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Hello Everyone, I Am

# Fathia Amaliah

A PORTFOLIO

Network Engineer

Data Analyst

Front End Developer

Cyber Security  
Enthusiast

Data Engineer

Back End Developer





## Hello! I'm Fathia

I am currently pursuing my bachelor's degree in Informatics Engineering at Universitas Brawijaya. I am very much interested in fields such as computer network, cyber security, web development, and data.

I value both knowledge and practical skills because both are crucial. I currently focus on refining my computer network and data analytics skills.

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## **SKILLS**

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### **Programming Language**

Python, PHP, HTML, CSS, Java, Kotlin, SQL



### **Tools/Framework**

Git, Laravel, AWS, SQL Server, Spreadsheet, Ms Office, Tableau, MySQL, bootstrap, API, Wireshark, Burp Suite, Nmap, NsLookup



### **Operating System**

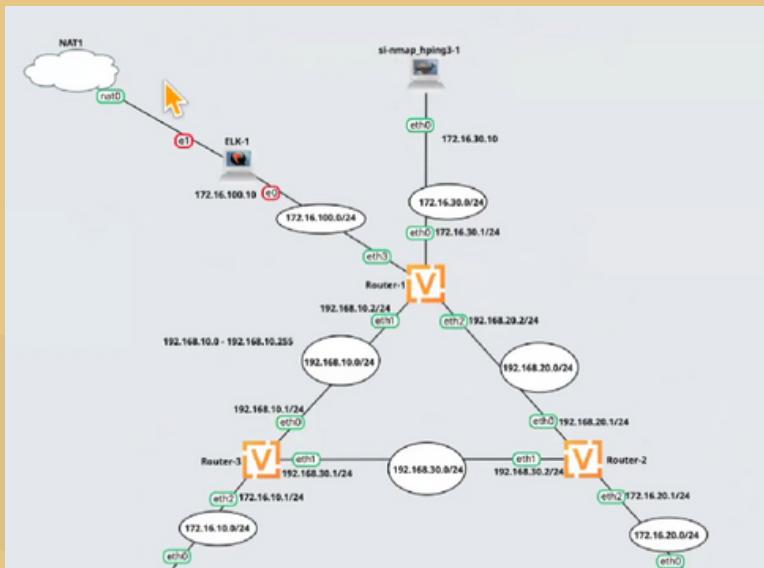
Windows, Linux

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# My Projects



# OSPF HANDS ON BY KEIO UNIVERSITY - OPERATING THE INTERNET



```
GNS3 console Router-3 X
edit]
vyos@vyos# set interfaces ethernet eth1 192.168.30.1/24
Configuration path: interfaces ethernet eth1 [192.168.30.1/24] is not valid
Set failed

edit]
vyos@vyos# set interfaces ethernet eth1 address 192.168.30.1/24
edit]
vyos@vyos#
```

```
GNS3 console Host-1 X
root@Host-1:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.16.10.10 brd 255.255.255.0 broadcast 172.16.10.255
        netmask 255.255.255.0
        ether fe80::14ad:61ff:feba:a2d7 txqueuelen 1000 (Ethernet)
            RX packets 0 bytes 0 (0.0 B)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 25 bytes 1846 (1.8 KB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 brd 255.0.0.0
        netmask 255.0.0.0
        ether 00:00:00:00:00:00 txqueuelen 1000 (Local Loopback)
            RX packets 52 bytes 4296 (4.2 KB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 52 bytes 4296 (4.2 KB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
root@Host-1:~#
```

```
[edit]
vyos@vyos# commit
[edit]
vyos@vyos# save
Saving configuration to '/config/config.boot'...
Done
[edit]
vyos@vyos# show
firewall {
    name block1 {
        default-action accept
        rule 10 {
            action reject
            destination {
                address 172.16.10.10
            }
            protocol tcp
        }
    }
}
```

## Router Configuration

Setting IP address for all interfaces on the router

## Host Configuration

Doing IP address configuration and setting default gateway

## OSPF Configuration

Setting OSPF protocol on every routers

## Firewall Configuration

Setting up firewall configuration

# RentBook - A Book Rental Website

ID	Judul	Kategori	Jumlah Buku	Aksi
1	Harry Potter and the Philosopher's Stone	Fantasi	1	<button>Detail</button>
2	To Kill a Mockingbird	Fiksi Sejarah	2	<button>Detail</button>
3	1984	Fiksi Ilmiah	1	<button>Detail</button>
4	The Great Gatsby	Fiksi Sejarah	2	<button>Detail</button>
5	Pride and Prejudice	Fiksi Sejarah	1	<button>Detail</button>

## ✓ Making CRUD Operations

Making Create, Read, Update, and Delete Function for RentBook members and Books.

