



# PORTFOLIO

Anggi Putri Famungkas

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# Hello,

**I'm Anggi**

*Data Enthusiast*

I am a Data Enthusiast with a background in data analysis, machine learning, text analysis (NLP), and data visualization, and I also have a growing interest in software testing. I am passionate about extracting valuable insights from data to solve real-world problems and ensuring the quality and functionality of software systems. With expertise in various tools and programming languages like Excel, Python, and SQL, I am constantly expanding my skill set to SQL in both data analysis and software testing.

# Education

**Jember University (2020-2024)**

**Bachelor Degree in Information System**

- GPA : 3.82/4.00
- Graduated with Cumlaude predicate

# Experience

MyEduSolve | August 2022 - December 2022

**Data Analyst - Course**

PT. Doa Anak Digital (Bangbeli) | February 2023 - June 2023

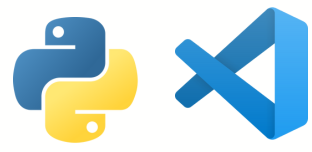
**Data & Growth Analyst - Internship**

BDSDMP Kominfo Surabaya | Agustus 2024 - Oktober 2024

**Database Design & Programming with SQL - Course**

# Certifications





# Project 1

## Analysis of Social - Economic and Health Factors in Country Categorization Using K - Means Clustering Method

Objective : to categorize the countries of the world based on socio-economic and health factors. So that it can help in determining which countries are most deserving of assistance.

### Result

Negara	Kematian anak	Ekspor	Kesehatan	Impor	Pendapatan	Inflasi	Harapan hidup	Jumlah fertiliti	GDPperkapita	Cluster
Congo, Dem. Rep.	116.0	41.10	7.91	49.6	609	20.80	57.5	6.54	334	0
Liberia	89.3	19.10	11.80	92.6	700	5.47	60.8	5.02	327	0
Burundi	93.6	8.92	11.60	39.2	764	12.30	57.7	6.26	231	0

Health Factor :

--> **Congo** is a country of concern because the number of child deaths that can be considered quite high but has a fertility rate that is not too large.

No.	Negara	Kematian anak	Jumlah fertiliti	Cluster
1	Haiti	208.0	3.33	2
2	Sierra Leone	160.0	5.20	2
3	Chad	150.0	6.59	2
4	Central African Republic	149.0	5.21	2
5	Mali	137.0	6.55	2
6	Nigeria	130.0	5.84	2
7	Niger	123.0	7.49	2
8	Angola	119.0	6.16	2
9	Burkina Faso	116.0	5.87	2
10	Congo, Dem. Rep.	116.0	6.54	2

Social - Economic Factor :

--> **The country of Congo** has the lowest in terms of income and third lowest in terms of GDP per capita.

**So, the countries that need the most to get priority and special attention to address the existing problems is the country of Congo.**



## Clustering Regions Based on Health Status in West Java Province Using Fuzzy C-Means Method

Objective : to determine the level of health status in each region that represents health conditions so that it can assist the health department in efforts to improve health status in West Java province.

### Result

Based on the attributes used, namely IMR, under-five nutrition, health complaints, poor population, landfill, and health workers, then the clustering is obtained as follows.

	MATRIKS CLUSTER					
	1	2	3	4	5	6
CLUSTER 1	0,211214	0,384574	0,346657	0,313227	0,428274	0,103029
CLUSTER 2	0,460565	0,160386	0,687719	0,241958	0,146578	0,029612
CLUSTER 3	0,283550	0,203342	0,267496	0,274097	0,226547	0,051025

**Cluster 1** has a low IMR value, high under-five nutrition, health complaints are moderate, the poor population is high, high landfill, and the health workers are high.

**Cluster 2** has a high IMR value, low under-five nutrition, health complaints are high, the poor population is low, low landfill, and the health workers are low.

