

ABCSHOP

Kelompok 1

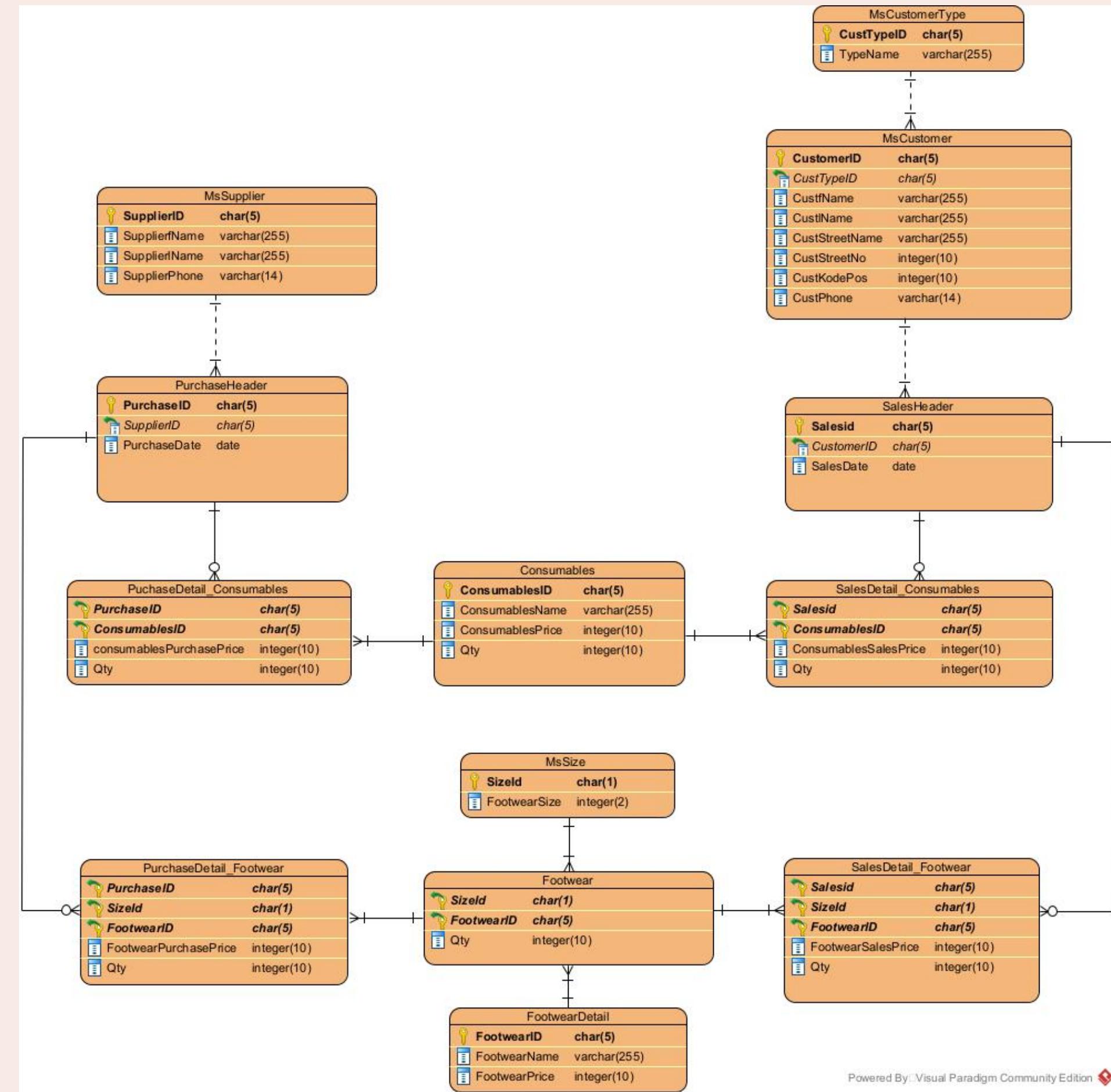
LAURENCIA LYNN - 2602059304

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3.1 TRANSLATE LOGICAL DATA MODEL FOR TARGET DBMS



3.1 TRANSLATE LOGICAL DATA MODEL FOR TARGET DBMS

```
CREATE TABLE MsSupplier (
    SupplierID CHAR(5) PRIMARY KEY
        CHECK (SupplierID LIKE 'SU[0-9][0-9][0-9]'),
    SupplierfName VARCHAR(255) NOT NULL,
    SupplierlName VARCHAR(255) NOT NULL,
    SupplierPhone VARCHAR(14) NOT NULL
    CONSTRAINT ValidateSupplierPhone
    CHECK (LEN(SupplierPhone) >= 10 AND LEN(SupplierPhone) <=
        14)
)
```

```
CREATE TABLE PurchaseHeader(
    PurchaseID CHAR(5) PRIMARY KEY
        CHECK (PurchaseID LIKE 'PU[0-9][0-9][0-9]'),
    PurchaseDate DATE NOT NULL,
    SupplierID CHAR(5) FOREIGN KEY REFERENCES MsSupplier
        (SupplierID) ON UPDATE CASCADE ON DELETE CASCADE NOT
        NULL
)
```

3.1 TRANSLATE LOGICAL DATA MODEL FOR TARGET DBMS

```
CREATE TABLE Consumables(
    ConsumablesID CHAR(5) PRIMARY KEY
        CHECK (ConsumablesID LIKE 'CO[0-9][0-9][0-9]'),
    ConsumablesName VARCHAR(255) NOT NULL,
    ConsumablesPrice INTEGER NOT NULL ,
    Qty INTEGER NOT NULL
)
```

```
CREATE TABLE FootwearDetail(
    FootwearID CHAR(5),
    FootwearName VARCHAR(255) NOT NULL,
    FootwearPrice INTEGER NOT NULL,
    PRIMARY KEY (FootwearID),
    CHECK (FootwearID LIKE 'FO[0-9][0-9][0-9]')
)
```

3.1 TRANSLATE LOGICAL DATA MODEL FOR TARGET DBMS

```
CREATE TABLE MsSize(  
    SizeID CHAR(1),  
    FootwearSize INTEGER NOT NULL,  
    PRIMARY KEY (SizeID)  
)
```

```
CREATE TABLE Footwear(  
    FootwearID CHAR(5),  
    SizeID CHAR(1),  
    Qty INTEGER NOT NULL,  
    PRIMARY KEY (FootwearID, SizeID),  
    FOREIGN KEY (FootwearID) REFERENCES FootwearDetail  
        (FootwearID) ON UPDATE CASCADE,  
    FOREIGN KEY (SizeID) REFERENCES MsSize(SizeID)  
)
```

3.1 TRANSLATE LOGICAL DATA MODEL FOR TARGET DBMS

```
|CREATE TABLE PurchaseDetail_Consumables (
    Qty INTEGER NOT NULL,
    PurchaseID CHAR(5),
    ConsumablesID CHAR(5),
    ConsumablesPurchasePrice INTEGER NOT NULL,
    PRIMARY KEY (PurchaseID, ConsumablesID),
    FOREIGN KEY (PurchaseID) REFERENCES PurchaseHeader
        (PurchaseID) ON UPDATE CASCADE ON DELETE CASCADE,
    FOREIGN KEY (ConsumablesID) REFERENCES Consumables
        (ConsumablesID) ON UPDATE CASCADE ON DELETE CASCADE
)
```

```
|CREATE TABLE SalesHeader(
    SalesID CHAR(5) PRIMARY KEY
        CHECK (SalesID LIKE 'SA[0-9][0-9][0-9]'),
    SalesDate DATE NOT NULL,
    CustomerID CHAR(5) REFERENCES MsCustomer(CustomerID)ON
        UPDATE CASCADE ON DELETE CASCADE
)
```

