

RDBMS PRACTICAL

RDBMS



Present By
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1. CREATE TABLES, INSERT VALUES AND PERFORM GIVEN SQL QUERIES

```
SQL> connect  
Enter user-name: system  
Enter password: password  
Connected to:  
Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production
```

1) Create Tables According To The Following Definition :

```
SQL> create table deposit(actno varchar(5), cname varchar(18), bname varchar(18),  
amount number(8,2),adate date);
```

Table created.

```
SQL> create table branch (bname varchar(18), city varchar(15));
```

Table created.

```
SQL> create table customer(cname varchar(10), city varchar(18));
```

Table created.

```
SQL> create table borrow(loanno varchar(15), cname varchar(18), bname varchar(18),  
amount number(8,2));
```

Table created.

2) Insert The Data For The Above Relations:

```
SQL> insert into deposit values('BAK01','ARUN','NOWHERE',10000,'15-MAY-1995');
```

1 row created.

```
SQL> insert into deposit values('BAK02','KUMAR','NOWHERE',10500,'17-JUN-1995');
```

1 row created.

```
SQL> insert into deposit values('BAK03','BALA','VADAPALANI',11500,'18-JUN-1995');
```

1 row created.

```
SQL> insert into deposit values('BAK04','JANA','AMMAPET',12000,'20-JUL-1996');  
1 row created.
```

```
SQL> insert into deposit values('BAK05','GUNA','SEVAPET',15000,'25-AUG-1996');  
1 row created.
```

```
SQL> insert into branch values('NOWHERE','MOSCOW');  
1 row created.
```

```
SQL> insert into branch values('NOWHERE','MOSCOW');  
1 row created.
```

```
SQL> insert into branch values('VADAPALANI','SALEM');  
1 row created.
```

```
SQL> insert into branch values('AMMAPET','SALEM');  
1 row created.
```

```
SQL> insert into branch values('SEVAPET','SALEM');  
1 row created.
```

```
SQL> insert into customer values('ARUN','NOWHERE');  
1 row created.
```

```
SQL> insert into customer values('KUMAR','NOWHERE');  
1 row created.
```

```
SQL> insert into customer values('BALA','VADAPALANI');  
1 row created.
```

```
SQL> insert into customer values('JANA','AMMAPET');  
1 row created.
```

```
SQL> insert into customer values('GUNA','SEVAPET');  
1 row created.
```

```
SQL> insert into borrow values('LN001','ARUN','NOWHERE',3000);  
1 row created.
```

```
SQL> insert into borrow values('LN002','KUMAR','NOWHERE',4000);  
1 row created.
```

```
SQL> insert into borrow values('LN003','BALA','VADAPALANI',5000);  
1 row created.
```

```
SQL> insert into borrow values('LN004','JANA','AMMAPET',4500);  
1 row created.
```

```
SQL> insert into borrow values('LN005','GUNA','SEVAPET',8000);  
1 row created.
```

3) From The Above Given Tables Perform The Following Queries:

a) Describe Deposit, Branch.

```
SQL> desc deposit;
```

Name	Null?	Type
ACTNO	-----	VARCHAR2(5)
CNAME	-----	VARCHAR2(18)
BNAME	-----	VARCHAR2(18)
AMOUNT	-----	NUMBER(8,2)
ADATE	-----	DATE

SQL> desc branch;

Name	Null?	Type
BNAME		VARCHAR2(18)
CITY		VARCHAR2(15)

b) Describe Borrow, Customers.

SQL> desc borrow;

Name	Null?	Type
LOANNO		VARCHAR2(15)
CNAME		VARCHAR2(18)
BNAME		VARCHAR2(18)
AMOUNT		NUMBER(8,2)

SQL> desc customer;

Name	Null?	Type
CNAME		VARCHAR2(10)
CITY		VARCHAR2(18)

c) List All Data From The Table DEPOSIT.

SQL> select*from deposit;

ACTNO	CNAME	BNAME	AMOUNT	ADATE
BAK01	ARUN	NOWHERE	10000	15-MAY-95
BAK02	KUMAR	NOWHERE	10500	17-JUN-95
BAK03	BALA	VADAPALANI	11500	18-JUN-95
BAK04	JANA	AMMAPET	12000	20-JUL-96
BAK05	GUNA	SEVAPET	15000	25-AUG-96

d) List All Data From The Table BORROW.

SQL> select*from borrow;

LOANNO	CNAME	BNAME	AMOUNT
LN001	ARUN	NOWHERE	3000
LN002	KUMAR	NOWHERE	4000
LN003	BALA	VADAPALANI	5000
LN002	JANA	AMMAPET	4500
LN005	GUNA	SEVAPET	8000

e) List All Data From The Table CUSTOMERS.

SQL> select*from customer;

CNAME	CITY
ARUN	NOWHERE
KUMAR	NOWHERE
BALA	VADAPALANI
JANA	AMMAPET
GUNA	SEVAPET

f) List All Data From The Table BRANCH;

SQL> select*from branch;

BNAME	CITY
NOWHERE	MOSCOW
NOWHERE	MOSCOW
VADAPALANI	SALEM
AMMAPET	SALEM
SEVAPET	SALEM

g) Give Account No And Amount Of Depositors.

SQL> select actno,amount from deposit;

ACTNO	AMOUNT
BAK01	10000
BAK02	10500
BAK03	11500
BAK04	12000
BAK05	15000

h) Give Name Of Depositors Having Amount Greater Than 4000.

SQL> select*from deposit where amount>4000;

ACTNO	CNAME	BNAME	AMOUNT	ADATE
BAK01	ARUN	NOWHERE	10000	15-MAY-95
BAK02	KUMAR	NOWHERE	10500	17-JUN-95
BAK03	BALA	VADAPALANI	11500	18-JUN-95
BAK04	JANA	AMMAPET	12000	20-JUL-96
BAK05	GUNA	SEVAPET	15000	25-AUG-96

i) Give Name Of Customers Who Opened Account After Date ‘1-12-96’.

SQL> select*from deposit where adate>’01-DEC-1995’;

ACTNO	CNAME	BNAME	AMOUNT	ADATE
BAK04	JANA	AMMAPET	12000	20-JUL-96
BAK05	GUNA	SEVAPET	15000	25-AUG-96

SQL> commit;

Commit complete.

2. CREATE TABLES, INSERT VALUES AND PERFORM GIVEN SQL QUERIES

```
SQL> connect  
Enter user-name: system  
Enter password: password  
Connected to:  
Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production
```

CREATE TABLES:

```
SQL> create table Job(job_id varchar(5), job_title varchar(20), min_sal number(8,2),  
max_sal number(8,2));
```

Table created.

```
SQL> create table employee (emp_no varchar(5), emp_name varchar(20), emp_sal num-  
ber(8,2), emp_comm number(10), dept_no number(2));
```

Table created.

```
SQL> create table deposit1 (a_no varchar(5), cname varchar(20), bname varchar(20),  
amount number(8,2), adate date);
```

Table created.

```
SQL> create table borrow2(loanno varchar(5), cname varchar(20), bname varchar(20),  
amount number(10,2));
```

Table created.

