Diagram

Description automatically generated**DATABASE PROJECT**

**SISTEM PENYEWAAN**

**SEPEDA**

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| --- | --- |
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**MAD SCIENTIST**

1. **MEMBUAT TABLE**
2. **CREATE TABLE CUSTOMER**

CREATE TABLE Customer (

customer\_id VARCHAR(15) NOT NULL,

nik VARCHAR(20),

nama VARCHAR(40),

alamat VARCHAR(100),

no\_hp VARCHAR(15),

email VARCHAR(25),

CONSTRAINT customer\_constraint PRIMARY KEY (customer\_id)

);

1. **CREATE TABLE TRANSAKSI**

CREATE TABLE Transaksi (

transaksi\_id VARCHAR (15) NOT NULL,

customer\_id VARCHAR(15) NOT NULL,

sepeda\_id VARCHAR(15) NOT NULL,

total\_harga NUMBER,

waktu\_sewa TIMESTAMP,

waktu\_kembali TIMESTAMP,

tanggal\_sewa DATE,

tanggal\_kembali DATE,

CONSTRAINT transaksi\_constraint PRIMARY KEY (transaksi\_id)

);

1. **CREATE TABLE SEPEDA**

CREATE TABLE Sepeda (

sepeda\_id VARCHAR(15) NOT NULL,

status\_id VARCHAR(10) NOT NULL,

nama VARCHAR(12),

harga\_sewa NUMBER,

gambar BLOB,

CONSTRAINT sepeda\_constraint PRIMARY KEY (sepeda\_id)

);

1. **CREATE TABLE GAMBAR SEPEDA**

CREATE TABLE Gambar\_Sepeda (

sepeda\_id VARCHAR(15) NOT NULL,

gambar BLOB,

CONSTRAINT gambar\_sepeda\_constraint FOREIGN KEY (sepeda\_id) REFERENCES Sepeda(sepeda\_id)

);

1. **CREATE TABLE STATUS SEPEDA**

CREATE TABLE Status\_Sepeda (

status\_id VARCHAR(10) NOT NULL,

status VARCHAR(20) NOT NULL,

CONSTRAINT status\_sepeda\_constraint PRIMARY KEY (status\_id)

);

INSERT INTO Status\_Sepeda VALUES (1, 'pinjam');

INSERT INTO Status\_Sepeda VALUES (2, 'tersedia');

1. **CREATE TABLE PEMINJAMAN**

CREATE TABLE Peminjaman (

peminjaman\_id VARCHAR(15) NOT NULL,

customer\_id VARCHAR(15) NOT NULL,

sepeda\_id VARCHAR(15) NOT NULL,

statusp\_id VARCHAR(10) NOT NULL,

waktu\_sewa TIMESTAMP,

tanggal\_sewa DATE,

CONSTRAINT peminjaman\_constraint PRIMARY KEY (peminjaman\_id)

);

1. **CREATE TABLE STATUS PEMINJAMAN**

CREATE TABLE Status\_Peminjaman (

statusp\_id VARCHAR(10) NOT NULL,

status VARCHAR(20) NOT NULL,

CONSTRAINT status\_peminjaman\_constraint PRIMARY KEY(statusp\_id)

);

INSERT INTO Status\_Peminjaman VALUES (1, 'pinjam');

INSERT INTO Status\_Peminjaman VALUES (2, 'kembali');

1. **ALTER TABLE**

* ALTER TABLE Transaksi ADD CONSTRAINT transaksi\_sepeda\_constraint FOREIGN KEY (sepeda\_id) REFERENCES Sepeda(sepeda\_id);
* ALTER TABLE Transaksi ADD CONSTRAINT transaksi\_customer\_constraint FOREIGN KEY (customer\_id) REFERENCES Customer(customer\_id);
* ALTER TABLE Sepeda ADD CONSTRAINT sepeda\_status\_constraint FOREIGN KEY (status\_id) REFERENCES Status\_Sepeda(status\_id)
* ALTER TABLE Peminjaman ADD CONSTRAINT peminjaman\_customer\_constraint FOREIGN KEY (customer\_id) REFERENCES Customer(customer\_id);
* ALTER TABLE Peminjaman ADD CONSTRAINT peminjaman\_sepeda\_constraint FOREIGN KEY (sepeda\_id) REFERENCES Sepeda(sepeda\_id);
* ALTER TABLE Peminjaman ADD CONSTRAINT peminjaman\_status\_constraint FOREIGN KEY (statusp\_id) REFERENCES Status\_Peminjaman(statusp\_id);

