers
   join class on class.teacher_id = teachers.teacher_id;


--@blockname Q10. Display teacher ID and names of all teachers
who are going to be retired by next year.


SELECT teacher_id,
   teacher_name,
   (60 - (datediff(curdate(), birthdate) / 365)) * 12 AS
Months_to_retire
FROM teachers
WHERE 60 - (datediff(curdate(), birthdate) / 365) < 1;


--@blockname Q11. Show all possible teacher – class values.


SELECT *
from teachers
   join class;


--@blockname Q12. Create a View of above relational schema and do
the following opereations on it.


create view view1 as
SELECT *
from teachers;
SELECT *
from view1;


--@blockname Q13. Devoluder has upgraded to Assistant professor
from lecturer.


Update teachers
set position = "Assistant professor",
   salary = 90000
Where teacher_name = "Harper Thompson";
select *
from teachers;
```

```sql
--@blockname Q14. Find the average salary till now, earned by
Janesh who has joined on January 01 2016.


SELECT teacher_name,
   salary * (datediff(curdate(), joining_date) / 365) AS
avg_salary_till_now
FROM teachers
WHERE teacher_name like "Janesh";


--@blockname Q15. Find the number of lecturer, Assistant
Professor, Associate Professor, Professor.


SELECT position,
   COUNT(teacher_id) AS counts
FROM teachers
WHERE position = "lecturer"
   OR position = "Assistant Professor"
   OR position = "Associate Professor"
   OR position = "Professor"
GROUP BY position;


--@blockname Q drop database
drop DATABASE prashant_school;
```