INSERT VALUES:

```
SQL> insert into Job values('BAK01','Program Developer',10000,50000);
```

1 row created.

```
SQL> insert into Job values('BAK02','Service Engineer',15000,60000);
```

1 row created.

```
SQL> insert into Job values('BAK03','Technician',5000,20000);
```

1 row created.

```
SQL> insert into Job values('BAK04','Driver',2000,60000);
```

1 row created.

```
SQL> insert into Job values('BAK05','Security Officer',30000,80000);
```

1 row created.

```
SQL> insert into employee values('EMP01','ARUN',25000,6374507893,10);
```

1 row created.

```
SQL> insert into employee values('EMP02','MANI',40000,8976543210,20);
```

1 row created.

```
SQL> insert into employee values('EMP03','NAZRIYA',20000,7896543210,30);
```

1 row created.

```
SQL> insert into employee values('EMP04','MARAN',50000,9886543210,2);
```

1 row created.

```
SQL> insert into employee values('EMP05','SNEHA',5000,9150959912,12);
```

1 row created.

```
SQL> insert into deposit1 values('VMK01','VIJAY','NOWHERE',50000,'01-JAN-2006');
```

1 row created.

```
SQL> insert into deposit1 values('VMK02','SRIDIVYA','NOWHERE',10000,'18-JUL-2006');
```

1 row created.

```
SQL> insert into deposit1 values('VMK03','AJITH','VADAPALA-NI',40000,'01-MAY-1998');
```

1 row created.

```
SQL> insert into deposit1 values('VMK04','ATHMIKA','ROYAPURAM',45000,'17-JAN-2006');
```

1 row created.

```
SQL> insert into deposit1 values('VMK05','SEEMAN','RK_NAGAR',35000,'15-AUG-2006');
```

1 row created.

```
SQL> insert into borrow2 values('SHV01','HARI','NOWHERE',15000);
```

1 row created.

```
SQL> insert into borrow2 values('SHV02','YASHIKA','VIRUGAMBAKKAM',200000);
```

1 row created.

```
SQL> insert into borrow2 values('SHV03','MAHAT','PORUR',200000);
```

1 row created.

```
SQL> insert into borrow2 values('SHV04','VINAYAK','TAMBARAM',5000);
```

1 row created.

```
SQL> insert into borrow2 values('SHV05','SEMBA','SITHANOOR',1000);
```

1 row created.

A) ALL DATA FROM EMPLOYEE JOB AND DEPOSIT1:

```
SQL> select *from employee;
```

EMP_NO	EMP_NAME	EMP_SAL	EMP_COMM	DEPT_NO
EMP01	ARUN	25000	6374507893	10
EMP02	MANI	40000	8976543210	20
EMP03	NAZRIYA	20000	7896543210	30
EMP04	MARAN	50000	9886543210	2
EMP05	SNEHA	5000	9150959912	12

SQL> select *from Job;

JOB_ID	JOB_TITLE	MIN_SAL	MAX_SAL
BAK01	Program Developer	10000	50000
BAK02	Service Engineer	15000	60000
BAK03	Technician	5000	20000
BAK04	Driver	2000	60000
BAK05	Security Officer	30000	80000

SQL> select*from deposit1;

A_NO	CNAME	BNAME	AMOUNT	ADATE
VMK01	VIJAY	NOWHERE	50000	01-JAN-06
VMK02	SRIDIVYA	NOWHERE	10000	18-JUL-06
VMK03	AJITH	VADAPALANI	40000	01-MAY-98
VMK04	ATHMIKA	ROYAPURAM	45000	17-JAN-06
VMK05	SEEMAN	RK_NAGAR	35000	15-AUG-06

**B) GIVE DETAILS OF ACCOUNT NO AND DEPOSITED RUPEES OF
CUSTOMERS HAVING ACCOUNT OPENED BETWEEN
DATES 01-01-2006 AND 25-07-2006**

SQL> select a_no, amount from deposit1 where adate between '01-JAN-2006' and '25-JUL-2006';

A_NO	AMOUNT
VMK01	50000
VMK02	10000
VMK04	45000

C) DISPLAY ALL JOBS WITH MINIMUM SALARY IS GREATER THAN 4000.

SQL> select JOB_TITLE from Job where min_sal>4000;

JOB_TITLE

Program Developer
Service Engineer
Technician
Security Officer

D) DISPLAY NAME AND SALARY OF EMPLOYEE WHOSE DEPARTMENT NO IS 20. GIVE ALIAS NAME TO NAME OF EMPLOYEE

SQL> select emp_name as Name, emp_sal as Salary from employee where dept_no=20;

NAME SALARY

MANI 40000

E) DISPLAY EMPLOYEE NO, NAME AND DEPARTMENT DETAILS OF THOSE EMPLOYEE WHOSE DPEARTMENT LIES IN (10,20)

SQL> select emp_no,emp_name, dept_no from employee where dept_no in (10,20);

EMP_NO EMP_NAME DEPT_NO

EMP01 ARUN 10
EMP02 MANI 20

SQL> commit;

Commit complete.

3. CREATE TABLES, INSERT VALUES AND PERFORM GIVEN SQL QUERIES

```
SQL> connect  
Enter user-name: system  
Enter password: password  
Connected to:  
Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production
```

CREATE TABLES:

```
SQL> create table employee1 (emp_no varchar(6), emp_name varchar(20), emp_sal number(8,2), emp_comm number(8,2), dept_no number(2));
```

Table created.

INSERT VALUES:

```
SQL> insert into employee1 values('VMK01','Amar',50000,2500,20);
```

1 row created.

```
SQL> insert into employee1 values('VMK02','Amala',30000,1500,10);
```

1 row created.

```
SQL> insert into employee1 values('VMK03','Anitha',40000,3000,10);
```

1 row created.

```
SQL> insert into employee1 values('VMK04','Anish',45000,3500,20);
```

1 row created.

```
SQL> insert into employee1 values('VMK05','V_mani',60000,4000,20);
```

1 row created.

A) DISPLAY ALL EMPLOYEE WHOSE NAME START WITH ‘A’ AND THIRD CHARACTER IS ‘A’.

SQL> select emp_name from employee1 where emp_name like ‘A_a%’;

EMP_NAME

Amar
Amala

B) DISPLAY NAME, NUMBER AND SALARY OF THOSE EMPLOYEES WHOSE NAME IS 5 CHARACTERS LONG AND FIRST THREE CHARACTERS ARE ‘Ani’

SQL> select emp_name, emp_no, emp_sal from employee1 where emp_name like ‘Ani__’;

EMP_NAME	EMP_NO	EMP_SAL
Anish	VMK04	45000

C) DISPLAY THE NON-NULL VALUES OF EMPLOYEES AND ALSO EMPLOYEE NAME SECOND CHARACTER SHOULD BE ‘N’ AND STRING SHOULD BE 5 CHARACTER LONG.

SQL> select emp_name from employee1 where emp_comm is not null and emp_name like ‘_n__’;

EMP_NAME

Anish

D) DISPLAY THE NULL VALEUS OF EMPLOYEE AND ALSO EMPLOYEE NAME’S THIRD CHARACTER SHOLD BE’A’.

SQL> select emp_name from employee1 where emp_comm is not null and emp_name like ‘__a%’;

EMP_NAME

Amar
Amala

**E) WHAT WILL BE OUTPUT IF YOU ARE GIVING LIKE PREDICATE
AS '%_%' ESCAPE '\'**

SQL> select emp_name from employee1 where emp_name like '%_%' escape '\';

EMP_NAME

V_mani

SQL> commit;

Commit complete.

SQL>

4. DATA MANIPULATION COMMANDS AND AGGREGATE FUNCTIONS

```
SQL> connect  
Enter user-name: system  
Enter password: password  
Connected.
```

CREATE TABLES:

```
SQL> create table deposit3(actno varchar(6), cname varchar(18), bname varchar(18),  
amount number(8,2), adate date);
```

Table created.

```
SQL> create table employee3(empno number(5), empname varchar(20), empsal num-  
ber(8,2), empcomm number(8,2), deptno number(8));
```

Table created.

```
SQL> create table borrow3 (loanno varchar(15), cname varchar(18), bname varchar(18),  
amount number(8,2));
```

Table created.

```
SQL> create table customer3 (cname varchar(20), city varchar(10));
```

Table created.