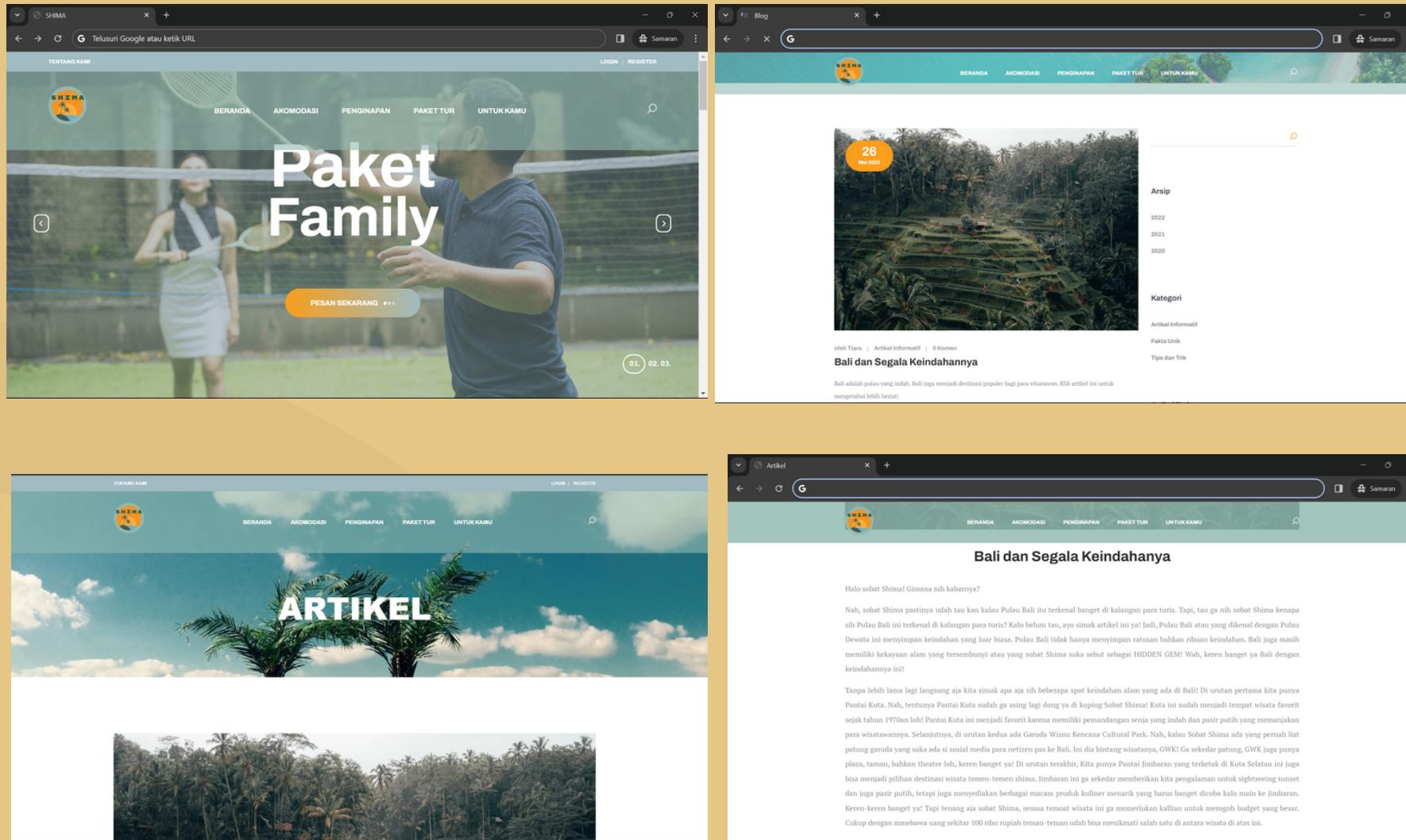
## ✓ Using MVC Pattern

Developing the website using Laravel framework with Model-View-Controller pattern. Responsible on creating model, view, and controller for the development.

## ✓ Making Search and Filter function

Creating search and filter function that can be used in members and books page.

# SHIMA - A Travel and Accommodation Website



## Creating Article Page

Responsible for creating article page that contains articles and archives



## Modifying Index Page

Modifying the index page with HTML and styling it with CSS

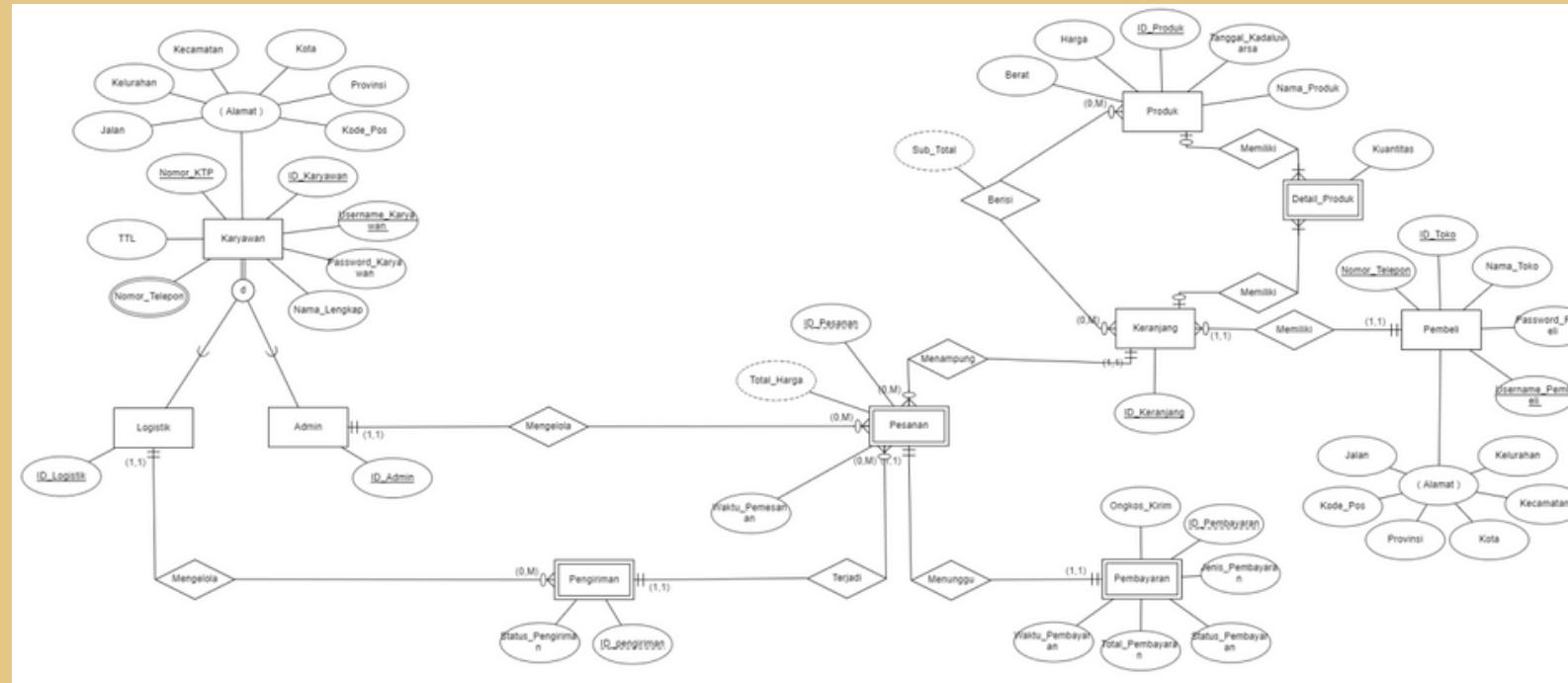
# TaskMate - A Task Manager Information System

The image displays three screenshots of the TaskMate application interface:

- Screenshot 1: Daftar Tugas**  
Shows a list of tasks:
  - LK12P: Perancangan UI (Prioritas High, Tenggat)
  - LK10P : Prak APS (Prioritas Medium, Tenggat: 20 June)
  - Prak Modul 8 : KI (Prioritas Low, Tenggat: 04 August)
  - Tugas 2 Sismul : Huffman (Prioritas Low, Tenggat: 21 March)A sidebar allows sorting by deadline or priority.
- Screenshot 2: Tambah Tugas Baru**  
A form to add a new task:
  - Judul Tugas: LK12P: Perancangan UI
  - Deskripsi Tugas: \*Lengkapi deskripsi tugas
  - Tenggat Waktu: 23.59 (Deadline: 05/06/2023)
  - Tingkat Prioritas Tugas: High (selected)
  - Waktu Pengingat: 10:30 (Reminder: 04/06/2023)A "Tambah" button is at the bottom.
- Screenshot 3: Detail Tugas**  
Details for the LK12P: Perancangan UI task:
  - Judul Tugas: LK12P: Perancangan UI
  - Tenggat Waktu: 05/06/2023 (23.59)
  - Prioritas: High
  - Deskripsi Tugas: Tugas Praktikum: mahasiswa secara berkelompok melakukan perancangan UI dari projek masing-masing kelompok.  
Instruksi:
    - Lakukan perancangan UI berdasarkan use case scenario yang merepresentasikan fungsionalitas utama (minimal 5 use case) dari sistem yang akan dikembangkan. Perhatikan prinsip-prinsip perancangan UI yang sudah dijelaskan.
    - Mengunggah laporan per kelompok oleh koordinator masing-masing (cukup 1 file per kelompok) dalam format pdf dengan format nama file: K1-LK12P (yang menyatakan laporan dari Kelompok 1).
    - Jika ada dokumen praktikum pada tugas sebelumnya yang masih perlu direvisi, silakan bisa diunggah ulang sebagai bahan presentasi projek.
  - Waktu Pengingat: 10:30 (Reminder: 04/06/2023)Buttons for "Ubah" (Edit) and "Hapus" (Delete) are at the bottom.

Designing system's Interface based on Requirements that has been created. This project involves requirement engineering, requirement modelling, and requirement implementation. On this project, some diagrams also created such Class Diagram, Sequence Diagram, and Use Case Diagram.

# Lotus Beauty - Beauty Ecommerce App



Lotus Beauty is A GUI based App that stores data for Products and Employee. Lotus Beauty App has some features such register, login, purchase, delivery, CRUD operations, etc.

This project uses Java Swing to create the GUI while the data is actually accessed from a database. The database is built from DDL and DML query. This GUI can generate an automated receipt that is created from Jasper.

```
CREATE DATABASE LotusBeauty
GO
USE LotusBeauty
GO

CREATE TABLE Karyawan( -- yang bisa liat karyawan aja
    ID_Karyawan           INTEGER PRIMARY KEY,
    Nomor_KTP              VARCHAR(255) UNIQUE,
    Nama_Lengkap            VARCHAR(255),
    TTL                     VARCHAR(255),
    Username_Karyawan       VARCHAR(255) UNIQUE,
    Password_Karyawan        VARCHAR(255),
    Jalan                   VARCHAR(255),
    Kelurahan               VARCHAR(255),
    Kecamatan                VARCHAR(255),
    Kota                     VARCHAR(255),
    Provinsi                 VARCHAR(255),
    Kode_Pos                  VARCHAR(5)
)

CREATE TABLE Karyawan_Nomor_Telepon( -- yang bisa liat karyawan aja
    Karyawan_ID_Karyawan   INTEGER NOT NULL,
    Nomor_Telepon            VARCHAR(255),
    CONSTRAINT Karyawan_Nomor_Telepon_FKIndex1
```

Data Produk

<< Back Search

ID_Produk	Nama_Produk	Harga	Tanggal_Kadaluwarsa	Berat
10001	Masker Wajah	60000	2029-09-10	27
10002	Cream Wajah	100000	2029-12-06	15
10003	Toner Wajah	70000	2030-06-11	20
10004	Pelembab Wajah	50000	2029-09-28	25
10005	Serum Wajah	60000	2029-10-25	15
10006	Sunscreen	64000	2030-03-20	20
10007	Pembersih Wajah	40000	2029-09-13	30
10008	Serum Pelembab	150000	2029-09-11	20
10009	Serum Exfoliasi	155000	2029-12-12	20
10010	Serum Pencerah	160000	2030-06-07	20
10011	Sabun Muka	70000	2029-09-06	30
10012	Essence	64000	2029-10-08	20
10013	Pelembab Rambut	20000	2030-03-20	12

ID Produk	<input type="text"/>	Tanggal Kadaluwarsa	<input type="text"/>
Nama Produk	<input type="text"/>	Berat (kg)	<input type="text"/>
Harga	<input type="text"/>		

NOTA PEMBELIAN					
<b>LOTUS BEAUTY</b>					
Jl. Cenderawasih Blok J5			Nama Toko Pemesan : halo		
No Telp. 085409235379			Waktu Pemesanan : 09/12/22 00.00		
Email: Lotusbeauty@store.com			Waktu Pembayaran : 09/12/22 00.00		
			Status Pesanan : SUDAH LUNAS		
			Status Pengiriman : DALAM PERJALANAN		
			Nama Pengirim : Subekti		
ID Produk	Nama Produk	Harga	Kuantitas	Sub Total	
10006	Sunscreen	64000	1	64000	
10012	Essence	64000	2	128000	
Total Harga : 192000 Biaya Kirim : 20000 Total Yang Harus Dibayarkan: 212000					

Results Messages

---

	Nama_Toko	Nama_Produk	Total_Produk	Total_Kuantitas
1	Kelaya shop	Pelembab Wajah	1	238
2	Kelaya shop	Sunscreen	1	9
3	Kelaya shop	Serum Wajah	1	7
4	Kelaya shop	Serum Exfoliasi	1	6
5	Kelaya shop	Serum Pelembab	1	4

---

	Nama_Toko	Nama_Produk	Total_Produk	Total_Kuantitas
1	Mira skincare	Sunscreen	2	133
2	Mira skincare	Pembersih Wajah	1	32
3	Mira skincare	Serum Pencerah	1	24
4	Mira skincare	Serum Exfoliasi	1	6
5	Mira skincare	Serum Pelembab	1	5

---

	Nama_Toko	Nama_Produk	Total_Produk	Total_Kuantitas
1	Ruri Skincare	Serum Pelembab	2	132
2	Ruri Skincare	Pembersih Wajah	1	8
3	Ruri Skincare	Serum Pencerah	1	7
4	Ruri Skincare	Masker Wajah	1	4
5	Ruri Skincare	Serum Exfoliasi	1	2

