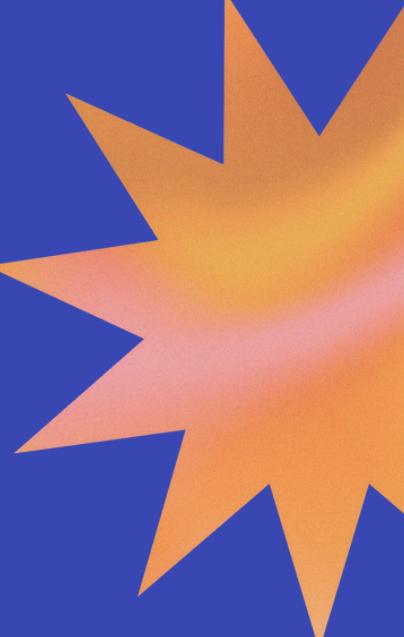
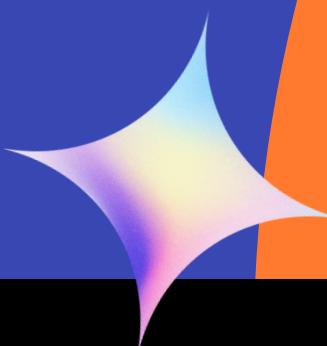


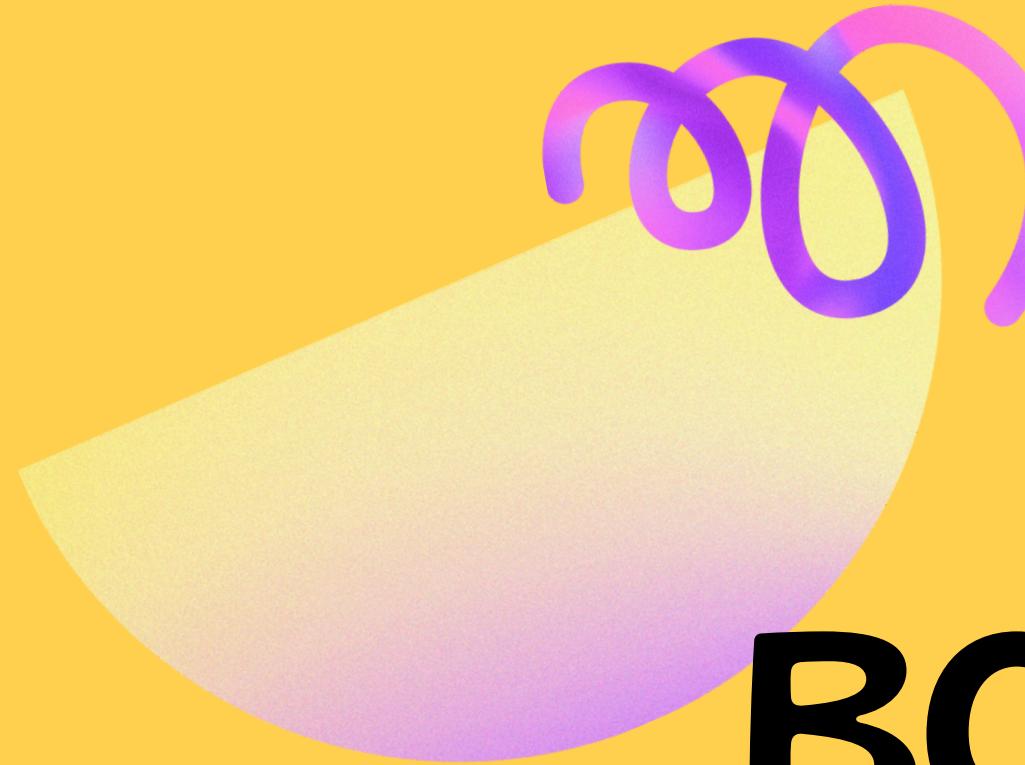
FADHILAH AKBAR SUHERMAN

1906355522



Project Sistem Basis Data *





BOGUN (Booking Gunung)



