

**ORACLE DATABASE ADMINISTRATION**

**BY**

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of  
Bachelor of Science in Computer Science and Engineering

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**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

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## **APPROVAL**

This Project titled “**ORACLE DATABASE ADMINISTRATION**”, submitted by MD.Mahmodul Hasan to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering (BSc) and approved as to its style and contents. The presentation has been held on \*07-04-2018\*

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## DECLARATION

We hereby declare that, this project has been done by us under the supervision of **MR. Shah Md. Tanvir Siddiquee, Senior Lecturer, Department of CSE** Daffodil International University.

We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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## **ABSTRACT**

This internship report is the primary gateway to understand the Oracle Database Software. Conceptually, Oracle database is large Database software Management System, a place to store and retrieve information. At the computer level, Oracle is a computer program that manages many types of database system. I have shown all the steps that are required to solve the database program.. Finally, my documentation for this internship indicates successful completion of the tasks that was assigned to me.

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# CHAPTER 1

## Introduction

### 1.1 Introduction:

An Oracle database is a collection of data treated as a unit. The purpose of a database is to store and retrieve related information. A database server is the key to solving the problems of information management. In general, a server reliably manages a large amount of data in a multiuser environment so that many users can concurrently access the same data. All this is accomplished while delivering high performance. A database server also prevents unauthorized access and provides efficient solutions for failure recovery.

### 1.2 Motivation:

A database administrator's job involves working with a variety of databases, from banks' account systems to hospital record management. Oracle is worldwide leader and Oracle database is most popular globally. Most of the companies are using Oracle database on various platforms. Means chances of Oracle DBA jobs are more at any type of industry like telecom, finance, banking, etc.

### 1.3 Internship Objectives:

Database Administrators work to ensure that databases are secured and that they are performing properly. They work on development as well. They make sure that data is consistent in the database and that it is clearly defined. Database Administrators monitor user access, determine user needs, design databases, perform tests, ensure standards are maintained and work with other IT professionals and managers to ensure database integrity and security are kept up with. Important skills include technical, communication, analytical and problem-solving skills.

### 1.4 Introduction to the Company:

SYS DEV LTD is one of the most robust and leading End-to-End Software Development, Professional Skill Development and Support Solutions Company in Bangladesh. Since its

inception in 2011, the company is working with a mission to meet the consumer needs and aspiration in distributing high quality software and hardware products and services through maintaining high level of customer satisfaction.

SYS DEV LTD has started its journey as a proprietorship company named “DEV NET IT” in 2011. It was very robust and quick growing company in Bangladesh. With good reputation and full furnished product its form as a company as the name of “SYS DEV LTD” in 2015.

**Official Name:** SYS DEV LTD.

**Type:** Private Limited Company registered in Bangladesh

**Year of establishment:** 2011

**Operational Office Address:**

House No: 104, Flat No: A-1, 1<sup>st</sup>Floor, Siddeswari Circular Road, Ramna, Dhaka-1217. Web: [www.sysdevltd.com](http://www.sysdevltd.com)

### **Services Provide:**

- Software Development
- Android and IOS apps Development
- Corporate IT Solution
- IT Consultancy
- Provide Professional and Fundamental Training
- Web Application Design and Development
- Web based and Client Server Application Design Development
- Networking and Automation
- Export/Import of software and hardware
- Hardware and security devices sales and supply

### **1.5 Outcome:**

After completing the internship, I hope it will increase my skill and give me the professional experience. That will be helpful to build my career and easy to get a job.

## **1.6 Objective of the report:**

1. Learn how to install and configure the Electricity Billing Management software.
2. To obtain a wide knowledge about the networking security of a LAN
3. Know more about Database
4. To acquire practical knowledge of Oracle Developing

[https://en.wikipedia.org/wiki/Oracle\\_Database](https://en.wikipedia.org/wiki/Oracle_Database)

## **CHAPTER 2**

### **Organization**

#### **2.1 Introduction:**

Database administrators works to ensure that databases are secured and they are performing properly. Database administrators monitor user access, determine user needs, design databases, perform tests, ensure standards are maintained and work with other it professionals and managers to ensure database integrity.

#### **2.2 Market Situation:**

A database administrator builds and maintains custom databases to meet the specific data needs of a company or organization. Increase the demand is expected in computer careers such as this over the next 10 years, although here are fewer databases administrator jobs anticipated than in other similar fields, such as network security specialist and telecommunication specialist. Database administrators who are employed in a permanent position by a company to maintain an internal database often work full-time. Database administration is a growing field that should stay relevant for a long time.

#### **2.3 Target Group:**

There are many opportunities in DBA jobs. Because in every sector Database must be need. I contact with Markentile Bank authority for internship. I hope they will give me the job opportunity.

#### **2.4 SWOT Analysis:**

##### **Strengths:**

1. Low / free license fee.
2. Open source.

3. Low product development cost.

**Weaknesses:**

1. Low reliability
2. Low service support
3. Lack of physical presence

**Opportunities:**

1. Lucrative market of large organizations.
2. Other emerging market like Saas vendors.

**Threats:**

1. Dilute its brand image.

**2.5 It Service Offered:**

Our expertise lies in clearly perceiving the business goals of our customers, choosing the most appropriate technology and efficiently designing and developing solutions. We strongly believe that this increases business value much more than the mere development of the software application. Therefore we design and develop innovative and high quality end-to-end software and business solutions that help our clients reduce their work time and cost of business operation.

**NAME OF SYS DEV LTD’S SOFTWARE / MODULE:**

SL	Software Name
1	Hospital Management System
2	e-Office Management
3	Online Project Monitoring

<b>4</b>	<b>Online HRM with Admin and Payroll</b>
<b>5</b>	<b>Online Sales, Inventory and Account Management System</b>
<b>6</b>	<b>Online Inventory Management</b>
<b>7</b>	<b>Library Management System</b>
<b>8</b>	<b>Asset management system</b>
<b>9</b>	<b>Finance &amp; accounting</b>
<b>10</b>	<b>Vehicle Management</b>
<b>11</b>	<b>House Keeping</b>
<b>12</b>	<b>Food and Beverage Management</b>
<b>13</b>	<b>Holdings Management System</b>
<b>14</b>	<b>Out – patient billing for hospital</b>
<b>15</b>	<b>In patient billing for hospital</b>
<b>16</b>	<b>Pathology/Imaging Management for hospital and diagnostic</b>
<b>17</b>	<b>Pharmacy management system ( Inventory and Procurement )</b>
<b>18</b>	<b>Blood Bank</b>
<b>19</b>	<b>Lab Interface System (LIS)</b>
<b>20</b>	<b>Point of Sale (POS)</b>
<b>21</b>	<b>Mobile Application</b>
<b>22</b>	<b>Export, Import, LC and Trading Inventory with Accounts</b>

## Development Tools We Use:

<b>Tools We Use In Software</b>	<b>PROGRAMMING LANGUAGES:</b>  C/C++, Visual Basic, Visual C++, Java, Java Server Pages, JavaScript, Visual Basic Scripting Edition  (VBScript), Java, Active Server Pages (ASP), JavaBeans, SH (KSH, BASH), Python, PL SQL.
<b>Net Technologies:</b>	.NET Framework, C#, Microsoft Visual Basic .NET, ASP.NET, MVC
<b>Open Source Tools:</b>	Linux, Unix, MySQL, PHP, Java, Java Script, etc
<b>Programming Standards:</b>	COM/DCOM/COM+, J2EE, J2ME, ActiveX, Cobra, RPC
<b>Networks/Web:</b>	Perl, CGI Script, HTML/DHTML, Internet Information Server, Apache, Java  Web Server, XML, Windows NT, DOM/SAX, WAP, SSL

<b>Databases/DB</b>	Oracle, MS SQL Server, MS Access, MySQL, FoxPro, JDBC, ODBC, OLE DB, Postgre, Mongodb
<b>GUI:</b>	Microsoft Office/Visual Basic for Applications (VBA), KDE (Linux), Motif (Solaris), Qt, Photon, X Window, GNU toolkit cross platform development suite

