

Project Phase 3 Report

— USER CREATION AND GRANTING PERMISSION

```
CREATE USER TENANT123 IDENTIFIED BY "Tenant_123_property_mgnt";
```

```
GRANT CONNECT TO TENANT123;  
GRANT CREATE SESSION TO TENANT123;
```

```
CREATE USER OWNER123 IDENTIFIED BY "Owner_123_property_mgnt";
```

```
GRANT CREATE SESSION TO OWNER123;  
GRANT RESOURCE TO OWNER123;  
GRANT CONNECT TO OWNER123;
```

```
CREATE USER MANAGER123 IDENTIFIED BY "Manager_123_property_mgnt";
```

```
GRANT CREATE SESSION TO MANAGER123;  
GRANT CONNECT TO MANAGER123;
```

```
GRANT  
SELECT,  
INSERT,  
UPDATE,  
DELETE  
ON  
  ADMIN.property  
TO  
  OWNER123;
```

```
GRANT  
SELECT,  
INSERT,  
UPDATE,  
DELETE  
ON  
  ADMIN.manager  
TO  
  OWNER123;
```

```
grant
select,
Insert,
update,
Delete
on admin.manager
to MANAGER123;
```

```
grant
select,
Insert,
update,
Delete
on admin.unit
to MANAGER123;
```

```
grant
select,
Insert,
update,
Delete
on admin.lease
to MANAGER123;
```

```
grant
select,
Insert,
update,
Delete
on admin.maintenance
to MANAGER123;
```

```
grant
select,
Insert,
update,
Delete
on admin.tenants
to MANAGER123;
```

```
grant
select,
Insert,
update,
Delete
on admin.tenants
to TENANT123;
```

```
grant
Select,
Insert (main_type)
on admin.maintenance
to TENANT123;
```

-- To check if the tables are present in database

```
SELECT COUNT(*)
FROM USER_TABLES
WHERE TABLE_NAME IN ('OWNER', 'TENANTS', 'PROPERTY', 'MANAGER', 'UNIT', 'LEASE',
'MAINTENANCE')
```

```
SELECT * FROM TAB
```

---for dropping tables

```
set serveroutput on;
declare
tcount number;
begin
select count(*)
into tcount
from user_tables where table_name = 'MANAGER';
IF TCOUNT>0
THEN
EXECUTE IMMEDIATE 'DROP TABLE MANAGER';
END IF;
END;
```

/

```
set serveroutput on;  
declare  
tcount number;  
begin  
select count(*)  
into tcount
```

```
from user_tables where table_name = 'TENANTS';  
IF TCOUNT>0  
THEN  
EXECUTE IMMEDIATE 'DROP TABLE TENANTS';  
END IF;  
END;  
/
```

```
alter table property drop constraint SYS_C0046199;
```

```
set serveroutput on;  
declare  
tcount number;  
begin  
select count(*)  
into tcount  
from user_tables where table_name = 'PROPERTY';
```

```
IF TCOUNT>0
THEN
EXECUTE IMMEDIATE 'DROP TABLE PROPERTY';
END IF;
END;
```

```
/
```

```
set serveroutput on;
declare
tcount number;
begin
select count(*)
into tcount
from user_tables where table_name = 'OWNER';
IF TCOUNT>0
THEN
EXECUTE IMMEDIATE 'DROP TABLE OWNER';
END IF;
END;
```

```
/
```

```
set serveroutput on;
declare
tcount number;
begin
select count(*)
into tcount
from user_tables where table_name = 'UNIT';
IF TCOUNT>0
THEN
EXECUTE IMMEDIATE 'DROP TABLE UNIT';
END IF;
END;
```

```
/
```

```
alter table maintenance drop constraint SYS_C0046224;
```

```
set serveroutput on;
declare
tcount number;
begin
select count(*)
into tcount
from user_tables where table_name = 'MAINTENANCE';
```

```
IF TCOUNT>0
THEN
EXECUTE IMMEDIATE 'DROP TABLE MAINTENANCE';
END IF;
END;
```

```
/
```

```

set serveroutput on;
declare
tcount number;
begin
select count(*)
into tcount
from user_tables where table_name = 'LEASE';
IF TCOUNT>0
THEN
EXECUTE IMMEDIATE 'DROP TABLE LEASE';
END IF;
END;

/

```

```

PURGE RECYCLEBIN; -- CLEARS THE RECYCLE BIN
SELECT * FROM TAB; --SHOWS ALL THE TABLES

```

— CREATE TABLE STATEMENTS

-- MANAGER

```

CREATE TABLE MANAGER
( MANAGER_ID INT PRIMARY KEY,
MANAGER_NAME VARCHAR(40) NOT NULL,
MANAGER_CONTACT INT NOT NULL,
MANAGER_ADDRESS VARCHAR(100) NOT NULL
);

