PORTFOLIO

SHENDI TEUKU

DATA SCIENCE

Hello,

I’m Shendi Teuku

Data Science

Dedicated and detail-oriented Data Science 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

Natural Science

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

2021-2024
PGRI Madiun University

Informatics Enginneering

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

Digital Talent Kominfo x Oracle Academy

Oracle Academy as Database Design and Programming

Specializing in comprehensive database management, I possess in-depth knowledge and practical skills in utilizing Oracle technologies for efficient data organization, storage, and retrieval. My expertise includes critical topics such as schema design, normalization, indexing, and SQL querying, with a strong focus on programming within the Oracle database environment and a thorough understanding of database programming concepts and SQL syntax.

Digital Talent Kominfo x DQLab

Data-Driven Kesiapsiagaan Bencana dan Resiliensi Pasca Bencana: Analisis dan Visualisasi Data

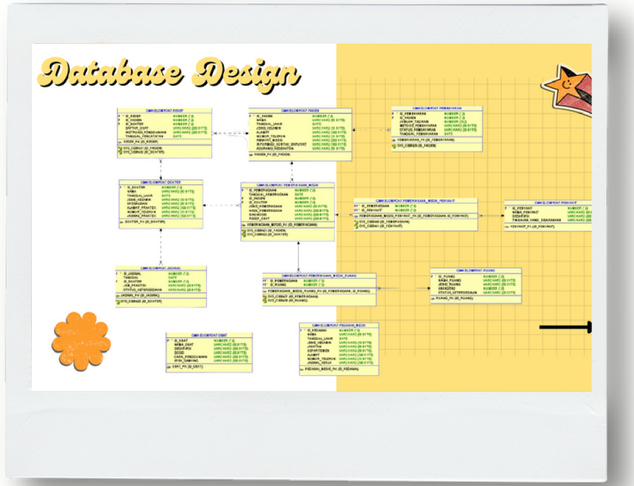
An innovative approach that uses data analysis and visualization to enhance disaster preparedness and recovery. By identifying patterns and trends, this method helps plan more effective mitigation actions and enables quick decision-making in crisis situations.

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

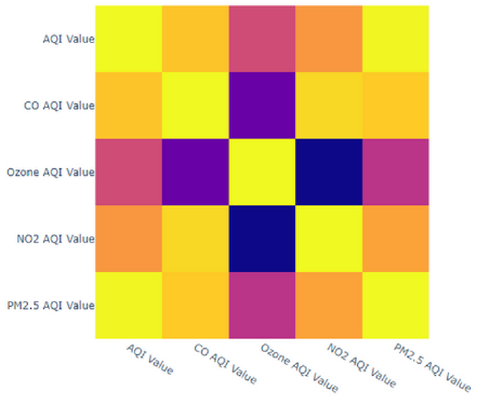
using Machine Learning with Clustering and Regression