**Cluster 3** has a medium IMR value, medium under-five nutrition, health complaints are low, the poor population is moderate, medium landfill, and the health workers are moderate

KOTA / KABUPATEN	CLUSTER 1	CLUSTER 2	CLUSTER 3
KABUPATEN BOGOR	C1		
KABUPATEN SUKABUMI	C1		
KABUPATEN CIANJUR	C1		
KABUPATEN BANDUNG	C1		
KABUPATEN GARUT	C1		
KABUPATEN TASIKMALAYA		C2	
KABUPATEN CIAMIS		C2	
KABUPATEN KUNINGAN		C2	
KABUPATEN CIREBON	C1		
KABUPATEN MAJALENGKA			C3
KABUPATEN SUMEDANG			C3

KABUPATEN INDRAMAYU	C1		
KABUPATEN SUBANG			C3
KABUPATEN PURWAKARTA		C2	
KABUPATEN KARAWANG			C3
KABUPATEN BEKASI	C1		
KABUPATEN BANDUNG BARAT			C3
KABUPATEN PANGANDARAN		C2	
KOTA BOGOR			C3
KOTA SUKABUMI			C3
KOTA BANDUNG	C1		
KOTA CIREBON		C2	
KOTA BEKASI	C1		
KOTA DEPOK	C1		
KOTA CIMAHI			C3
KOTA TASIKMALAYA			C3
KOTA BANJAR		C2	
KOTA CIANJUR			C3
KOTA CIKARANG		C2	
KOTA CIBINONG RAYA			C3





# Project 3

## B2C Customer Churn Prediction

Objective : Analyze B2C customer churn rate, determine B2C customer churn prediction, determine suggestions/recommendations related to customer management to minimize B2C customer churn.

### Result

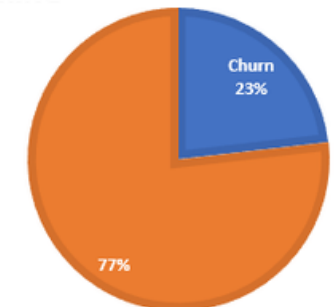
The programs with the highest customer churn rate are :

- Programs with recurring payment
- Programs with a duration of 90 minutes
- Programs that are dominated by participants in age range of 7-10 years old
- Programs that are mostly class types private class.

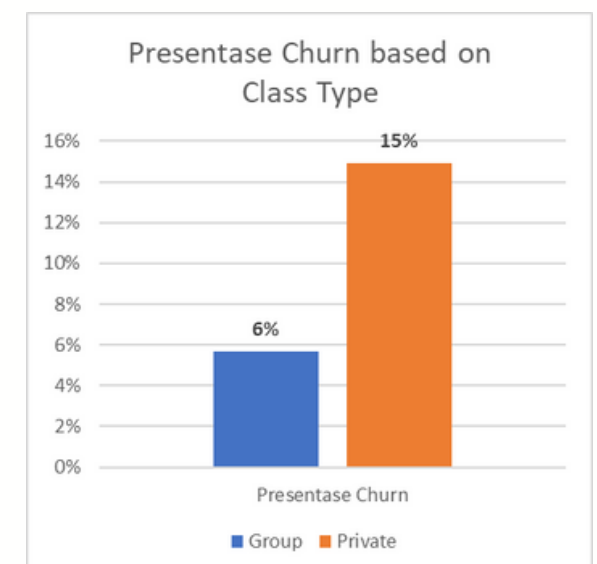
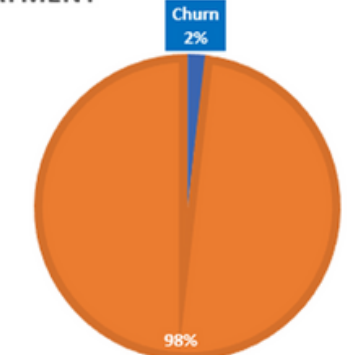
The suggestions to minimize B2C customer churn include **reducing programs with recurring payments** and replacing them with one payment and **increasing the type of group classes**. **Provide time for ice breaking before or during class** so that participants are not bored. As well as adequate time and place to rest.

Month	0	1	2	3	4	5	6	7	8	9	10
January	100,00%	90,26%	85,13%	90,26%	87,18%	96,92%	95,90%	95,38%	96,41%	94,87%	97,95%
February	100,00%	80,86%	83,95%	91,98%	94,44%	96,30%	97,53%	95,06%	95,68%	95,68%	
March	100,00%	97,14%	98,34%	99,10%	99,40%	99,25%	99,10%	99,55%	99,70%		
April	100,00%	88,51%	96,55%	91,95%	96,55%	98,85%	94,25%	97,70%			
May	100,00%	90,82%	98,98%	97,96%	97,96%	91,84%	97,96%				
June	100,00%	90,59%	96,47%	96,47%	97,65%	98,82%					
July	100,00%	93,30%	98,45%	98,45%	99,48%						
August	100,00%	99,12%	96,93%	99,12%							
September	100,00%	98,86%	97,73%								
October	100,00%	92,31%									
November	100,00%										

RECURRING



ONE PAYMENT



Objective : To find out what concerns users about the Bangbeli application when giving reviews on Google Play, both positive and negative.