INSERT VALUES:

```
SQL> insert into deposit3 values('VMK01','VIJAY','NOWHERE',50000,'01-JAN-2006');
```

1 row created.

```
SQL> insert into deposit3 values('VMK02','SRIDIVYA','NOWHERE',10000,'18-JUL-2006');
```

1 row created.

```
SQL> insert into deposit3 values('VMK03','AJITH','VADAPALANI',40000,'01-MAY-1982');
```

1 row created.

```
SQL> insert into deposit3 values('VMK04','ATHMIKA','ROYAPURAM',45000,'17-JAN-2006');
```

1 row created.

```
SQL> insert into deposit3 values('VMK05','SEEMAN','RK_NAGAR',35000,'15-AUG-2006');
```

1 row created.

```
SQL> insert into borrow3 values('IN001','ARUN','NOWHERE',3000);
```

1 row created.

```
SQL> insert into borrow3 values('IN002','KUMAR','NOWHERE',4000);
```

1 row created.

```
SQL> insert into borrow3 values('IN003','BALA','VADAPALANI',5000);
```

1 row created.

```
SQL> insert into borrow3 values('IN004','JANA','AMMAPET',4500);
```

1 row created.

```
SQL> insert into borrow3 values('IN005','GUNA','SEVAPET',8000);
```

1 row created.

```
SQL> insert into employee3 values(101,'HARI',10000,2000,10);
```

1 row created.

```
SQL> insert into employee3 values(102,'VIGNESH',20000,1000,20);
```

1 row created.

```
SQL> insert into employee3 values(103,'PREM',15000,200,10);
```

1 row created.

```
SQL> insert into employee3 values(104,'RAM',17000,1000,20);
```

1 row created.

```
SQL> insert into employee3 values(105,'SAM',18000,2500,10);
```

1 row created.

```
SQL> insert into customer3 values('Mohanraj','NOWHERE');
```

1 row created.

```
SQL> insert into customer3 values('Rocky','NOWHERE');
```

1 row created.

```
SQL> insert into customer3 values('Ramu','VADAPALANI');
```

1 row created.

```
SQL> insert into customer3 values('Gokul','AMMAPET');
```

1 row created.

```
SQL> insert into customer3 values('Pradeep','SEVAPET');
```

1 row created.

A) LIST TOTAL AMOUNT FROM DEPOSIT:

```
SQL> select sum(amount) from deposit3;
```

```
SUM(AMOUNT)
```

```
-----  
180000
```

B) LIST TOTAL LOAN FROM A PARTICULAR BRANCH:

```
SQL> select sum(amount) from borrow3 where bname='NOWHERE';
```

```
SUM(AMOUNT)
```

```
-----  
7000
```

C) COUNT TOTAL NUMBER OF CUSTOMERS

```
SQL> select count(cname) from deposit3;
```

```
COUNT(CNAME)
```

```
-----  
5
```

D) COUNT TOTAL NUMBER OF CUSTOMER'S CITIES

```
SQL> select count(distinct city) from customer3;
```

```
COUNT(DISTINCTCITY)
```

```
-----  
4
```

E) CREATE TABLE SUPPLIER FROM EMPLOYEE WITH ALL THE COLUMNS

```
SQL> create table supplier as select *from employee3;
```

Table created.

F) CREATE TABLE SUP1 FROM EMPLOYEE WITH FIRST TOW COLUMNS

```
SQL> create table sup1 as select empno,empname from employee3;
```

Table created.

G) DELETE ALL THE ROWS FROM SUP1

```
SQL> drop table sup1;
```

Table dropped.

H) DELETE THE DETAIL OF SUPPLIER WHOSE SUP_NO IS 103

```
SQL> alter table supplier rename column empno to sup_no;
```

Table altered.

```
SQL> delete from supplier where sup_no=103;
```

1 row deleted.

I) UPDATE THE VALUE DET_NO TO 10 WHERE SECOND CHARACTER OF EMP NAME IS ‘M’

```
SQL> update employee3 set deptno=10 where empname like '_m%';
```

0 rows updated.

```
SQL> commit;
```

Commit complete.

```
SQL>
```

5. BANK WITHDRAWAL PROGRAM USING PL/SQL CODE

```
SQL> connect
Enter user-name: system
Enter password: password
Connected.
```

CREATE TABLES:

```
SQL> create table accounts(account_id varchar(5), name varchar(20), bal number(7,3));
```

Table created.

INSERT VALUES:

```
SQL> insert into accounts values('ACC01','RAJE',5000);
```

1 row created.

```
SQL> insert into accounts values('ACC02','RAJA',250);
```

1 row created.

PL/SQL CODE:

```
SQL> declare
 2 acct_balance number(7,2);
 3 acct_no varchar(6);
 4 debit_amt number(7,2):=2000;
 5 min_bal constant number(7,2):=500;
 6 begin
 7 acct_no:='&acct_no';
 8 select bal into acct_balance from accounts where account_id=acct_no;
 9 acct_balance:=acct_balance-debit_amt;
10 if acct_balance>=min_bal then
11 update accounts set bal=bal-debit_amt where account_id =acct_no;
12 end if;
13 end;
14 /
```

SAMPLE INPUT AND OUTPUT:

Enter value for acct_no: ACC01

old 7: acct_no:='&acct_no';

new 7: acct_no:='ACC01';

PL/SQL procedure successfully completed.

SQL> select *from accounts;

ACCOU	NAME	BAL
-----	-----	-----
ACC01	RAJE	3000
ACC02	RAJA	250

SQL> commit;

Commit complete.

6. AREA OF CIRCLE

```
SQL> connect  
Enter user-name: system  
Enter password: password  
Connected.
```

CREATE TABLES:

```
SQL> create table areas(radius number(5), area number(14,2));
```

Table created.

```
SQL> declare  
2 pi constant number(4,2):=3.14;  
3 radius number(5);  
4 area number(14,2);  
5 begin  
6 radius:=3;  
7 while radius <=7  
8 loop  
9 area:=pi*power(radius,2);  
10 insert into areas values(radius,area);  
11 radius:=radius+1;  
12 end loop;  
13 end;  
14 /
```

PL/SQL procedure successfully completed.

SAMPLE INPUT AND OUTPUT:

```
SQL> select *from areas;
```

RADIUS	AREA
3	28.26
4	50.24
5	78.5
6	113.04
7	153.86

```
SQL> commit;
```

Commit complete.

7. REVERSING A NUMBER

SOURCE CODE:

```
SQL> declare
2  n number;
3  i number;
4  rev number:=0;
5  r number;
6  begin
7  n:=&n;
8  while n>0
9  loop
10 r:=mod(n,10);
11 rev:=(rev*10)+r;
12 n:=trunc(n/10);
13 end loop;
14 dbms_output.put_line('Reverse is: '|rev);
15 end;
16 /
```

SAMPLE INPUT AND OUTPUT:

Enter value for n: 5678

old 7: n:=&n;

new 7: n:=5678;

Reverse is: 8765

PL/SQL procedure successfully completed.

SQL> commit;

Commit complete.

8. AUDIT SYSTEM

Enter user-name: system

Enter password: password

Connected to:

Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production

CREATE TABLES:

```
SQL> create table client_master (client_no varchar(6), name varchar(20), address  
varchar(30), Bal_due number(7,2));
```

Table created.