1. **INPUT DATA SAMPLE**
2. **INSERT TABLE CUTOMER**

* INSERT INTO Customer VALUES ('202021227596731', '2730212912960020', 'Setiawan Bima Hardja', 'Jl Irian 18, Gondangdia Menteng Jakarta', '0821315793041', 'setiawan1229@gmail.com')
* INSERT INTO Customer VALUES ('202051928471921', '1324511212980040', 'Raharjo Hengki Budiaman', 'Jl. Mulia IV Blok M-X No. 9 Cipondoh Makmur, Banten', '085128741520', 'raharjohb21@gmail.com')
* INSERT INTO Customer VALUES ('202028471072738', '2728291601960080', 'Adi Wibawa Widjaja', 'Jl Jend Sudirman Kav 1 Wisma 46 Kota BNI Lt 35, Dki Jakarta', '082381927361', 'adiaw19@gmail.com')
* INSERT INTO Customer VALUES ('202084787629107', '8781910811970100', 'Yuliani Dewi Sugiarto', 'Jl MH Thamrin 9 Menara Cakrawala Lt 5,Kebon Sirih', '081237424588', 'yulia0897@gmail.com')
* INSERT INTO Customer VALUES ('202082917462021', '8918670107960190', 'Ratna Devi Budiaman', 'Jl Puyuh Brt VI 9,Jurang Manggu Timur,Pondok Aren , Jakarta', '088571827477', 'ratnabudiaman@gmail.com')

1. **INSERT TABLE SEPEDA**

* INSERT INTO Sepeda VALUES ('A10GZ', '1', 'U Monanza 4', 10000, NULL)
* INSERT INTO Sepeda VALUES ('B15UP', '2', 'U Detroit 1', 15000, NULL)
* INSERT INTO Sepeda VALUES ('C12HY', '2', 'Genio M-345', 12000, NULL)

1. **INSERT TABLE TRANSAKSI**

* INSERT INTO Transaksi VALUES ('0101240221', '202021227596731', 'A10GZ', 10000, TO\_TIMESTAMP('24/02/2021 14:15', 'DD/MM/YYYY HH24:MI'),

TO\_TIMESTAMP('24/02/2021 13:15', 'DD/MM/YYYY HH24:MI'), TO\_DATE('24/02/2021', 'DD/MM/YYYY'), TO\_DATE('24/02/2021', 'DD/MM/YYYY'))

* INSERT INTO Transaksi VALUES ('0203240221', '202082917462021', 'B15UP', 45000, TO\_TIMESTAMP('24/02/2021 15:00', 'DD/MM/YYYY HH24:MI'),

TO\_TIMESTAMP('24/02/2021 17:45', 'DD/MM/YYYY HH24:MI'), TO\_DATE('24/02/2021', 'DD/MM/YYYY'), TO\_DATE('24/02/2021', 'DD/MM/YYYY'))

* INSERT INTO Transaksi VALUES ('0301240221', '202021227596731', 'C12HY', 12000, TO\_TIMESTAMP('24/02/2021 16:25', 'DD/MM/YYYY HH24:MI'),

TO\_TIMESTAMP('24/02/2021 17:00', 'DD/MM/YYYY HH24:MI'), TO\_DATE('24/02/2021', 'DD/MM/YYYY'), TO\_DATE('24/02/2021', 'DD/MM/YYYY'))

* INSERT INTO Transaksi VALUES ('0302250221', '202051928471921', 'C12HY', 24000, TO\_TIMESTAMP('25/02/2021 07:20', 'DD/MM/YYYY HH24:MI'),

TO\_TIMESTAMP('25/02/2021 09:03', 'DD/MM/YYYY HH24:MI'), TO\_DATE('25/02/2021', 'DD/MM/YYYY'), TO\_DATE('25/02/2021', 'DD/MM/YYYY'))

* INSERT INTO Transaksi VALUES ('0303250221', '202082917462021', 'C12HY', 36000, TO\_TIMESTAMP('25/02/2021 15:15', 'DD/MM/YYYY HH24:MI'),