## 2.6 Roles in Job Market:

### Some of our clients:

1. Metropolitan Medical Center - Hospital
2. The Medical Center - Hospital at Chittagong
3. Pearl of Health Hospital - at Zambia[ Africa]
4. Advance Care Hospital - at Zambia[ Africa]
5. Smile Dental at Zambia [ Africa ]
6. Care Bangladesh
7. Exim Bank Hospital, Dhaka
8. LMRF- Hospital at Comilla
9. Advance Hospital Limited - Dhaka.
10. Paedi hope Hospital for Sick Children, Dhaka
11. Barakah Hospital Limited, Madanpur, Narayanganj



12. Anwar Khan Modern Hospital, Dhanmondi
13. Ad-din Hospital, Zurain, Dhaka
14. Proper Healthcare Limited
15. Lazz Pharma
16. UNDP
17. Venus Telecom
18. MBM Group, Dhaka
19. Cutting Edge industries ltd.
20. Prochito IMC
21. United export ltd
22. Islamia General Hospital, Dhaka.
23. CRISL, Dhaka

[https://en.wikipedia.org/wiki/Oracle\\_Database](https://en.wikipedia.org/wiki/Oracle_Database)

## CHAPTER 3

### Tasks, Projects and Activities

#### 3.1 Introduction:

The system is fully database application. There is need to install the Database software. All you have to need a personal ID and password for open the oracle user. To view temporary data the server gets the request from the user and gate data from the database. And the required information will appeared in the DB window. The admin can easily add, delete or update data easily in the database. And users also have the facility to update delete and add command.

#### 3.2 Objective:

Objective List the features of Oracle. Discuss the theoretical and physical aspects of a relational database Describe the Oracle implementation of the RDBMS and ORDBMS. The admin can easily add, delete or update data easily in the database. And users also have the facility to update delete and add product.

#### 3.3 Tools to be used:

# Oracle database 11g

# PL/SQL

#### 3.4 Daily Tasks and Activities (SQL plus):

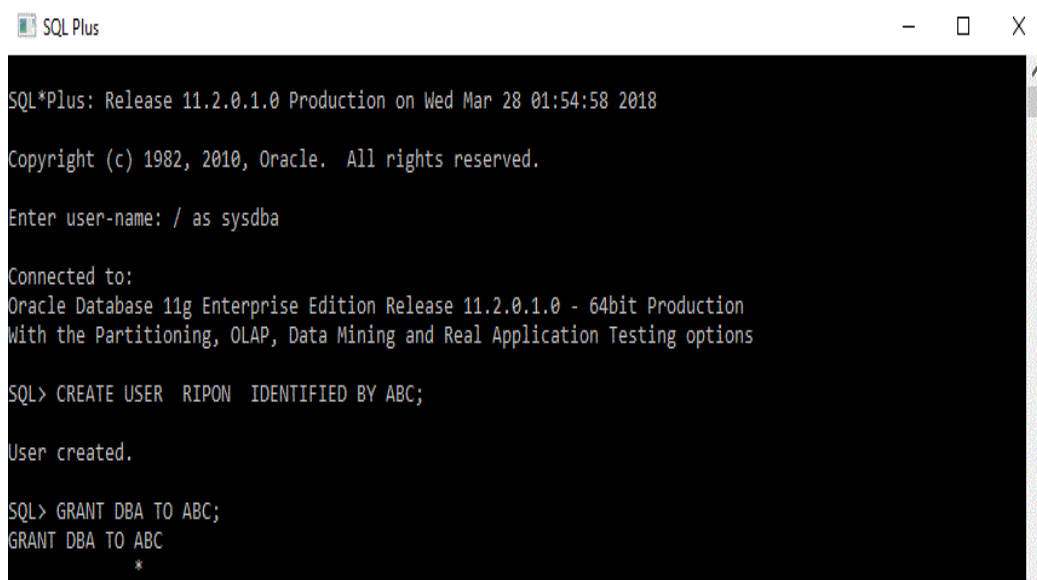
I want to create SELECT statements that can be used again and again. This lesson also covers the use of SQL commands to execute SQL statements.

##### 3.4.1 Create user and password:

If I want to create Database user and password:

```
CREATE USER RIPON IDENTIFIED BY ABC;
```

GRANT DBA TO ABC;



```
SQL*Plus
SQL*Plus: Release 11.2.0.1.0 Production on Wed Mar 28 01:54:58 2018
Copyright (c) 1982, 2010, Oracle. All rights reserved.
Enter user-name: / as sysdba
Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
SQL> CREATE USER RIPON IDENTIFIED BY ABC;
User created.
SQL> GRANT DBA TO ABC;
GRANT DBA TO ABC
*
```

Figure 3.1: Database User Create

### 3.4.2 User Delete:

DROP USER RIPON CASCADE;

### 3.4.3 User Password Change:

ALTER USER RIPON IDENTIFIED BY ABC;

GRANT DBA TO ABC;

### 3.4.4 How to Create Table:

Create table pr5

(ID Number,

Name varchar2(20),

Department\_name varchar2(20),

Department\_id number,

Salary number);

```
SQL> Create table pr5
  2 (ID Number,
  3 Name varchar2(20),
  4 Department_name varchar2(20),
  5 Department_id number,
  6 Salary number);

Table created.

SQL>
```

Figure 3.2: Table create for Database

### 3.4.5 How to Show Table:

If I want to see the table then use this:

```
Select * from pr5;
```

### 3.4.6 How to Delete Table:

If need to delete the table then

```
drop table pr2;
```

### 3.4.7 How to Insert Row on Table:

If I want to insert a row on that table then :

```
Insert into pr5 (Name,Department_name,Department_id,Salary)
```

```
values (RIPON, 'Boss', 001, 17000);
```

### 3.4.8 How to Delete Row from Table:

If I want to delete row from table:

```
Delete from pr5 where Department_name='Boss';
```

### 3.4.9 How to Modify Column Name:

If I want to modify column name than:

```
Alter table pr5 modify (Department_idnumber );
```

```
// from department _id varchar2(20) to change department _id number (20)//
```

## 3.5 Daily Tasks and Activities (PL/SQL):

### 3.5.1 Simple Code for PL/SQL: (Sum,Sub,Avg,)

Declare

```
x number; y number;
```

```
Sm number; Sb number; Ag number;
```

Begin

```
x:=20; y:=30;
```

```
Sm:=x+y; Sb:=x-y;
```

```
Ag:=(x+y)/2;
```

```
dbms_output.put_line('*****');
```

```
dbms_output.put_line('sum Total'||Sm);
```

```
dbms_output.put_line('sub Total'||Sb);
```

```
dbms_output.put_line('avg Total'||Ag);
```

```
dbms_output.put_line('***** ');  
  
end;/
```

```
SQL> Declare  
 2 x number; y number;  
 3 Sm number; Sb number; Ag number;  
 4 Begin  
 5 x:=20; y:=30;  
 6 Sm:=x+y; Sb:=x-y;  
 7 Ag:=(x+y)/2;  
 8 dbms_output.put_line('***** ');  
 9 dbms_output.put_line('sum Total  ||Sm);  
10 dbms_output.put_line('sub Total  ||Sb);  
11 dbms_output.put_line('avg Total  ||Ag);  
12 dbms_output.put_line('***** ');  
13 end  
14 /
```

Figure 3.3: Sum/Sub/Avg

### 3.5.2 Code with Same Variable for 2 Times:

Declare

```
x number:=100; y Date; z number:=110;
```

```
p number; q number;
```

Begin

```
p:=x+z;
```

```
dbms_output.put_line('Total ||p);
```

```
x:=200; z:=300; p:=x+z;
```

```
dbms_output.put_line('Total ||p);
```

```
end;
```

```
/
```

### 3.5.3 To Find and Print the Name of Employee and Salary from Employees:

**declare**

```
v_name varchar2(30);
```

```
v_sal number;
```

```
begin
```

```
select last_name, salary into v_name, v_sal from employees
```