INSERT VALUES:

```
SQL> insert into client_master values('&client_masterno', '&name', '&address', '&Bal_due');  
Enter value for client_masterno: c101  
Enter value for name: rajeswari  
Enter value for address: salem  
Enter value for bal_due: 5600  
old  1: insert into client_master values('&client_masterno', '&name', '&address', '&Bal_due')  
new  1: insert into client_master values('c101', 'rajeswari', 'salem', '5600')
```

1 row created.

```
SQL> /  
Enter value for client_masterno: c102  
Enter value for name: revathy  
Enter value for address: salem  
Enter value for bal_due: 6200  
old  1: insert into client_master values('&client_masterno', '&name', '&address', '&Bal_  
due')  
new  1: insert into client_master values('c102', 'revathy', 'salem', '6200')
```

1 row created.

```
SQL> /
Enter value for client_masterno: c1103
Enter value for name: xxx
Enter value for address: erode
Enter value for bal_due: 4000
old 1: insert into client_master values('&client_masterno','&name','&address','&Bal_
due')
new 1: insert into client_master values('c1103','xxx','erode','4000')
```

1 row created.

TRIGGER CODE:

```
SQL> set serveroutput on;
SQL> create trigger Audit_trail
      2 after update or delete on client_master
      3 for each row
      4 declare
      5 Oper varchar(8);
      6 sys date;
      7 us varchar(10);
      8 client_no varchar(6);
      9 client_name varchar(20);
     10 Bal_due number(10,2);
     11 begin
     12 if updating then
     13 Oper:='Update';
     14 end if;
     15 if deleting then
     16 Oper:='Delete';
     17 end if;
     18 client_no:=:OLD.client_no;
     19 client_name:=:OLD.name;
     20 Bal_due:=:OLD.Bal_due;
     21 select current_table into sys from dual;
     22 select user into us from dual;
     23 insert into Audit_client values(client_no, client_name,Bal_due,Oper,sys,us);
     24 end;
     25 /
```

Trigger created.

```
SQL> select*from Audit_client;  
No rows selected.
```

```
SQL> update client_master sct bal_due=2000 where client_no='c102';  
1 row updated.
```

```
SQL> select *from client_master;
```

CLIENT_MASTER	CLIENT_NAME	BAL_DUE	OPER	SYS	US
c101	revathy	6200	Update	24-APR-2022	Mohan

```
SQL> delete from client_master where name like 'R%';  
1 row deleted.
```

```
SQL>select *from audit_client;
```

CLIENT_MASTER	CLIENT_NAME	BAL_DUE	OPER	SYS	US
c101	Raji	5600	Delete	24-APR-2022	Mohan
c102	revathy	6200	Update	11-JAN-2019	Mohan

```
SQL> commit;
```

```
Commit complete.
```

9. BANK DATABASE APPLICATION

Enter user-name: system

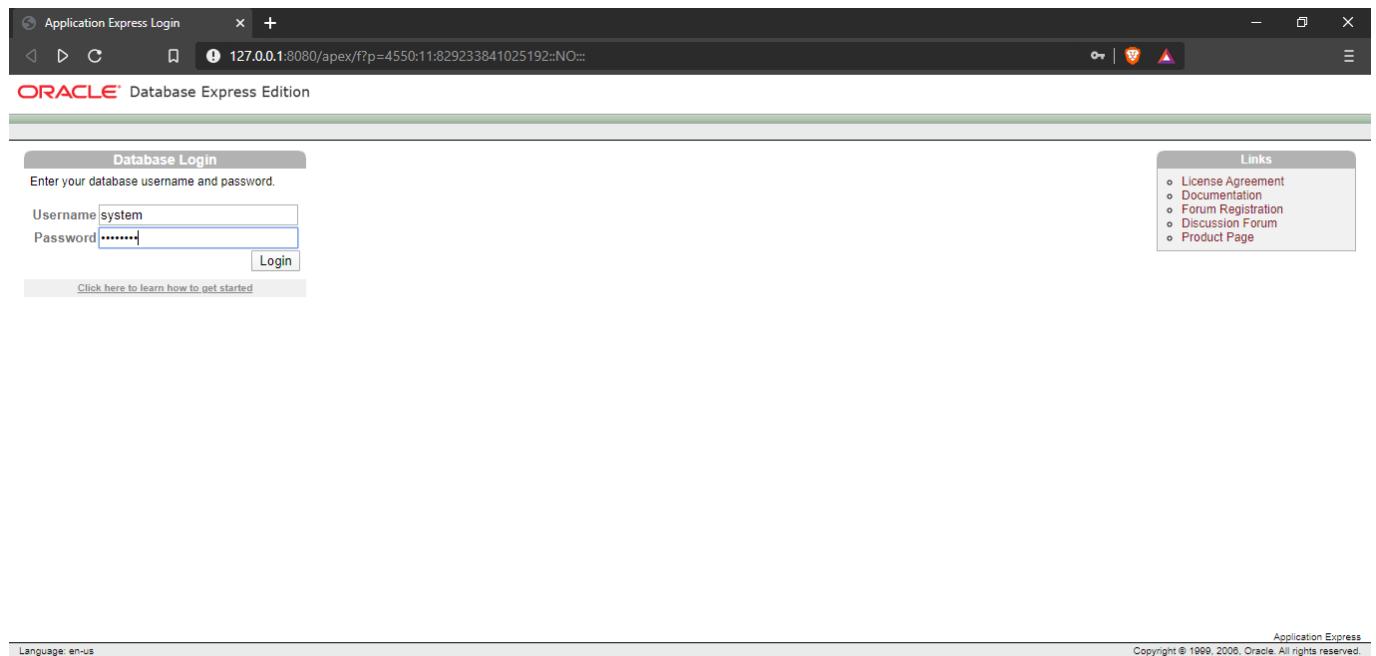
Enter password: password

Connected to:

Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production

CODING:

```
declare
d deposit2.damt%type;
cursor c1 is
select damt from deposit2 where dactno=:p2_dactno;
begin
open c1;
fetch c1 into d;
d:=d+2000;
update deposit2 set damt=d where dactno=:p2_dactno;
close c1;
end;
```



Oracle Database Express Edition

User: SYSTEM

Home

Links

- License Agreement
- Getting Started
- Learn more
- Documentation
- Forum Registration
- Discussion Forum
- Product Page

Administration

Storage
Memory
Database Users
Monitor
About Database
Change My Password
Manage Login Message
Manage HTTP Access

Browser

SQL

Utilities

Usage Monitor

Storage: 680MB (0% - 100%)
Memory: 803MB (0% - 100%)

Sessions: 7 Total, 2 Active

Users: 12 Internal, 4 Database, 16 Total

Log Archiving: Off

Application Express 2.1.0.00.39
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Language: en-us

Create Database User

ORACLE Database Express Edition

User: SYSTEM

Home > Administration > Manage Database Users > Create Database User

Create Database User

Cancel Create

* Username: rocky

* Password:

* Confirm Password:

Expire Password

Account Status: Unlocked

Default Tablespace: USERS

Temporary Tablespace: TEMP

Database Users

All database objects are owned by a database user. Use this page to create a new user and define privileges. Use SQL Commands to manage additional user attributes.

User Privileges

Roles:

CONNECT RESOURCE DBA

Direct Grant System Privileges:

CREATE DATABASE LINK CREATE MATERIALIZED VIEW CREATE PROCEDURE
 CREATE PUBLIC SYNONYM CREATE ROLE CREATE SEQUENCE
 CREATE SYNONYM CREATE TABLE CREATE TRIGGER
 CREATE TYPE CREATE VIEW

Check All Uncheck All

Application Express 2.1.0.00.39
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Language: en-us

Database Users

User: SYSTEM

Home > Administration > Manage Database Users

User Created.

