PORTFOLIO

SHENDI TEUKU

DATA ANALYST

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Hello,

I’m Shendi Teuku

Data Analyst

Dedicated and detail-oriented Data Analyst with a strong background in statistical analysis, data visualization, and machine learning. Adept at translating complex data sets into actionable insights, driving informed decision-making. Proficient in programming languages such as Python, with hands-on experience in data manipulation, cleaning, and exploratory data analysis (EDA).

Education

2017-2020
SMAN 2 Madiun

As Science Department, I'm focus on various subjects including learning science, statistics and math.

2021-2024
PGRI Madiun University

Specializing in diverse areas such as software development, algorithm design, database management, and emerging technologies like artificial intelligence and the Internet of Things.

Experience

Kampus Merdeka

Study Independent at PT Greatedu Global Mahardika as Data Analyst

Cultivated a strong foundation in data analysis, statistical modeling, and data visualization. My coursework included comprehensive studies in machine learning, database management, and advanced statistical methods, providing me with the analytical skills needed for interpreting complex datasets.

Badan Nasional Sertifikasi Profesi (BNSP)

Associate Data Scientist

Certified Associate Data Scientist, this certification attests to my expertise in areas such as statistical analysis, machine learning, and data interpretation. Through rigorous examination and practical assessments, I have demonstrated the ability to apply data science methodologies to solve complex problems, contributing to informed decision-making.

Experience

digitalent

Digital Talent Kominfo

Oracle Academy as Database Design

Specializing in the comprehensive aspects of database management. This program has equipped me with in-depth knowledge and practical skills in utilizing Oracle technologies for efficient data organization, storage, and retrieval. Covering critical topics such as schema design, normalization, indexing, and SQL querying.

ORACLE Academy

Digital Talent Kominfo

Oracle Academy as Database Programming

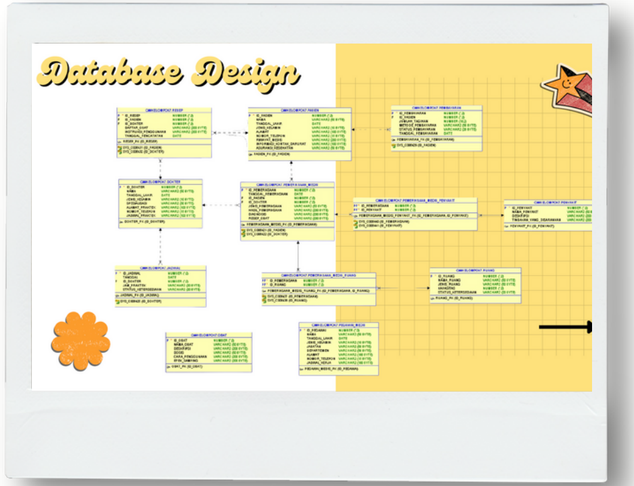
Focusing on honing skills in programming within the Oracle database environment. This program has provided me with a comprehensive understanding of database programming concepts, SQL syntax and querying.

Skills & Abilites

Relevant Project

Predictive Model for Air Quality in Indonesia using Machine Learning with Clustering and Regression

Predictive Model for Diabetes using Classification Machine Learning - KNN, Decision Tree, and Random Forest



Healthcare Service Database Design and Programming

Predictive Model for Air Quality in Indonesia

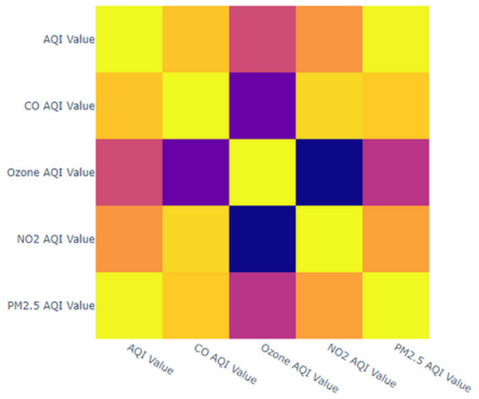
using Machine Learning with Clustering and Regression