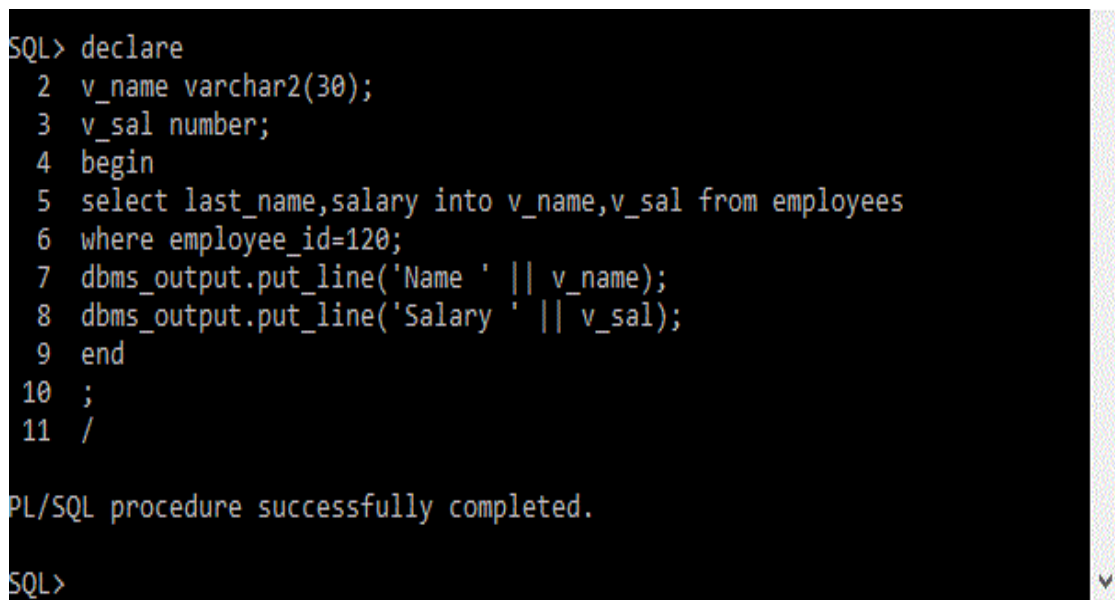
```
where employee_id=120;
```

```
dbms_output.put_line('Name ' || v_name);
```

```
dbms_output.put_line('Salary ' || v_sal);
```

```
end;
```

```
/
```



```
SQL> declare
  2  v_name varchar2(30);
  3  v_sal number;
  4  begin
  5  select last_name, salary into v_name, v_sal from employees
  6  where employee_id=120;
  7  dbms_output.put_line('Name ' || v_name);
  8  dbms_output.put_line('Salary ' || v_sal);
  9  end
 10 ;
 11 /

PL/SQL procedure successfully completed.

SQL>
```

Figure 3.4: Procedure Creating

### 3.5.4 Find and print The sum(salary) and max(salary) of DesierdDepartment\_id from Employees :

```
declare  
  
v_sum number;  
  
v_max number;  
  
begin  
  
select sum (salary),max(salary) into v_sum,v_max from employees  
  
wheredepartment_id=30;  
  
dbms_output.put_line('Total ' || v_sum);  
  
dbms_output.put_line('Max ' || v_max);  
  
end;  
  
/
```

### 3.5.5 Use Loop Statement:

Here I give some code and how to use loop on statement:

#### 3.5.5.1 Print Number 1 to 10 Sequentially: (single loop)

Code:

```
Begin  
  
fori in 1..10 loop  
  
dbms_output.put_line(i);  
  
end loop;
```



```
end;/
```

### **3.5.5.2 Using Multi Loop:**

```
declare

cursorempcur is select * from employees;

cursordepcur is select * from departments;

v_tax number;

begin

fori in empcur loop

dbms_output.put_line('name'|| i.last_name);

dbms_output.put_line('salary'|| i.salary);

dbms_output.put_line('job'|| i.job_id);

end loop;

fori in depcur loop

dbms_output.put_line(i.department_name);

end loop;

end;

/
```

### **3.5.5.3 Using Single loop & Fixed Department id:**

```
Declare

cursorempcur is select * from employees
```

```
department_id in(20,30,40);

v_tax number;

begin

fori in empcur loop

dbms_output.put_line('name'|| i.last_name);

dbms_output.put_line('salary'|| i.salary);

dbms_output.put_line('job'|| i.job_id);

end loop;

end;

/
```

### **3.5.6 Example of single point and 3 outputs in each point:**

```
begin

fori in 1..5 loop

dbms_output.put_line('outer loop');

for j in 1..3 loop

dbms_output.put_line('inner'|| j);

end loop;

dbms_output.put_line('out'|| i);

end loop;

end; /
```

### **3.5.7 To show employees department's all department By single identification & it will use again & again by x called(without null) :**

```
declare

cursordepcur is select * from departments where department_id in ( select department_id from
employees where department_id is not null);

cursorempcur (id number) is select * from employees where department_id=id;

begin

for x in depcur loop

dbms_output.put_line('department'|| x.department_name);

fori in empcur(x.department_id) loop

dbms_output.put_line('name'|| i.last_name);

dbms_output.put_line('salary'|| i.salary);

end loop;

dbms_output.put_line('.....');

end loop;

end;

/
```

### **3.5.8 For Full department show (with null department) :**

```
declare

cursordepcur is select * from departments;
```

```

cursorempcur (id number) is select * from employees where department_id=id;

begin

for x in depcur loop

dbms_output.put_line('department'|| x.department_name);

for i in empcur(x.department_id) loop

dbms_output.put_line('name'|| i.last_name);

dbms_output.put_line('salary'|| i.salary);

end loop;

dbms_output.put_line('.....');

end loop;

end;

/

```

```

SQL> declare
  2  cursor depcur is select * from departments;
  3  cursor empcur (id number) is select * from employees where departmen
t_id=id;
  4  begin
  5  for x in depcur loop
  6  dbms_output.put_line('department' || x.department_name);
  7  for i in empcur(x.department_id) loop
  8  dbms_output.put_line('name' || i.last_name);
  9  dbms_output.put_line('salary' || i.salary);
 10  end loop;
 11  dbms_output.put_line('.....');
 12  end loop;
 13  end;
 14  /

```

Figure 3.5: Department Show with null

### 3.5.9 Using if else condition

#### 3.5.9.1 Using if else condition & input value find the result :

```
declare  
  
x number;  
  
y varchar2(25);  
  
begin  
  
select salary  
  
into x from employees where employee_id=&emp;  
  
if x<200 then  
  
y:='senior officer';  
  
else  
  
y:='junior officer';  
  
end if;  
  
dbms_output.put_line(y);  
  
dbms_output.put_line(x);  
  
end;  
  
/
```

Enter value for emp: 201

#### **Output:**

```
old 6: into x from employees where employee_id=&emp;
```

```
new 6: into x from employees where employee_id=201;
```

```
junior officer
```

```
13000
```

```
SQL> declare
 2   x number;
 3   y varchar2(25);
 4   begin
 5   select salary
 6   into x from employees where employee_id=&emp;
 7   if x<200 then
 8   y:='senior officer';
 9   else
10   y:='junior officer';
11   end if;
12   dbms_output.put_line(y);
13   dbms_output.put_line(x);
14   end;
15 /
Enter value for emp: 202
old 6:      into x from employees where employee_id=&emp;
new 6:      into x from employees where employee_id=202;
```

Figure 3.6: If else condition

### 3.5.9.2 Using multiple if else Condition & input value then find the result:

```
declare
```

```
x number:=&data;
```

```
y varchar2(25);
```

```
begin
```

```
if x= 1 then y:='Best';
```

```
elsif x=2 then y:='Excellent';
```

```
elsif x=3 then y:='Good';
```

```
elsif x=4 then y:='Bad';
```

```
elsif x=5 then y:='Sorry';
```

```
else y:='out of Range';
```

```
end if;
```

```
dbms_output.put_line(y);
```

```
end;
```

```
/
```

```
Enter value for data: 1
```

### **Output:**

```
old 2: x number:=&data;
```

```
new 2: x number:=1;
```

```
Best
```

### **3.5.10 Process:**

#### **1. to create table:--**

```
create table pr_5
```

```
(id number,
```

```
lname varchar2(25),
```

```
sal number,
```

```
dt date,
```

```
dep number)
```

```
/
```

## 2. insert values in the table: --

create or replace procedure x\_proc (pid number) is

```
v_name varchar2(25);
```

```
v_sal number;
```

```
v_dt date;
```

```
v_dept number;
```

```
begin
```

```
select last_name, salary, hire_date, department_id into v_name, v_sal, v_dt, v_dept from employees
```

```
where employee_id=pid;
```

```
insert into pr_5
```

```
values (pid, v_name, v_sal, v_dt, v_dept);
```

```
commit;
```

```
end;
```

```
/
```