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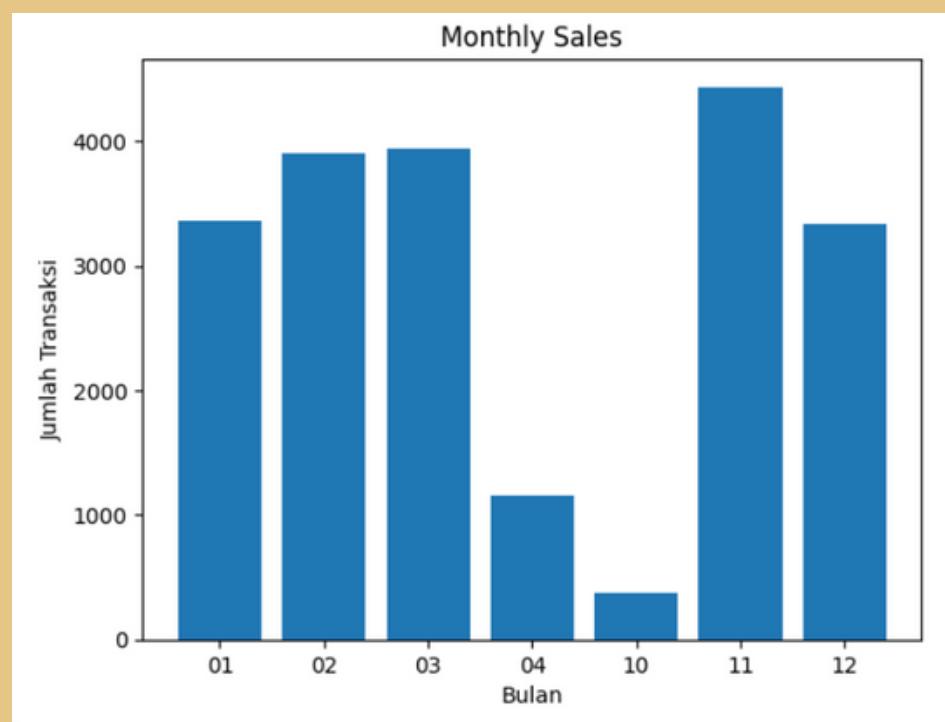
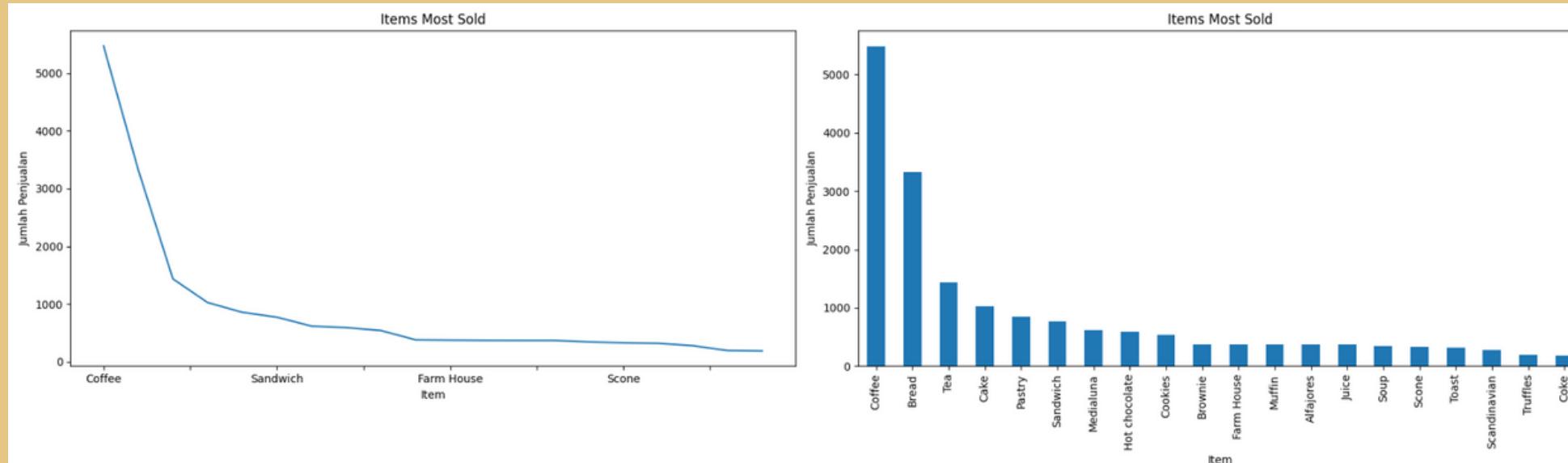
	Nama_Toko	Nama_Produk	Total_Produk	Total_Kuantitas
1	Magenta Shop	Serum Exfoliasi	2	215
2	Magenta Shop	Sabun Muka	1	9
3	Magenta Shop	Serum Pelem...	1	8
4	Magenta Shop	Serum Penc...	1	7
5	Magenta Shop	Masker Wajah	1	6

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	Nama_Toko	Nama_Produk	Total_Produk	Total_Kuantitas
1	Royan Shop	Serum Pencerah	1	238

# Market Basket Analysis

	Date	Time	Transaction	Item
0	2016-10-30	09:58:11	1	Bread
1	2016-10-30	10:05:34	2	Scandinavian
2	2016-10-30	10:05:34	2	Scandinavian
3	2016-10-30	10:07:57	3	Hot chocolate
4	2016-10-30	10:07:57	3	Jam
5	2016-10-30	10:07:57	3	Cookies
6	2016-10-30	10:08:41	4	Muffin
7	2016-10-30	10:13:03	5	Coffee
8	2016-10-30	10:13:03	5	Pastry
9	2016-10-30	10:13:03	5	Bread