Beberapa Poin yang Akan dijelaskan

PENDAHU
LUAN



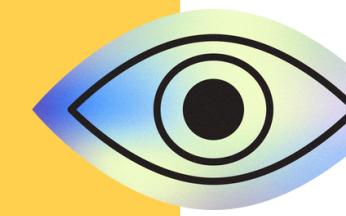
- 1.Pengertian
- 2.Fitur - fitur

FLOWCH
ART



- 1.Cara Kerja

ERD &
UML



- 1.ERD
- 2.UML

PROGRA
M
APLIKASI



- 1.Query Database
- 2.Tampilan App

PENDAHULUAN

1.1 PENGERTIAN

Website BOGUN adalah singkatan dari Booking Gunung yang artinya website ini user atau pembeli bisa melakukan transaksi pembelian tiket untuk mendaki gunung berdasarkan uang yang telah di topup yang bisa diakses di website Bogun. Data-data tersebut akan disimpan didalam database dan diolah oleh database.

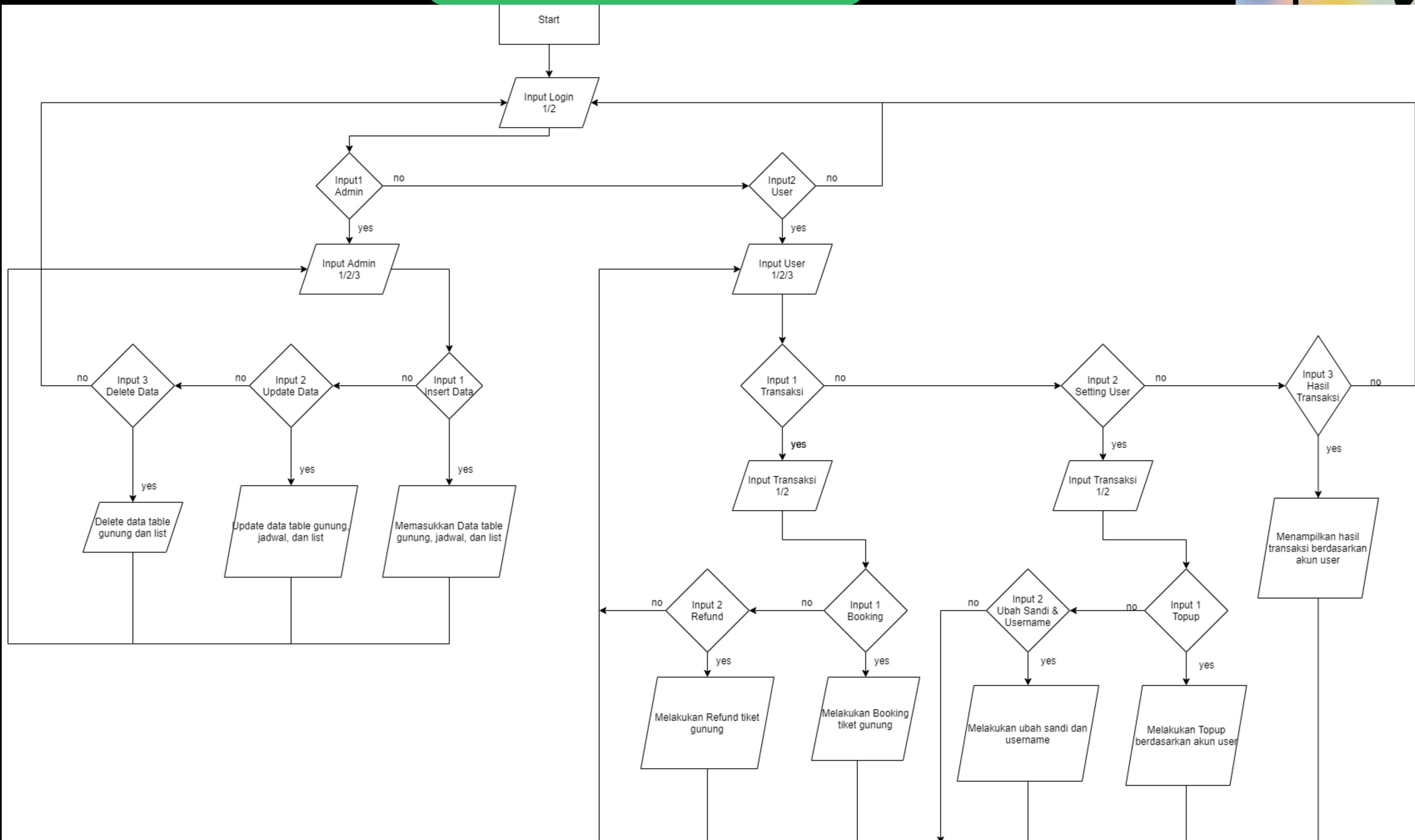


PENDAHULUAN

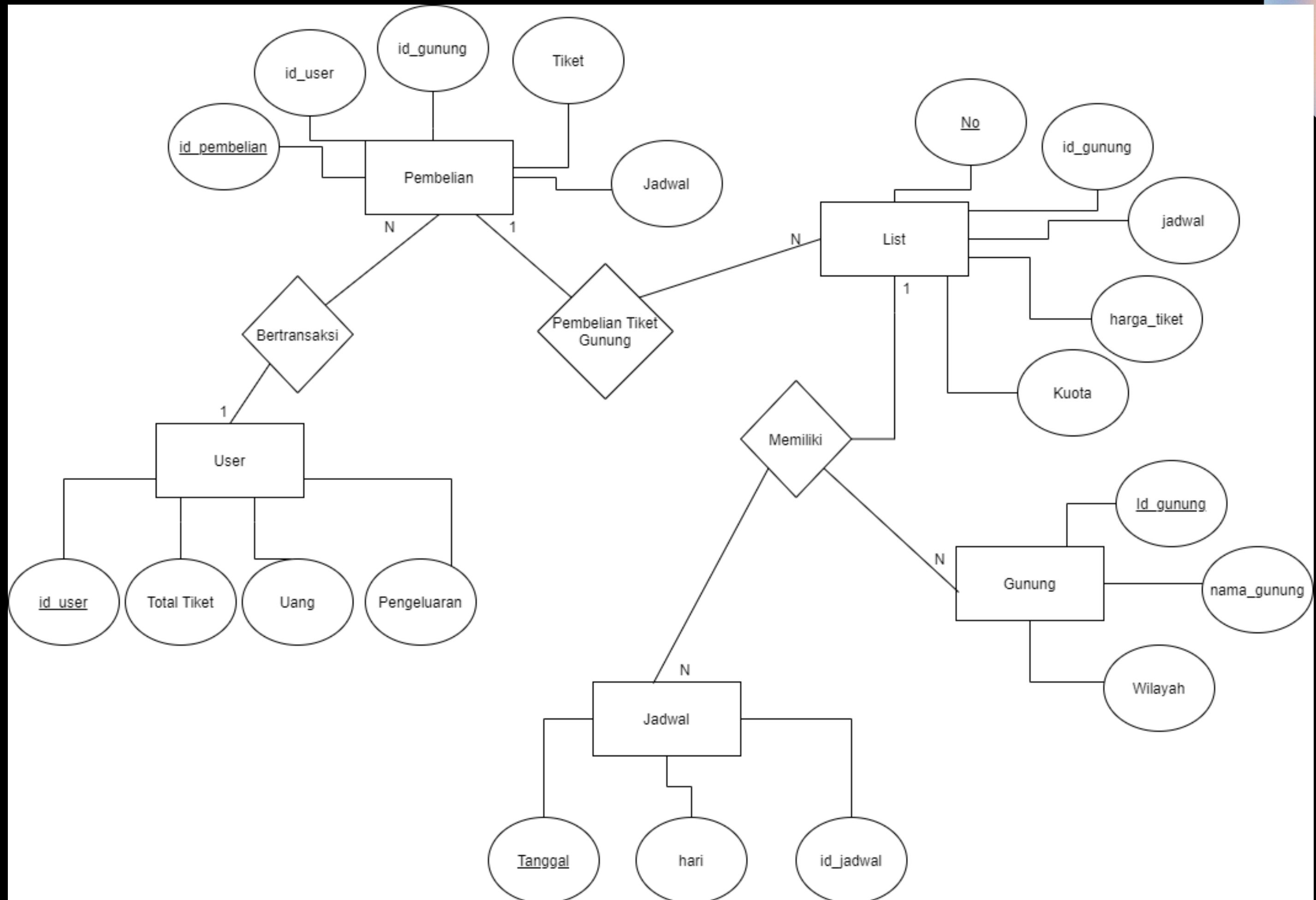
1.2 FITUR-FITUR

1. Saat mengakses halaman web user diwajibkan untuk registrasi akun agar bisa melakukan login akun di website BOGUN
2. Akun Admin difungsikan hanya untuk melakukan operasi CRUD seperti Insert, Update, Delete, dan Select
3. Akun Pembeli atau user bisa melakukan transaksi tiket, kemudian user juga bisa melakukan refund tiket apabila saat di hari H user tidak bisa melakukan pendakian gunung
4. User juga bisa melakukan topup uang dan bisa mengganti username dan sandi.