3.1 TRANSLATE LOGICAL DATA MODEL FOR TARGET DBMS

```
CREATE TABLE PurchaseDetail_Footwear (
    Qty INTEGER NOT NULL,
    PurchaseID CHAR(5) REFERENCES PurchaseHeader(PurchaseID)
        ON UPDATE CASCADE ON DELETE CASCADE ,
    FootwearID CHAR(5) REFERENCES FootwearDetail(FootwearID)
        ON UPDATE CASCADE ON DELETE CASCADE ,
    SizeID CHAR(1) REFERENCES MsSize(SizeID) ON UPDATE
        CASCADE ON DELETE CASCADE,
    FootwearPurchasePrice INTEGER NOT NULL,
    PRIMARY KEY (PurchaseID, FootwearID, SizeID)
)
```

```
CREATE TABLE SalesDetail_Consumables (
    Qty INTEGER NOT NULL ,
    SalesID CHAR(5) REFERENCES SalesHeader(SalesID)ON UPDATE
        CASCADE ON DELETE CASCADE ,
    ConsumablesID CHAR(5) REFERENCES Consumables
        (ConsumablesID),
    ConsumablesSalesPrice INTEGER NOT NULL,
    PRIMARY KEY (SalesID, ConsumablesID)
)
```

3.1 TRANSLATE LOGICAL DATA MODEL FOR TARGET DBMS

```
CREATE TABLE MsCustomer (
    CustomerID CHAR(5) PRIMARY KEY
        CHECK (CustomerID LIKE 'CU[0-9][0-9][0-9]'),
    CustomerfName VARCHAR(255) NOT NULL,
    CustomerlName VARCHAR(255) NOT NULL,
    CustStreetName VARCHAR(255) NOT NULL,
    CustStreetNo INTEGER NOT NULL,
    CustKodePos INTEGER NOT NULL,
    CustPhone VARCHAR(14) NOT NULL,
    CustTypeID CHAR(5) REFERENCES MsCustomerType(CustTypeID)
        ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT ValidateCustPhone CHECK (LEN(CustPhone) >= 10
        AND LEN(CustPhone) <= 14)
)
```

```
CREATE TABLE SalesDetail_Footwear (
    Qty INTEGER NOT NULL ,
    SalesID CHAR(5) REFERENCES SalesHeader(SalesID)ON UPDATE CASCADE
        ON DELETE CASCADE,
    FootwearID CHAR(5) REFERENCES FootwearDetail(FootwearID)
        ON UPDATE CASCADE,
    PRIMARY KEY(SalesID,FootwearID)
)
```

3.1 TRANSLATE LOGICAL DATA MODEL FOR TARGET DBMS

```
CREATE TABLE MsCustomerType(
    CustTypeID CHAR(5) PRIMARY KEY
        CHECK (CustTypeID LIKE 'CT[0-9][0-9][0-9]'),
    TypeName VARCHAR(255) NOT NULL
)
```



3.2 DESIGN REPRESENTATION OF DERIVED DATA (BASED ON DATABASE , APP CODING)

MELIHAT TOTAL QUANTITY PENJUALAN CONSUMABLES DAN FOOTWEAR PADA SHOPEE QUERY

```
SELECT
    SUM(sd_consumables.Qty) AS TotalConsumablesSold,
    SUM(sd_footwear.Qty) AS TotalFootwearSold
FROM
    SalesHeader sh
    JOIN SalesDetail_Consumables sd_consumables ON
        sh.SalesID = sd_consumables.SalesID
    JOIN SalesDetail_Footwear sd_footwear ON sh.SalesID =
        sd_footwear.SalesID
    JOIN MsCustomer mc ON sh.CustomerID = mc.CustomerID
    JOIN MsCustomerType mct ON mc.CustTypeID =
        mct.CustTypeID
WHERE
    mct.TypeName = 'BukaLapak'
```

HASIL

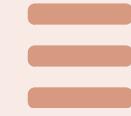
TotalConsumablesSold	TotalFootwearSold
1140	1120

3.2 DESIGN REPRESENTATION OF DERIVED DATA (BASED ON DATABASE , APP CODING)

TRANSACTION - MELIHAT SALESID DAN CONSUMABLESID , DIMANA PRODUK YANG DIBELI DIATAS 100.000

```
SELECT  
    sd_consumables.SalesID,  
    sd_consumables.ConsumablesID,  
    sd_consumables.consumablesSalesPrice  
FROM  
    SalesDetail_Consumables sd_consumables  
JOIN Consumables c ON sd_consumables.ConsumablesID = c.ConsumablesID  
WHERE  
    c.ConsumablesPrice > 100000;
```

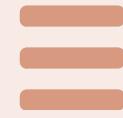
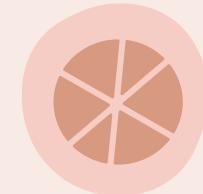
	SalesID	ConsumablesID	consumablesSalesPrice
1	SA001	CO011	228250
2	SA002	CO012	235500
3	SA003	CO013	163750
4	SA004	CO021	170250
5	SA005	CO022	242500
6	SA007	CO031	187500
7	SA008	CO032	163750
8	SA009	CO033	173250
9	SA010	CO041	228250
10	SA011	CO042	185500
11	SA012	CO051	161750
12	SA013	CO061	173250
13	SA014	CO071	242500
14	SA015	CO081	228250
15	SA016	CO091	247500
16	SA018	CO093	233250
17	SA019	CO101	228250
18	SA020	CO111	247500
19	SA021	CO121	190500
20	SA022	CO131	166750
21	SA023	CO141	176250
22	SA024	CO151	247500



3.3 DESIGN GENERAL CONSTRAINTS

MEMBUAT TABEL NOTIFICATION LOG

```
CREATE TABLE NotificationLog (
    NotificationID INT AUTO_INCREMENT PRIMARY KEY,
    Message VARCHAR(255) NOT NULL,
    NotificationDate TIMESTAMP DEFAULT CURRENT_TIMESTAMP
)
```



3.3 DESIGN GENERAL CONSTRAINTS

MEMERIKSA TABEL CONSUMABLES UNTUK ITEM DENGAN STOK (QTY) KURANG DARI 30

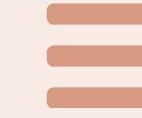
```
CREATE PROCEDURE CheckAndLogLowStock()

BEGIN

    DECLARE stockCount INT;

    SELECT COUNT(*) INTO stockCount
    FROM Consumables
    WHERE Qty < 30;

    IF stockCount > 0 THEN
        INSERT INTO NotificationLog (Message) VALUES ('Stok barang habis pakai kurang dari 30. Mohon restok.');
    END IF;
```



3.3 DESIGN GENERAL CONSTRAINTS

MEMERIKSA DAN MENCATAT STOK BARANG HABIS PAKAI YANG RENDAH JIKA DIPERLUKAN

```
CREATE TRIGGER AfterUpdateConsumables
```

```
AFTER UPDATE
```

```
ON Consumables FOR EACH ROW
```

```
BEGIN
```

```
    CALL CheckAndLogLowStock();
```

```
END;
```

```
CREATE TRIGGER AfterInsertConsumables
```