```

-- TENANTS

```

CREATE TABLE TENANTS (
TENANT_ID INT PRIMARY KEY,
TENANT_NAME VARCHAR(30) NOT NULL,
TENANT_ADDRESS VARCHAR(100) NOT NULL,
TENANT_CONTACT INT NOT NULL
);

```

-- PROPERTY


```
CREATE TABLE PROPERTY
( PROPERTY_ID INT PRIMARY
KEY, MANAGER_ID INT NOT NULL,
UNIT_COUNT INT NOT NULL,
PROPERTY_OWNER VARCHAR(40) NOT NULL,
PROPERTY_ADDRESS VARCHAR(100) NOT NULL,
FOREIGN KEY (MANAGER_ID) REFERENCES MANAGER(MANAGER_ID)
);
```

-- OWNER

```
CREATE TABLE OWNER
( OWNER_ID INT PRIMARY KEY,
PROPERTY_ID INT NOT NULL,
MANAGER_ID INT NOT NULL,
OWNER_NAME VARCHAR(40) NOT NULL,
OWNER_CONTACT INT NOT NULL,
OWNER_ADDRESS VARCHAR(100) NOT NULL,
FOREIGN KEY (PROPERTY_ID) REFERENCES PROPERTY(PROPERTY_ID),
FOREIGN KEY (MANAGER_ID) REFERENCES MANAGER(MANAGER_ID)
);
```

-- UNIT

```
CREATE TABLE UNIT
( UNIT_ID INT PRIMARY KEY,
MANAGER_ID INT NOT NULL,
OWNER_ID INT NOT NULL,
TENANT_ID INT ,
UNIT_RENT INT NOT NULL,
UNIT_OWNER VARCHAR(50) NOT NULL,
UNIT_ADDRESS VARCHAR(100) NOT NULL,
FOREIGN KEY (TENANT_ID) REFERENCES TENANTS(TENANT_ID),
FOREIGN KEY (OWNER_ID) REFERENCES OWNER(OWNER_ID),
FOREIGN KEY (MANAGER_ID) REFERENCES MANAGER(MANAGER_ID)
);
```

-- MAINTENANCE

```
CREATE TABLE MAINTENANCE
( MAIN_ID INT PRIMARY KEY,
UNIT_ID INT NOT NULL,
MAIN_AMOUNT INT NOT NULL,
```

```
UNIT_CONTACT INT NOT NULL,  
MAIN_START_DATE DATE,  
MAIN_END_DATE DATE,  
MAIN_TYPE VARCHAR(30),  
FOREIGN KEY (UNIT_ID) REFERENCES UNIT(UNIT_ID)  
);
```

-- LEASE

```
CREATE TABLE LEASE  
( LEASE_ID INT PRIMARY KEY,  
UNIT_ID INT NOT NULL,  
TENANT_ID INT NOT NULL,  
LEASE_AMOUNT INT NOT NULL,  
OWNER_NAME VARCHAR(40) NOT NULL,  
MANAGER_CONTACT INT NOT NULL,  
LEASE_START_DATE DATE,  
LEASE_END_DATE DATE,  
FOREIGN KEY (UNIT_ID) REFERENCES UNIT(UNIT_ID),  
FOREIGN KEY (TENANT_ID) REFERENCES TENANTS(TENANT_ID)  
);
```

— INSERT STATEMENTS

-- MANAGER TABLE INSERT STATEMENT

```
INSERT INTO "ADMIN"."MANAGER"  
VALUES('201', 'JOHN', '6177869876', '81, Juniper Street');
```

```
INSERT INTO "ADMIN"."MANAGER"  
VALUES('202', 'SAM', '8575679876', '82, Forest Hill Street');
```

```
INSERT INTO "ADMIN"."MANAGER"  
VALUES('203', 'ADITYA', '6172345678', '83, Saint Alphnosus');
```

```
INSERT INTO "ADMIN"."MANAGER"  
VALUES('204', 'LARA', '4162345367', '84, Harvard Street');
```

```
INSERT INTO "ADMIN"."MANAGER"  
VALUES('205', 'ROHIT', '8575761846', '85, Columbia Street');
```

```
INSERT INTO "ADMIN"."MANAGER"  
VALUES('206', 'JESSI', '6847535358', '86, Huntington Ave');
```