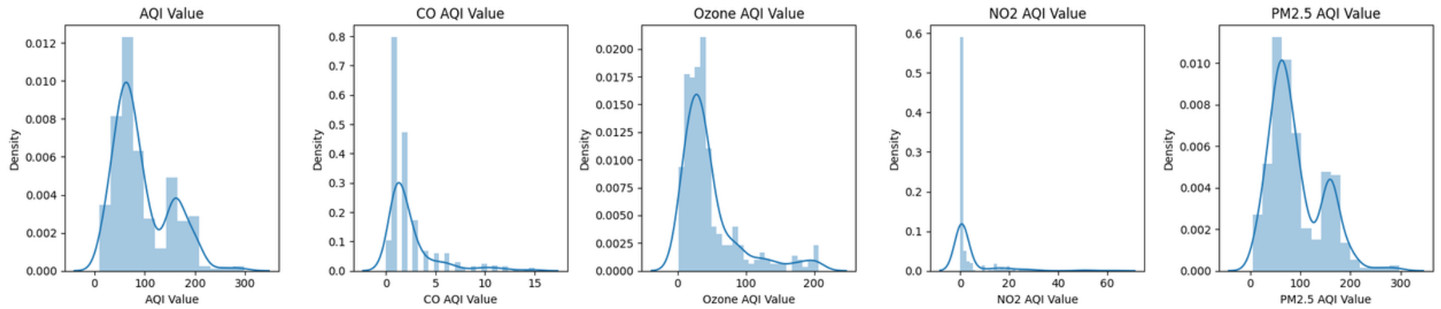
Descriptive Analitics

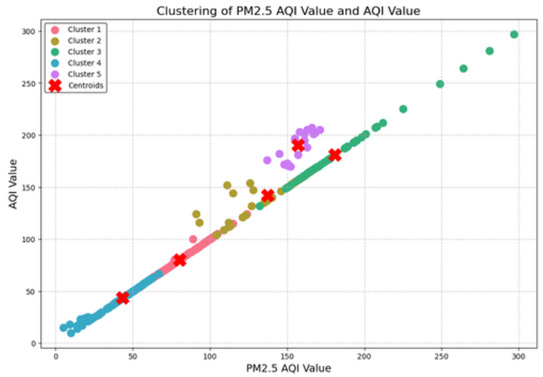
```
[ ]  1 df = pd.read_csv("https://raw.githubusercontent.com/ddapun/Dataset_Kelompok1/main/global%20air%20pollution%20dataset.csv")
     2 df
```

	Country	City	AQI Value	AQI Category	CO AQI Value	CO AQI Category	Ozone AQI Value	Ozone AQI Category	NO2 AQI Value	NO2 AQI Category	PM2.5 AQI Value	PM2.5 AQI Category
0	Russian Federation	Praskoveya	51	Moderate	1	Good	36	Good	0	Good	51	Moderate
1	Brazil	Presidente Dutra	41	Good	1	Good	5	Good	1	Good	41	Good
2	Italy	Priolo Gargallo	66	Moderate	1	Good	39	Good	2	Good	66	Moderate
3	Poland	Przasnysz	34	Good	1	Good	34	Good	0	Good	20	Good
4	France	Punaauia	22	Good	0	Good	22	Good	0	Good	6	Good
...	...	...	...	...	...	...	...	...	...	...	...	...
23458	India	Gursahaiganj	184	Unhealthy	3	Good	154	Unhealthy	2	Good	184	Unhealthy
23459	France	Sceaux	50	Good	1	Good	20	Good	5	Good	50	Good
23460	India	Mormugao	50	Good	1	Good	22	Good	1	Good	50	Good
23461	United States of America	Westerville	71	Moderate	1	Good	44	Good	2	Good	71	Moderate
23462	Malaysia	Marang	70	Moderate	1	Good	38	Good	0	Good	70	Moderate