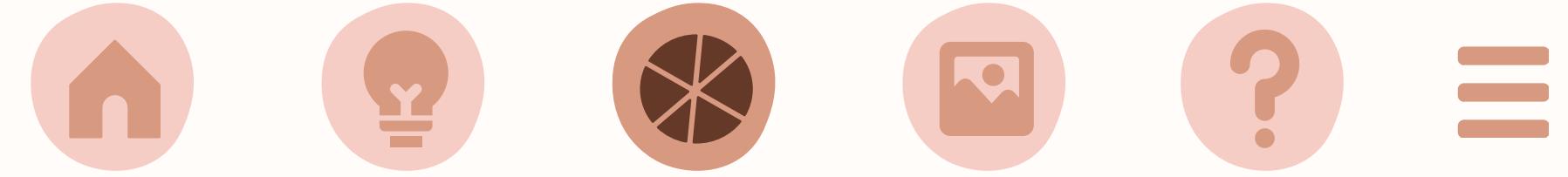
```
AFTER INSERT
```

```
ON Consumables FOR EACH ROW
```

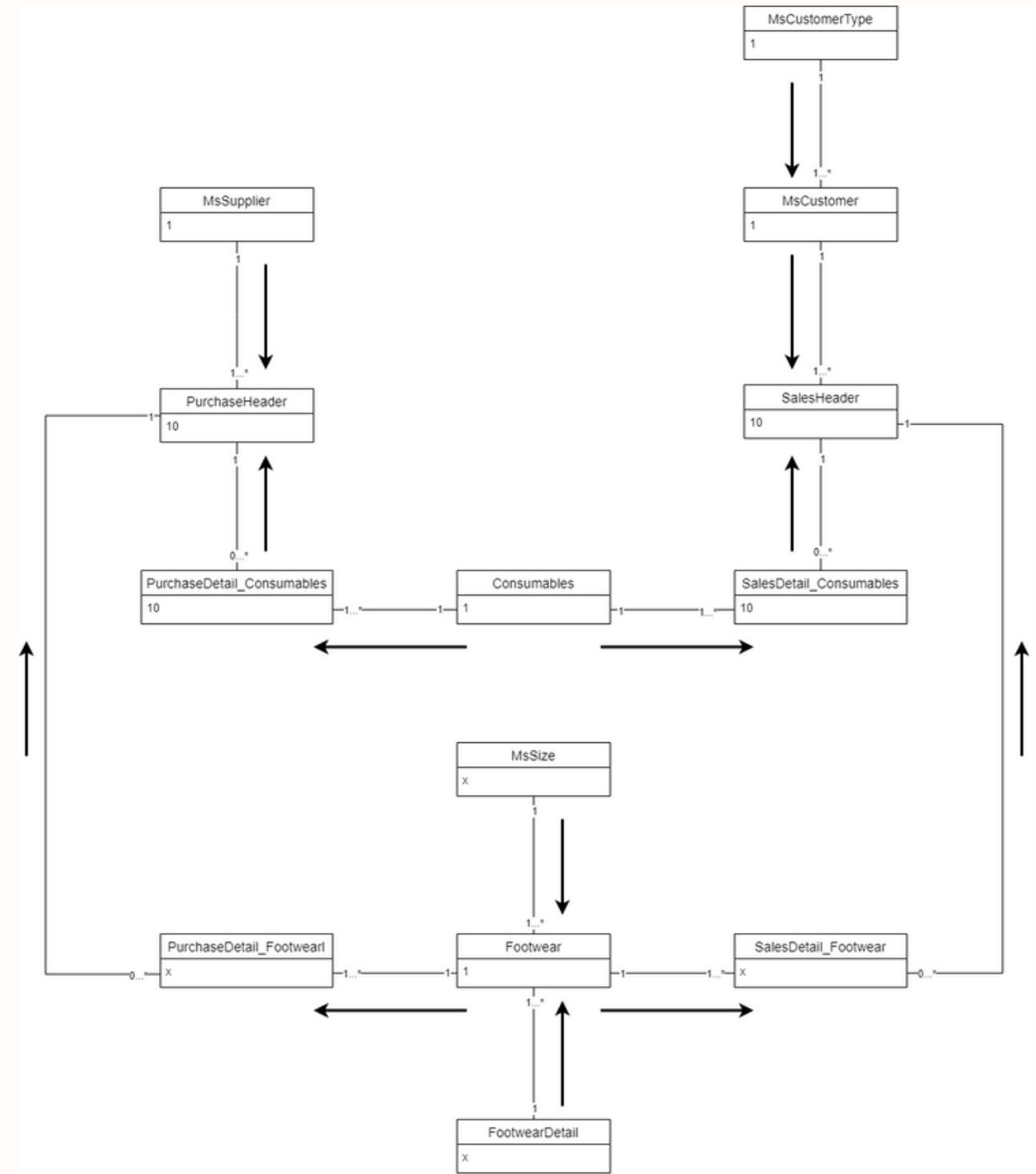
```
BEGIN
```

```
    CALL CheckAndLogLowStock();
```

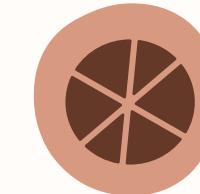
```
END;
```



4.1 ANALYZE TRANSACTION



- Melakukan purchase (input)
- Melakukan sales (output)
- Melihat stok
- Melihat grafik penjualan produk dari setiap customertype



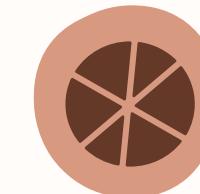
4.1 ANALYZE TRANSACTION

Transaction Analysis Form

Transaction	(A)																											
Transaction Volume																												
Average:	150 per day																											
Peak:	700 per day																											
Predicate																												
Join Attribute																												
Ordering Attribute																												
Grouping Attribute																												
Built-in Functions																												
Attributes updated																												
Transaction Usage Map 																												
<table border="1"> <thead> <tr> <th rowspan="2">Access</th> <th rowspan="2">Entity</th> <th rowspan="2">Type of Access</th> <th colspan="3">No. of References</th> </tr> <tr> <th>Per Transaction</th> <th>Average Per Day</th> <th>Peak Per Day</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>PurchaseHeader</td> <td>R</td> <td>10</td> <td>150</td> <td>700</td> </tr> <tr> <td>2</td> <td>PurchaseDetail</td> <td>R</td> <td>40 - 120</td> <td>600 - 1800</td> <td>2800 - 8400</td> </tr> <tr> <td colspan="3">Total References</td> <td>50 - 130</td> <td>750 - 1950</td> <td>3500 - 9100</td> </tr> </tbody> </table>		Access	Entity	Type of Access	No. of References			Per Transaction	Average Per Day	Peak Per Day	1	PurchaseHeader	R	10	150	700	2	PurchaseDetail	R	40 - 120	600 - 1800	2800 - 8400	Total References			50 - 130	750 - 1950	3500 - 9100
Access	Entity				Type of Access	No. of References																						
		Per Transaction	Average Per Day	Peak Per Day																								
1	PurchaseHeader	R	10	150	700																							
2	PurchaseDetail	R	40 - 120	600 - 1800	2800 - 8400																							
Total References			50 - 130	750 - 1950	3500 - 9100																							

Transaction Analysis Form

Transaction	(B)																											
Transaction Volume																												
Average:	20 per day																											
Peak:	30 per day																											
Predicate																												
Join Attribute																												
Ordering Attribute																												
Grouping Attribute																												
Built-in Functions																												
Attributes updated																												
Transaction Usage Map 																												
<table border="1"> <thead> <tr> <th rowspan="2">Access</th> <th rowspan="2">Entity</th> <th rowspan="2">Type of Access</th> <th colspan="3">No. of References</th> </tr> <tr> <th>Per Transaction</th> <th>Average Per Day</th> <th>Peak Per Day</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>PurchaseDetail</td> <td>R</td> <td>10</td> <td>20</td> <td>30</td> </tr> <tr> <td>2</td> <td>Consumables</td> <td>R</td> <td>40 - 120</td> <td>80 - 240</td> <td>120 - 360</td> </tr> <tr> <td colspan="3">Total References</td> <td>50 - 130</td> <td>100 - 260</td> <td>150 - 390</td> </tr> </tbody> </table>		Access	Entity	Type of Access	No. of References			Per Transaction	Average Per Day	Peak Per Day	1	PurchaseDetail	R	10	20	30	2	Consumables	R	40 - 120	80 - 240	120 - 360	Total References			50 - 130	100 - 260	150 - 390
Access	Entity				Type of Access	No. of References																						
		Per Transaction	Average Per Day	Peak Per Day																								
1	PurchaseDetail	R	10	20	30																							
2	Consumables	R	40 - 120	80 - 240	120 - 360																							
Total References			50 - 130	100 - 260	150 - 390																							