-- TENANTS TABLE INSERT STATEMENT

```
INSERT INTO "ADMIN"."TENANTS"  
VALUES('101', 'ABC', '41, Juniper Street #1', '5231234561');
```

```
INSERT INTO "ADMIN"."TENANTS"  
VALUES('102', 'DEF', '42, Forest Hill Street #1', '5232345672');
```

```
INSERT INTO "ADMIN"."TENANTS"  
VALUES('103', 'GHI', '43, Saint Alphnosus #1', '5233456783');
```

```
INSERT INTO "ADMIN"."TENANTS"  
VALUES('104', 'JKL', '44, Harvard Street #1', '5234567894');
```

```
INSERT INTO "ADMIN"."TENANTS"  
VALUES('105', 'MNO', '45, Columbia Street #1', '5235679005');
```

```
INSERT INTO "ADMIN"."TENANTS"  
VALUES('106', 'PQR', '41, Juniper Street #2', '5236790116');
```

```
INSERT INTO "ADMIN"."TENANTS"  
VALUES('107', 'STU', '43, Saint Alphnosus #2', '5237901227');
```

```
INSERT INTO "ADMIN"."TENANTS"  
VALUES('108', 'VWX', '43, Saint Alphnosus #3', '5239012338');
```

-- PROPERTY TABLE INSERT STATEMENT

```
INSERT INTO "ADMIN"."PROPERTY"  
VALUES('51', '201', '2', 'ARYA', '11, Juniper Street');
```

```
INSERT INTO "ADMIN"."PROPERTY"  
VALUES('52', '202', '1', 'ROHAN', '12, Forest Hill Street');
```

```
INSERT INTO "ADMIN"."PROPERTY"  
VALUES('53', '203', '3', 'NICK', '13, Saint Alphnosus');
```

```
INSERT INTO "ADMIN"."PROPERTY"  
VALUES('54', '204', '1', 'BROWN', '14, Harvard Street');
```

```
INSERT INTO "ADMIN"."PROPERTY"  
VALUES('55', '205', '1', 'SURYA', '15, Columbia Street');
```

```
INSERT INTO "ADMIN"."PROPERTY"  
VALUES('56', '206', '1', 'JOHN', '16, Huntington Ave');
```

-- OWNER TABLE INSERT STATEMENT

```
INSERT INTO "ADMIN"."OWNER"  
VALUES('1', '51', '201', 'ARYA', '7895263890', '39, Juniper Street');
```

```
INSERT INTO "ADMIN"."OWNER"  
VALUES('2', '52', '202', 'ROHAN', '6372934749', '106, Forest Hill Street');
```

```
INSERT INTO "ADMIN"."OWNER"  
VALUES('3', '53', '203', 'NICK', '5647920237', '75, Saint Alphnosus');
```

```
INSERT INTO "ADMIN"."OWNER"  
VALUES('4', '54', '204', 'BROWN', '7896238165', '54, Harvard Street');
```

```
INSERT INTO "ADMIN"."OWNER"  
VALUES('5', '55', '205', 'SURYA', '5602846710', '36, Columbia Street');
```

```
INSERT INTO "ADMIN"."OWNER"  
VALUES('6', '56', '206', 'JOHN', '5764581467', '42, Huntington Ave');
```

-- UNIT TABLE INSERT STATEMENT

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5101', '101', '1', '201', '2500', 'ARYA', '11, Juniper Street #1');
```

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5201', '102', '2', '202', '3000', 'ROHAN', '12, Forest Hill Street #1');
```

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5301', '103', '3', '203', '3500', 'NICK', '13, Saint Alphnosus #1');
```

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5401', '104', '4', '204', '4000', 'BROWN', '14, Harvard Street #1');
```

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5501', '105', '5', '205', '4500', 'SURYA', '15, Columbia Street #1');
```

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5102', '106', '1', '201', '2500', 'ARYA', '11, Juniper Street #2');
```

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5302', '107', '3', '203', '3000', 'ROHAN', '13, Saint Alphnosus #2');
```

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5303', '108', '3', '203', '3000', 'ROHAN', '13, Saint Alphnosus #3');
```

```
INSERT INTO "ADMIN"."UNIT"  
VALUES('5601', '6', '206', '5000', 'JOHN', '42, Huntington Ave #1');
```

-- MAINTENANCE TABLE INSERT STATEMENT

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('401', '5101', '2500', '6171234561', '09/01/2022', '09/01/2023', 'Plumbing');
```

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('402', '5201', '3000', '6171234672', '01/01/2022', '01/01/2023', 'Electrician');
```

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('403', '5301', '3500', '6171234783', '02/01/2022', '02/01/2023', 'Water Leakages');
```

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('404', '5401', '4000', '6171234894', '03/01/2022', '03/01/2023', 'Pest Control');
```

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('405', '5501', '4500', '6171235005', '04/01/2022', '04/01/2023', 'Plumbing');
```

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('406', '5102', '2500', '6171235116', '05/01/2022', '05/01/2023', 'Fire alarm');
```