23463 rows × 12 columns





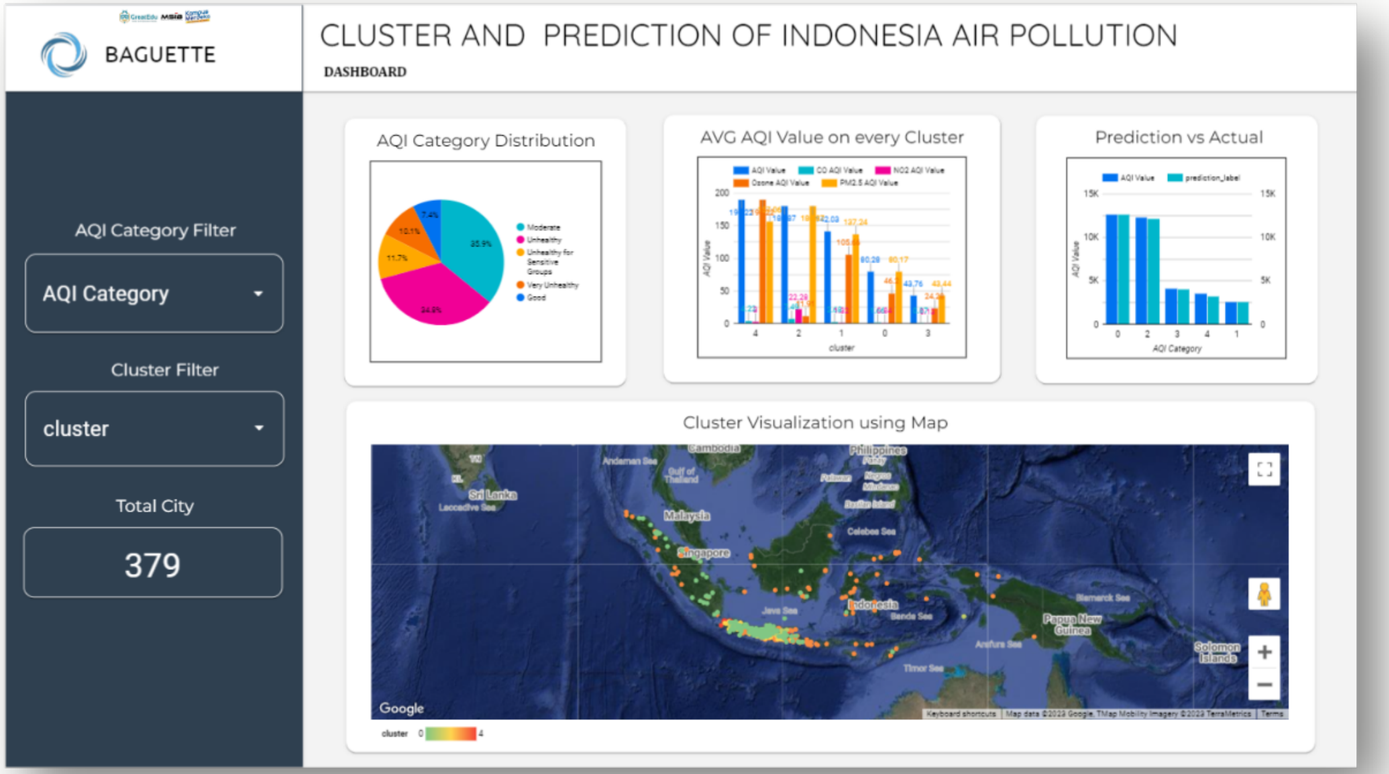


Link to Google Colab:
https://colab.research.google.com/drive/1ZEg6R28ZvkgNriRuArxdGE7FtJM5UrhK?usp=sharing

Predictive Model for Air Quality in Indonesia

using Machine Learning with Clustering and Regression

Visualizaton



Link to Google Data Studio:
https://colab.research.google.com/drive/1ZEg6R28ZvkgNriRuArxdGE7FtJM5UrhK?usp=sharing

Predictive Model for Diabetes

using Classification Machine Learning - KNN, Decision Tree, and Random Forest

K-Nearest Neighbor (KNN)

KNN adalah salah satu algoritma paling sederhana dalam machine learning. Model KNN beroperasi dengan cara mencari titik data terdekat dalam ruang fitur untuk membuat prediksi.