TO\_TIMESTAMP('25/02/2021 18:00', 'DD/MM/YYYY HH24:MI'), TO\_DATE('25/02/2021', 'DD/MM/YYYY'), TO\_DATE('25/02/2021', 'DD/MM/YYYY'))

* INSERT INTO Transaksi VALUES ('0101250221', '202082917462021', 'A10GZ', 10000, TO\_TIMESTAMP('25/02/2021 16:20', 'DD/MM/YYYY HH24:MI'),

TO\_TIMESTAMP('25/02/2021 17:20', 'DD/MM/YYYY HH24:MI'), TO\_DATE('25/02/2021', 'DD/MM/YYYY'), TO\_DATE('25/02/2021', 'DD/MM/YYYY'))

* INSERT INTO Transaksi VALUES ('0202260221', '202084787629107', 'B15UP', 30000, TO\_TIMESTAMP('26/02/2021 06:00', 'DD/MM/YYYY HH24:MI'),

TO\_TIMESTAMP('25/02/2021 08:00', 'DD/MM/YYYY HH24:MI'), TO\_DATE('26/02/2021', 'DD/MM/YYYY'), TO\_DATE('26/02/2021', 'DD/MM/YYYY'))

* INSERT INTO Transaksi VALUES ('0201260221', '202028471072738', 'B15UP', 15000, TO\_TIMESTAMP('26/02/2021 07:20', 'DD/MM/YYYY HH24:MI'),

TO\_TIMESTAMP('25/02/2021 08:20', 'DD/MM/YYYY HH24:MI'), TO\_DATE('26/02/2021', 'DD/MM/YYYY'), TO\_DATE('26/02/2021', 'DD/MM/YYYY'))

1. **DATABASE FEATURE**
2. **PROCEDURE Total Sewa**

CREATE OR REPLACE PROCEDURE TotalSewa (tr\_id VARCHAR)

IS

start\_time Transaksi.waktu\_sewa%TYPE;

stop\_time Transaksi.waktu\_kembali%TYPE;

durasi\_jam NUMBER;

durasi\_menit NUMBER;

harga\_per\_jam NUMBER;

BEGIN

SELECT waktu\_sewa, waktu\_kembali

INTO start\_time, stop\_time

FROM Transaksi

WHERE transaksi\_id = tr\_id;

SELECT EXTRACT(HOUR FROM diff), EXTRACT(MINUTE FROM diff)

INTO durasi\_jam, durasi\_menit

FROM (SELECT (stop\_time - start\_time) diff FROM dual);

IF (durasi\_menit >= 10) THEN

durasi\_jam := durasi\_jam + 1;

END IF;

SELECT harga\_sewa

INTO harga\_per\_jam

FROM (SELECT harga\_sewa FROM Sepeda WHERE sepeda\_id = (

SELECT sepeda\_id FROM Transaksi WHERE transaksi\_id = tr\_id));

UPDATE Transaksi t SET t.total\_harga = harga\_per\_jam \* durasi\_jam WHERE t.transaksi\_id = tr\_id;

htp.p('Durasi dalam Jam: ' || durasi\_jam || ', dengan harga: ' || harga\_per\_jam \* durasi\_jam);

END;

UPDATE Transaksi t SET t.total\_harga = NULL WHERE transaksi\_id = '0302250221';

1. **TRIGGER Peminjaman Selesai**

CREATE TRIGGER SelesaiPeminjaman

AFTER INSERT ON Transaksi

FOR EACH ROW

BEGIN

DELETE FROM Peminjaman p WHERE p.peminjaman\_id = :new.transaksi\_id;

END;

1. **TEST SAMPLE**

BEGIN

TotalSewa('0302250221');

END;

* INSERT INTO Peminjaman VALUES ('12345678', '202028471072738', 'A10GZ', '2', TO\_TIMESTAMP('26/02/2021 15:00', 'DD/MM/YYYY HH24:MI'), TO\_DATE('26/02/2021', 'DD/MM/YYYY'));
* INSERT INTO Transaksi VALUES ('12345678', '202028471072738', 'A10GZ', NULL, TO\_TIMESTAMP('26/02/2021 15:00', 'DD/MM/YYYY HH24:MI'),
* TO\_TIMESTAMP('26/02/2021 17:00', 'DD/MM/YYYY HH24:MI'), TO\_DATE('26/02/2021', 'DD/MM/YYYY'), TO\_DATE('26/02/2021', 'DD/MM/YYYY'))