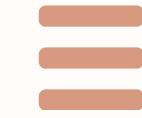
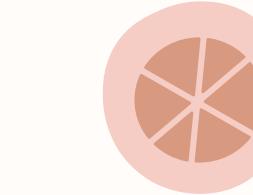
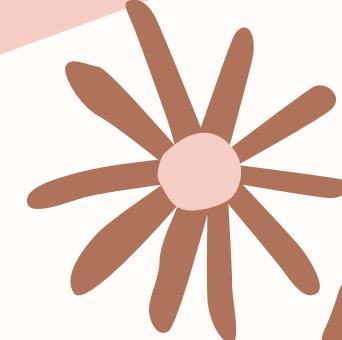
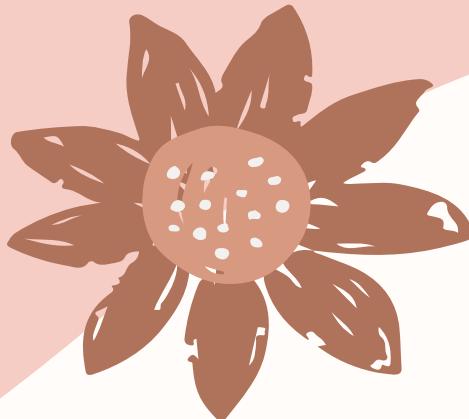
4.1 ANALYZE TRANSACTION

Transaction Analysis Form

Transaction	(C)				
Transaction Volume					
Average:	25 per day				
Peak:	45 per day				
Predicate					
Join Attribute					
Ordering Attribute					
Grouping Attribute					
Built-in Functions					
Attributes updated					
Transaction Usage Map					
<p>(C) avg: 25 max: 45</p>					
Access	Entity	Type of Access	No. of References		
			Per Transaction	Average Per Day	Peak Per Day
1	SalesDetail	R	10	25	45
2	Consumables	R	40 - 120	100 - 300	180 - 540
			50 - 130	125 - 325	225 - 585
Total References					

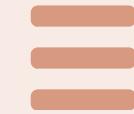
Transaction Analysis Form

Transaction	(D)				
Transaction Volume					
Average:	100 per day				
Peak:	470 per day				
Predicate					
Join Attribute					
Ordering Attribute					
Grouping Attribute					
Built-in Functions					
Attributes updated					
Transaction Usage Map					
<p>(D) avg: 100 max: 470</p>					
Access	Entity	Type of Access	No. of References		
			Per Transaction	Average Per Day	Peak Per Day
1	SalesHeader	R	10	100	470
2	SalesDetail	R	40 - 120	400 - 1200	1880 - 5640
Total References			50 - 130	500 - 1300	2350 - 6110



4.2 CHOOSE FILE ORGANIZATIONS

Dalam pembuatan database untuk ABC shop kami menggunakan DBMS microsoft SQL Server management studio dimana dalam SQL file sudah tersimpan secara otomatis di hard disc berdasarkan pengaturan dari SQL sehingga kami (pengguna) tidak dapat melakukan file organization secara manual sehingga dalam tahap ini tidak ada pemilihan file organizations seperti Heap, Hash, Indexed Sequential Access Method (ISAM), B+-Tree, dan Clusters.



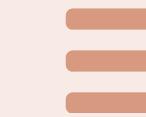
4.3 CHOOSES INDEXES

SUPPLIER

INDEX	TABLE							
	SupplierName	SupplierName	SupplierPhone	SupplierStreetName	SupplierStreetNo	CustKodePos	SupplierID	
SU001	Budi	Purwanto	(021) 1234 5678	Jalan Sukhumvit Bangkok	13	40123	SU003	
SU002	Susanti	Kho	(022) 9876 5432	Jalan Silom Phuket	04	56234	SU005	
SU003	Judika	Susanti	(023) 4567 8901	Jalan Rama Chiang Mai	12	67890	SU001	
SU004	Jamie	Ariel	(024) 0987 6543	Jalan Pattaya Klang Pattaya	05	12345	SU004	
SU005	Elsha	Landon	(025) 3456 7890	Jalan Thapae Chiang Rai	23	23456	SU002	
SU006	Anna	Angelica	(026) 2345 6789	Jalan Khao San Hua Hin	18	78901	SU006	

CUSTOMER

INDEX	TABLE							
	CustfName	CustlName	CustPhone	CustStreetName	CustStreetNo	CustKodePos	CustomerTypeID	CustomerID
CU001	Joko	Santoso	0811 1111 1111	Jalan Merdeka	03	40115	CT003	CU003
CU002	Siti	Rahmawati	0822 2222 2222	Jalan Sudirman	23	60241	CT001	CU006
CU003	Agus	Pranoto	0833 3333 3333	Jalan Diponegoro	12	30126	CT001	CU001
CU004	Dewi	Sartika	0844 4444 4444	Jalan Gatot Subroto	24	50133	CT002	CU004
CU005	Eko	Wibowo	0855 5555 5555	Jalan Ahmad Yani	33	20157	CT002	CU002
CU006	Rina	Anggraini	0866 6666 6666	Jalan Teuku Umar	03	70144	CT003	CU005



4.3 CHOOSES INDEXES

CONSUMABLES

INDEX

PC101
PC102
PC201
PC301
PC401
PC501

TABLE

ConsumablesName	Qty	ConsumablesPriceRp	ConsumablesID
Top	34	22,000	CO301
OkikoHead	35	32,000	CO102
OkikoPlatinum	45	34,000	CO101
Detick	44	25,000	CO401
jerhigh	32	32,000	CO501
Mick	55	35,000	CO201

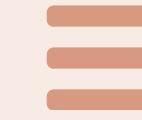
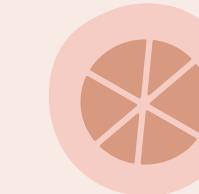
FOOTWEAR

INDEX

PF101
PF102
PF201
PF301
PF401
PF501

TABLE

FootwearName	Qty	FootwearSize	FootwearPriceRp	FootwearID
Ionic	34	43	22,000	FO501
CR6	35	37	32,000	FO102
CR8	45	36	34,000	FO101
Gioi	44	40	25,000	FO401
Kikuo	32	41	32,000	FO301
Herd	55	39	35,000	FO201



4.4 ESTIMATE DISK SPACE REQUIREMENTS

ABCSHOP_CREATE TABLE

29/11/2023 10:54

Microsoft SQL Server...

4 KB

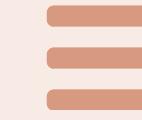
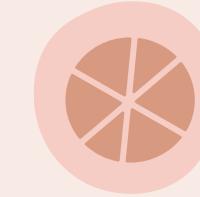
char = 1 byte = 5 - 255 secara default
8 byte untuk 1 row Customer (row terbanyak)

8 byte * 200 row = 1600 byte

1600 byte * 8 table = 12800 byte

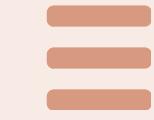
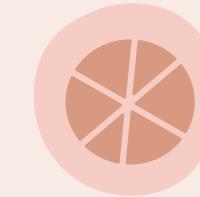
128 kilobyte = 0,128 megabyte

Berdasarkan data diatas perancang memperkirakan jumlah ruang disk yang diperlukan untuk menyimpan database adalah 10 GB. Hal ini karena, aplikasi / prototype belum termasuk dalam database diatas. Database yang tersimpan saat ini adalah database terkait table-table dan object dari proses bisnis.