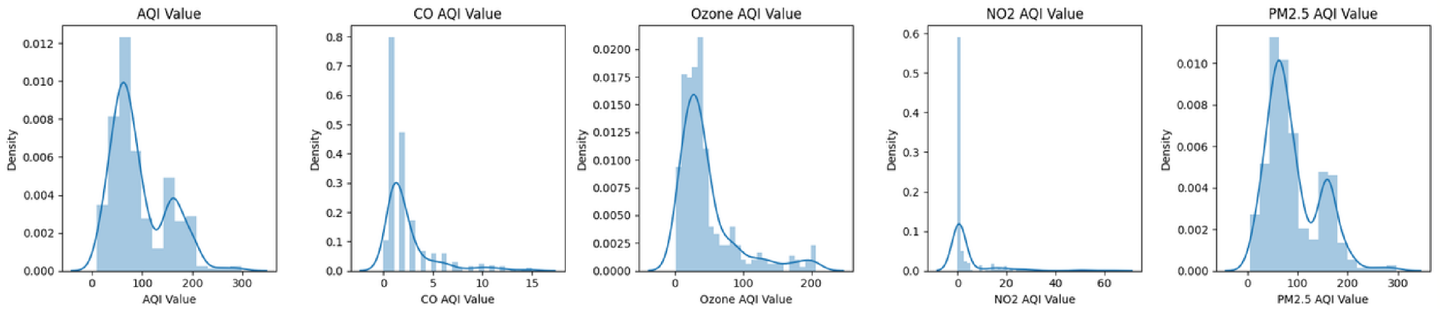
Descriptive Analitics

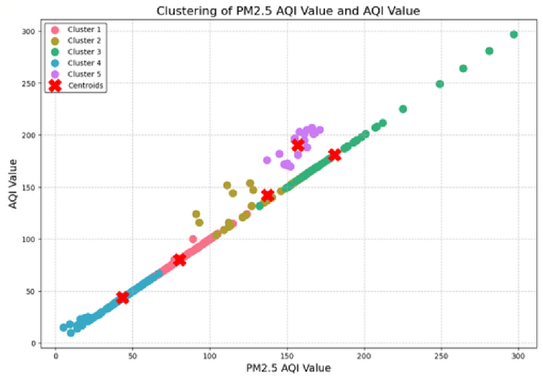
```
[ ]  1 df = pd.read_csv("https://raw.githubusercontent.com/ddapun/Dataset_Kelompok1/main/global%20air%20pollution%20dataset.csv")
     2 df
```