Membuat model

```
knn_model = KNeighborsClassifier()
knn_model.fit(x_train, y_train)
y_pred = knn_model.predict(x_test)
y_pred_train = knn_model.predict(x_train)
```

Evaluasi model

```
print("-----Model Evaluation on Test Data-----")
print()
print('Confusion Matrix:\n',confusion_matrix(y_test,y_pred))
print()
print('Classification Report:\n',classification_report(y_test,y_pred))
print("--------------------------------------------------------------")
print()
print("-----Model Evaluation on Train Data-----")
print()
print('Confusion Matrix:\n',confusion_matrix(y_train,y_pred_train))
print()
print('Classification Report:\n',classification_report(y_train,y_pred_train))
print("--------------------------------------------------------------")
print()
print(f"Accuracy on Test Data:{accuracy_score(y_test,y_pred):.4f}")
print(f"Accuracy on Train Data:{accuracy_score(y_train,y_pred_train):.4f}")
```

```
-----Model Evaluation on Test Data-----

Confusion Matrix:
 [[89 21]
 [19 25]]

Classification Report:
              precision    recall  f1-score   support

           0       0.82      0.81      0.82       110
           1       0.54      0.57      0.56        44

    accuracy                           0.74       154
   macro avg       0.68      0.69      0.69       154
weighted avg       0.74      0.74      0.74       154

--------------------------------------------------------------

-----Model Evaluation on Train Data-----

Confusion Matrix:
 [[347  43]
 [ 76 148]]

Classification Report:
              precision    recall  f1-score   support

           0       0.82      0.89      0.85       390
           1       0.77      0.66      0.71       224

    accuracy                           0.81       614
   macro avg       0.80      0.78      0.78       614
weighted avg       0.80      0.81      0.80       614

--------------------------------------------------------------

Accuracy on Test Data:0.7403
Accuracy on Train Data:0.8062
```

Decision Tree

Membuat model

```
dt_model = DecisionTreeClassifier()
dt_model.fit(x_train, y_train)
y_pred = dt_model.predict(x_test)
y_pred_train = dt_model.predict(x_train)
```

Evaluasi model

```
print("-----Model Evaluation on Test Data-----")
print()
print('Confusion Matrix:\n',confusion_matrix(y_test,y_pred))
print()
print('Classification Report:\n',classification_report(y_test,y_pred))
print("--------------------------------------------------------------")
print()
print("-----Model Evaluation on Train Data-----")
print()
print('Confusion Matrix:\n',confusion_matrix(y_train,y_pred_train))
print()
print('Classification Report:\n',classification_report(y_train,y_pred_train))
print("--------------------------------------------------------------")
print()
print(f"Accuracy on Test Data: {accuracy_score(y_test,y_pred):.4f}")
print(f"Accuracy on Train Data: {accuracy_score(y_train,y_pred_train):.4f}")
```