## 3. to check... or use we must need to execute: --

```
1. executex_proc(120);
```

```
2. select * from pr_5;
```

## 4. replace current table values by using procedure:--

create or replace procedure dlp

is



```
begin
delete pr_5;
commit;
end;
/
```

**5. Another procedure by using cursor in same table by replacing:-**

```
create or replace procedure ins_p
(p_id number)
is
cursor xcur is select * from employees
where department_id = p_id;
begin
for i in xcur loop
insert into pr_5 values (i.employee_id,i.last_name,i.salary,i.hire_date,i.department_id);
end loop;
commit;
end;
/
execute ins_p(20);
```

### 3.5.11Function:

1.create a function & assign the id to find the name:-

```
create function x_fn
```

```
(pid number)
```

```
return varchar2
```

```
is
```

```
v_name varchar2(25);
```

```
begin
```

```
select department_name into v_name from departments where department_id=pid;
```

```
return v_name;
```

```
end;
```

```
/
```

To Check:

```
select x_fn(100) from dual;
```

**2. Function: create a function & assign the id to find the first & last Name:-**

```
create or replace function x_fn
```

```
(pid number)
```

```
return varchar2
```

```
is
```

```
v_name varchar2(35);
```

```
begin
select first_name || last_name into v_name from employees where employee_id=pid;
return v_name;
end;/
```

To Check:

```
Select x_fn(100) from dual;
```

### **3. Function: create a function & assign the id with if else condition**

**to find the tax bases on salary:-**

```
create function f_tax
(pid number)
return number
is
v_tax number;
v_sal number;
begin
select salary into v_sal from employees where employee_id=pid;
if v_sal < 5000 then
v_tax := v_sal * .05;
elseif v_sal < 10000 then
v_tax := v_sal * .1 ;
```

```
elsev_tax:= v_sal * .15;
```

```
end if;
```

```
returnv_tax;
```

```
end;
```

```
/
```

Tocheck:

```
selectemployee_id,salary,f_tax(100) from employees;
```

### **3.5.12 Find out Name Department Name and Tax from functions:**

Need to create 3 functions for Name Department Name and Tax

Because we have no function created here.

#### **Function 1:**

```
create or replace function fx2
```

```
(id number)
```

```
return varchar2
```

```
is
```

```
v1 varchar2(30);
```

```
Begin
```

```
selectlast_name||' '||first_name into v1
```

```
from employees
```

```
where employee_id=id;
```

```
return v1;
```

```
end; /
```

### **Function 2:**

```
create or replace function df2
```

```
(pid number)
```

```
return varchar2
```

```
is
```

```
vn varchar2(30);
```

```
Begin
```

```
select department_name into vn from departments
```

```
where department_id=pid;
```

```
return vn;
```

```
end;
```

```
 /
```

### **Function 3:**

```
create or replace function tf2
```

```
(id number)
```

```
return number
```

```
is
```

```
tx number;

sal number;

Begin

select salary into sal from employees

where employee_id=id;

if sal<=5000 then

tx :=sal * .05;

elsif sal<=10000 then

tx:=sal * .1;

elsetx:=sal * .15;

end if;

returnx;

end;

/
```

**Final one:**

```
create or replace procedure test82

(vidnumber,did number)

is

v_name varchar2(30);
```

```

v_dept varchar2(30);

v_tax number;

begin

select fx2(vid),df2(did),tf2(vid)

intov_name,v_dept,v_tax from dual;

dbms_output.put_line('name '||v_name);

dbms_output.put_line('department '||v_dept);

dbms_output.put_line('tax '||v_tax);

end;

/

```

### **Output:**

```
execute test82(110,20)
```

### **3.5.13 Need First Name & Last Name Together By full name from employees:**

```
create or replace function fx2
```

```
(id number)
```

```
return varchar2is
```

```
v1 varchar2(30);
```

```
Begin
```

```
selectlast_name||' '||first_name into v1
```

```
from employees

where employee_id=id;

return 'Full Name: '||v1;

end;

/
```

```
SQL> create or replace function fx2
  2 (id number)
  3 return varchar2
  4 is
  5 v1 varchar2(30);
  6 Begin
  7 select last_name||' '||first_name into v1
  8 from employees
  9 where employee_id=id;
 10 return 'Full Name: '||v1;
 11 end;
 12 /
```

Figure 3.7: Function for getting together last name and first name

### 3.5.14 Delete one table and also insert another table in one command:

```
create table aud_1
(id number,
l_name varchar2(30),
sal number,
dt date,
usr varchar2(30))
```



```
create table empxy  
  
as select  
  
employee_id,last_name,  
  
salary from employees  
  
end;/
```

```
create or replace trigger audtrig  
  
after delete on empxy  
  
for each row  
  
begin  
  
insert into aud_1  
  
values(:old.employee_id,:old.last_name,  
  
:old.salary,sysdate,USER);  
  
end; /
```

### **3.5.15 Inserting or Deleting in Multiple Table By Using Trigger:**

```
create  
  
table t3s  
  
(ids number,  
  
sals number,  
  
dts date,  
  
coms varchar2(100));
```

```
create table t2m
(idm number,
salm number,
dtm date);

create or replace trigger insdeltrig
after insert or update or delete on t2m
for each row
begin
if inserting then
insert into t2f
values(:new.idm,:new.salm,:new.dtm);

insert into t3s
values(:new.idm,:new.salm,:new.dtm,'My name is new data');
end if;

if deleting then
insert into t2f
values(:old.idm,:old.salm,:old.dtm);

insert into t3s
values(:old.idm,:old.salm,:old.dtm,'I am delete data');
end if;
```

end;/

Now For Check:

insert into t2m

values(100,5000,sysdate);

insert into t2m

values(200,6000,sysdate);

delete from t2m where idm=100;

[http://dbmanagement.info/Books/MIX/Oracle11g\\_PLSQL\\_Devel\\_\(1\)\\_PLSQL.pdf](http://dbmanagement.info/Books/MIX/Oracle11g_PLSQL_Devel_(1)_PLSQL.pdf)

[http://dbmanagement.info/Books/MIX/Oracle11g\\_PLSQL\\_Devel\\_\(2\)\\_Oracle\\_PLSQL.pdf](http://dbmanagement.info/Books/MIX/Oracle11g_PLSQL_Devel_(2)_Oracle_PLSQL.pdf)

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<http://holowczak.com/oracle-sqlplus-tutorial/>

## **3.6 Project Task & Activities:**

### **3.6.1 Finding Comparatively Idle Petrol Pump Nearby**

First of all need to make a table and insert data on SQL Plus. For create this project need to make some initial table like as Time Slot, Vehicle, Tran details, Transaction and which table we need.

Create table table name (

column1 datatype,

column2 datatype,

column3 datatype,

);

```
TABLE_NAME
-----
JOB_HISTORY
LOCATIONS
LOCATIONS_SEQ
PAT_INFO
PRODUCTS
PROD_VW
PUMP_INFO
PUR
PVW
REGIONS
SEL

TABLE_NAME
-----
STC
STC_VW
SVW
TIME_SLOT
TM_SLT
TRAN_DETAIL
TRAN_MASTER
TRAN_VW
VEHICLE

31 rows selected.

SQL>
```

Figure 3.8: Table name

Then we use oracle forms builder to design the user interface. We make some module on forms builder. In those modules we use some button. For each and every button we use different code. We use some internal system of oracle database to make this project like