Search Username: View Icons ▾ Show Database Users ▾ Display 15 ▾ Go Create >

HR MOHAN RAMU ROCKY

1.4

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

Logout Confirmation

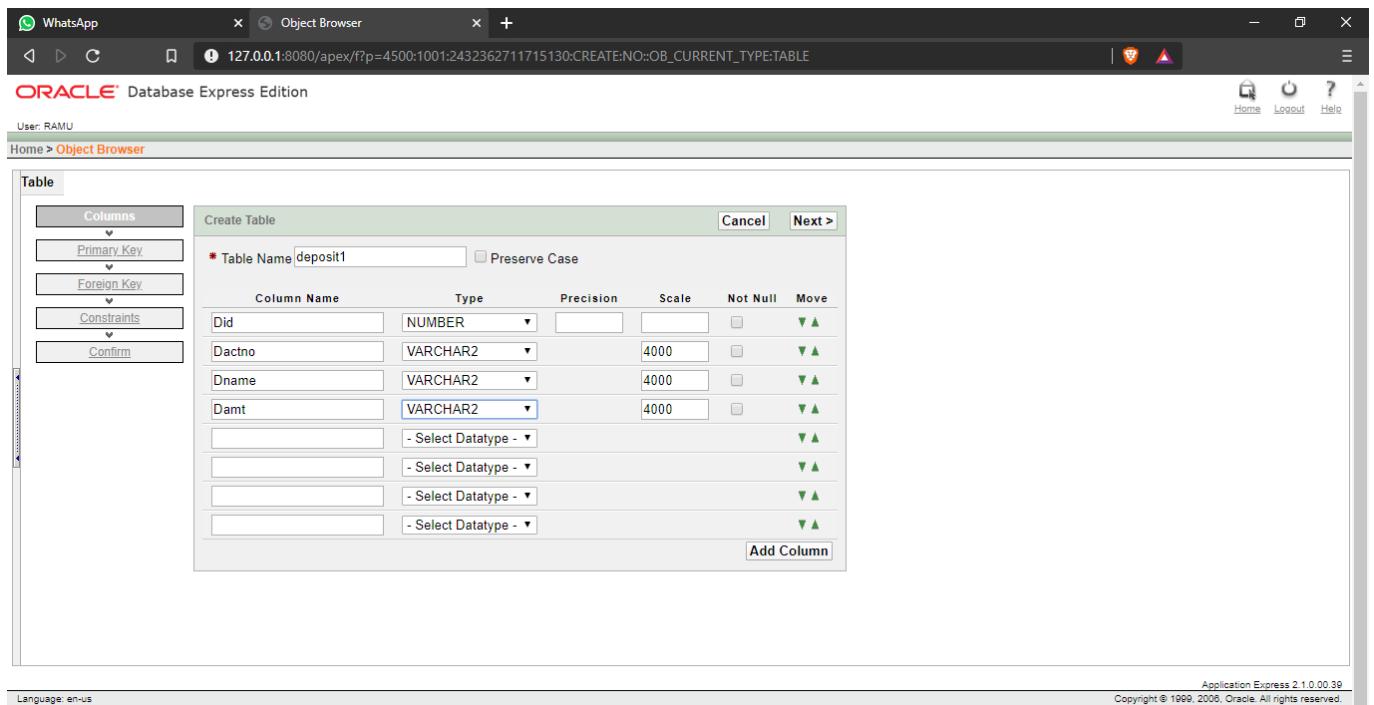
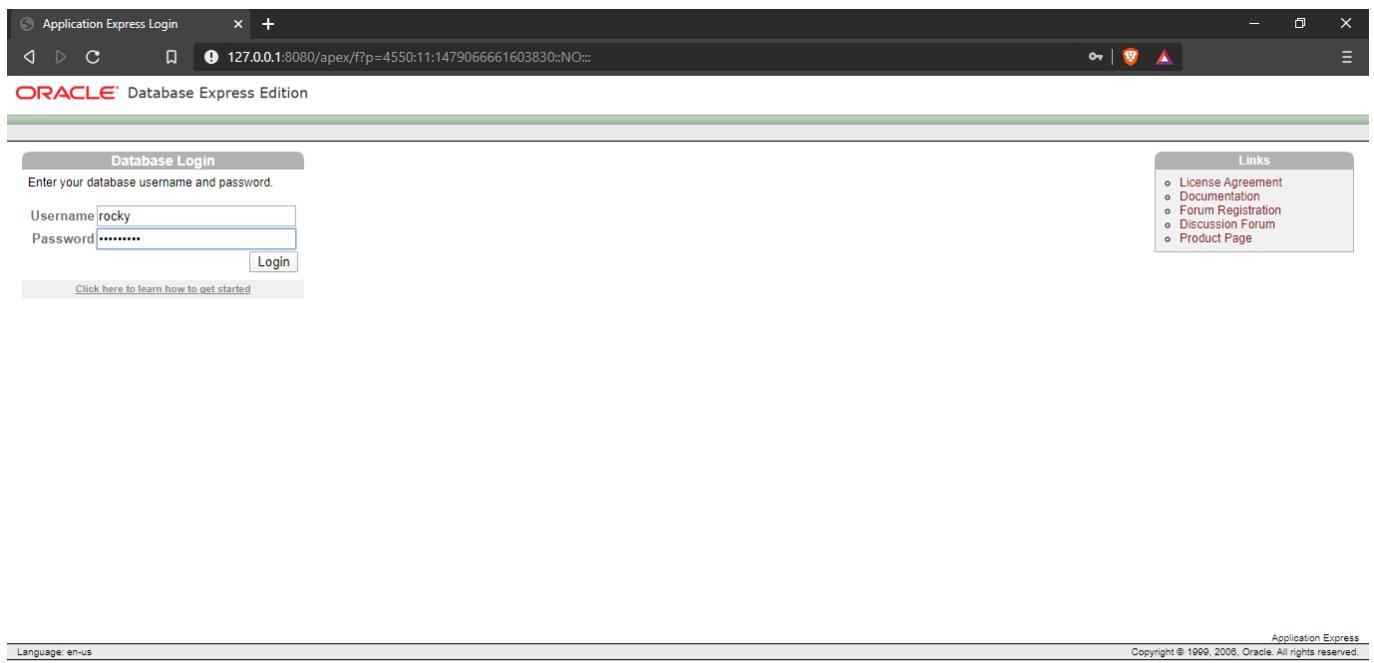
127.0.0.1:8080/apex/f?p=4550:9:2466662568401489::NO::

ORACLE Database Express Edition

You are now logged out.

Login

Language: en-us Application Express Copyright © 1999, 2006, Oracle. All rights reserved.



WhatsApp Object Browser 127.0.0.1:8080/apex/f?p=4500:1001:2432362711715130:CREATE:NO::OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition User: RAMU Home > Object Browser

Table

Primary Key

Table name: DEPOSIT2
 Primary Key: No Primary Key
 Populated from a new sequence
 Populated from an existing sequence
 Not populated

* Primary Key Constraint Name: DEPOSIT2_PK
 * Sequence Name: DEPOSIT2_SEQ
 * Primary Key: DID(NUMBER)
 - Select Primary Key -
 DID(NUMBER)
 DACTNO(VARCHAR2)
 DNAME(VARCHAR2)
 DAMT(VARCHAR2)

Primary Key
 A primary key allows each row in a table to be uniquely identified.
 If you select to populate your primary key from a new sequence, you will be prompted to enter the new sequence's name. If you select to populate your primary key from an existing sequence, you will be prompted to select the sequence. Both these methods result in the generation of a trigger against your table. You can also select to not populate your primary. This is the only method that allows you to define a composite primary key which is a primary key made up of more than one column.

