CTE:

Q.1 Calculate the average salary by department for all Analysts.

```sql
with
    analyst_salary as (
    select * from professional where designation = 'Analyst'

)
select
    unit , round( avg(salary))
from
    analyst_salary
group by
    unit;
```

	unit	round
1	Finance	45,149
2	Operations	45,187
3	Web	45,200
4	Management	44,975
5	IT	44,798
6	Marketing	45,054

Q.2 List all employees who have used more than 10 leaves.

```sql
with
        professional_leaves as (
                select * from professional where leaves_used > 10
        )
select first_name, last_name, leaves_used from professional_leaves;
```

	first_name	last_name	leaves_used
1	CHERRY	AQUILAR	22
2	LEON	ABOULAHOUD	27
3	VICTORIA	[NULL]	20
4	ELLIOT	AGULAR	19
5	JACQUES	AKMAL	29
6	KATHY	ALSOP	20
7	LILIAN	APELA	15
8	BELLE	ARDS	22
9	WELDON	AIVAO	15
10	BOYD	AFTON	23
11	BART	AGUILLERA	30
12	CORINNE	ANDRZEJCZYK	16
13	ALONZO	ADSIDE	27
14	ROYCE	AGOSTO	27
15	BURTON	AGUILER	21
16	ORVILLE	ADNEY	23
17	KORY	ALEGRIA	28
18	NETTIE	ANDRADA	15
19	WENDI	APPERT	28
20	BRENT	ABRIL	28
21	HARRIETTE	ARMSTRONG	17
22	GARLAND	AGLER	30
23	OSWALDO	ALLENBAUGH	15
24	SEYMOUR	ALBEN	25
25	ROXANNE	AMRINE	29
26	CLAUD	ALLATEEF	22
27	MARIANNA	ARGENTIERI	30

VIEWS:

Q.3 Create a view to show the details of all Senior Analysts.

```sql
create view Senior_analyst as
        select * from professional where designation = 'Senior Analyst';


SELECT *
FROM "Assignment04".senior_analyst;
```

	professional_id	first_name	last_name	sex	doj	currentdate	designation	age	salary	unit	leaves_used	leaves_re
1	9	KATHY	ALSOP	F	2014-06-29	2016-01-07	Senior Analyst	28	63,478	Operations	20	
2	29	SEYMOUR	ALBEN	M	2014-12-21	2016-01-07	Senior Analyst	25	57,488	Operations	25	
3	33	FOSTER	ALDERMAN	M	2014-05-22	2016-01-07	Senior Analyst	26	68,295	Operations	28	
4	54	CARI	ARENALES	F	2014-04-10	2016-01-07	Senior Analyst	28	66,338	Web	24	
5	58	PAULINE	ALTSHULER	F	2014-12-13	2016-01-07	Senior Analyst	28	61,647	Finance	28	
6	69	RILEY	AIKINS	M	2013-06-16	2016-01-07	Senior Analyst	25	60,712	Finance	26	
7	73	MARYJANE	ARES	F	2012-08-24	2016-01-07	Senior Analyst	25	65,212	Management	29	
8	76	MARY	ALMESTICA	F	2013-10-12	2016-01-07	Senior Analyst	27	53,339	Finance	26	
9	83	WILMER	AKIONA	M	2014-05-30	2016-01-07	Senior Analyst	25	50,739	IT	25	
10	91	ELOISA	ARGIE	F	2013-08-07	2016-01-07	Senior Analyst	28	52,690	Marketing	30	
11	93	KATELYN	APPENZELLER	F	2014-11-02	2016-01-07	Senior Analyst	28	56,314	Finance	16	
12	103	ELIZA	ANSBACHER	F	2013-09-30	2016-01-07	Senior Analyst	25	50,813	Marketing	26	
13	105	CARI	ARENALES	F	2014-04-10	2016-01-07	Senior Analyst	28	66,338	Web	24	
14	116	ELEANORE	ARENA	F	2013-03-20	2016-01-07	Senior Analyst	26	62,537	Management	27	
15	121	KENDRICK	AHIMUD	M	2013-04-26	2016-01-07	Senior Analyst	26	68,245	Finance	26	
16	125	TERESITA	ARENTZ	F	2013-11-03	2016-01-07	Senior Analyst	27	53,275	Finance	16	
17	138	JON	ABOLT	M	2013-02-01	2016-01-07	Senior Analyst	25	50,130	Marketing	22	
18	139	JORDON	ALLARA	M	2014-12-01	2016-01-07	Senior Analyst	25	55,472	Finance	30	
19	143	DEIDRA	ARCHANGEL	F	2012-10-05	2016-01-07	Senior Analyst	28	69,316	Operations	24	
20	145	MANUAL	ALLFORD	M	2014-08-14	2016-01-07	Senior Analyst	28	65,566	Marketing	17	
21	153	ULYSSES	AILTS	M	2012-09-28	2016-01-07	Senior Analyst	25	61,221	Finance	19	
22	163	ELIAS	ADSIT	M	2012-05-27	2016-01-07	Senior Analyst	25	53,218	Marketing	18	
23	171	DARREN	ACERO	M	2013-12-26	2016-01-07	Senior Analyst	25	64,232	Operations	23	
24	176	JUAN	ABBASSI	M	2013-07-01	2016-01-07	Senior Analyst	27	61,575	Finance	20	
25	183	FELIX	ACHESON	M	2014-09-16	2016-01-07	Senior Analyst	26	61,046	Finance	28	
26	185	GALE	ANNARUMO	F	2013-06-23	2016-01-07	Senior Analyst	27	51,053	Operations	23	
27	188	LOUELLA	ARBRY	F	2012-06-04	2016-01-07	Senior Analyst	28	68,432	IT	30	

Q.4 Create a materialized view to store the count of employees by department.

```
create materialized view department_count as
        select unit, count(unit) from professional p group by unit ;

SELECT unit, count
FROM "Assignment04".department_count;
```

	unit	count
1	Operations	438
2	Finance	446
3	Web	431
4	Management	425
5	IT	461
6	Marketing	438

PROCEDURE:
Q.6 Create a procedure to update an employee's salary by their first name and last name.

```sql
CREATE OR REPLACE PROCEDURE update_professional_salary(
  p_first_name VARCHAR(50),
  p_last_name VARCHAR(50),
  p_new_salary DECIMAL(10, 2)
)
LANGUAGE SQL
AS $$
UPDATE professional
SET salary = p_new_salary
WHERE professional_id = (
        select professional_id
        from professional
                where first_name = p_first_name 4
                and last_name = p_last_name
                        limit 1);
$$;

call update_professional_salary('OLIVE', 'ANCY', 80000);

select professional_id ,first_name, last_name, salary from professional p order by professional_id ;
```

	professional_id	first_name	last_name	salary
1	1	TOMASA	ARMEN	80,000
2	2	ANNIE	[NULL]	89,207
3	3	OLIVE	ANCY	80,000
4	4	CHERRY	AQUILAR	45,550
5	5	LEON	ABOULAHOUD	43,161

Q.7 Create a procedure to calculate the total number of leaves used across all departments.

```sql
CREATE OR REPLACE PROCEDURE total_leaves_departments()
LANGUAGE SQL
AS $$
        create or replace view  total_leaves as select sum(leaves_used) as total_leaves from
professional;
$$;

call total_leaves_departments ();

select * from "Assignment04".total_leaves;
```

🔒	123 total_leaves ▼
1	59,314