Mini Portfolio



FATIMAH SYAHRANI ABDULLAH

STUDI KASUS

Studi kasus ini focus pada bebrapa aspek, yaitu:

- Identifikasi dan pembersihan data.
- Analisis deskriptif mengenai job title dan gaji
- Analisis lebih mendalam mengenai pengaruh pengalaman dan jenis pekerjaan terhadap gaji.
- Analisis geografis yang menentukan negara-egara dengan gaji yang menarik
- Analisis temporal untuk menentulan tahun dengan kenaikan gaji tertinggi dari mid-level ke senior-level.

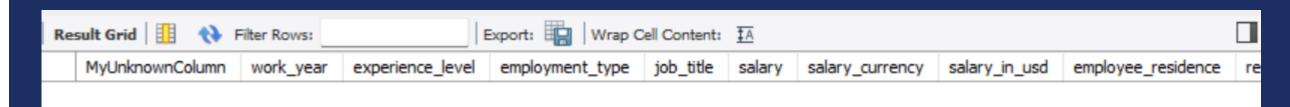
Informasi Dataset

Column	Description
work_year	Tahun pembayaran gaji
experience_level	Tingkat pengalaman pada pekerjaan selama tahun tersebut. Nilai-nilai pada kolom ini: (1) EN Entry-level / Junior, (2) MI Mid-level / Intermediate, (3) SE Senior-level / Expert, (4) EX Executive-level / Director
employment_type	Tipe hubungan kerja: (1) PT Part-time, (2) FT Full-time, (3) CT Contract, (4) FL Freelance
job_title	Posisi / peran selama tahun tersebut
salary	Total gaji kotor (gross salary) yang didapatkan
salary_currency	Mata uang (ISO 4217)

Column	Description
salary_in_usd	Gaji dalam USD (FX rate divided by avg. USD rate for the respective year via fxdata.foorilla.com).
employee_residence	Domisili utama karyawan (negara) selama tahun tersebut (ISO 3166 country code)
remote_ratio	Rasio bekerja <i>remote</i> keseluruhan, dengan: (1) 0 berarti tidak remote / kurang dari 20%, (2) 50 remote Sebagian, (3) 100 remote penuh / lebih dari 80%
company_location	Negara perusahaan (main office / contracting branch) (ISO 3166 country code)
company_size	Rata-rata jumlah pekerja pada tahun tersebut, dengan: (1) S (small / kurang dari 50 karyawan), (2) M (medium) (antara 50 to 250 karyawan), dan (3) L (lebih dari 250 karyawan)

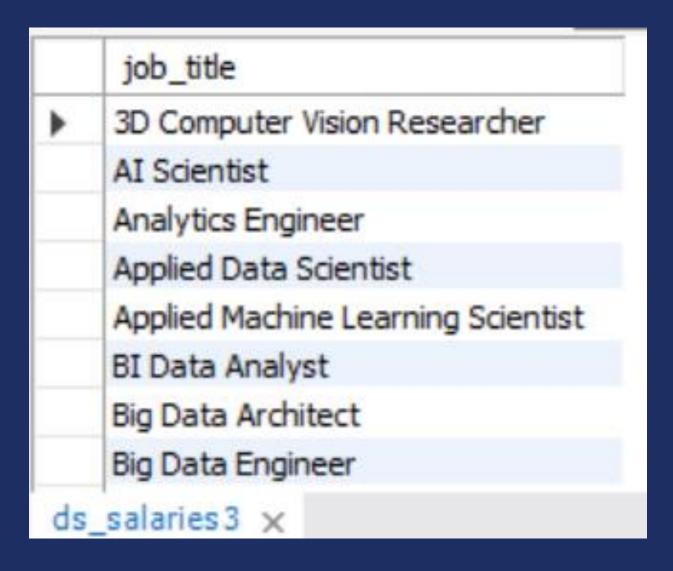
Pertanyaan 1: Apakah ada data yang NULL?

```
select * from ds_salaries where
   work_year IS NULL
    OR experience_level IS NULL
    OR employment_type IS NULL
    OR job_title IS NULL
    OR salary IS NULL
    OR salary_currency IS NULL
    OR salary_in_usd IS NULL
    OR employee_residence IS NULL
    OR remote_ratio IS NULL
    OR company_location IS NULL
    OR company_size IS NULL;
```