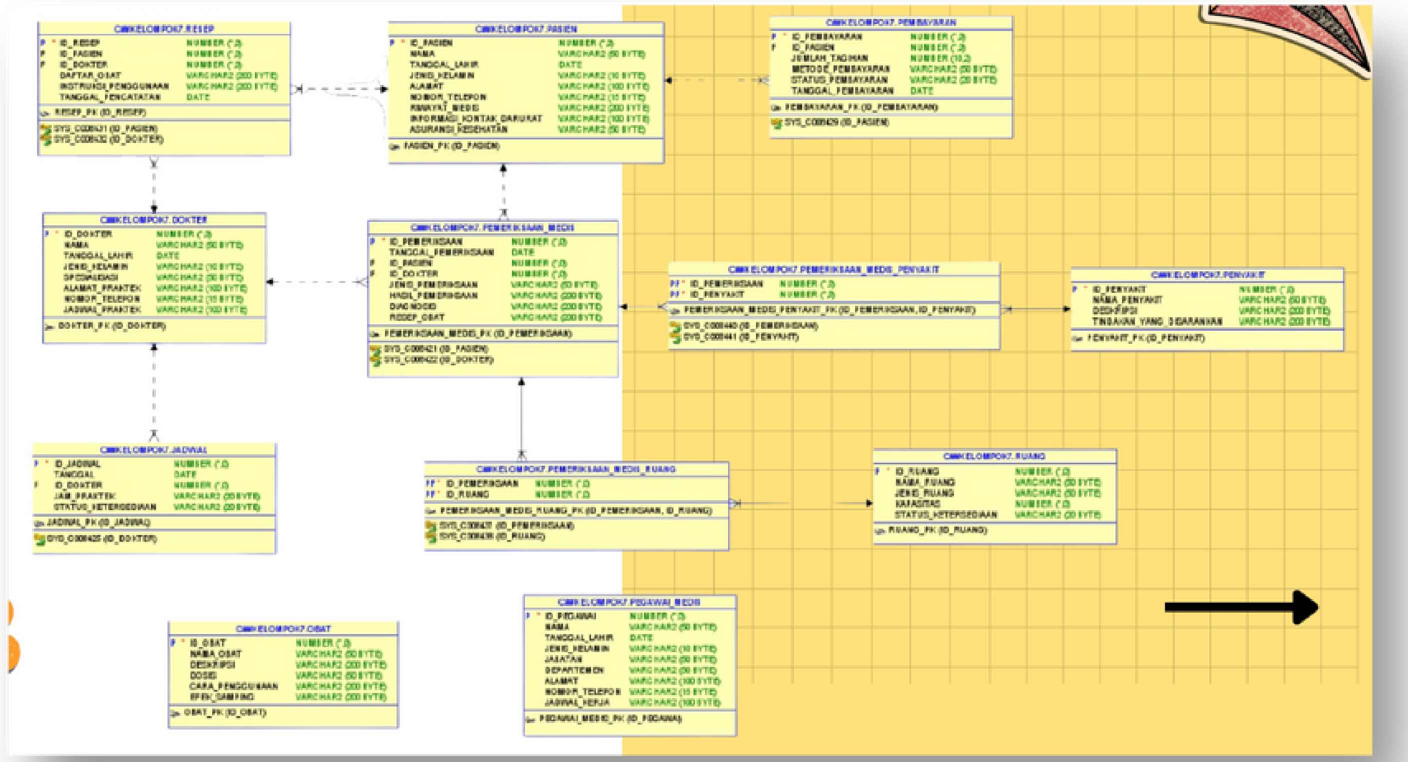
```
-----Model Evaluation on Test Data-----

Confusion Matrix:
 [[83 27]
 [16 28]]

Classification Report:
              precision    recall  f1-score   support

           0       0.84      0.75      0.79       110
           1       0.51      0.64      0.57        44

    accuracy                           0.72       154
   macro avg       0.67      0.70      0.68       154
weighted avg       0.74      0.72      0.73       154

--------------------------------------------------------------

-----Model Evaluation on Train Data-----

Confusion Matrix:
 [[390   0]
 [  0 224]]

Classification Report:
              precision    recall  f1-score   support

           0       1.00      1.00      1.00       390
           1       1.00      1.00      1.00       224

    accuracy                           1.00       614
   macro avg       1.00      1.00      1.00       614
weighted avg       1.00      1.00      1.00       614

--------------------------------------------------------------

Accuracy on Test Data: 0.7208
Accuracy on Train Data: 1.0000
```

Link to Google Colab:
https://colab.research.google.com/drive/1ZEg6R28ZvkgNriRuArxdGE7FtJM5UrhK?usp=sharing

Healthcare Service

Database Design and Programming

Database Design



Query

VIEWS

```sql
-- Membuat view untuk menampilkan informasi pasien beserta riwayat medis
CREATE VIEW View_Pasien_Riwayat_Medis AS
SELECT p.ID_Pasien, p.Nama, p.Tanggal_Lahir, p.Jenis_Kelamin, p.Alamat, p.Nomor_Telepon, p.Riwayat_Medis,
p.Informasi_Kontak_Darurat, p.Asuransi_Kesehatan, pm.Tanggal_Pemeriksaan, pm.Jenis_Pemeriksaan, pm.Hasil_Pemeriksaan,
pm.Diagnosis, pm.Resep_Obat
FROM Pasien p
LEFT JOIN Pemeriksaan_Medis pm ON p.ID_Pasien = pm.ID_Pasien;

-- Menampilkan informasi pasien beserta riwayat medis
SELECT * FROM View_Pasien_Riwayat_Medis;
```