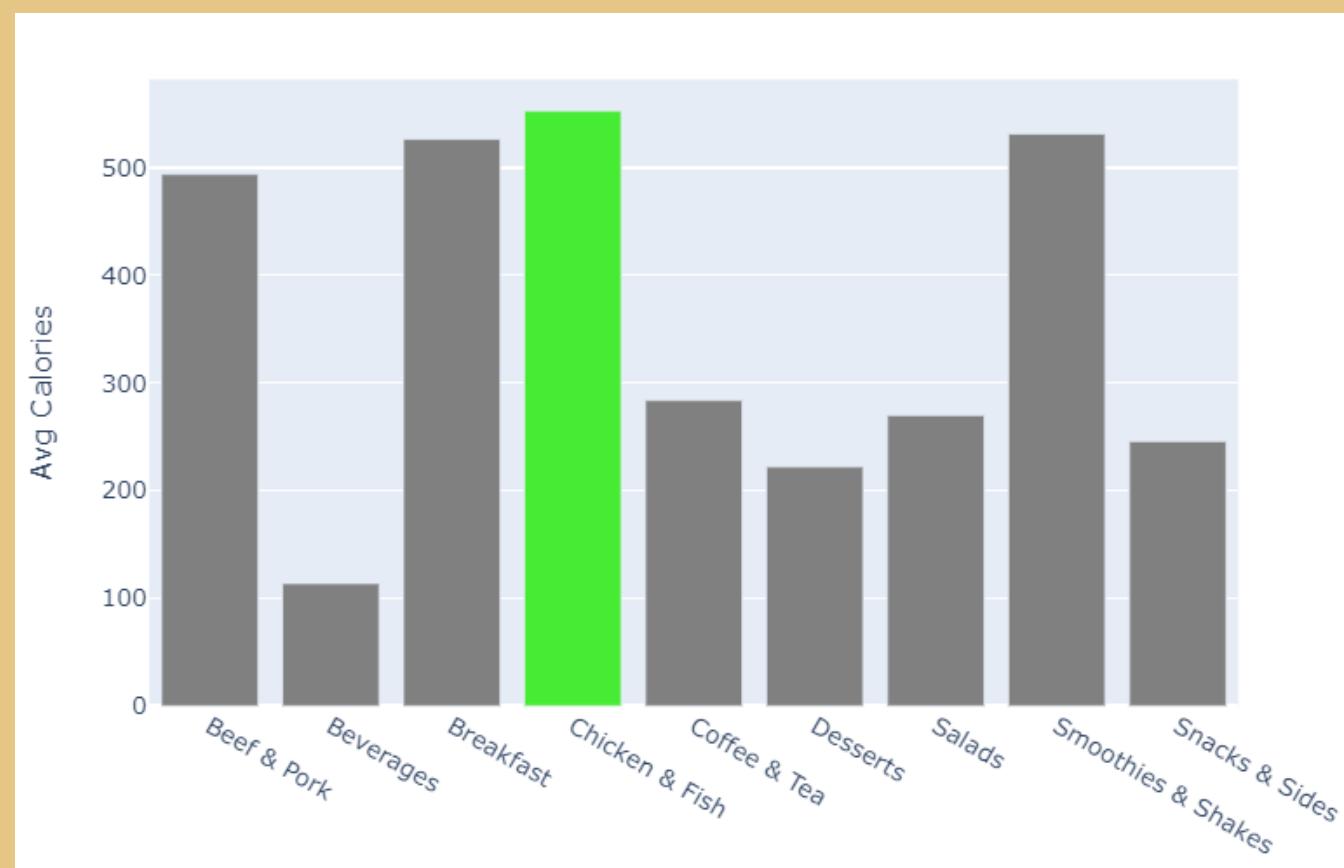
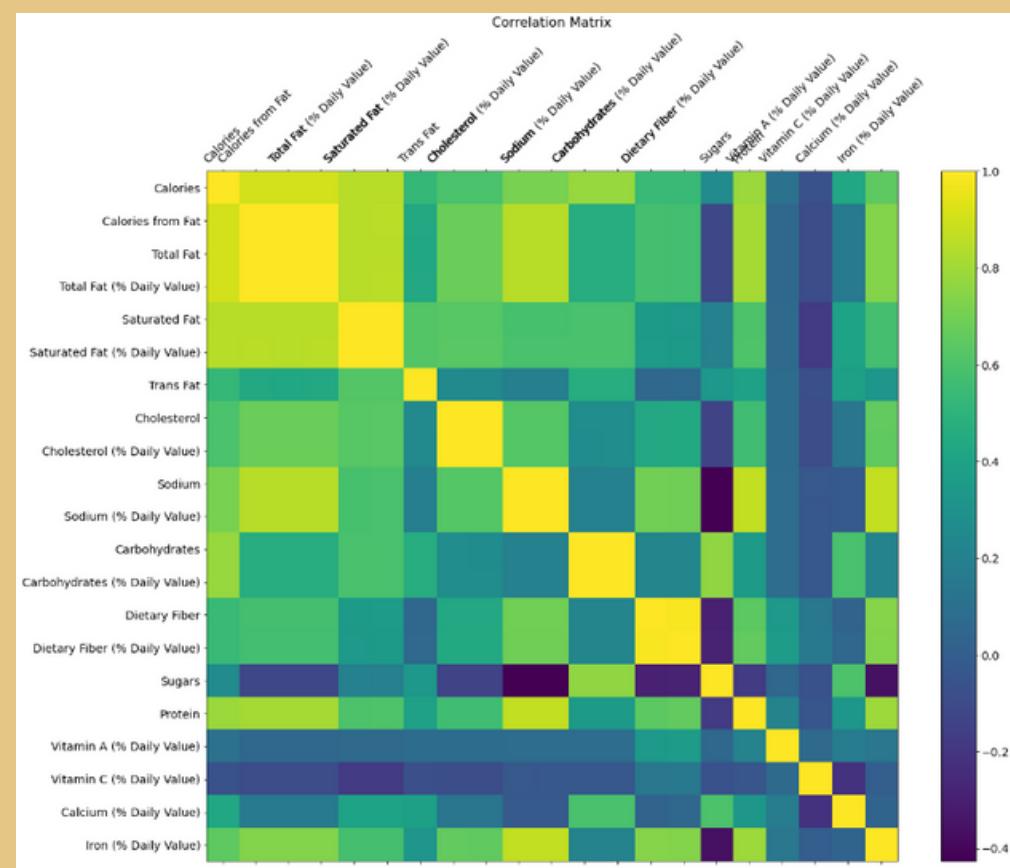
	antecedents	consequents	support	confidence	lift
40	(Cake)	(Coffee, Tea)	0.010037	0.096643	1.937977
39	(Coffee, Tea)	(Cake)	0.010037	0.201271	1.937977
8	(Hot chocolate)	(Cake)	0.011410	0.195652	1.883874
9	(Cake)	(Hot chocolate)	0.011410	0.109868	1.883874
11	(Tea)	(Cake)	0.023772	0.166667	1.604781
10	(Cake)	(Tea)	0.023772	0.228891	1.604781
30	(Toast)	(Coffee)	0.023666	0.704403	1.472431
31	(Coffee)	(Toast)	0.023666	0.049470	1.472431
37	(Pastry)	(Coffee, Bread)	0.011199	0.130061	1.444872
36	(Coffee, Bread)	(Pastry)	0.011199	0.124413	1.444872
32	(Sandwich)	(Tea)	0.014369	0.200000	1.402222
33	(Tea)	(Sandwich)	0.014369	0.100741	1.402222
41	(Tea)	(Coffee, Cake)	0.010037	0.070370	1.285822
38	(Coffee, Cake)	(Tea)	0.010037	0.183398	1.285822
29	(Spanish Brunch)	(Coffee)	0.010882	0.598837	1.251766
28	(Coffee)	(Spanish Brunch)	0.010882	0.022747	1.251766
18	(Coffee)	(Medialuna)	0.035182	0.073542	1.189878
19	(Medialuna)	(Coffee)	0.035182	0.569231	1.189878

This project analyzes consumer buying habit to find a relation between items that is purchased by the customer. At the end of the analysis, we can see what items that usually purchased altogether.