5. DESIGN USER viEW

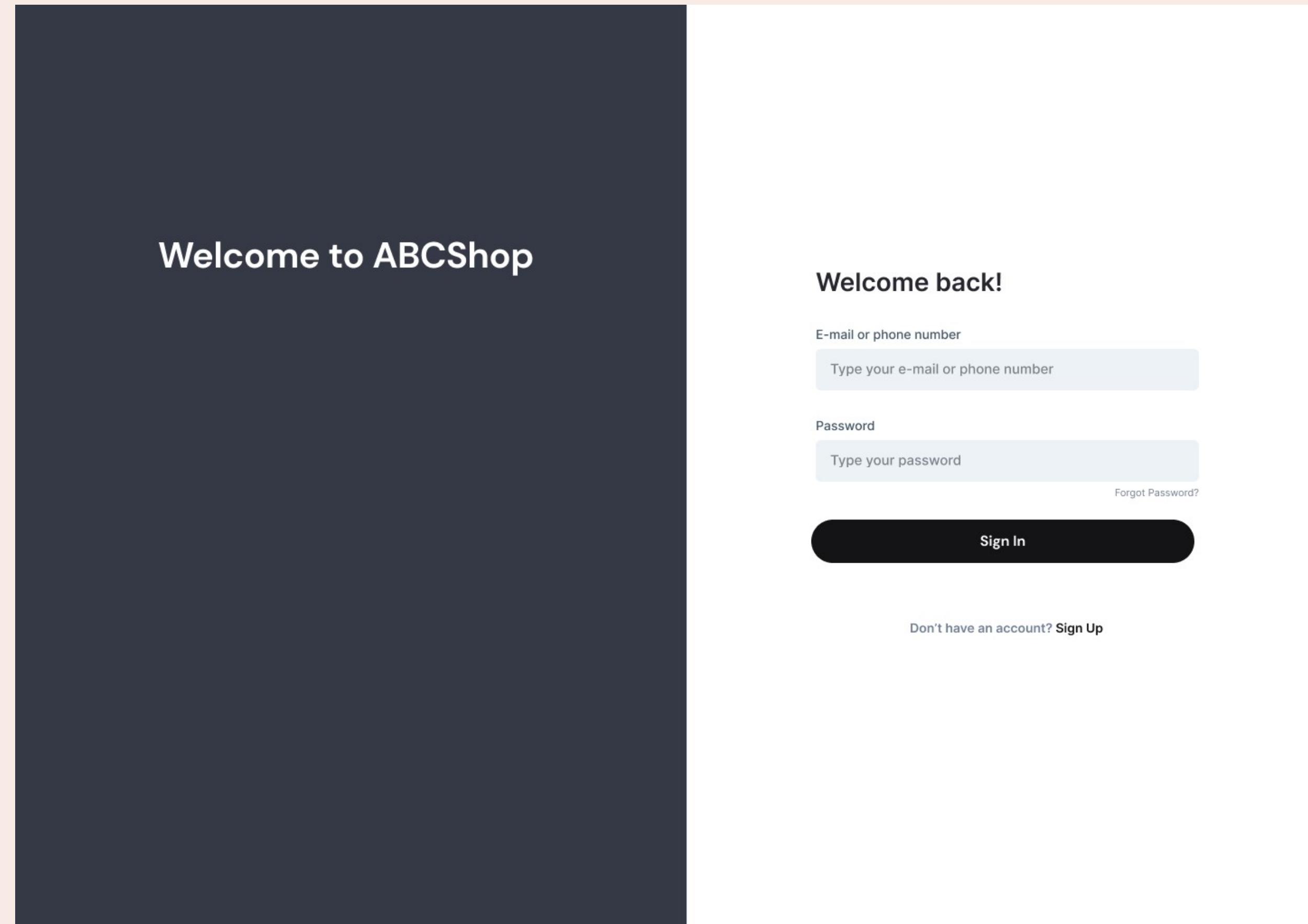
Semua table dapat diakses oleh Admin. Karena ini merupakan aplikasi yang dikhkususkan untuk pencatatan inventaris toko, sehingga yang melakukan segala pencatatan adalah admin itu sendiri.



6. DESIGN SECURITY MECHANISMS

Sebelum menggunakan aplikasi, user diwajibkan untuk melakukan Login, apabila User belum memiliki akun, maka dapat melakukan registrasi. Hal ini bermanfaat untuk menjaga keamanan data dan memastikan ke valid an data yang diberikan.

