

# Project : PharmaConnect Management System (Phase 4, Phase 5 and Phase 6)

The accompanying PDF file contains all the screenshots related to Phases 4, 5, and 6, including the setup, table creation, data insertion, and verification processes. Additionally, the PDF includes screenshots of the OEM (Oracle Enterprise Manager) Dashboards, providing a visual representation of the data management interface and system functionality.

## CREATING PLUGGABLE DATABASE

```
SQL*Plus: Release 21.0.0.0.0 - Production on Wed Nov 20 17:07:22 2024
Version 21.3.0.0.0
```

```
Copyright (c) 1982, 2021, Oracle. All rights reserved.
```

```
Enter user-name: sys as sysdba
```

```
Enter password:
```

```
Connected to:
Oracle Database 21c Express Edition Release 21.0.0.0.0 - Production
Version 21.3.0.0.0
```

```
SQL> show pdbs;
```

CON_ID	CON_NAME	OPEN MODE	RESTRICTED
2	PDB\$SEED	READ ONLY	NO
3	XEPDB1	READ WRITE	NO

```
SQL> select con_id, tablespace_name, file_name from cdb_data_files
2 where con_id = 3;
```

CON_ID	TABLESPACE_NAME	FILE_NAME
3	SYSTEM	C:\APP\PC\PRODUCT\21C\ORADATA\XE\XEPDB1\SYSTEM01.DBF
3	SYSAUX	C:\APP\PC\PRODUCT\21C\ORADATA\XE\XEPDB1\SYSAUX01.DBF
3	UNDOTBS1	C:\APP\PC\PRODUCT\21C\ORADATA\XE\XEPDB1\UNDOTBS01.DBF

CON_ID	TABLESPACE_NAME	FILE_NAME
3	USERS	C:\APP\PC\PRODUCT\21C\ORADATA\XE\XEPDB1\USERS01.DBF

```
SQL> CREATE PLUGGABLE DATABASE wedn_falcon_pharmaconnect admin user wedn_falcon IDENTIFIED BY falcon
2 FILE_NAME_CONVERT = ('C:\app\PC\product\21c\oradata\XE\pdbseed\','C:\app\PC\product\21c\oradata\XE\ wedn_falcon_pharmaconnect\');

Pluggable database created.

SQL>
```


```
SQL> ALTER SESSION SET CONTAINER = wedn_falcon_pharmaconnect;  
  
Session altered.
```

```
SQL> ALTER DATABASE OPEN;  
  
Database altered.
```

## CREATING CONNECTION AND WORKING wedn\_falcon\_pharmaconnect PDB

New / Select Database Connection

Connection Name	Connection Details
c	c##bergerac@//l...
EmployeeDb	System@//localh...
PLSQL_CLASS20...	BE_PLSQLAUCA...

Name:   Color

Database Type:

**User Info** Proxy User

Authentication Type:

Username:  Role:

Password:  ☐ Save Password

Connection Type:

**Details** Advanced

Hostname:

Port:

☐ SID

☒ Service name

Status : Success

## CREATING TABLE SESSION

Worksheet Query Builder

```
CREATE TABLE Insurance_Provider (  
    Insurance_ID NUMBER PRIMARY KEY,  
    Insurance_Company_Name VARCHAR2(100),  
    Coverage_Plan VARCHAR2(200),  
    Phone VARCHAR2(20),  
    Email VARCHAR2(100)  
);
```

Script Output x

Task completed in 0.108 seconds

GRANT CREATE SYNONYM TO wedn\_falcon

Error report -

ORA-01031: insufficient privileges

01031. 00000 - "insufficient privileges"

\*Cause: An attempt was made to perform a database operation without the necessary privileges.

\*Action: Ask your database administrator or designated security administrator to grant you the necessary privileges

Table INSURANCE\_PROVIDER created.

Worksheet Query Builder

```
CREATE TABLE Pharmacy (  
    Pharmacy_ID NUMBER PRIMARY KEY,  
    Pharmacy_Name VARCHAR2(100),  
    Pharmacy_Address VARCHAR2(200),  
    Phone VARCHAR2(20),  
    Email VARCHAR2(100)  
);  
  
CREATE TABLE Medication (  
    Medication_ID NUMBER PRIMARY KEY,  
    Name VARCHAR2(100),  
    Description VARCHAR2(500),  
    Manufacturer VARCHAR2(100),  
    Dosage_Form VARCHAR2(50),  
    Strength VARCHAR2(50),  
    Category VARCHAR2(100)  
);
```

Script Output x

Task completed in 0.121 seconds

Table PHARMACY created.