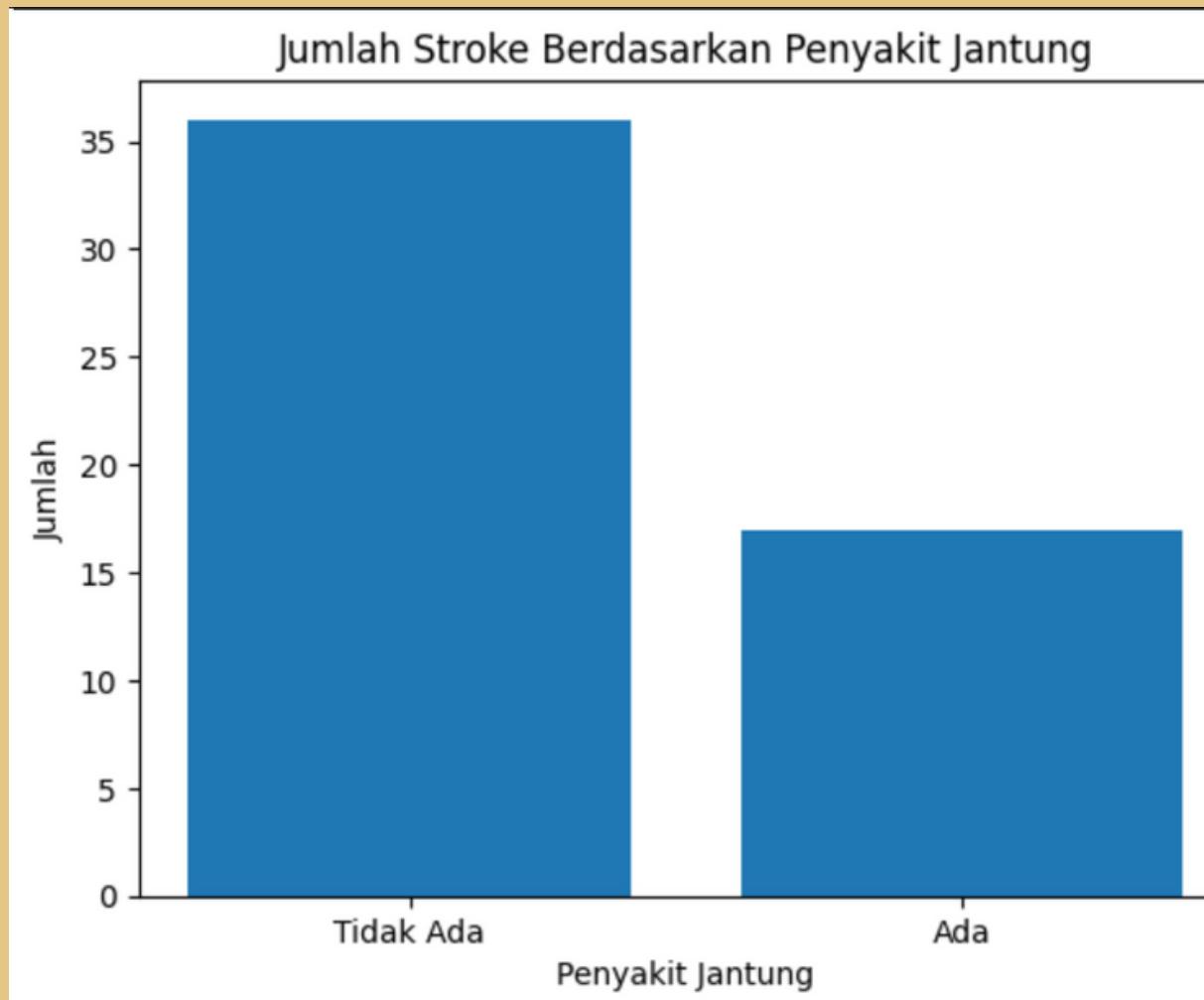
# McDonald's Menu Analysis

	Category	Item	Serving Size	Calories	Calories from Fat	Total Fat	Total Fat (% Daily Value)	Saturated Fat	Saturated Fat (% Daily Value)	Trans Fat	...	Carbohydrates	Carbohydrates (% Daily Value)	Dietary Fiber	Dietary Fiber (% Daily Value)	Sugars	Protein
0	Breakfast	Egg McMuffin	4.8 oz (136 g)	300	120	13.0	20	5.0	25	0.0	...	31	10	4	17	3	
1	Breakfast	Egg White Delight	4.8 oz (135 g)	250	70	8.0	12	3.0	15	0.0	...	30	10	4	17	3	
2	Breakfast	Sausage McMuffin	3.9 oz (111 g)	370	200	23.0	35	8.0	42	0.0	...	29	10	4	17	2	
3	Breakfast	Sausage McMuffin with Egg	5.7 oz (161 g)	450	250	28.0	43	10.0	52	0.0	...	30	10	4	17	2	
4	Breakfast	Sausage McMuffin with Egg Whites	5.7 oz (161 g)	400	210	23.0	35	8.0	42	0.0	...	30	10	4	17	2	

Analyzing McDonald's menu based on each category of nutritional contents that exists. Starting this project with data preparation and data understanding



# Stroke Prediction with K-Nearest Neighbor



```
#   Column           Non-Null Count  Dtype  
--- 
0   id              5110 non-null   int64  
1   gender          5110 non-null   object  
2   age              5110 non-null   float64 
3   hypertension     5110 non-null   int64  
4   heart_disease   5110 non-null   int64  
5   ever_married    5110 non-null   object  
6   work_type        5110 non-null   object  
7   Residence_type  5110 non-null   object  
8   avg_glucose_level 5110 non-null   float64 
9   bmi              4909 non-null   float64 
10  smoking_status  5110 non-null   object  
11  stroke           5110 non-null   int64  
dtypes: float64(3), int64(4), object(5)
memory usage: 479.2+ KB
```

	precision	recall	f1-score	support
0	0.96	0.96	0.96	968
1	0.32	0.31	0.32	54
accuracy			0.93	1022
macro avg	0.64	0.64	0.64	1022
weighted avg	0.93	0.93	0.93	1022

Predicting stroke using K-Nearest Neighbor Algorithm as an implementation of machine learning. The stroke is predicted through some features like age, hypertension, heart disease, ever married, type of work, residence type, average glucose level, bmi, and smoking status.

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# My Achievements



# System Operation Laboratory Assistant



Responsible for 40 students.

Assisting System Operation Materials. For instance, synchronization, CPU Schedulling, deadlock, memory allocation, virtualization, etc.  
Giving guidance to the students about AWS usage to access EC2 Instance

# Google Technical Support Fundamentals



Learning about the fundamentals of IT Support including hardware, software, operating system, customer service, etc.

# Google Foundations of Cybersecurity



Learning about the foundations of Cyber Security including vulnerabilities, tools that can be used, security domain, ethical of cyber security, etc.