DESIGN FIGMA



HALAMAN SIGN IN

DESIGN FIGMA

Welcome to ABCShop

Create your account

Full name

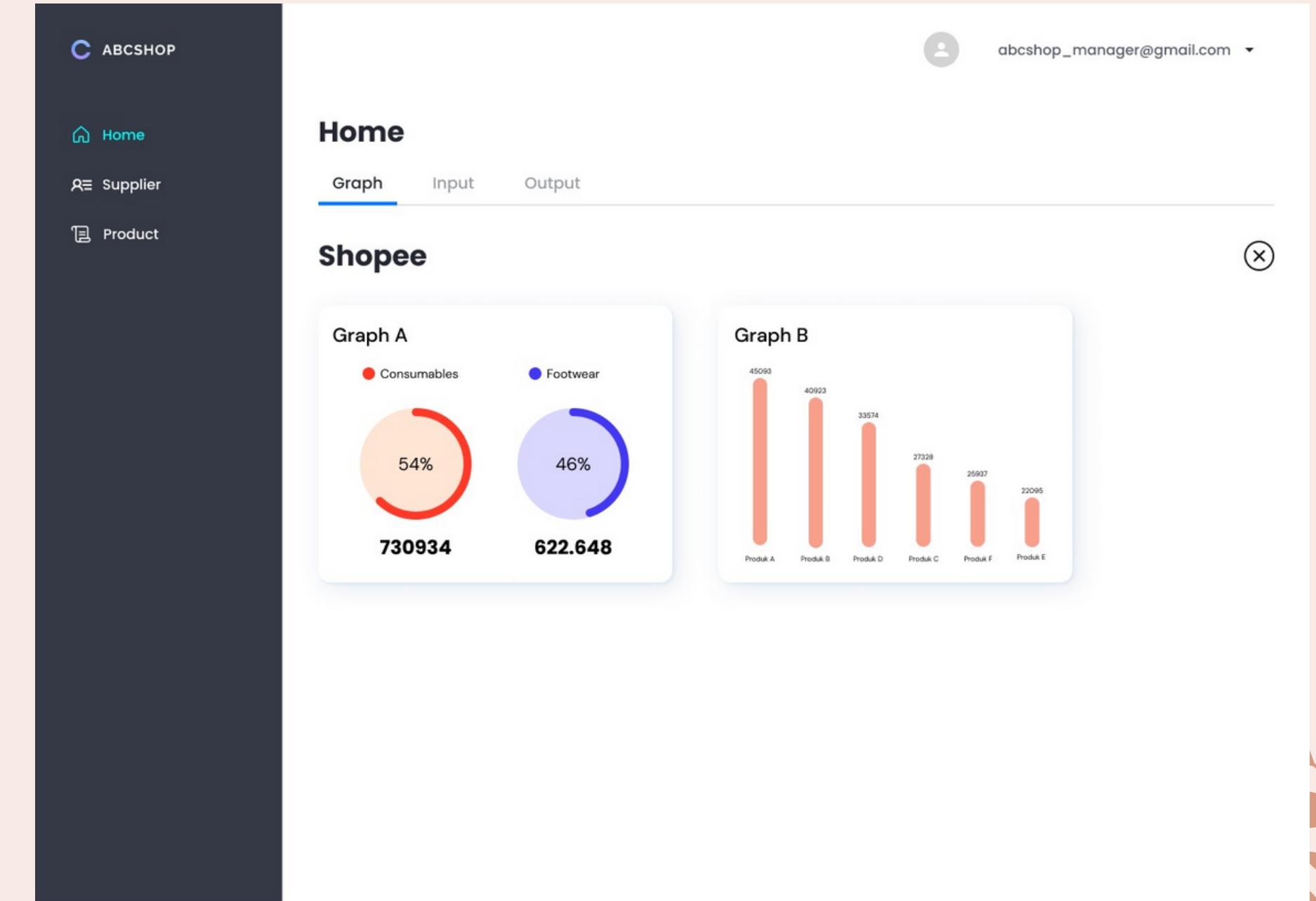
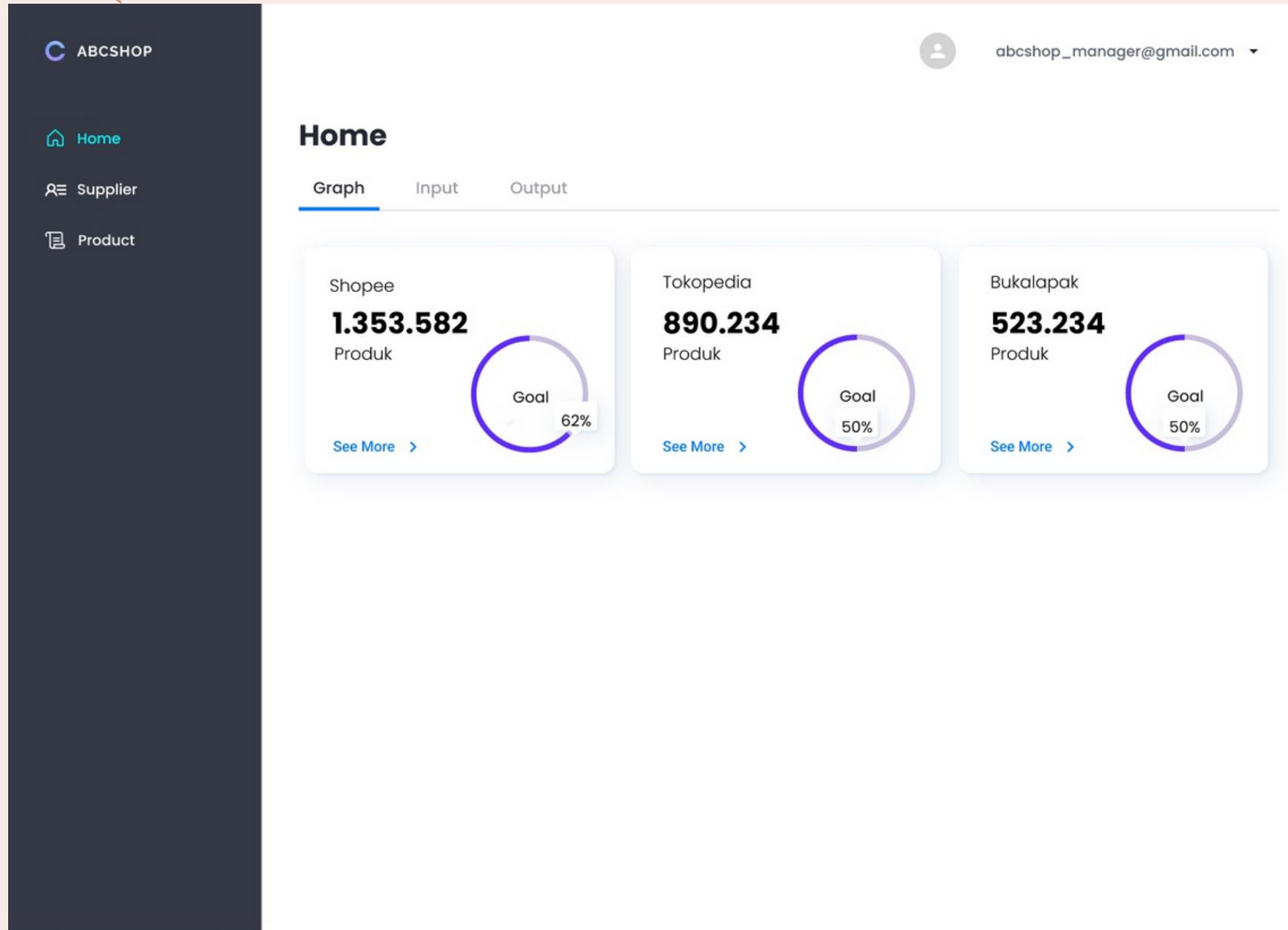
E-mail or phone number

Password

Sign Up

Already have an account? [Sign In](#)

DESIGN FIGMA



HALAMAN HOME - GRAPH

SHoPEE

```
-- 1  
-- kalkulasi jumlah produk yang terjual di shopee  
  
SELECT  
    SUM(sd_consumables.Qty) AS TotalConsumablesSold,  
    SUM(sd_footwear.Qty) AS TotalFootwearSold  
FROM  
    SalesHeader sh  
    JOIN SalesDetail_Consumables sd_consumables  
        ON sh.SalesID = sd_consumables.SalesID  
    JOIN SalesDetail_Footwear sd_footwear  
        ON sh.SalesID = sd_footwear.SalesID  
    JOIN MsCustomer mc ON sh.CustomerID =  
        mc.CustomerID  
    JOIN MsCustomerType mct ON mc.CustTypeID =  
        mct.CustTypeID  
WHERE  
    mct.TypeName = 'Shopee'
```

HASIL

TotalConsumablesSold	TotalFootwearSold
1140	1120

TOKOPEDIA

```
SELECT  
    SUM(sd_consumables.Qty) AS TotalConsumablesSold,  
    SUM(sd_footwear.Qty) AS TotalFootwearSold  
FROM  
    SalesHeader sh  
    JOIN SalesDetail_Consumables sd_consumables  
        ON sh.SalesID = sd_consumables.SalesID  
    JOIN SalesDetail_Footwear sd_footwear  
        ON sh.SalesID = sd_footwear.SalesID  
    JOIN MsCustomer mc ON sh.CustomerID = mc.CustomerID  
    JOIN MsCustomerType mct ON mc.CustTypeID = mct.CustTypeID  
WHERE  
    mct.TypeName = 'Tokopedia'
```

HASIL

TotalConsumablesSold	TotalFootwearSold
1260	1120

BUKALAPAK

```
SELECT
    SUM(sd_consumables.Qty) AS TotalConsumablesSold,
    SUM(sd_footwear.Qty) AS TotalFootwearSold
FROM
    SalesHeader sh
    JOIN SalesDetail_Consumables sd_consumables ON
        sh.SalesID = sd_consumables.SalesID
    JOIN SalesDetail_Footwear sd_footwear ON sh.SalesID =
        sd_footwear.SalesID
    JOIN MsCustomer mc ON sh.CustomerID = mc.CustomerID
    JOIN MsCustomerType mct ON mc.CustTypeID =
        mct.CustTypeID
WHERE
    mct.TypeName = 'BukaLapak'
```