Year	Label	Text
2020-02	0	19
2020-03	0	4
2020-04	4	12
2020-05	0	5
2020-06	2	5
2020-07	0	14
2020-08	2	14
2020-09	2	4
2020-10	2	6
2020-11	0	20
2020-12	2	2
2021-01	0	2
2021-02	0	56
2021-03	5	20
2021-04	4	5
2021-05	3	11
2021-06	4	138
2021-07	5	97
2021-08	5	72
2021-09	2	65
2021-10	3	65
2021-11	3	28
2021-12	2	31
2022-01	3	35
2022-02	0	2
2022-03	5	55
2022-04	2	4
2022-05	3	2
2022-06	0	66
2022-07	3	30
2022-08	10	39
2022-09	0	1
2022-10	4	65
2022-11	2	7
2022-12	3	0
2023-01	2	0
2023-02	0	92
2023-03	0	0
2023-04	0	0
2023-05	0	0
2023-06	0	0



- Based on the analysis, the app consists of **1105 positive** reviews and **96 negative** reviews.
- From the user's point of view, bangbeli can **helpful in conducting digital transactions because the app is easy to use** and **the products have affordable prices**.
- Some things that **need to be improved** are in terms of **replenishing balances whose processes are sometimes still long** and **customer service responses** that are actually friendly but **feel a little unsatisfactory in terms of existing obstacles**.





# Project 5

## Identifying User Suggestions for Bijak Memilih Platform Through Sentiment Analysis

Objective : Determine user suggestions for the Bijak Memilih platform through sentiment classification using **Naive Bayes Classifier algorithm** to identify opinions, **POS Tagging** using HMM - Viterbi to identify objects of discussion through filtering noun, verb, and adverb class labels, also **Apriori algorithm** to obtain meaningful information from word relationships

### Result

The final results identify **10 user suggestions** were found for the Bijak Memilih platform, such as an additional features for **ranking parties that have stumbled upon corruption, profiles of candidates who have been corruptors, summary of corruption from all parties in visual form, completion and success of ministry programs, discussion of party views on asset seizure, discussion of election-winning party policies, setting darkmode on the display screen; making mobile applications to facilitate access; reconsider the presentation of the opposing ideologies of Pancasila and Islam; mentioning the names of party cadres involved in corruption cases, but not limited.**

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# Project 6

## Time Series Forecasting - Quantity Product Superstore Sales

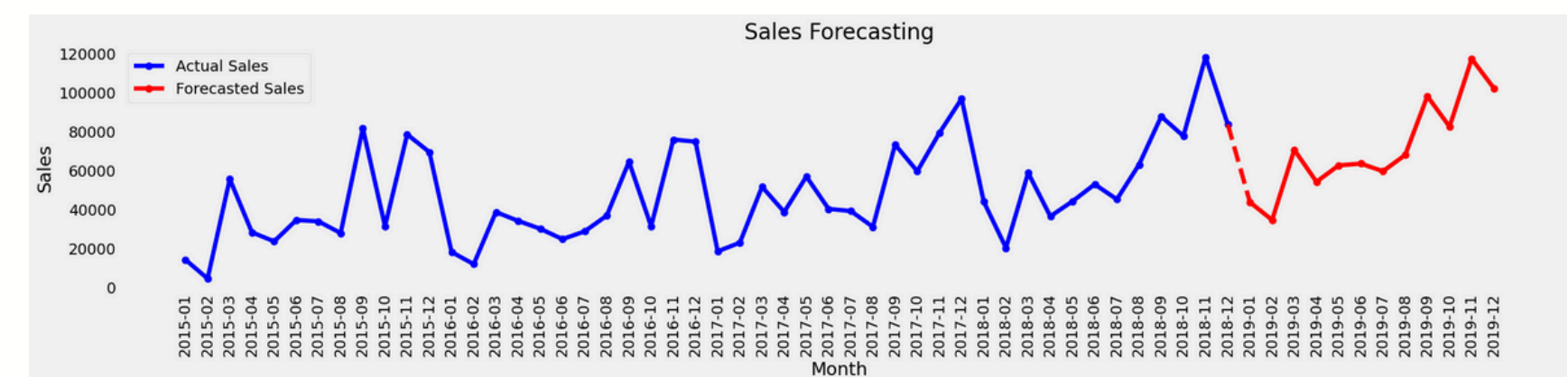
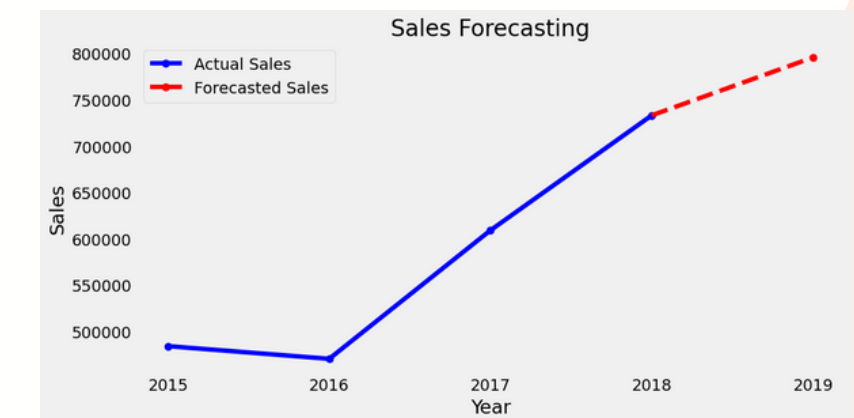
Objective : Identify product **sales patterns and trends** also **predict sales** in the next time period (year, quarter, and month).