# Microsoft Introduction to Computers and Operating Systems and Security



Learning about the foundations of computers hardware and software, operating systems, cyber security, threat landscape, and business software

# Progate SQL Course



Learning about Structured Query Language (SQL) and its operations such as insert, delete, update, etc. Also implementing it by solving a real problem.

# Progate PHP Course



Learning about PHP programming language and implementing it directly  
by creating a food ordering system website.

# Progate GIT Course



Learning about GIT features such as commit, add, push, and pull. Also learning how GIT actually works.

# APIE - ASIA PACIFIC INTERNET ENGINEER PROGRAM



Learning about basic of the Internet and how does internet work, how to manage and operate it

# APIE - ASIA PACIFIC INTERNET ENGINEER PROGRAM



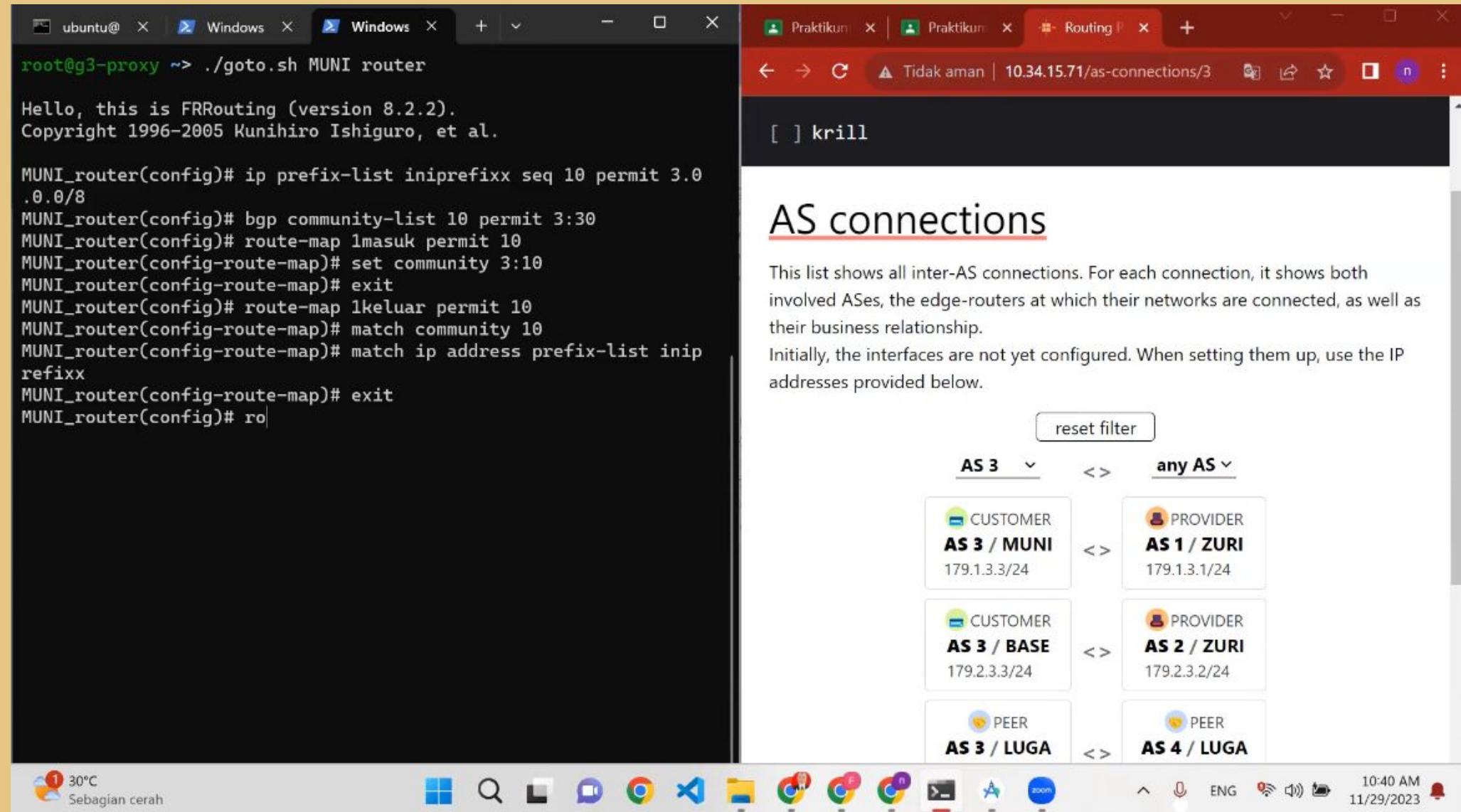
Learning through online course from APIE course that is presented by SOI Asia  
Learning about internet fundamentals like LAN, UDP, Internet Protocols, P2P, etc  
Getting to know more about the Internet from the practitioners in the workshop