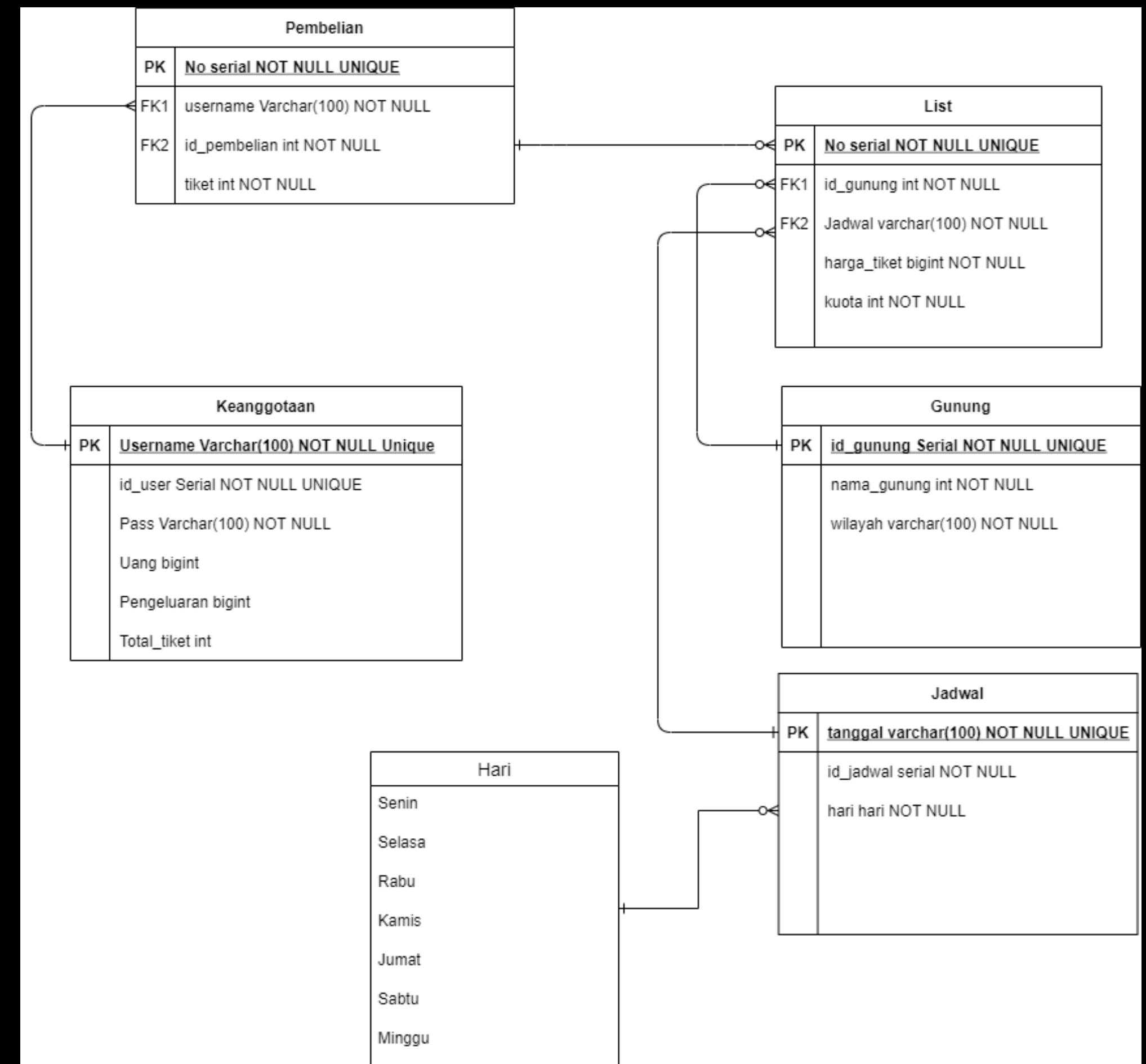
Flowchart



ERD



UML





1. Membuat Table dan Type

```
-- Create Type
create type hari as enum ('Senin', 'Selasa', 'Rabu', 'Kamis', 'Jumat', 'Sabtu', 'Minggu');

-- PEMBUATAN TABLE
create table jadwal (id_jadwal serial not null unique, tanggal varchar(100) primary key , hari hari);
create table gunung (id_gunung serial primary key, nama_gunung varchar(100), wilayah varchar(100));

create table list (no serial primary key , id_gunung int not null , jadwal varchar(100) not null, harga_tiket bigint, kuota int,
constraint fk_jadwal foreign key(jadwal) references jadwal(tanggal) on update cascade,
constraint fk_gunung foreign key(id_gunung) references gunung(id_gunung) on update cascade);

create table keanggotaan (id_user serial not null unique, username varchar(100) primary key, pass varchar(100), uang bigint,
pengeluaran bigint, total_tiket int);

create table pembelian (no serial primary key, id_pembelian int not null, username varchar(100) not null, tiket int not null,
constraint fk_user foreign key(username) references keanggotaan(username) on update cascade,
constraint fk_pembelian foreign key(id_pembelian) references list(no) on update cascade);
```



2.1 Membuat Function dan Triggers

```
58  CREATE OR REPLACE FUNCTION check_kuota() RETURNS TRIGGER AS
59      $$
60      BEGIN
61          DECLARE
62              tiket_kuota int;
63          BEGIN
64              EXECUTE FORMAT('SELECT kuota FROM list WHERE no = $1') into tiket_kuota USING new.id_pembelian;
65
66              IF (tiket_kuota < new.tiket) THEN
67                  RAISE EXCEPTION 'Kuota sudah habis pada tanggal %', new.jadwal;
68              end if;
69              return new;
70          end;
71      end;
72      $$
73 language plpgsql volatile;
74
75 create trigger trigger_check_kuota
76     before insert on pembelian
77     for each row execute procedure check_kuota();
```