	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





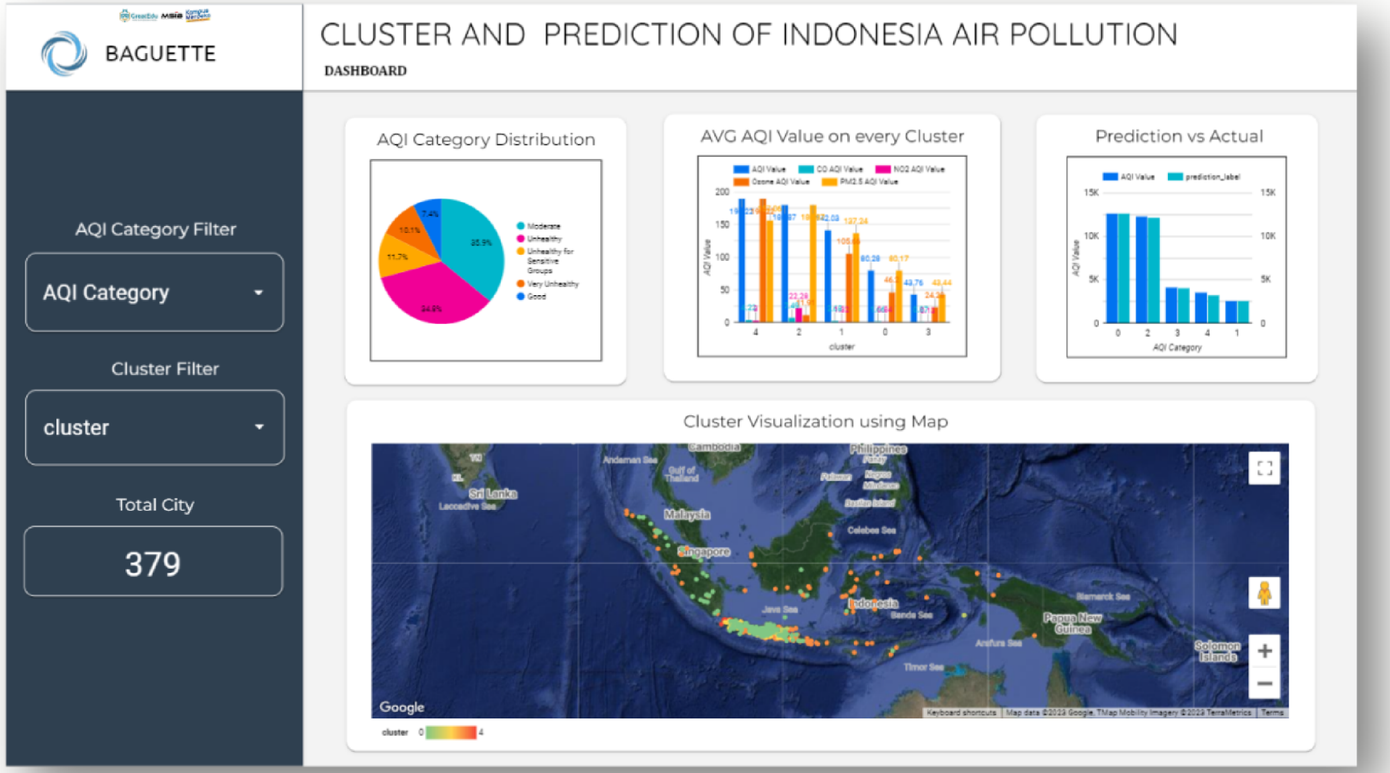


Link to Google Colab:
https://colab.research.google.com/drive/1ZEg6R28ZvkgNriRuArxdGE7FtJM5UrhK?usp=sharing

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}")
```

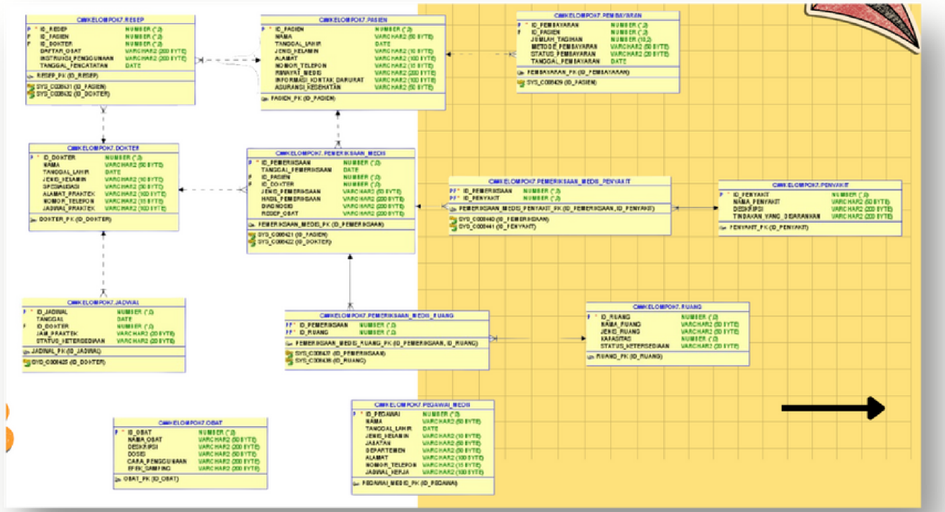
```
-----Model Evaluation on Test Data-----