- LOV WIZARD
- DATA BLOCK WIZARD
- LAYOUT WIZARD

### Module on forms builder:

On forms need to create some module for this project. For this project we need

1. PATINFO
2. VEHICLE
3. TIMESLOT
4. PATMAIN

5. TRANDETAIL
6. DATAVW
7. PPCS

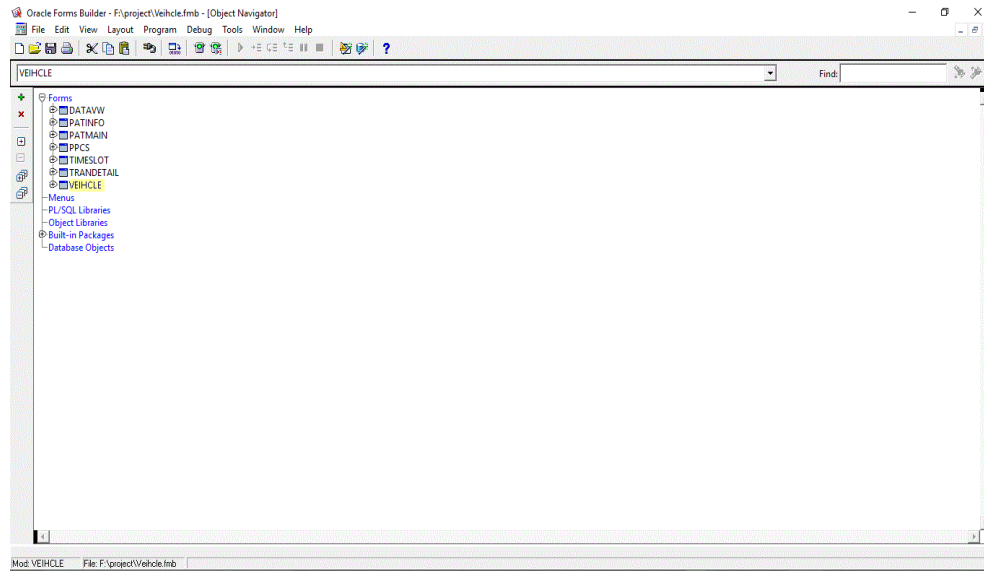


Figure 3.9: Module on forms builder

This is user interface for query. All things are linkup with this.

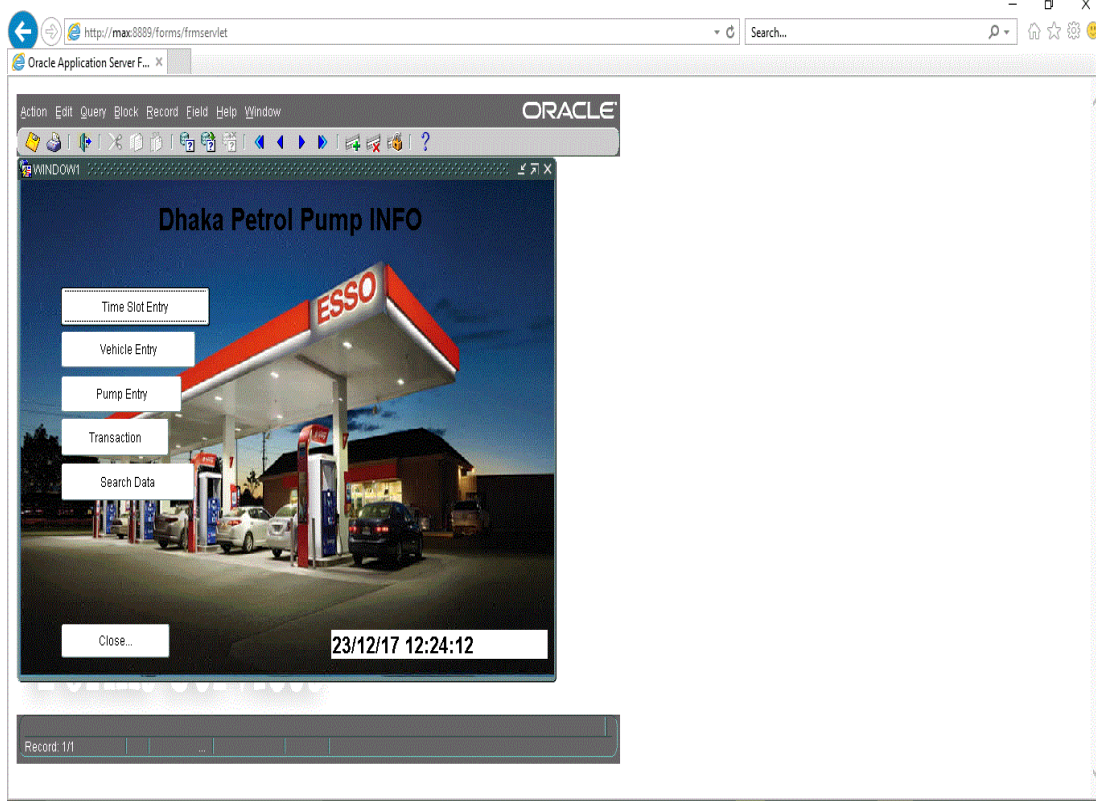


Figure 3.10: User interface

### 1. Time Slot Entry:

Divided 24 hour in six slot .That's make easy to find all vehicles details. And also we can insert new time if we want to change or add new time zone.

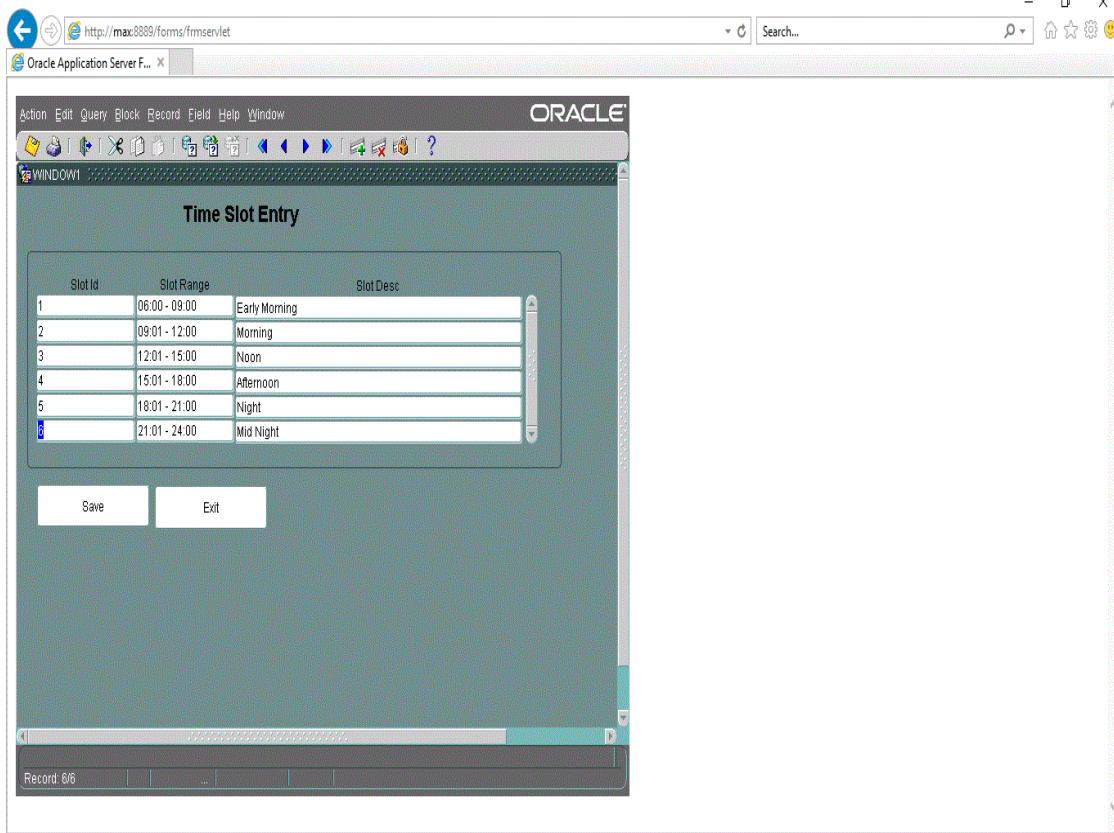


Figure 3.11: Time slot

## 2. Vehicles Entry:

That's project is offline project. So that we need to insert new vehicles that we find

All searchable vehicles on that selected time zone.