Table MEDICATION created.

0.121 seconds

pharmaconnect

Worksheet Query Builder

```

CREATE TABLE Patient (
  Patient_ID NUMBER PRIMARY KEY,
  First_Name VARCHAR2(100),
  Last_Name VARCHAR2(100),
  Email VARCHAR2(100),
  Phone VARCHAR2(20),
  Address VARCHAR2(200),
  Insurance_ID NUMBER,
  CONSTRAINT fk_patient_insurance FOREIGN KEY (Insurance_ID) REFERENCES Insurance_Provider(Insurance_ID)
);

CREATE TABLE Inventory_Record (
  Inventory_Record_ID NUMBER PRIMARY KEY,
  Pharmacy_ID NUMBER,
  Medication_ID NUMBER,
  Quantity NUMBER
);

```

Script Output x

Task completed in 0.121 seconds

Table PATIENT created.

Table INVENTORY\_RECORD created.

## INSERTION PHASE

```

INSERT INTO Insurance_Provider (Insurance_ID, Insurance_Company_Name, Coverage_Plan, Phone, Email)
VALUES (1, 'MediCare Plus', 'Full Coverage', '123-456-7890', 'support@medicareplus.com');

INSERT INTO Insurance_Provider (Insurance_ID, Insurance_Company_Name, Coverage_Plan, Phone, Email)
VALUES (2, 'HealthFirst', 'Partial Coverage', '098-765-4321', 'info@healthfirst.com');

INSERT INTO Insurance_Provider (Insurance_ID, Insurance_Company_Name, Coverage_Plan, Phone, Email)
VALUES (3, 'WellCare', 'Emergency Only', '555-678-1234', 'help@welcare.com');

INSERT INTO Patient (Patient_ID, First_Name, Last_Name, Email, Phone, Address, Insurance_ID)
VALUES (101, 'John', 'Doe', 'john.doe@example.com', '111-222-3333', '123 Elm St, Cityville', 1);

INSERT INTO Patient (Patient_ID, First_Name, Last_Name, Email, Phone, Address, Insurance_ID)
VALUES (102, 'Jane', 'Smith', 'jane.smith@example.com', '222-333-4444', '456 Oak St, Townsville', 2);

INSERT INTO Patient (Patient_ID, First_Name, Last_Name, Email, Phone, Address, Insurance_ID)
VALUES (103, 'Alice', 'Johnson', 'alice.j@example.com', '333-444-5555', '789 Pine St, Hamlet', 3);

INSERT INTO Pharmacy (Pharmacy_ID, Pharmacy_Name, Pharmacy_Address, Phone, Email)
VALUES (201, 'Green Pharmacy', '1101 Main St, Springfield', '444-555-6666', 'orders@greenpharmacy.com');

```

WorksheetQuery Builder

```
INSERT INTO Pharmacy (Pharmacy_ID, Pharmacy_Name, Pharmacy_Address, Phone, Email)
VALUES (202, 'Town Drugstore', '202 Center Ave, Townsville', '555-666-7777', 'info@towndrugstore.com');

INSERT INTO Pharmacy (Pharmacy_ID, Pharmacy_Name, Pharmacy_Address, Phone, Email)
VALUES (203, 'Village Chemist', '303 Market Rd, Hamlet', '666-777-8888', 'service@villagechemist.com');

INSERT INTO Medication (Medication_ID, Name, Description, Manufacturer, Dosage_Form, Strength, Category)
VALUES (301, 'Paracetamol', 'Pain reliever and fever reducer', 'PharmaCo', 'Tablet', '500mg', 'Analgesic');

INSERT INTO Medication (Medication_ID, Name, Description, Manufacturer, Dosage_Form, Strength, Category)
VALUES (302, 'Amoxicillin', 'Antibiotic for bacterial infections', 'HealthCorp', 'Capsule', '250mg', 'Antibiotic');

INSERT INTO Medication (Medication_ID, Name, Description, Manufacturer, Dosage_Form, Strength, Category)
VALUES (303, 'Cetirizine', 'Allergy relief', 'Wellness Ltd.', 'Tablet', '10mg', 'Antihistamine');
```

Script Output x

Task completed in 0.216 seconds

1 row inserted.

1 row inserted.

1 row inserted.