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

```
-- 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	Shandy	08-Jan-1990	Laki-Laki	Jl. Kh Agus Salim	082164567890	Tidak ada riwayat medis	08111111111	Asuransi ABC	08-Jun-2023	Pemeriksaan Umum	Normal	Tidak ada masalah	Obat A, Obat B
2	Seviarnanda	10-May-1985	Perempuan	Jl. Cendra Wasih	082345678901	Riwayat alergi obat	08222222222	Asuransi XYZ	02-Jun-2023	Pemeriksaan Mata	Buta warna parsial	Buta warna parsial	Obat C
3	Miya	15-Sep-1978	Laki-Laki	Jl. Molati	085456789012	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	08569876012345	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. Cendi	085678901234	Riwayat penyakit jantung	08555555555	Asuransi GHI	05-Jun-2023	Pemeriksaan Gigi	Normal	Tidak ada masalah	Obat H

5 rows returned in 0.08 seconds | Download

My Sertification

SERTIFIKAT

Studi Independen Bersertifikat

Diberikan Kepada :

Shendi Teuku Maulana Efendi

ID Kegiatan : 6728428
Universitas PGRI Madiun
Teknik Informatika

Sebagai

Peserta MSIB Angkatan 5

Telah berhasil menyelesaikan tugas belajarnya pada **PT. GreatEdu Global Mahardika** pada program **Studi Independen Bersertifikat Angkatan** 5 dengan kegiatan **Data Analytics Bootcamp** yang diselenggarakan pada **tanggal 14 Agustus - 31 Desember 2023**

Jakarta, 31 Desember 2023

Ade Irma Setya Negara
CEO

www.greatedu.co.id greatedu.id GreatEdu +62 858-1719-5276

SERTIFIKAT PELATIHAN

2005662840-582/TSA/BLSDM Kominfo/2023

Diberikan kepada

SHENDI TEUKU MAULANA EFENDI

telah menyelesaikan pelatihan

Database Design & Programming with SQL
pada Program **Talent Scouting Academy**
Digital Talent Scholarship **2023**

Pada tanggal **6 Maret 2023 - 30 Juni 2023** selama **240** Jam Pelatihan

Jakarta, 14 Agustus 2023

Ditandatangani secara elektronik oleh:
Kepala Badan Litbang & SDM

Hary Budiarto

12110474

BADAN NASIONAL SERTIFIKASI PROFESI
INDONESIAN PROFESSIONAL CERTIFICATION AUTHORITY

SERTIFIKAT KOMPETENSI
CERTIFICATE OF COMPETENCE

No. 62015 2120 6 0026724 2024

Dengan ini menyatakan bahwa,
This is to certify that,

Shendi Teuku Maulana Efendi, CADS

No. Reg. TIK.317.00435 2024

Telah kompeten pada bidang:
Is competent in the area of:

Kecerdasan Buatan