HASIL

TotalConsumablesSold	TotalFootwearSold
1290	1130

SUPPLIER

```
SELECT
    SUM(sd_consumables.Qty) AS TotalConsumablesSold,
    SUM(sd_footwear.Qty) AS TotalFootwearSold
FROM
    SalesHeader sh
    JOIN SalesDetail_Consumables sd_consumables ON
        sh.SalesID = sd_consumables.SalesID
    JOIN SalesDetail_Footwear sd_footwear ON sh.SalesID =
        sd_footwear.SalesID
    JOIN MsCustomer mc ON sh.CustomerID = mc.CustomerID
    JOIN MsCustomerType mct ON mc.CustTypeID =
        mct.CustTypeID
WHERE
    mct.TypeName = 'Supplier'
```

HASIL

TotalConsumablesSold	TotalFootwearSold
1300	1180

DESIGN FIGMA

The screenshot shows a Figma wireframe of a user interface for a system named 'ABCSHOP'. The top navigation bar includes a logo, the brand name 'ABCSHOP', a user profile icon, and the email 'abcshop_manager@gmail.com'. Below the header, the main title 'Home' is displayed above three tabs: 'Graph', 'Input' (which is underlined in blue, indicating it is the active view), and 'Output'. A search bar with a magnifying glass icon and a filter icon follows. The central content area is a table listing data from the 'Input' tab. The table has columns for a checkbox, SupplierID, PurchaseID, ProductID, SalesPrice, and PurchaseDate. All rows show identical data: SupplierID SU001, PurchaseID PU001, ProductID FO101, SalesPrice Rp. 100.000, and PurchaseDate 07 Desember 2023. Each row ends with a three-dot ellipsis button. At the bottom of the table, there are pagination controls for 'Rows per page' (set to 10), page numbers (1, 2, 3, ..., 10, 11, 12), and a 'Go to page' input field.

<input type="checkbox"/>	SupplierID	PurchaseID	ProductID	SalesPrice	PurchaseDate
<input type="checkbox"/>	SU001	PU001	FO101	Rp. 100.000	07 Desember 2023
<input type="checkbox"/>	SU001	PU001	FO101	Rp. 100.000	07 Desember 2023
<input type="checkbox"/>	SU001	PU001	FO101	Rp. 100.000	07 Desember 2023
<input type="checkbox"/>	SU001	PU001	FO101	Rp. 100.000	07 Desember 2023
<input type="checkbox"/>	SU001	PU001	FO101	Rp. 100.000	07 Desember 2023
<input type="checkbox"/>	SU001	PU001	FO101	Rp. 100.000	07 Desember 2023
<input type="checkbox"/>	SU001	PU001	CO101	Rp. 100.000	07 Desember 2023
<input type="checkbox"/>	SU001	PU001	CO101	Rp. 100.000	07 Desember 2023

HALAMAN HOME - INPUT

TRANSACTION - MELIHAT PENCATATAN PRODUK YANG DIBELI DARI SUPPLIER

QUERY

```

SELECT
    ms.SupplierID,
    pd_consumables.PurchaseID,
    pd_consumables.ConsumablesID AS [ProductID] ,
    c.ConsumablesPrice,
    ph.PurchaseDate
FROM
    PurchaseDetail_Consumables pd_consumables
JOIN Consumables c ON pd_consumables.ConsumablesID = c.ConsumablesID
JOIN PurchaseHeader ph ON pd_consumables.PurchaseID = ph.PurchaseID
JOIN MsSupplier ms ON ph.SupplierID = ms.SupplierID
UNION
SELECT
    ms.SupplierID,
    pd_footwear.PurchaseID,
    pd_footwear.FootwearID AS [ProductID] ,
    fd.FootwearPrice,
    ph.PurchaseDate
FROM
    PurchaseDetail_Footwear pd_footwear
JOIN FootwearDetail fd ON pd_footwear.FootwearID = fd.FootwearID
JOIN PurchaseHeader ph ON pd_footwear.PurchaseID = ph.PurchaseID
JOIN MsSupplier ms ON ph.SupplierID = ms.SupplierID

```

HASIL

	SupplierID	PurchaseID	ProductID	ConsumablesPrice	PurchaseDate
1	SU001	PU001	CO011	223250	2018-01-15
2	SU001	PU001	FO101	288300	2018-01-15
3	SU001	PU001	FO201	213900	2018-01-15
4	SU001	PU011	CO042	180500	2018-11-30
5	SU001	PU011	FO103	288300	2018-11-30
6	SU001	PU011	FO203	344100	2018-11-30
7	SU001	PU021	CO121	180500	2019-09-30
8	SU001	PU021	FO105	288300	2019-09-30
9	SU001	PU021	FO206	344100	2019-09-30
10	SU001	PU031	CO211	223250	2020-07-30
11	SU001	PU031	FO107	316200	2020-07-30
12	SU001	PU031	FO208	372000	2020-07-30
13	SU001	PU041	CO061	166250	2021-05-30
14	SU001	PU041	CO071	237500	2021-05-30
15	SU001	PU041	CO081	223250	2021-05-30
16	SU001	PU041	FO109	344100	2021-05-30
17	SU002	PU002	CO012	180500	2018-02-28
18	SU002	PU002	FO101	288300	2018-02-28
19	SU002	PU002	FO201	213900	2018-02-28
20	SU002	PU012	CO051	156750	2018-12-15
21	SU002	PU012	FO103	288300	2018-12-15
22	SU002	PU012	FO203	344100	2018-12-15
23	SU002	PU022	CO131	156750	2019-10-15
24	SU002	PU022	FO105	288300	2019-10-15
25	SU002	PU022	FO206	344100	2019-10-15
26	SU002	PU032	CO221	180500	2020-08-15
27	SU002	PU032	FO107	316200	2020-08-15
28	SU002	PU032	FO208	372000	2020-08-15
29	SU002	PU042	CO091	237500	2021-06-15
30	SU002	PU042	CO092	33250	2021-06-15
31	SU002	PU042	CO093	223250	2021-06-15
32	SU002	PU042	FO109	344100	2021-06-15
33	SU003	PU003	CO013	156750	2018-03-20
34	SU003	PU003	FO101	288300	2018-03-20
35	SU003	PU003	FO201	213900	2018-03-20

DESIGN FIGMA

The screenshot shows a Figma wireframe for a web application. The header features a logo with a blue 'C' and the text 'ABCSHOP'. On the right, there is a user icon and the email address 'abcshop_manager@gmail.com'. The main navigation bar includes 'Home', 'Supplier', and 'Product' buttons. Below the navigation is a search bar with a magnifying glass icon and a clear button. The main content area is titled 'Home' and has tabs for 'Graph', 'Input', and 'Output', with 'Output' being the active tab. A table displays eight rows of sales data. The columns are: a checkbox column, SupplierID (with a dropdown arrow), ProductID (with a dropdown arrow), SalesDate (with a dropdown arrow), SalesPrice (with a dropdown arrow), Qty (with a dropdown arrow), and CustomerType/Name. All rows show identical data: SupplierID SU001, ProductID PU001, SalesDate 07 Desember 2023, SalesPrice Rp. 1.200.000, Qty 10, and CustomerType/Name Shopee. At the bottom, there are pagination controls for 'Rows per page' (set to 10), page numbers (1, 2, 3, ..., 10, 11, 12), and a 'Go to page' input field.