WorksheetQuery Builder

```
VALUES (402, 202, 302, 200, SYSTIMESTAMP);

INSERT INTO Inventory_Record (Inventory_Record_ID, Pharmacy_ID, Medication_ID, Stock_Level, Last_Updated)
VALUES (403, 203, 303, 150, SYSTIMESTAMP);

INSERT INTO Pricing (Pricing_ID, Insurance_ID, Medication_ID, Price, Coverage_Percentage)
VALUES (501, 1, 301, 10.00, 80);

INSERT INTO Pricing (Pricing_ID, Insurance_ID, Medication_ID, Price, Coverage_Percentage)
VALUES (502, 2, 302, 20.00, 50);

INSERT INTO Pricing (Pricing_ID, Insurance_ID, Medication_ID, Price, Coverage_Percentage)
VALUES (503, 3, 303, 15.00, 30);
```

Script Output x

Task completed in 0.216 seconds


1 row inserted.

1 row inserted.

1 row inserted.

<pre>INSERT INTO Notification (Notification_ID, Patient_ID, Medication_ID, Notification_Date, Status) VALUES (603, 103, 303, SYSTIMESTAMP, 'Delivered');  INSERT INTO Patient_Medication (Patient_ID, Medication_ID) VALUES (101, 301);  INSERT INTO Patient_Medication (Patient_ID, Medication_ID) VALUES (102, 302);  INSERT INTO Patient_Medication (Patient_ID, Medication_ID) VALUES (103, 303);</pre>	
---	--

Script Output x

 | Task completed in 0.216 seconds


1 row inserted.

1 row inserted.

1 row inserted.

Worksheet   Query Builder	
<pre>INSERT INTO Pharmacy_Medication (Pharmacy_ID, Medication_ID) VALUES (202, 302);  INSERT INTO Pharmacy_Medication (Pharmacy_ID, Medication_ID) VALUES (203, 303);  INSERT INTO Medication_Insurance (Medication_ID, Insurance_ID) VALUES (301, 1);  INSERT INTO Medication_Insurance (Medication_ID, Insurance_ID) VALUES (302, 2);  INSERT INTO Medication_Insurance (Medication_ID, Insurance_ID) VALUES (303, 3);</pre>	

Script Output x

 | Task completed in 0.216 seconds

1 row inserted.

1 row inserted.

1 row inserted.

## CHECKING DATA INTEGRITY

```

SELECT p.Patient_ID, p.First_Name, p.Insurance_ID
FROM Patient p
LEFT JOIN Insurance_Provider i ON p.Insurance_ID = i.Insurance_ID
WHERE i.Insurance_ID IS NULL;

SELECT p.Patient_ID, p.First_Name, p.Insurance_ID,
CASE
    WHEN i.Insurance_ID IS NULL THEN 'No Insurance'
    ELSE 'Has Insurance'
END AS Insurance_Status
FROM Patient p
LEFT JOIN Insurance_Provider i ON p.Insurance_ID = i.Insurance_ID;

SELECT m.Medication_ID, m.Name AS Medication_Name, p.Pharmacy_ID, p.Pharmacy_Name, i.Stock_Level

```

Script Output x

Task completed in 0.091 seconds

```
no rows selected
```

Worksheet

```

SELECT p.Patient_ID, p.first_Name, p.Insurance_ID,
CASE
    WHEN i.Insurance_ID IS NULL THEN 'No Insurance'
    ELSE 'Has Insurance'
END AS Insurance_Status
FROM Patient p
LEFT JOIN Insurance_Provider i ON p.Insurance_ID = i.Insurance_ID;

SELECT m.Medication_ID, m.Name AS Medication_Name, p.Pharmacy_ID, p.Pharmacy_Name, ir.Stock_Level
FROM Medication m
LEFT JOIN Pharmacy_Medication pm ON m.Medication_ID = pm.Medication_ID
LEFT JOIN Pharmacy p ON pm.Pharmacy_ID = p.Pharmacy_ID
LEFT JOIN Inventory_Record ir ON p.Pharmacy_ID = ir.Pharmacy_ID AND m.Medication_ID = ir.Medication_ID

```

Script Output x

Task completed in 0.091 seconds

PATIENT_ID	FIRST_NAME	INSURANCE_ID	INSURANCE_STA
101	John	1	Has Insurance
102	Jane	2	Has Insurance
103	Alice	3	Has Insurance

```

        WHEN i.Insurance_ID IS NULL THEN 'NO Insurance'
        ELSE 'Has Insurance'
    END AS Insurance_Status
FROM Patient p
LEFT JOIN Insurance_Provider i ON p.Insurance_ID = i.Insurance_ID;

SELECT m.Medication_ID, m.Name AS Medication_Name, p.Pharmacy_ID, p.Pharmacy_Name, ir.Stock_Level
FROM Medication m
LEFT JOIN Pharmacy_Medication pm ON m.Medication_ID = pm.Medication_ID
LEFT JOIN Pharmacy p ON pm.Pharmacy_ID = p.Pharmacy_ID
LEFT JOIN Inventory_Record ir ON p.Pharmacy_ID = ir.Pharmacy_ID AND m.Medication_ID = ir.Medication_ID
ORDER BY m.Medication_ID, p.Pharmacy_ID;