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('407', '5302', '3000', '6171235227', '06/01/2022', '07/09/2022', 'Painting Rooftop');
```

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('408', '5303', '3000', '6171235338', '07/01/2022', '07/10/2023', 'Gardening');
```

```
INSERT INTO "ADMIN"."MAINTENANCE"  
VALUES('409', '5601', '3000', '6171235227');
```

-- LEASE TABLE INSERT STATEMENT

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20001', '5101', '7500', 'ARYA', '6177869876', '09/01/2022', '09/01/2023', '101');
```

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20002', '5201', '9000', 'ROHAN', '8575679876', '01/01/2022', '01/01/2023',  
'102');
```

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20003', '5301', '10500', 'NICK', '6172345678', '02/01/2022', '02/01/2023', '103');
```

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20004', '5401', '12000', 'BROWN', '4162345367', '03/01/2022', '03/01/2023',  
'104');
```

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20005', '5501', '13500', 'SURYA', '8575761846', '04/01/2022', '04/01/2023',  
'105');
```

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20006', '5102', '7500', 'ARYA', '6177869876', '05/01/2022', '05/01/2023', '106');
```

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20007', '5302', '9000', 'ROHAN', '6172345678', '06/01/2022', '06/01/2023', '107');
```

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20008', '5303', '9000', 'ROHAN', '6172345678', '07/01/2022', '07/01/2023',  
'108');
```

```
INSERT INTO "ADMIN"."LEASE"  
VALUES('20009', '5601', '15000', 'JOHN', '6847535358', '07/01/2022', '07/01/2023');
```

== VIEW QUERIES

-- 1. How many units does owner have?
(OWNER_UNITS)

```
CREATE VIEW OWNER_UNITS AS  
SELECT O.OWNER_ID, P.PROPERTY_ID, P.UNIT_COUNT AS NO_OF_UNITS_OWNER_HAS  
FROM OWNER O JOIN PROPERTY P ON P.PROPERTY_ID = O.PROPERTY_ID;
```

-- 2. How many units are assigned to manager under an owner?
(MANAGER_UNIT_COUNT)

```
CREATE VIEW MANAGER_UNIT_COUNT AS  
SELECT M.MANAGER_ID, COUNT(U.UNIT_ID) AS NO_OF_UNITS  
FROM MANAGER M JOIN UNIT U ON M.MANAGER_ID = U.MANAGER_ID  
GROUP BY M.MANAGER_ID;
```

-- 3. How many managers does one owner have?
(MANAGER_OWNER_COUNT)

```
CREATE VIEW MANAGER_PER_OWNER AS  
SELECT O.OWNER_ID, COUNT(M.MANAGER_ID) AS NO_OF MANAGERS  
FROM OWNER O JOIN MANAGER M ON O.OWNER_ID = M.OWNER_ID  
GROUP BY O.OWNER_ID ORDER BY NO_OF MANAGERS;
```

-- 4. How many units are vacant?
(VACANT_UNITS)

```
CREATE VIEW VACANT_UNITS AS  
SELECT * FROM UNIT WHERE TENANT_ID IS NULL;
```

-- 5. How much revenue does owner has gained on his entire property for the first month, or as a whole by end of the year?

(OWNER_REVENUE)

```
CREATE VIEW OWNER_REVENUE AS
SELECT DISTINCT(O.PROPERTY_ID), SUM(L.LEASE_AMOUNT) AS
REVENUE_EARNED_BY_OWNER
FROM UNIT U, LEASE L, OWNER O
WHERE U.UNIT_ID = L.UNIT_ID AND O.OWNER_ID = U.OWNER_ID AND LEASE_START_DATE
IS NOT NULL
GROUP BY O.PROPERTY_ID ORDER BY O.PROPERTY_ID, REVENUE_EARNED_BY_OWNER;
```

-- 6. How long the tenant lease last for?

(TENANT_LEASE_DURATION)

```
CREATE VIEW TENANT_LEASE_DURATION AS
SELECT T.TENANT_ID, L.LEASE_ID, (L.LEASE_END_DATE-L.LEASE_START_DATE) AS
DURATION_OF_LEASE_DAYS
FROM TENANTS T JOIN LEASE L ON L.LEASE_ID = T.LEASE_ID;
```

-- 7. How many maintenance issues reported?

(MAIN_ISSUES_REPORTED)

```
CREATE VIEW REPORTED_MAIN_ISSUES AS
SELECT COUNT(MAIN_TYPE) FROM MAINTENANCE WHERE MAIN_TYPE IS NOT NULL;
```

-- 8. How many maintenance issues RESOLVED?

(RESOLVED_MAIN_ISSUES)

```
CREATE VIEW RESOLVED_MAIN_ISSUES AS
SELECT MAIN_TYPE, 'RESOLVED' AS STATUS FROM MAINTENANCE
WHERE MAIN_TYPE IS NOT NULL AND MAIN_END_DATE < CURRENT_DATE;
```