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2000, Oracle. All rights reserved.

WhatsApp Object Browser 127.0.0.1:8080/apex/f?p=4500:1001:2432362711715130:CREATE:NO::OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition User: RAMU Home > Object Browser

Table

Foreign Keys

Foreign Key Columns Referenced Table Referenced Columns Action

Add Foreign Key

* Name: DEPOSIT2_fk
 * Disallow Delete
 Cascade Delete
 Set Null on Delete

Select Key Column(s): DID, DACTNO, DNAME, DAMT
 * Key Column(s): DID, DACTNO, DNAME, DAMT

* References Table:

Foreign Key
 A foreign key establishes a relationship between a column or columns in one table and a primary or unique key in another table.
 To define a foreign key:

- o Select one or more columns and click the Add icon.
- o Select the table name that has the corresponding primary key.
- o Select the corresponding primary key column or columns and click the Add icon.
- o Select Disallow Delete to block delete of rows from the referenced table when there are dependant rows in this table.
- o Select Cascade Delete to delete the dependant rows from this table when the corresponding parent table row is deleted.
- o Select Set to Null on Delete to set foreign key column values to null when the corresponding parent table row is deleted.
- o Click Add.

 You can define more than one foreign key on this page but only those displayed in the report at the top of the page will be included in the resulting create table statement.

WhatsApp Object Browser

! 127.0.0.1:8080/apex/f?p=4500:1001:2432362711715130:CREATE.NO:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: RAMU

Home > Object Browser

Table

Columns Primary Key Foreign Key Constraints Confirm

Constraints

Constraint Name Type Column(S)/Check

Add Constraint

Check Unique Add

Name DEPOSIT2_ck1

Available Columns Example Check Constraints

Constraints

Check Constraint A check constraint is a validation check on one or more columns within the table. No value can be inserted or updated in a table which violates an enabled check constraint.

Unique Constraint A unique constraint designates a column or a combination of columns as a unique key. To satisfy a unique constraint, no two rows in the table can have the same values for the specified columns.

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

This screenshot shows the Oracle Database Express Edition Object Browser interface. The user is creating a constraint named 'DEPOSIT2_ck1' for a table. The constraint type is set to 'Check'. The 'Available Columns' section is visible. On the right, there are detailed descriptions for 'Check Constraint' and 'Unique Constraint'. The status bar at the bottom indicates the application version is 2.1.0.00.39 and the copyright year is 1999-2006.

WhatsApp Object Browser

! 127.0.0.1:8080/apex/f?p=4500:1001:2432362711715130:CREATE.NO:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: RAMU

Home > Object Browser

Table

Columns Primary Key Foreign Key Constraints Confirm SQL

Create Table

Please confirm your request.

Schema: RAMU Table name: DEPOSIT

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

This screenshot shows the Oracle Database Express Edition Object Browser interface. The user is confirming the creation of a table named 'DEPOSIT'. The schema is set to 'RAMU'. The 'SQL' option is selected. The status bar at the bottom indicates the application version is 2.1.0.00.39 and the copyright year is 1999-2006.

This screenshot shows the Oracle Database Express Edition Object Browser interface. The left sidebar lists tables: DEPOSIT1 and DEPOSIT2. The main area is titled 'DEPOSIT2' and contains tabs for Table, Data, Indexes, Model, Constraints, Grants, Statistics, UI Defaults, Triggers, Dependencies, and SQL. Below these tabs are buttons for Query, Count Rows, and Insert Row. A message states 'This table contains no data.' The bottom status bar indicates 'Language: en-us' and copyright information: 'Application Express 2.1.0.00.39 Copyright © 1999, 2008, Oracle. All rights reserved.'

This screenshot shows the Oracle Database Express Edition Object Browser interface. The left sidebar lists tables: DEPOSIT1 and DEPOSIT2. The main area is titled 'DEPOSIT2' and shows a 'Create Row' dialog. The 'Table:' dropdown is set to 'DEPOSIT2'. The dialog contains four fields: 'Did' (value: 1214), 'Dactno' (value: acnro20sbiz11), 'Dname' (value: Mohanraj), and 'Damt' (value: 70000). Below the dialog is a section titled 'Table Information'. The bottom status bar indicates 'Language: en-us' and copyright information: 'Application Express 2.1.0.00.39 Copyright © 1999, 2008, Oracle. All rights reserved.'

The screenshot shows the Oracle Database Express Edition Home page. At the top, there are links for WhatsApp, Oracle, and a connection status (127.0.0.1:8080/ apex/f?p=4500:1000:2432362711715130::NO::). The main navigation bar includes Home, Logout, and Help. Below the navigation, there are icons for Administration, Object Browser, SQL, and Utilities. A dropdown menu for Application Builder is open, showing options like Create Application, View Applications, Demonstrations, Application Administration, Import, and Export. The 'Create Application' option is highlighted. On the right side, there are sections for Links (License Agreement, Getting Started, Learn more, Documentation, Forum Registration, Discussion Forum, Product Page), Usage Monitor (Storage: 680MB, Memory: 802MB), Sessions (6 Total, 2 Active), Users (12 Internal, 4 Database, 16 Total), and Log Archiving (Off). The bottom of the page shows language settings (Language: en-us) and copyright information (Application Express 2.1.0.0.39, Copyright © 1999, 2006, Oracle. All rights reserved.).

The screenshot shows the 'Create Application' wizard, Step 1: Name. The title bar says 'Create Application'. The main form has a 'Name' field containing 'bank' and an 'Application' field containing '106'. Below these are radio buttons for 'From scratch' (selected) and 'Based on existing application design model'. A 'Schema' dropdown is set to 'RAMU'. To the left is a vertical sidebar with buttons for Method, Name (highlighted), Pages, Tabs, Shared Components, Attributes, User Interface, and Confirm. The bottom of the page shows language settings (Language: en-us) and copyright information (Application Express 2.1.0.0.39, Copyright © 1999, 2006, Oracle. All rights reserved.).

WhatsApp Create Application + 127.0.0.1:8080/apex/f?p=4000:3001:2432362711715130::NO::

ORACLE® Database Express Edition

User: RAMU Workspace: RAMU

Home > Create Application

Create Application [Cancel] < Previous Next >

Add pages to your application by selecting a page type and clicking Add Page.

Add Page

Select Page Type:

- Blank
- Report
- Form
- Tabular Form
- Report and Form

Action: Add a report with an edit form on a second page

Table Name: DEPOSIT2

Include Analysis Pages

Add Page

Select the type of page you wish to create:

- o Blank creates a page with no built-in functionality.
- o Report creates a page that contains the formatted result of a SQL query. You can choose to build a report based on a table you select, or based on a custom SQL SELECT statement or a PL/SQL function returning a SQL SELECT statement that you provide.
- o Form creates a form to update a single row in a database table.
- o Tabular Form creates a form to perform update, insert, and delete operations on multiple rows in a database table.
- o Report and Form builds a two-page report and form combination. On the first page, users select a row to update. On the second page users can update the selected table or view.

Analysis Pages

Report pages include the Include Analysis Pages check box. Select this option and follow the wizard prompts to create additional summary reports and charts.

Language: en-us Application Express 2.1.0.0.39 Copyright © 1999, 2006, Oracle. All rights reserved.