Results | Explain | Describe | Saved SQL | History

ID_PASIEN	NAMA	TANGGAL_LAHIR	JENIS_KELAMIN	ALAMAT	NOMOR_TELEPON	RIWAYAT_MEDIS	INFORMASI_KONTAK_DARURAT	ASURANSI_KESEHATAN	TANGGAL_PEMERIKSAAN	JENIS_PEMERIKSAAN	HASIL_PEMERIKSAAN	DIAGNOSIS	RESEP_OBAT
1	Shendy	01-Jan-1990	Laki-Laki	Jl. Ki Agun Solo	081234567890	Tidak ada riwayat medis	08111111111	Asuransi ABC	01-Jun-2023	Pemeriksaan Umum	Normal	Tidak ada masalah	Obat A, Obat B
2	Seviannanda	10-May-1985	Perempuan	Jl. Cendra Wasih	082345678901	Riwayat alergi obat	08222222222	Asuransi XYZ	02-Jun-2023	Pemeriksaan Mata	Buta warna	Buta warna parsial	Obat C
3	Miya	15-Sep-1978	Laki-Laki	Jl. Melati	083456789012	Riwayat operasi	08333333333	Asuransi PQR	03-Jun-2023	Pemeriksaan Bedah	Normal	Tidak ada masalah	Obat D, Obat E
4	Cindy	20-Mar-1992	Perempuan	Jl. Jambu	084567890123	Tidak ada riwayat medis	08444444444	Asuransi DEF	04-Jun-2023	Pemeriksaan Anak	Normal	Tidak ada masalah	Obat F, Obat G
5	Ade	25-Jul-1980	Laki-Laki	Jl. Candi	085678901234	Riwayat penyakit jantung	08555555555	Asuransi GHI	05-Jun-2023	Pemeriksaan Gigi	Normal	Tidak ada masalah	Obat H

5 rows returned in 0.01 seconds Download

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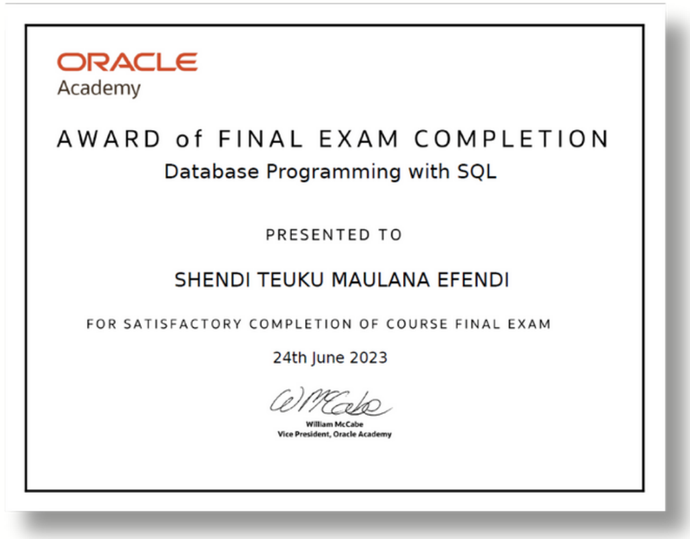

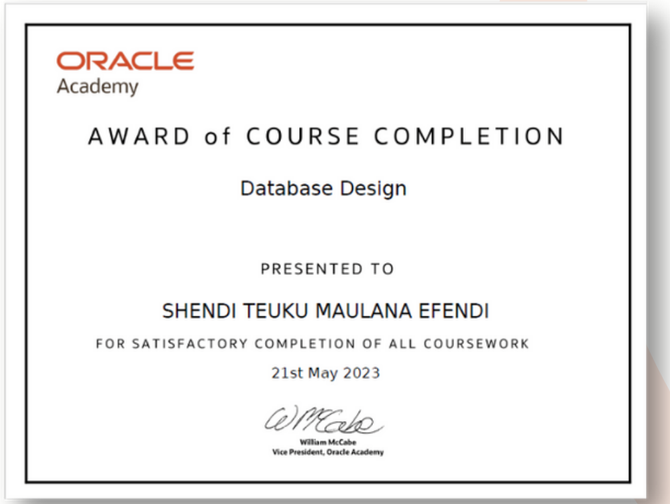

Thank you

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