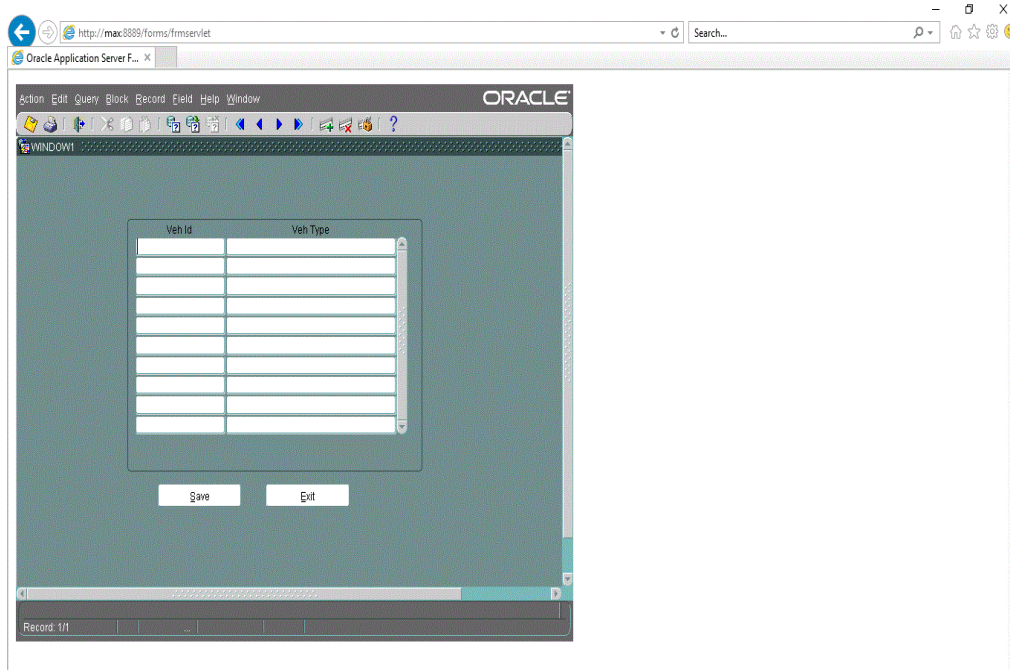


Figure 3.12: Vehicles list and entry

### 3. Pump Entry:

In our area we need to find all pump station and need to insert all pump station name and id on that table.

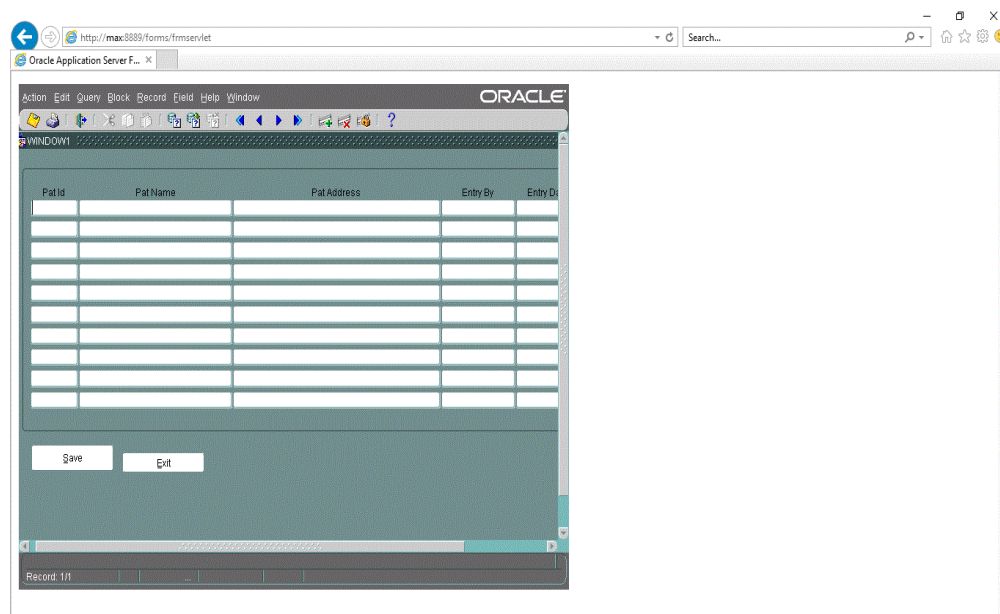




Figure 3.13: pump's entry

#### 4. Transaction:

Reason of offline mood we need to entry all things. Use CTRL + L and select the name or id of the pump station. Then again we need to select the time slot same process using CTRL+L. Then we have to entry the vehicles and save.

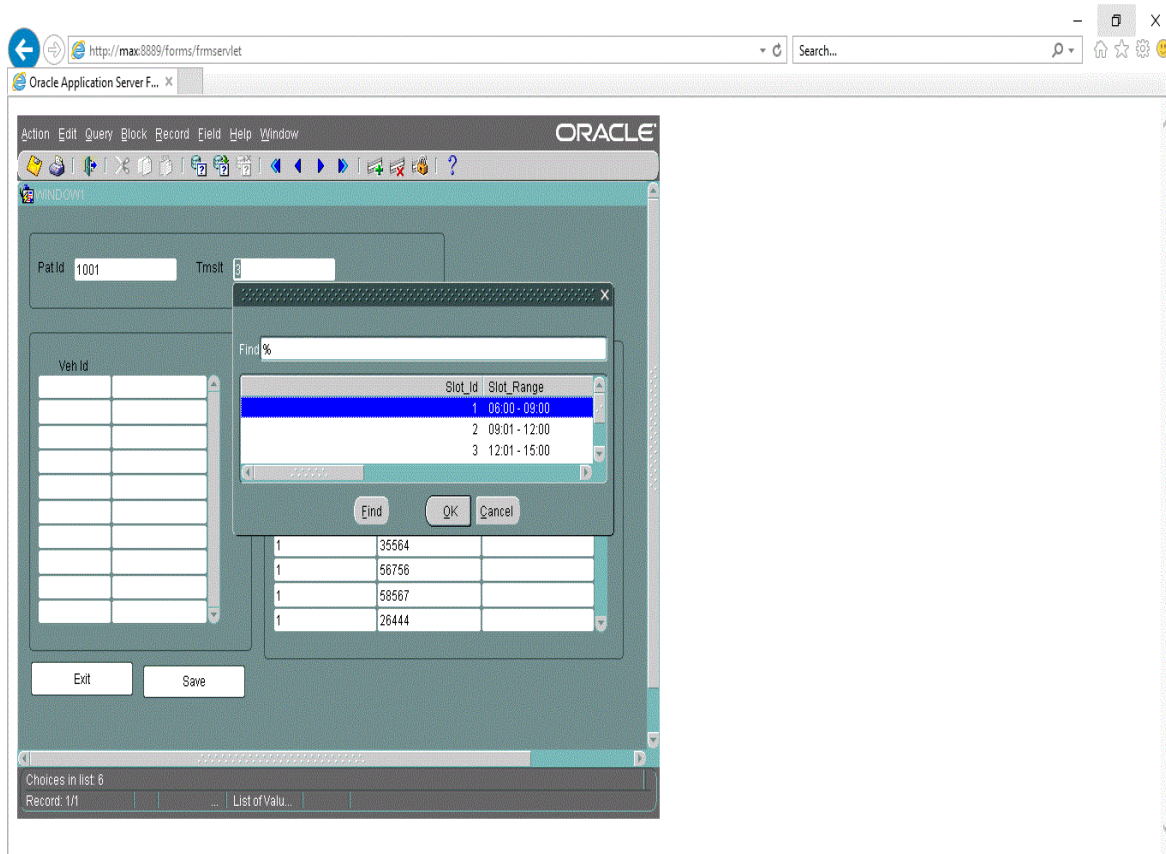


Figure 3.14.1: Transaction (Step 1)