```

Script Output x

Task completed in 0.091 seconds

MEDICATION_ID	MEDICATION_NAME	PHARMACY_ID	PHARMACY NAME
301	Paracetamol	201	City Pharmacy
302	Amoxicillin	202	Town Drugstore
303	Cetirizine	203	Village Chemist

## JOINS PHASE

### CROSS JOIN

pharmaconnect~1 x

0.037 seconds

pharmaconnect

Worksheet Query Builder

```

SELECT p.Pharmacy_Name, m.Name AS Medication_Name
FROM Pharmacy p
CROSS JOIN Medication m;

```

Script Output x

Task completed in 0.037 seconds

302 Amoxicillin	202 Town Drugstore
303 Cetirizine	203 Village Chemist

PHARMACY_NAME	MEDICATION_NAME
City Pharmacy	Paracetamol
City Pharmacy	Amoxicillin
City Pharmacy	Cetirizine
Town Drugstore	Paracetamol
Town Drugstore	Amoxicillin
Town Drugstore	Cetirizine
Village Chemist	Paracetamol
Village Chemist	Amoxicillin
Village Chemist	Cetirizine

9 rows selected.



## INNER JOIN

Worksheet   Query Builder	
<pre>SELECT p.Pharmacy_Name, m.Name AS Medication_Name FROM Pharmacy p INNER JOIN Pharmacy_Medication pm ON p.Pharmacy_ID = pm.Pharmacy_ID INNER JOIN Medication m ON pm.Medication_ID = m.Medication_ID;</pre>	
Script Output x	
Task completed in 0.06 seconds	
City Pharmacy City Pharmacy Town Drugstore Town Drugstore Town Drugstore Village Chemist Village Chemist Village Chemist	Amoxicillin Cetirizine Paracetamol Amoxicillin Cetirizine Paracetamol Amoxicillin Cetirizine
9 rows selected.	
PHARMACY_NAME	MEDICATION_NAME
City Pharmacy Town Drugstore Village Chemist	Paracetamol Amoxicillin Cetirizine

## LEFT JOIN

Worksheet   Query Builder	
<pre>SELECT p.First_Name, p.Last_Name, i.Insurance_Company_Name FROM Patient p LEFT JOIN Insurance_Provider i ON p.Insurance_ID = i.Insurance_ID;</pre>	
Script Output x	
Task completed in 0.031 seconds	
Village Chemist	Cetirizine
9 rows selected.	
PHARMACY_NAME	MEDICATION_NAME
City Pharmacy Town Drugstore Village Chemist	Paracetamol Amoxicillin Cetirizine
FIRST_NAME	LAST_NAME
John Jane Alice	Doe Smith Johnson

## RIGHT JOIN

pharmaconnect~1	
0.026 seconds	
pharmaconnect	
Worksheet Query Builder	
<pre>SELECT m.Name AS Medication_Name, p.Pharmacy_Name FROM Medication m RIGHT JOIN Pharmacy_Medication pm ON m.Medication_ID = pm.Medication_ID RIGHT JOIN Pharmacy p ON pm.Pharmacy_ID = p.Pharmacy_ID;</pre>	
Script Output x	
Task completed in 0.026 seconds	
City Pharmacy Town Drugstore Village Chemist	Paracetamol Amoxicillin Cetirizine
FIRST_NAME	LAST_NAME
John Jane Alice	Doe Smith Johnson
MEDICATION_NAME	PHARMACY_NAME
Paracetamol Amoxicillin Cetirizine	City Pharmacy Town Drugstore Village Chemist

## FULL OUTER JOIN

Worksheet Query Builder	
<pre>SELECT m.Name AS Medication_Name, ir.Stock_Level FROM Medication m FULL OUTER JOIN Inventory_Record ir ON m.Medication_ID = ir.Medication_ID;</pre>	
Script Output x	
Task completed in 0.033 seconds	
John Jane Alice	Doe Smith Johnson
MEDICATION_NAME	PHARMACY_NAME
Paracetamol Amoxicillin Cetirizine	City Pharmacy Town Drugstore Village Chemist
MEDICATION_NAME	STOCK_LEVEL
Paracetamol Amoxicillin Cetirizine	100 200 150