WhatsApp Create Application + 127.0.0.1:8080/apex/f?p=4000:437:2432362711715130::NO::

ORACLE® Database Express Edition

User: RAMU Workspace: RAMU

Home > Create Application

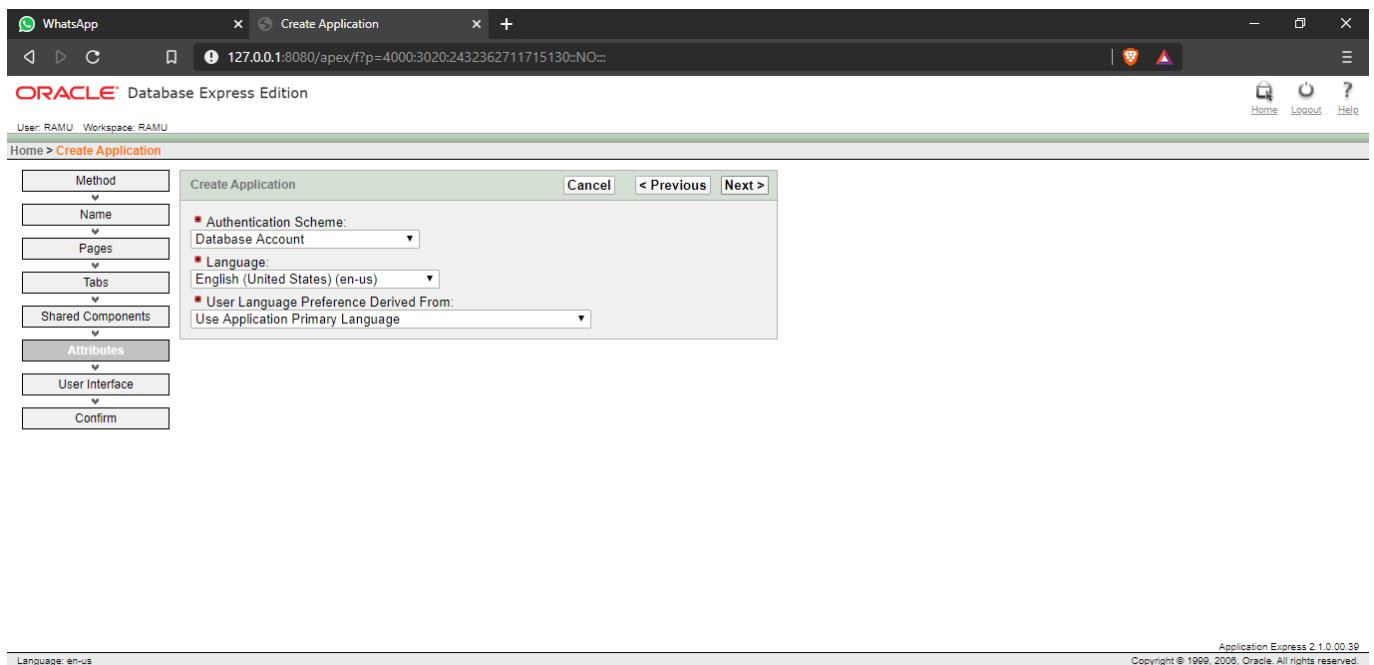
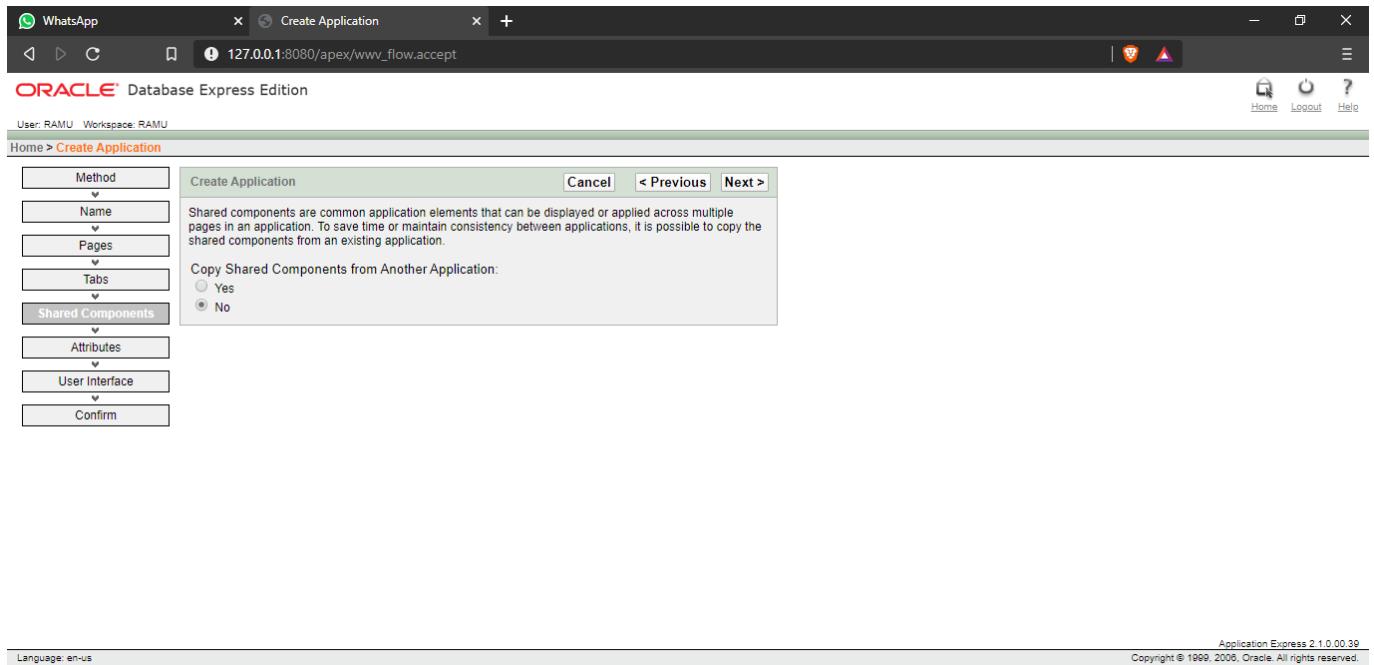
Create Application [Cancel] < Previous Next >