2.2 Membuat Function dan Triggers

```
CREATE OR REPLACE FUNCTION ubah_kuota()
RETURNS TRIGGER AS
$$
BEGIN
    EXECUTE format ('UPDATE list SET kuota = kuota - $1 WHERE no = $2') USING new.tiket, new.id_pembelian;
    return new;
END
$$
LANGUAGE plpgsql VOLATILE;

-- PEMBUATAN TRIGGER FUNCTION TRANSAKSI
CREATE TRIGGER trigger_ubah_kuota
AFTER INSERT ON pembelian
FOR EACH ROW EXECUTE PROCEDURE ubah_kuota();

-- PEMBUATAN FUNCTION UNTUK PENGURANGAN PEMBELIAN MENU TERHADAP UANG YANG DIMILIKI USER DAN MENAMBAHKAN TOTAL HARGA YANG DIBELI USER
CREATE OR REPLACE FUNCTION transaksi()
RETURNS TRIGGER AS
$$
BEGIN
    DECLARE
        harga bigint;
    BEGIN
        EXECUTE FORMAT('SELECT harga_tiket FROM list WHERE no = $1')
        INTO harga USING new.id_pembelian;

        EXECUTE FORMAT(['UPDATE keanggotaan SET uang = (uang - $1), pengeluaran = (pengeluaran + $1),
total_tiket = (total_tiket + $2) WHERE username = $3'] using (new.tiket * harga), new.tiket, new.username);
        return new;
    END;
END
$$
LANGUAGE plpgsql VOLATILE;

-- PEMBUATAN TRIGGER FUNCTION transaksi_pembeli
CREATE TRIGGER trigger_transaksi
AFTER INSERT ON pembelian
FOR EACH ROW EXECUTE PROCEDURE transaksi();
```



2.3 Membuat Function dan Triggers

```
CREATE OR REPLACE FUNCTION refund()
RETURNS TRIGGER AS
$$
BEGIN
    DECLARE
        harga bigint;
    BEGIN
        EXECUTE FORMAT('SELECT harga_tiket FROM list WHERE no = $1')
        INTO harga USING old.id_pembelian;

        EXECUTE format ('UPDATE list SET kuota = kuota + $1 WHERE no = $2') USING old.tiket, old.id_pembelian;

        EXECUTE FORMAT('UPDATE keanggotaan SET uang = (uang + $1), pengeluaran = (pengeluaran - $1),
total_tiket = (total_tiket - $2) WHERE username = $3') using (old.tiket * harga), old.tiket, old.username;
        return new;
    END;
END
$$
LANGUAGE plpgsql VOLATILE;

-- PEMBUATAN TRIGGER FUNCTION transaksi_pembeli
CREATE TRIGGER trigger_refund
AFTER DELETE ON pembelian
FOR EACH ROW EXECUTE PROCEDURE refund();
```



2.4 Membuat Function dan Triggers

```
CREATE OR REPLACE FUNCTION check_uang() RETURNS TRIGGER AS
$$
BEGIN
    DECLARE
        uang_user int;
        harga_user int;
    BEGIN
        EXECUTE FORMAT('SELECT uang FROM keanggotaan WHERE username = $1') into
        uang_user USING new.username;
        EXECUTE FORMAT('SELECT harga_tiket FROM list WHERE no = $1') into
        harga_user USING new.id_pembelian;

        IF (uang_user < harga_user) THEN
            RAISE EXCEPTION 'Uang Anda Habis';
        end if;
        return new;
    end;
end;
$$
language plpgsql volatile;

create trigger trigger_check_uang
before insert on pembelian
for each row execute procedure check_uang();
```

Tampilan Website



1 Halaman Login dan Sign Up

Sign In

Username:

Password:

Submit

Sign Up

Sign Up

Username:

Password:

Submit

Login

Tampilan Website



2.1 Halaman Admin

Bogun

Bekerja Pukul
8:00 - 22:00

Telepon
081294046911

Email
fadhilah.akbar@ui.ac.id

HOME INSERT DATA UPDATE DATA DELETE DATA QUIT

BAHAGIA

Tampilan Website



2.2 Halaman Admin

Bogun

Bekerja Pukul
8:00 - 22:00

Telepon
081294046911

Email
fadhilah.akbar@ui.ac.id

HOME INSERT DATA UPDATE DATA DELETE DATA QUIT

Insert Data

Tampilkan
Tampilkan Gunung
Tampilkan Jadwal

Data Gunung

nama_gunung:

Wilayah:

Insert

Data Jadwal

Tanggal:

Hari:

submit

Data Kuota dan Harga

Id Gunung:

Jadwal:

Harga Tiket:

Kuota:

submit

Tampilan Website



2.3 Halaman Admin

Bogun

Bekerja Pukul
8:00 - 22:00

Telepon
081294046911

Email
fadhilah.akbar@ui.ac.id

HOME INSERT DATA UPDATE DATA DELETE DATA QUIT

Update Data

Tampilkan

Tampilkan Gunung

Tampilkan Jadwal

Data Gunung

nama_gunung:

Wilayah:

id_gunung:

Data Jadwal

Tanggal:

Hari:

Id Jadwal:

Update

Data Kuota dan Harga

Id Gunung:

Jadwal:

Harga Tiket:

Kuota:

Update

Tampilan Website

2.4 Halaman Admin

HOME INSERT DATA UPDATE DATA DELETE DATA QUIT

Delete Data

Tampilkan
Tampilkan Gunung
Tampilkan Jadwal

Data Kuota dan Harga

Id Gunung:

Jadwal:

Delete

Data Gunung

Id Gunung:



Tampilan Website

3.1 Halaman User

The screenshot shows a website interface with a yellow header bar. On the left, the name "Bogun" is displayed. To the right of the name are three contact information items: "Bekerja Pukul 8:00 - 22:00" with a calendar icon, "Telepon 081294046911" with a phone icon, and "Email fadhilah.akbar@ui.ac.id" with an envelope icon. Below the header is a dark blue navigation bar containing links: HOME (orange), HASIL TRANSAKSI, TRANSAKSI ▾, USER ▾, and QUIT. The main content area features a large photograph of a group of seven people standing on a rocky mountain peak. In the foreground, two men are kneeling, holding a yellow sign that reads "ANKISHIWA adventure Mt CIREMAI 3072 MDPL". Overlaid on the photo is the word "NYAMAN" in large white capital letters. A small white rectangular button with the text "YUK BOOKING" is positioned in the center of the photo. Navigation arrows are visible on the left and right sides of the photo.



Tampilan Website



3.2 Halaman User

Bogun

Bekerja Pukul
8:00 – 22:00

Telepon
081294046911

Email
fadhilah.akbar@ui.ac.id

HOME HASIL TRANSAKSI **TRANSAKSI** USER QUIT

List Transaksi

[Tampilkan](#) [Refund Tiket](#)

Tampilan Website



3.3 Halaman User

HOME HASIL TRANSAKSI TRANSAKSI ▾ USER ▾ QUIT

Transaksi

Tampilkan

Id_Pembelian:

Username:

Tiket:

Submit

Bogun

Bekerja Pukul
8:00 - 22:00

Telepon 081294046911 Email tadhilah.akbar@ui.ac.id

HOME HASIL TRANSAKSI TRANSAKSI ▾ USER ▾ QUIT

Refund

Tampilkan

Id_Pembelian:

Username:

Refund

Tampilan Website



3.4 Halaman User

Bogun

Bekerja Pukul
8:00 - 22:00

Telepon
081294046911

Email
fadhlilah.akbar@ui.ac.id

HOME HASIL TRANSAKSI TRANSAKSI USER QUIT

Topup

Username:

Password:

Uang:

Topup

Bogun

Bekerja Pukul
8:00 - 22:00

Telepon
081294046911

Email
fadhlilah.akbar@ui.ac.id

HOME HASIL TRANSAKSI TRANSAKSI USER QUIT

Ubah Sandi dan Username

Tampilkan

Username:

Password:

Id User:

Ubah Akun

Thank You

HAVE A
GREAT DAY
AHEAD.