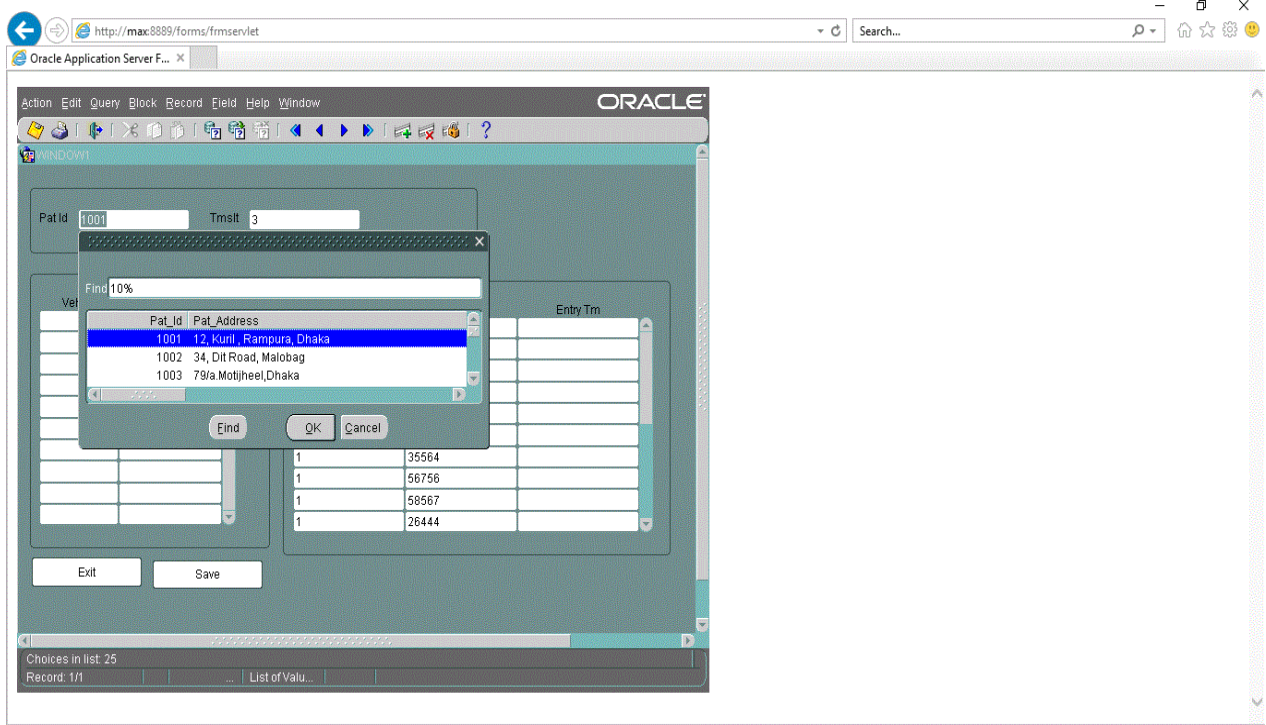


Figure 3.14.2: Transaction (Step 2)

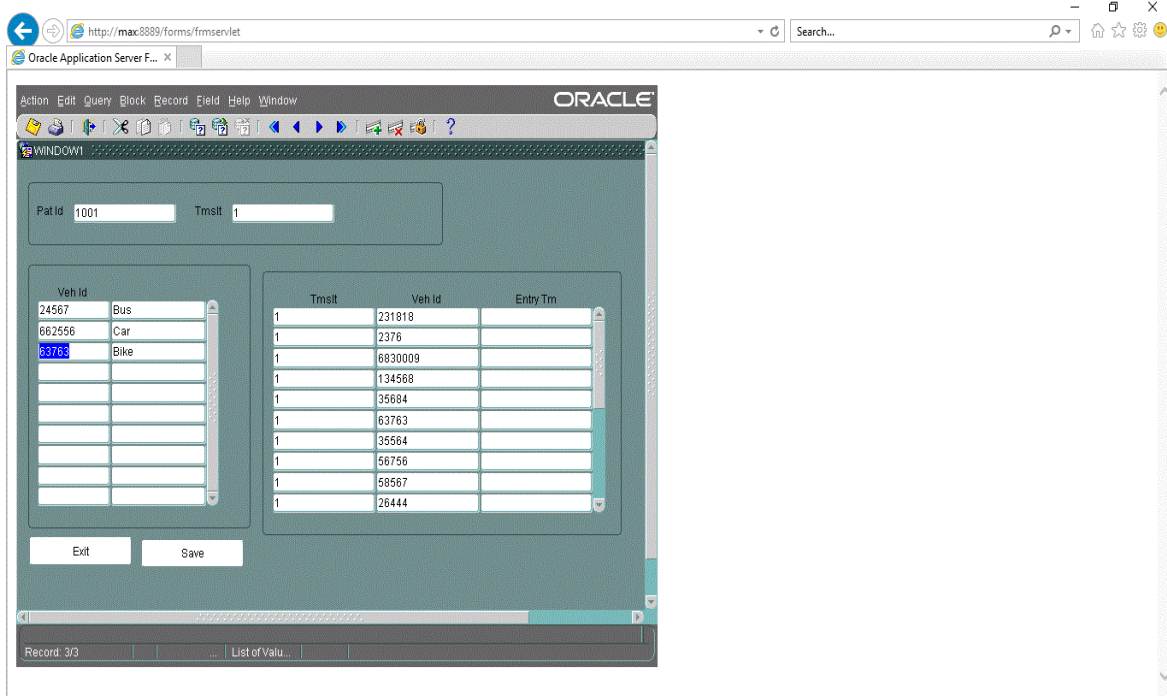


Figure 3.14.3: Transaction (Step 3)

## 5. Search :

This is the main things of this project. Using CTRL+L select pump name and the time slot .Then we press GO button and that we get the value of selected pump station.

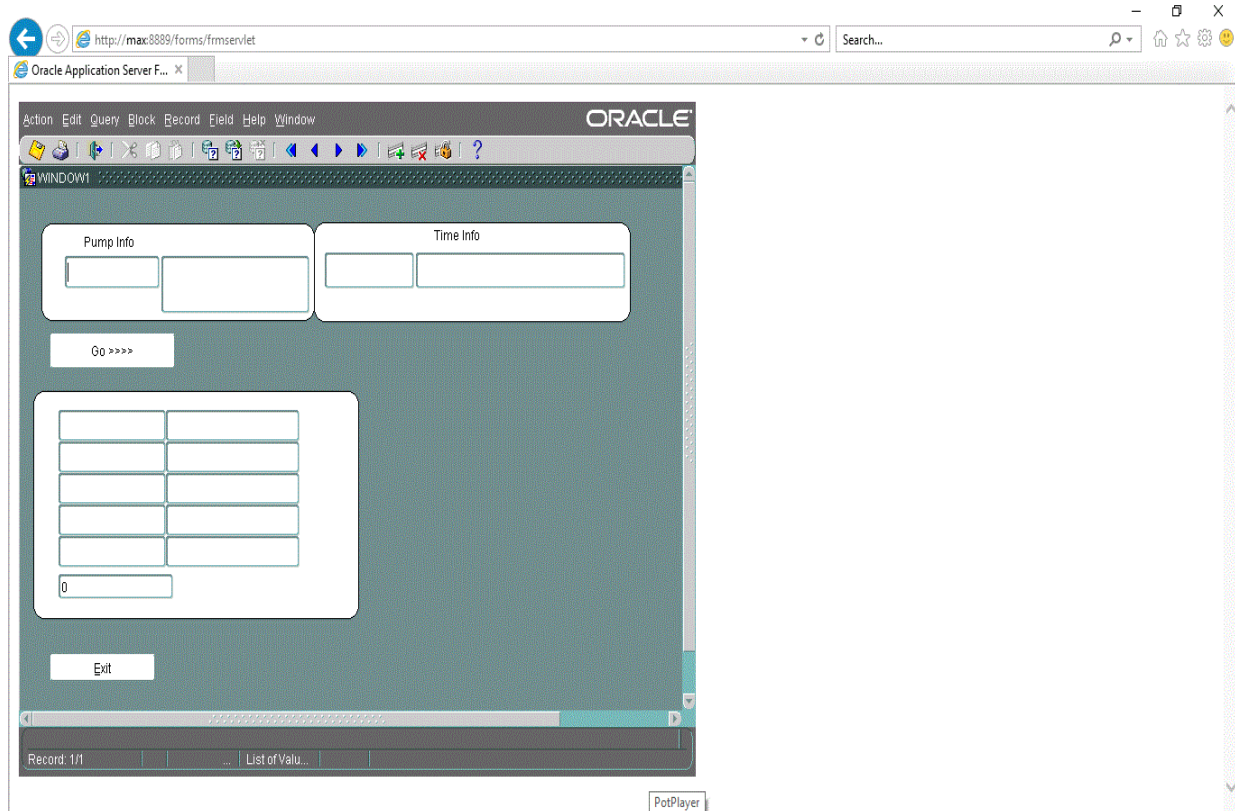


Figure 3.15.1: Search (Step 1)

Select the pump station and time zone.