	SupplierID	ProductID	SalesDate	SalesPrice	Qty	CustomerType/Name
<input type="checkbox"/>	SU001	PU001	07 Desember 2023	Rp. 1.200.000	10	Shopee
<input type="checkbox"/>	SU001	PU001	07 Desember 2023	Rp. 1.200.000	10	Shopee
<input type="checkbox"/>	SU001	PU001	07 Desember 2023	Rp. 1.200.000	10	Shopee
<input type="checkbox"/>	SU001	PU001	07 Desember 2023	Rp. 1.200.000	10	Shopee
<input type="checkbox"/>	SU001	PU001	07 Desember 2023	Rp. 1.200.000	10	Shopee
<input type="checkbox"/>	SU001	PU001	07 Desember 2023	Rp. 1.200.000	10	Shopee
<input type="checkbox"/>	SU001	PU001	07 Desember 2023	Rp. 1.200.000	10	Shopee

HALAMAN HOME - OUTPUT

TRANSACTION - MELIHAT PENCATATAN PRODUK YANG DIBELI OLEH CUSTOMER

HASIL

QUERY

```
SELECT
    sh.SalesID,
    sdf.FootwearID AS [ProductID],
    sh.SalesDate,
    sdf.FootwearSalesPrice AS [ProductPrice],
    sdf.Qty,
    mst.TypeName AS CustomerTypeName
FROM
    SalesHeader sh join SalesDetail_Footwear sdf on sh.SalesID = sdf.salesid
JOIN Footwear f on sdf.FootwearID = f.FootwearID
JOIN FootwearDetail fwd on f.FootwearID = fwd.FootwearID
JOIN MsCustomer mc on sh.CustomerID = mc.CustomerID
JOIN MsCustomerType mst on mc.CustTypeID = mc.CustTypeID
UNION
SELECT
    sh.SalesID,
    sdc.ConsumablesID AS [ProductID],
    sh.SalesDate,
    sdc.ConsumablesSalesPrice AS [ProductPrice],
    c.Qty,
    mst.TypeName AS CustomerTypeName
FROM
    SalesHeader sh join SalesDetail_Consumables sdc on sh.SalesID = sdc.salesid
JOIN Consumables c on sdc.ConsumablesID = c.ConsumablesID
JOIN MsCustomer mc on sh.CustomerID = mc.CustomerID
JOIN MsCustomerType mst on mc.CustTypeID = mc.CustTypeID
```

	SalesID	ProductID	SalesDate	ProductPrice	Qty	CustomerTypeName
1	SA001	CO011	2018-01-01	228250	50	Bukalapak
2	SA001	CO011	2018-01-01	228250	50	Shopee
3	SA001	CO011	2018-01-01	228250	50	Supplier
4	SA001	CO011	2018-01-01	228250	50	Tokopedia
5	SA001	FO101	2018-01-01	293300	10	Bukalapak
6	SA001	FO101	2018-01-01	293300	10	Shopee
7	SA001	FO101	2018-01-01	293300	10	Supplier
8	SA001	FO101	2018-01-01	293300	10	Tokopedia
9	SA002	CO012	2018-02-15	235500	40	Bukalapak
10	SA002	CO012	2018-02-15	235500	40	Shopee
11	SA002	CO012	2018-02-15	235500	40	Supplier
12	SA002	CO012	2018-02-15	235500	40	Tokopedia
13	SA002	FO102	2018-02-15	293300	20	Bukalapak
14	SA002	FO102	2018-02-15	293300	20	Shopee
15	SA002	FO102	2018-02-15	293300	20	Supplier
16	SA002	FO102	2018-02-15	293300	20	Tokopedia
17	SA003	CO013	2018-03-30	163750	30	Bukalapak
18	SA003	CO013	2018-03-30	163750	30	Shopee
19	SA003	CO013	2018-03-30	163750	30	Supplier
20	SA003	CO013	2018-03-30	163750	30	Tokopedia
21	SA003	FO103	2018-03-30	293300	30	Bukalapak
22	SA003	FO103	2018-03-30	293300	30	Shopee
23	SA003	FO103	2018-03-30	293300	30	Supplier
24	SA003	FO103	2018-03-30	293300	30	Tokopedia
25	SA004	CO021	2018-04-14	170250	20	Bukalapak
26	SA004	CO021	2018-04-14	170250	20	Shopee
27	SA004	CO021	2018-04-14	170250	20	Supplier
28	SA004	CO021	2018-04-14	170250	20	Tokopedia
29	SA004	FO104	2018-04-14	293300	40	Bukalapak
30	SA004	FO104	2018-04-14	293300	40	Shopee
31	SA004	FO104	2018-04-14	293300	40	Supplier
32	SA004	FO104	2018-04-14	293300	40	Tokopedia
33	SA005	CO022	2018-05-29	242500	10	Bukalapak
34	SA005	CO022	2018-05-29	242500	10	Shopee
35	SA005	CO022	2018-05-29	242500	10	Supplier
36	SA005	CO022	2018-05-29	242500	10	Tokopedia

ABC SHOP

abcshop_manager@gmail.com

Supplier

+ Add New Supplier Q Search

All Supplier Roll down

SupplierID	Supplier First Name	Supplier Last Name	Supplier Phone	Action
S001 Edit Supplier	Supplier	A	021 73591295	Detail >
S002 Edit Supplier	Supplier	B	021 73591295	Detail >
S003 Edit Supplier	Supplier	C	021 73591295	Detail >

Edit Supplier

Supplier First Name
Supplier

Supplier Last Name
A

E-mail or phone number
021 73591295

Submit

INSERT

```
INSERT INTO MsSupplier VALUES
('SU001', 'Budi', 'Santoso', '081234567890'),
```

CEK DATABASE

```
SELECT *
FROM MsSupplier
Where SupplierfName = 'Budi'
```

OUTPUT

SupplierID	SupplierfName	SupplierlName	SupplierPhone
SU001	Budi	Santoso	081234567890



abcshop_manager@gmail.com



Product

+ Add New Product

Search

All Supplier

Roll down

Product Name	ProductID	Product Type	Stock	Action
 Product A Edit Product	P001	Consumables	10.946	Detail >
 Product B Edit Product	P002	Footwear	6425	Detail >
 Product C Edit Product	P003	Consumables	3482	Detail >

Add New Product

Product

Enter consumable's name

Product's Type

Footwear

Consumables

Upload Picture



Submit

INSERT

```
INSERT INTO Consumables (ConsumablesID,  
    ConsumablesName, ConsumablesPrice, Qty)  
VALUES  
('C0011', 'Quick Red M', 223250, 50),
```

CEK DATABASE

```
SELECT *  
FROM Consumables  
WHERE ConsumablesID = 'C0011'
```

OUTPUT

ConsumablesID	ConsumablesName	ConsumablesPrice	Qty
C0011	Quick Red M	223250	50

PROTOTYPING

1. Plan Prototype
2. Refine Objectives
3. Identify Data To Be Used
4. Assess impact of prototype
5. Review For Feasibility
6. Develop Prototype
7. Update Document

1. PLAN PROTOTYPE

1. Objective: untuk membantu client dalam mencatat transaksi bisnis dengan cepat dan jelas dengan menyediakan media yang menghubungkan antara sistem dan admin yang akan memasukkan data transaksi ke dalam sistem
2. Scope: scope dari project ini mencakup transaksi proses bisnis utama dari ABC shop yakni dari pembelian produk dan penjualan produk

2. REFiNE OBJECTivES

Memastikan kembali prototype telah sesuai dengan objektif yang telah ditentukan pada awal

3. IDENTIFY DATA TO BE USED

Real data transaksi dari 2018-2022 berupa

1. Supplier
2. Customer
3. Customer type
4. Catatan penjualan
5. Catatan pembelian
6. Detail produk consumables
7. Detail produk footwear

4. DEVELOP PROTOTYPE

Prototype didesain dalam aplikasi figma dan javafx

5. REVIEW FOR FEASIBILITY

Menunjukkan prototype kepada client agar client mendapat gambaran