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# Other Experiences

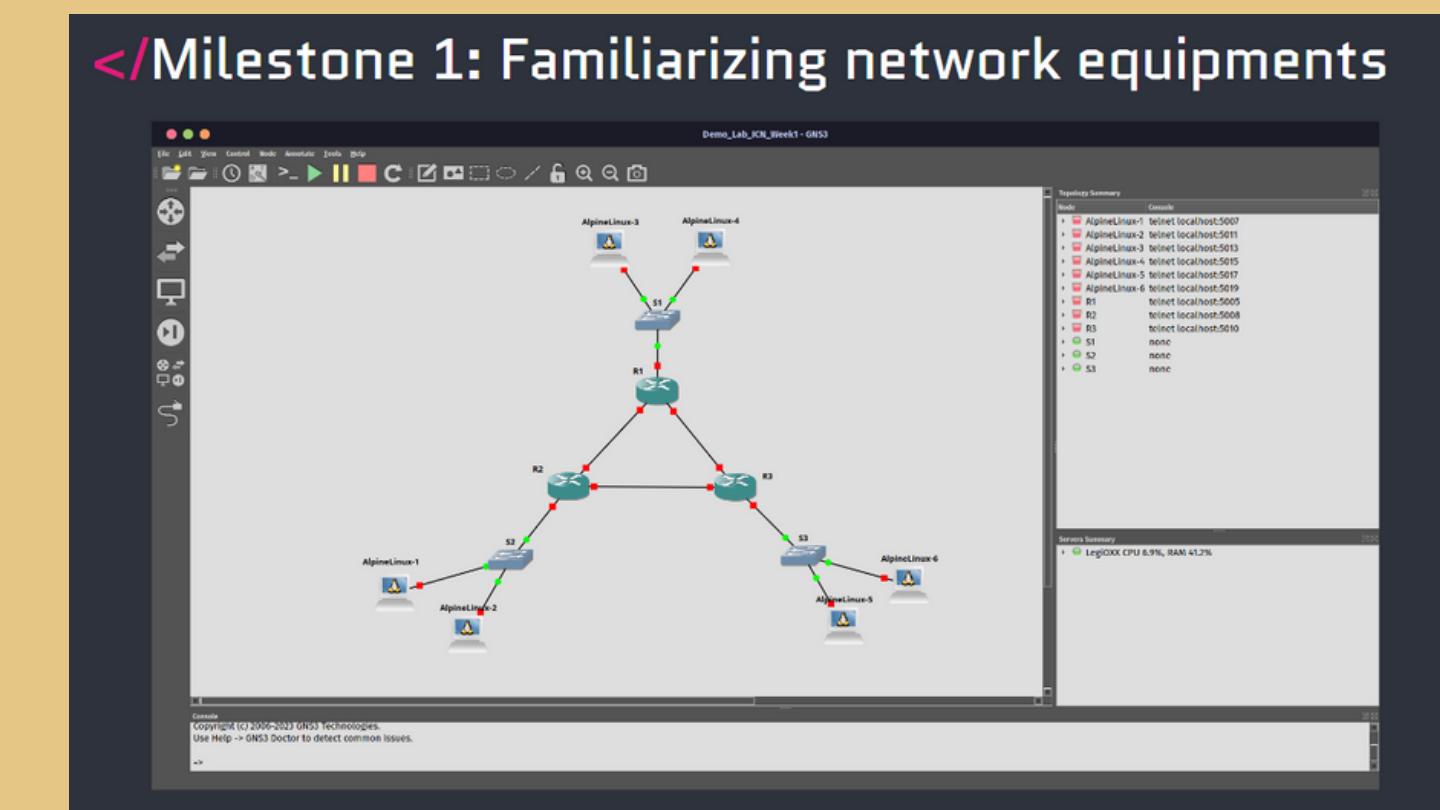


# Computer Networking Laboratory Assistant



Responsible for 30+ students.  
Assisting Computer Networking Materials For instance, IP addressing,  
Static and Dynamic routing, Tunneling, iBGP, eBGP, IXP,, etc.

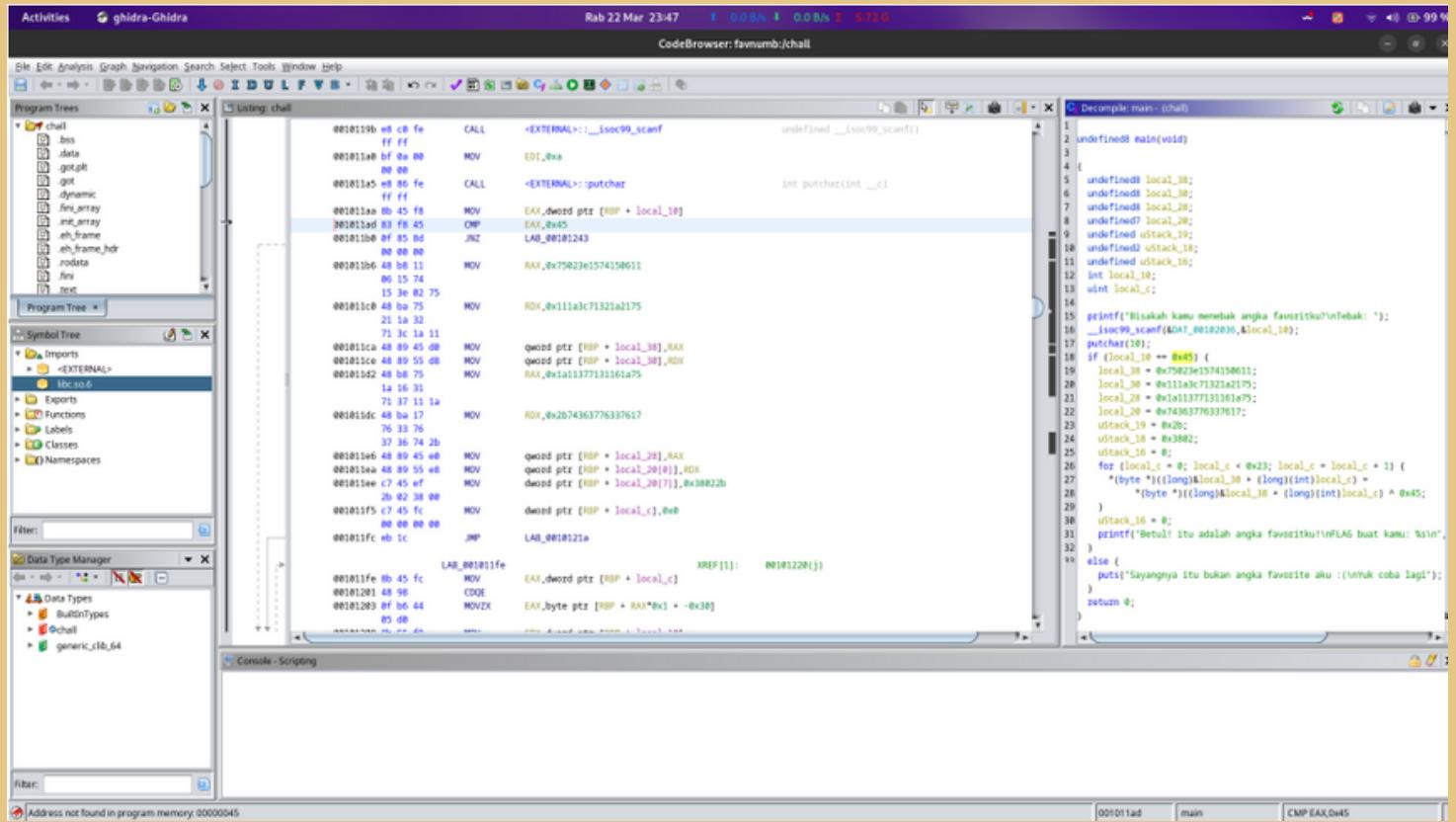
# Information Centric Network Laboratory Member



Worked as committee at Arena PAC 1000 GBps Event

Currently doing a research on Intrusion Detection System for botnets detection using low-power deep learning

# POROS - Organization of Open Source



```

fathiaa@fathiaaa ~> cd Downloads/porosfinal/favnumber/
fathiaa@fathiaaa ~/D/p/favnumber> ls
chall* favnumb.gpr favnumb.rep/
fathiaa@fathiaaa ~/D/p/favnumber> ./chall
Bisakah kamu menebak angka favoritku?
Tebak: 1

Sayangnya itu bukan angka favorite aku :(
Yuk coba lagi
fathiaa@fathiaaa ~/D/p/favnumber>

```

Gaining new knowledge and experiencing CTF  
Head of Public Relation at COSMOS, a POROS Event to Introduce Cyber Security

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**LET'S WORK  
TOGETHER**