### Result

by **Years** : The sales trend declined in 2016, then increased in the following 2 years. The sales prediction results in the following year are sales increased by 8.52%

by **Quarter** : the sales trend is always decreasing in Q1 and will continue to increase until Q4. The sales prediction results in the next quarter for the next 1 year are sales decreasing to 36.94% in Q1 and continuing to increase in Q2-Q4, as well as the percentage increase.

by **Month** : Sales trends per month fluctuate, such as in November-February continued to decline, then increased in March, and again increased significantly in September and November. This is also the case with sales predictions



# Microsoft Excel

# Pivot Table

type_transaksi	Date	Unique Users	Transaction Vol	Avg Order Value
Topup	1-Jun	8	9	Rp378.556
	2-Jun	8	9	Rp100.444
	3-Jun	4	4	Rp550.000
	4-Jun	8	12	Rp66.583
	5-Jun	10	10	Rp545.500
	6-Jun	8	8	Rp156.250
	7-Jun	11	12	Rp195.750
Topup Total		36	64	Rp255.688
Transaksi	1-Jun	29	98	Rp34.443
	2-Jun	29	91	Rp24.943
	3-Jun	22	85	Rp29.904
	4-Jun	24	52	Rp25.797
	5-Jun	32	103	Rp30.794
	6-Jun	28	92	Rp25.468
	7-Jun	30	80	Rp25.642
Transaksi Total		59	601	Rp28.445
Grand Total		59	665	Rp50.315

Register_At	Unique Users
1-Jun	16
2-Jun	11
3-Jun	10
4-Jun	21
5-Jun	15
6-Jun	7
7-Jun	27
	0
<b>Grand Total</b>	<b>107</b>

# Vlookup & Hlookup

Tentukan rate bonus dari masing-masing agen di bawah ini sesuai dengan pencapaian ANP dengan menggunakan rumus **vlookup**

<b>Tabel Bonus</b>			<b>Penjelasan tabel sbb :</b>	
<b>Pencapaian ANP</b>	<b>Rate Bonus</b>		<b>ANP Achievement</b>	<b>Rate Bonus</b>
-	0%		0-49,999,999	0%
50.000.000	10%		50,000,000-199,999,999	10%
200.000.000	25%		200,000,000-499,999,999	25%
500.000.000	30%		>= 500,000,000	30%

**Jawaban :**

Kode agen	Nama agen	Pencapaian ANP	Rate Bonus
07792819	HARDIYANSYAH	30.000.000	0%
07655096	MUHAMMAD JAELENI ALQODRI	150.000.000	10%
07696602	ROJAIN	25.000.000	0%
07092761	SHINTA USNIAWATI	700.000.000	30%
07751909	DIANA YENI SAPUTRI	200.000.000	25%
07680194	SIDI PRASTUTI HANDAYANI	60.000.000	10%
07143250	LAMSIHAR LAURA IVANA	270.000.000	25%

[illegible]

**Ket :**

ADM adalah Administrasi, TPD adalah Tenaga Pendidik



# ***Thank you***

## **Contact Details**

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