## TRANSACTION MANAGEMENT

Worksheet

Query Builder

```
INSERT INTO Pharmacy (Pharmacy_ID, Pharmacy_Name, Pharmacy_Address, Phone, Email)
VALUES (3, 'Main Street Pharmacy', '123 Main St, Anytown USA', '555-1234', 'info@mainstreetpharmacy.com');

-- Insert second pharmacy
INSERT INTO Pharmacy (Pharmacy_ID, Pharmacy_Name, Pharmacy_Address, Phone, Email)
VALUES (4, 'Oakwood Pharmacy', '456 Oak Rd, Somewhere City', '555-5678', 'oakwood@pharmacy.net');

-- If both inserts are successful, commit the transaction
COMMIT;
DBMS_OUTPUT.PUT_LINE('Pharmacies inserted successfully.');
```

EXCEPTION

WHEN OTHERS THEN

-- If there is any error, rollback the transaction

ROLLBACK;

DBMS\_OUTPUT.PUT\_LINE('An error occurred. Changes have been rolled back.');

Script Output

Task completed in 0.06 seconds

PL/SQL procedure successfully completed.

PHARMACY_ID	PHARMACY_NAME	PHARMACY_ADDRESS
201	City Pharmacy	101 Main St, Cityville
202	Town Drugstore	202 Center Ave, Townsville
203	Village Chemist	303 Market Rd, Hamlet
3	Main Street Pharmacy	123 Main St, Anytown USA

## ORACLE ENTERPRISE MANAGEMENT

Version 21.3.0.0.0 Express Edition

Platform Name Microsoft Windows x86 64-bit

Thread 1

Archiver Stopped

Last Backup Time N/A

Incident(s) 0

No data to display

Information

Resources

CPU Usage

0 ms/s

0 ms/s

0 ms/s

0 ms/s

0 ms/s

0 ms/s

0 ms/s

0 ms/s

0 ms/s

Background

Foreground

Active Sessions

60

50

40

30

20

10

0

Wait

User I/O

CPU

Memory

3.7 GB

2.8 GB

1.9 GB

953.7 MB

0 B

total\_sga

total\_pga

target\_pga

shared pool

large pool

buffer cache

Shared IO P...

Data Storage

2 GB

1.7 GB

1.4 GB

1.1 GB

858.3 MB

572.2 MB

286.1 MB

0 B

WEDN\_FALC...

XEPDB1

SQL Monitor - Last Hour (20 max)

Top 20 by Last Active Time

Filter by Status, SQL ID or User Name

## SELECTING

<pre>select * from pharmacy;</pre>		
Script Output x		
Task completed in 0.027 seconds		
1 row inserted.		
PHARMACY_ID	PHARMACY_NAME	PHARMACY_ADDRESS
201	City Pharmacy	101 Main St, Cityville
202	Town Drugstore	202 Center Ave, Townsville
203	Village Chemist	303 Market Rd, Hamlet

## UPDATING

Worksheet Query Builder		
<pre>-- Update the email of the pharmacy with Pharmacy_ID = 201 UPDATE Pharmacy SET Email = 'newemail@citypharmacy.com' WHERE Pharmacy_ID = 201;  -- Update the strength of the medication with Medication_ID = 301 UPDATE Medication SET Strength = '650mg' WHERE Medication_ID = 301;</pre>		
Script Output x		
Task completed in 0.076 seconds		
203 Village Chemist		303 Market Rd, Hamlet
3 Main Street Pharmacy		123 Main St, Anytown USA
4 Oakwood Pharmacy		456 Oak Rd, Somewhere City
1 row updated.		
1 row updated.		

## DELETING

Worksheet    Query Builder

```
-- Delete the record where Medication_ID = 301 and Insurance_ID = 1
DELETE FROM Medication_Insurance
WHERE Medication_ID = 301 AND Insurance_ID = 1;
```

Script Output x

Task completed in 0.057 seconds

```
Error starting at line : 6 in command -
DELETE FROM Pharmacy
WHERE Pharmacy_ID = 203
Error report -
ORA-02292: integrity constraint (WEDN_FALCON.FK_PHARMACY_MEDICATION_PHARMACY) violated - child record found

1 row deleted.
```

**TEAM MEMBERS :**

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-	UMUTONI Nadege	26609
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