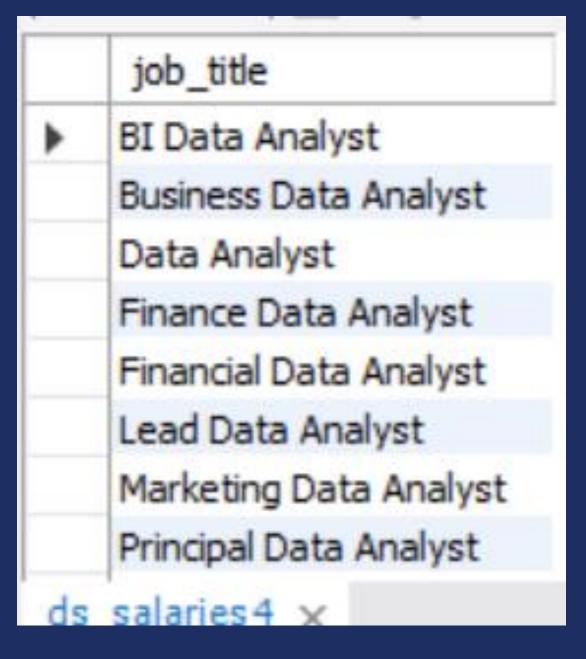
Pertanyaan 2: Apa saja job title yang ada?

select distinct job_title
from ds_salaries
order by job_title;



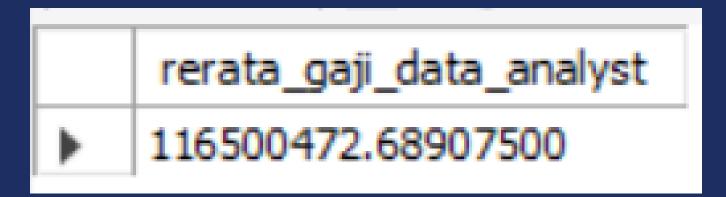
Pertanyaan 3: Job title apa saja yang berkaitan dengan data analyst?

select distinct job_title
 from ds_salaries
 where job_title
 like "%Data Analyst%"
 order by job_title;



Pertanyaan 4: Berapa rata-rata gaji data analyst per bulan?

```
select (avg(salary_in_usd)* 15000)/12
  as rerata_gaji_data_analyst
  from ds_salaries
  where job_title
  like "%Data Analyst%";
```



Pertanyaan 5:

Berapa rata-rata gaji data analyst berdasarkan experience level dan jenis employment?

```
select experience_level, (avg(salary_in_usd)* 15000)/12
   as rata2_perbulan
   from ds_salaries
   where job_title
   like "%Data Analyst%"
   group by experience_level;
```

	experience_level	rata2_perbulan	
•	MI	97425945.12195000	
	EN	71389852.94117625	
	EX	162500000.00000000	
	SE	140826982.75862000	

Pertanyaan 6: Berapa rata-rata gaji data analyst berdasarkan experience level dan jenis employment?

```
select experience_level, employment_type,
   (avg(salary_in_usd)* 15000)/12 as rerata_perbulan
   from ds_salaries where job_title like "%Data Analyst%"
   group by experience_level, employment_type
   order by experience_level, employment_type;
```

	experience_level	employment_type	rerata_perbulan
•	EN	CT	125000000.00000000
	EN	FT	71712333.33333250
	EN	PT	12942500.00000000
	EX	FT	162500000.00000000
	MI	FT	97425945.12195000
	SE	FT	140826982.75862000

Pertanyaan 7: negara apa yang menarik untuk posisi data analyst?

```
select company_location, avg(salary_in_usd) as gaji_terbesar
from ds_salaries where
   job_title like "%Data Analyst"
   and employment_type = 'FT'
   and experience_level in ('MI', 'EN')
   group by company_location
   having gaji_terbesar > 200000;
```

	company_location	gaji_terbesar
•	US	101397.2069
	FR	52930.5000
	GB	50875.6000
	LU	59102.0000
	ES	38470.0000
	GR	32313.3333
	CA	70818.6667

Pertanyaan 8: Di tahun berapa, kenaikan gaji dari mid ke senior itu memiliki kenaikan yang tertinggi?

```
WITH ds_1 AS (
      SELECT
          AVG(salary_in_usd) sal_in_usd_ex

    t_year AS (
          ds salaries
                                                     SELECT
      WHERE
                                                          DISTINCT work year
          employment_type = 'FT'
                                                     FROM
          AND experience level = 'EX'
                                                          ds salaries
          AND job_title LIKE '%data analyst%'
      GROUP BY
                                                  SELECT
                                                      t_year.work_year,
                                                      ds_1.sal_in_usd_ex,
 ds 2 AS (
                                                      ds_2.sal_in_usd_mi,
      SELECT
                                                      ds_1.sal_in_usd_ex - ds_2.sal_in_usd_mi differences
          work_year,
          AVG(salary_in_usd) sal_in_usd_mi
      FROM
                                                     LEFT JOIN ds_1 ON ds_1.work_year = t_year.work_year
          ds_salaries
                                                     LEFT JOIN ds_2 ON ds_2.work_year = t_year.work_year;
      WHERE
          employment_type = 'FT'
          AND experience_level = 'MI'
          AND job_title LIKE '%data analyst%'
      GROUP BY
```

work_year

	work_year	sal_in_usd_ex	sal_in_usd_mi	differences
•	2020	NULL	60728.8750	NULL
	2021	150000.0000	108398.8182	41601.1818
	2022	120000.0000	68970.5909	51029.4091