Artificial Intelligence

Dengan Kualifikasi / Kompetensi:
With the Qualification / Competency:

Ilmuwan Data Madya
Associate Data Scientist

Karenanya berhak memakai identitas:
Therefore is entitled to use the identity:

Ilmuwan Data Madya Bersertifikat
Certified Associate Data Scientist (CADS)

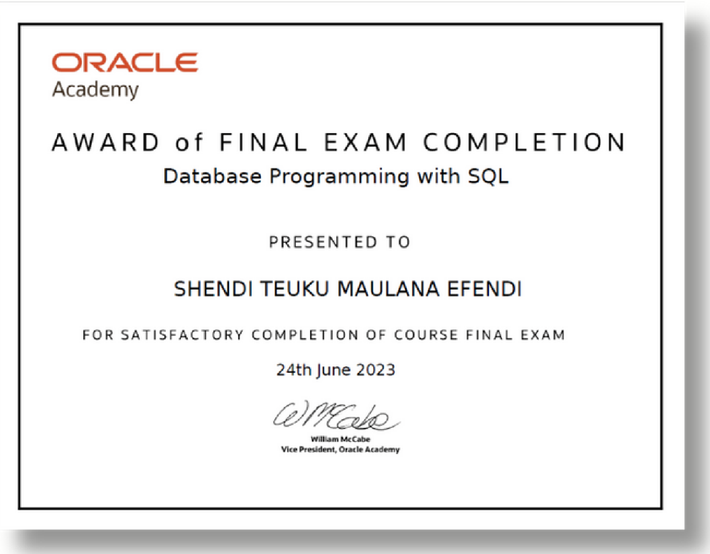
Sertifikat ini berlaku untuk: 3 (tiga) Tahun
This certificate is valid for: 3 (three) Years

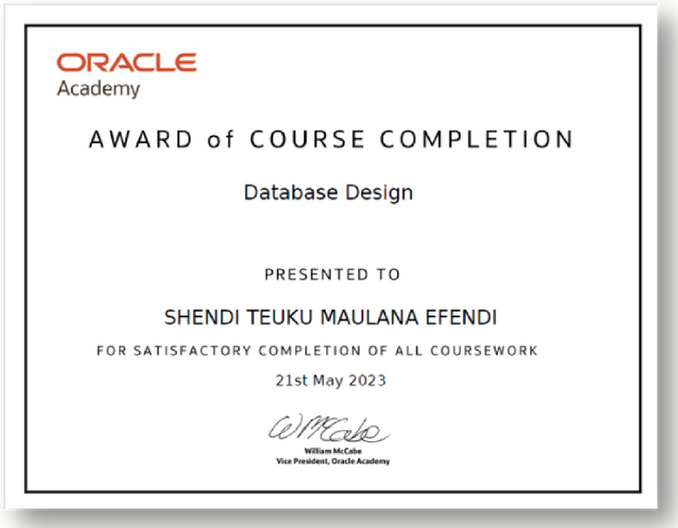
Jakarta, 16 Februari 2024

Atas nama Badan Nasional Sertifikasi Profesi
On behalf of Indonesian Professional Certification Authority

Lembaga Sertifikasi Profesi Informatika
Informatika Professional Certification Agency

Muhaemin, S.Kom, MM, M.Kom
Ketua
Chairman


ORACLE
Academy
AWARD of FINAL EXAM COMPLETION
Database Programming with SQL
PRESENTED TO
SHENDI TEUKU MAULANA EFENDI
FOR SATISFACTORY COMPLETION OF COURSE FINAL EXAM
24th June 2023
William McCabe
Vice President, Oracle Academy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FOR SATISFACTORY COMPLETION OF ALL COURSEWORK
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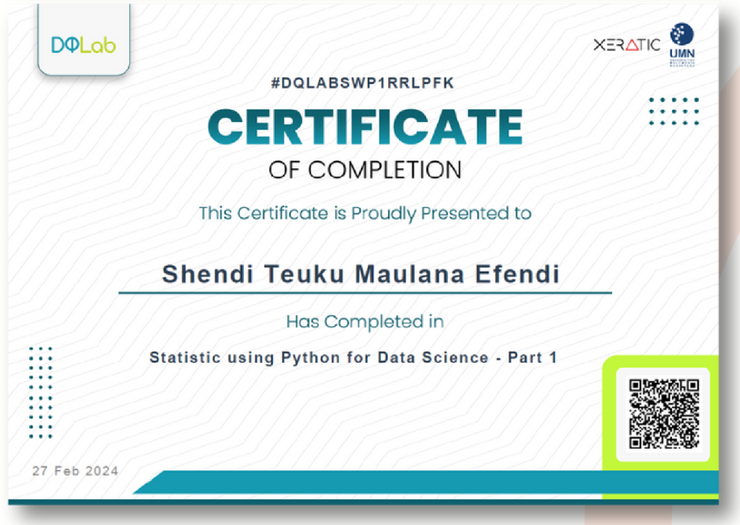
William McCabe
Vice President, Oracle Academy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Statistic using Python for Data Science - Part 1
27 Feb 2024


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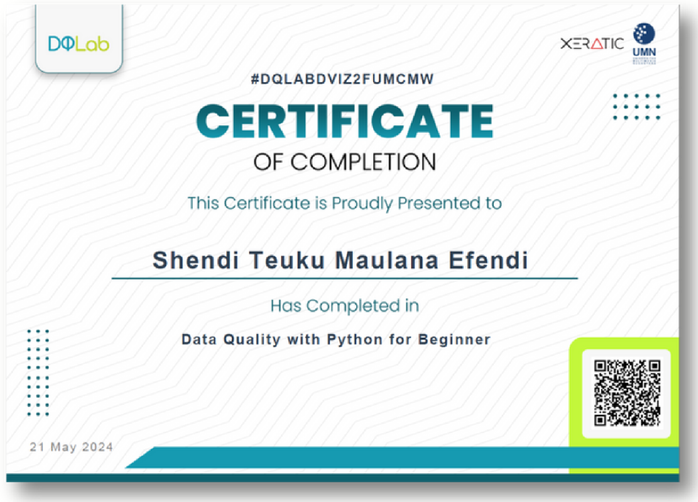
Exploratory Data Analysis with Python for Beginner
21 May 2024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Data Quality with Python for Beginner
21 May 2024


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Data Preparation in Data Science using R
20 May 2024


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Python Fundamental for Data Science
23 Feb 2024


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Introduction to Data Science with R
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Statistic using Python for Data Science - Part 2
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Has Completed in
Introduction to Data Science with Python
27 Jan 2024

Thank you

Contact Details

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LinkedIn : https://www.linkedin.com/in/shendyeff