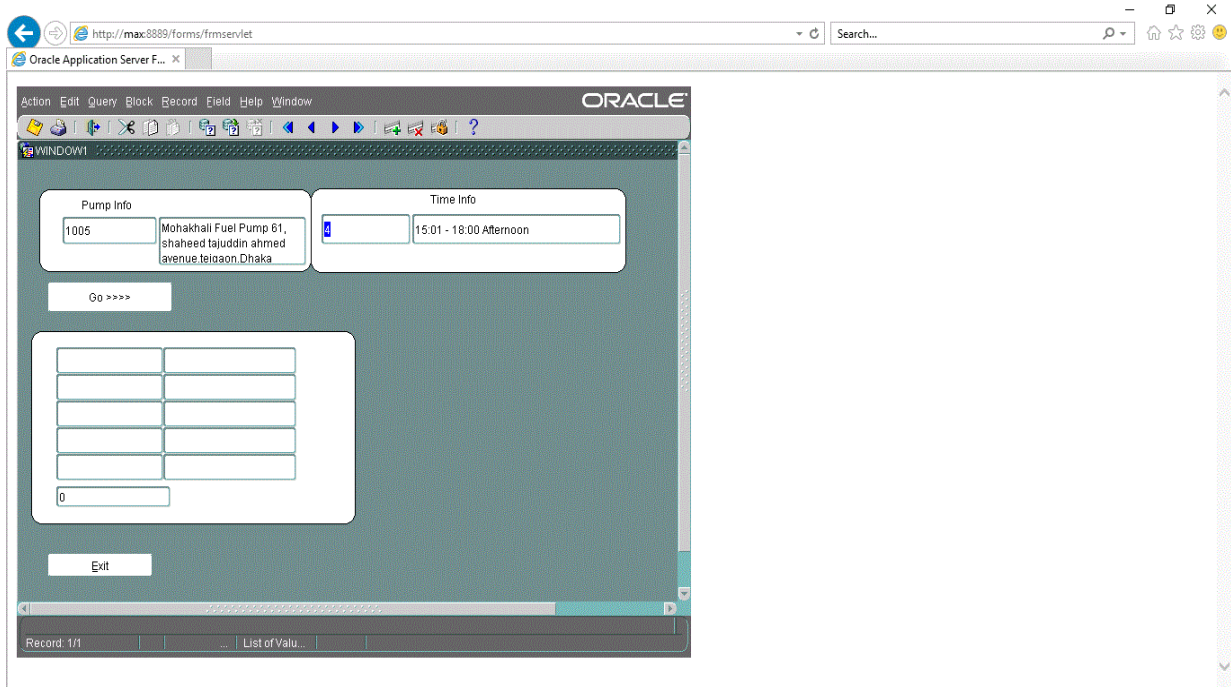


Figure 3.16.2: Search (Step 2)

When press the GO button

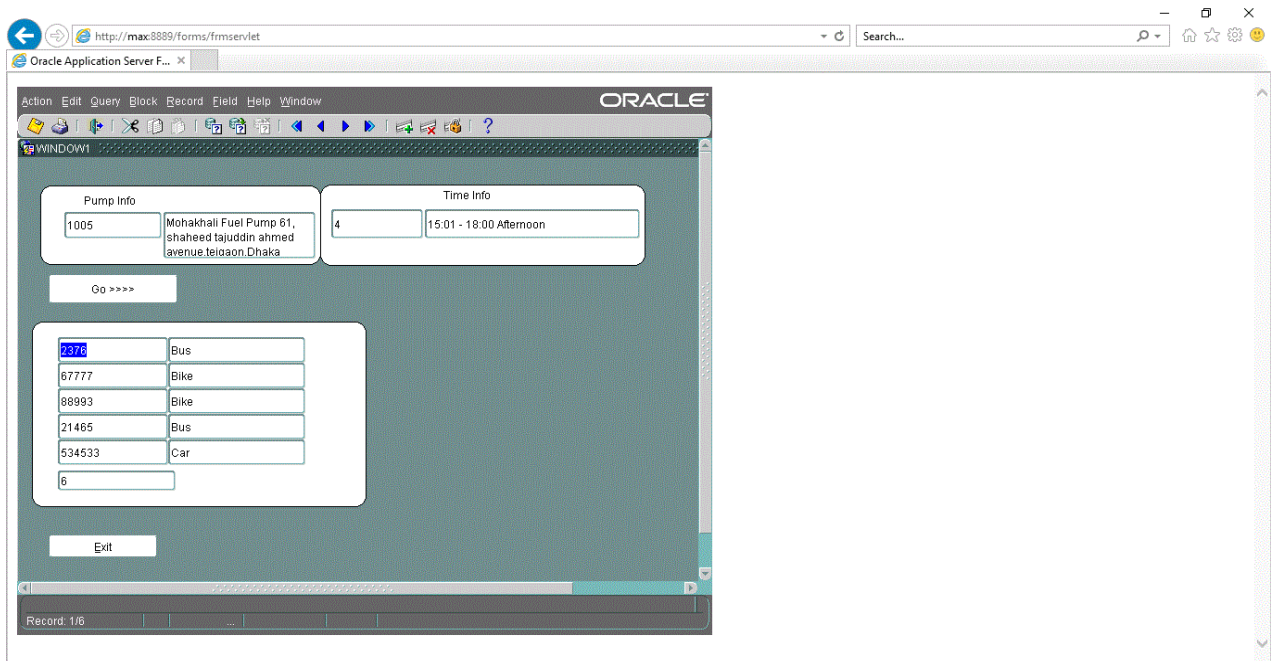


Figure 3.16.3: Search (Step 3)

Here the output of this selected pump station and time zone

### **3.6 Challenges:**

Need to go back for daily tasks and activities. For my first project its helps to pickup challenge for finish this project and perfectly work on this oracle database. Helps to pickup new challenges for new project on oracle database.

## CHAPTER 4

### Competencies and Smart Plan

#### 4.1 Competencies Earned:

Many things I have earned & learned from my internship. First of all help to know every details about oracle database. Help to learn about PL/SQL & also SQL plus works. Which is very important for oracle database. Helps to know difference between SQL plus & PL/SQL. Structure of the PL/SQL block and also know the different types of PL/SQL blocks. So many things I have learned from my internship. That makes me know about the details about this oracle database. Evaluate PL/SQL & SQL plus statement. Experience of real-world. This internship helps me to develop my communication skill. Know about the database theory and the database designing skills. Control the database. If anything getting problem in database I can solve this problem. Learned how to backup database and also recovery skills. Build up a project related in oracle database. This internship helps to earned many potential skills. Works in under pressure, find out the right and wrong things and also find out the critical problems. This all things I have learned from my internship.

#### 4.2 Smart Plan:

My internship topic is Oracle Database. Last 6 months I'm just learn and working on this topic and I like it. Its helps me to become a certified OCA & OCP . Certified in oracle database it's a big things for my future. "Finding Comparatively Idle Petrol Pump Nearby" this is my first project in oracle database. Now I'm working on a new project. I think working in oracle database helps to build my good future and helps to get many opportunities for bright future.

#### 5.3 Reflections:

"Finding Comparatively Idle Petrol Pump Nearby" this is my first project in oracle database. Now I'm working on a new project.

## CHAPTER 5

### Conclusion and Future Career

#### 5.1 Discussion and Conclusion:

Working on oracle database it all helps to know every details about oracle database. Help to learn about PL/SQL & also SQL plus works. Helps to know Structure of the PL/SQL block and also know the different types of PL/SQL blocks. Control the database. If anything getting problem in database solve this problem. How to backup database and also recovery skills. Build up a project related in oracle database. I think working in oracle database helps to build my good future and helps to get many opportunities for bright future.

#### 5.2 Scope for Further Career:

Learning and working on this topic and I like it. Its helps me to become a certified OCA &OCP. Certified in oracle database it's a big things for my future. "Finding Comparatively Idle Petrol Pump Nearby" this is my first project in oracle database. Now I'm working on a new project. I think working in oracle database helps to build my good future and helps to get many opportunities for bright future.

# APPENDIX

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