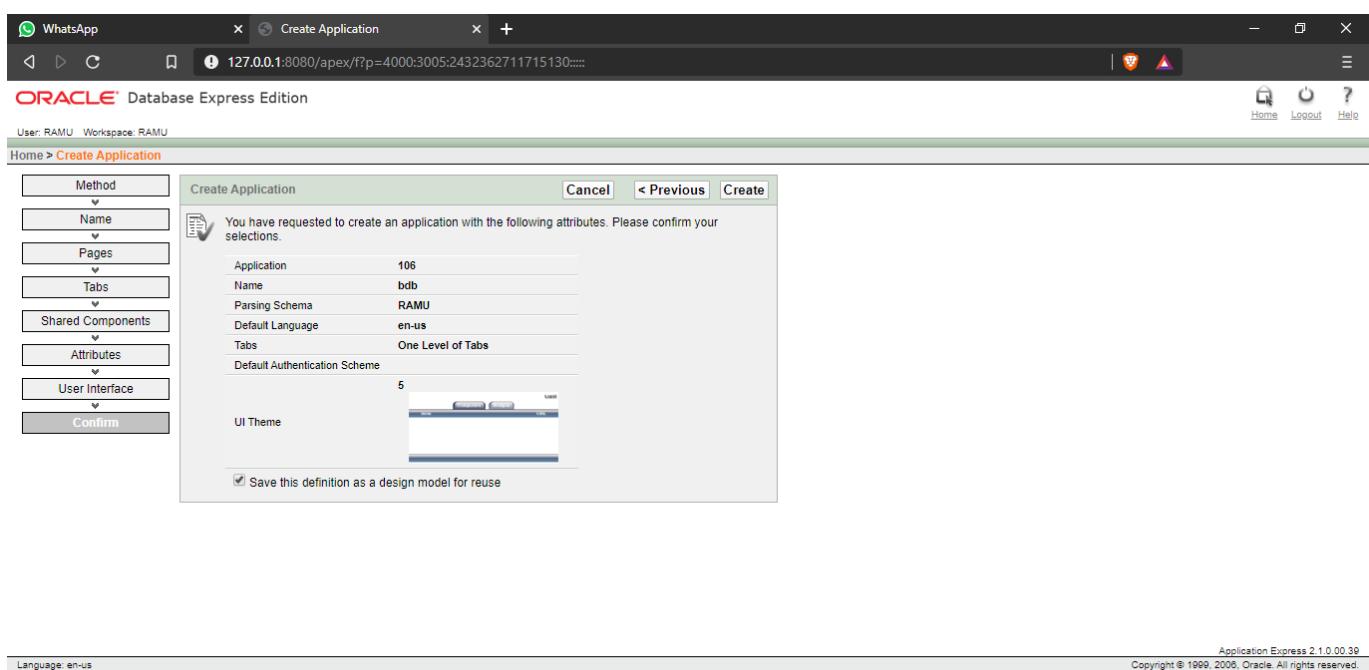
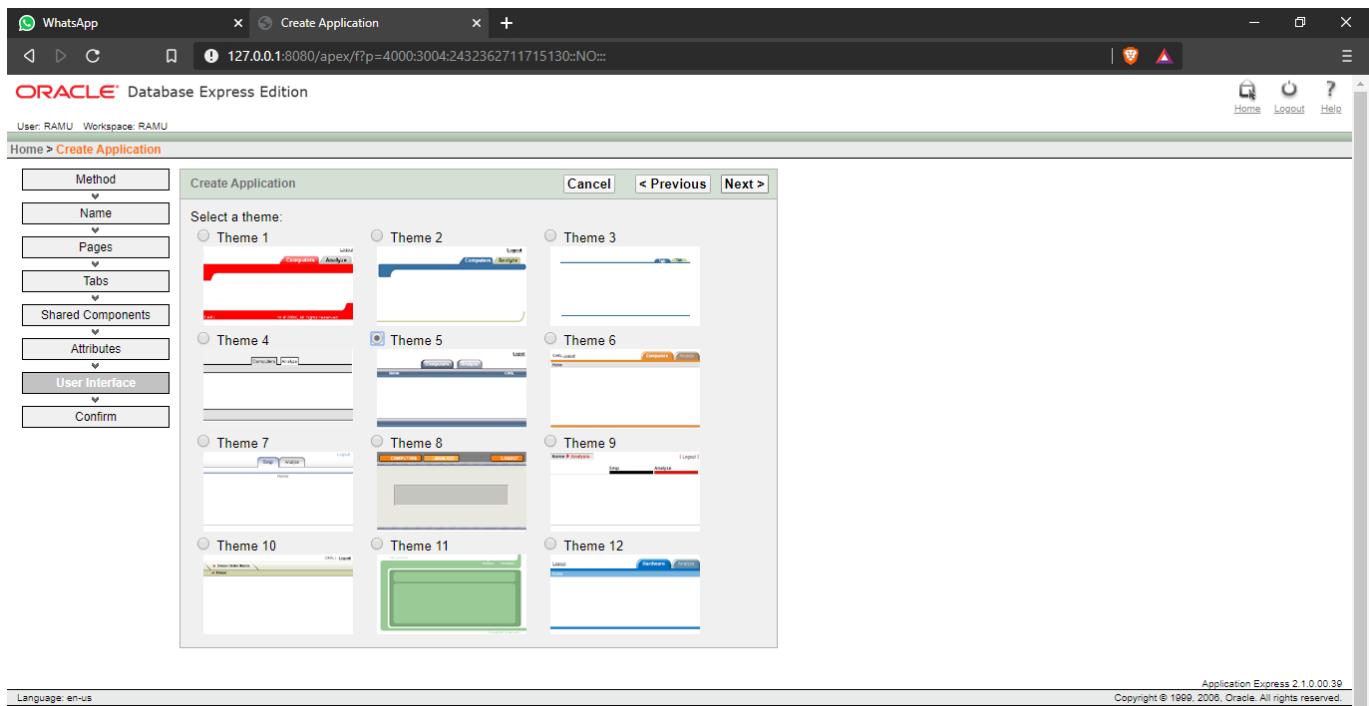
Application: 106 Name: bdb

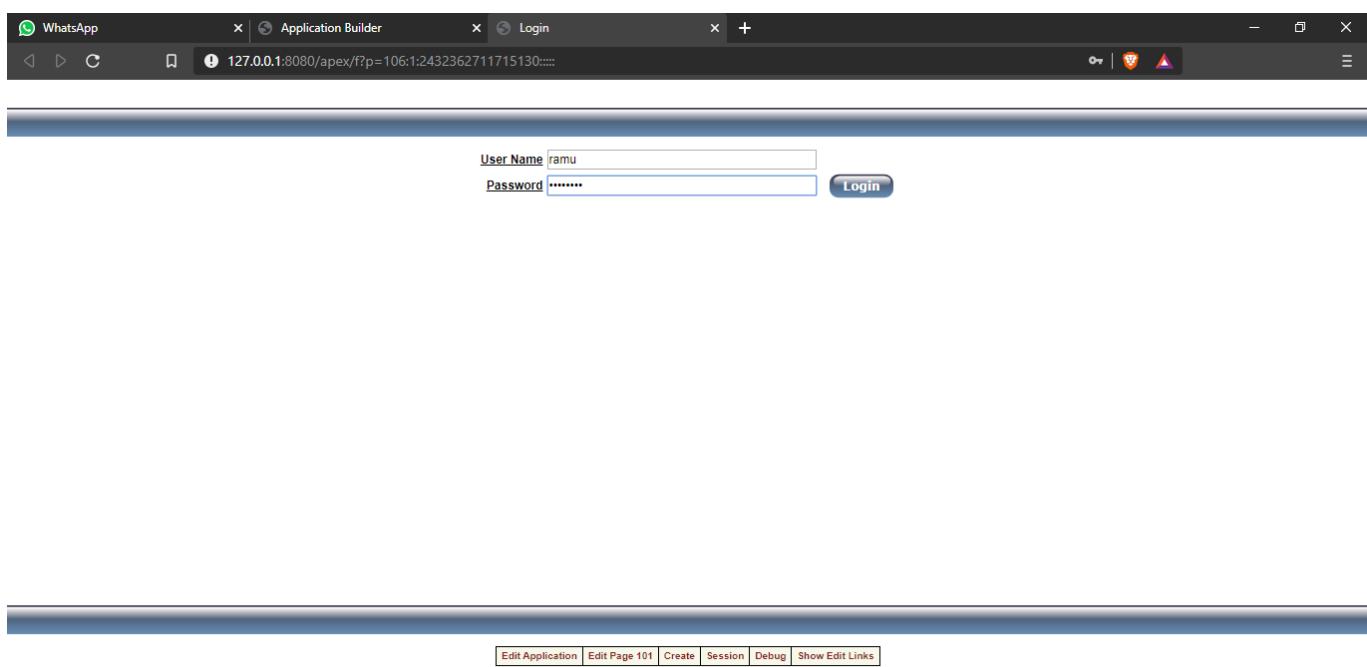
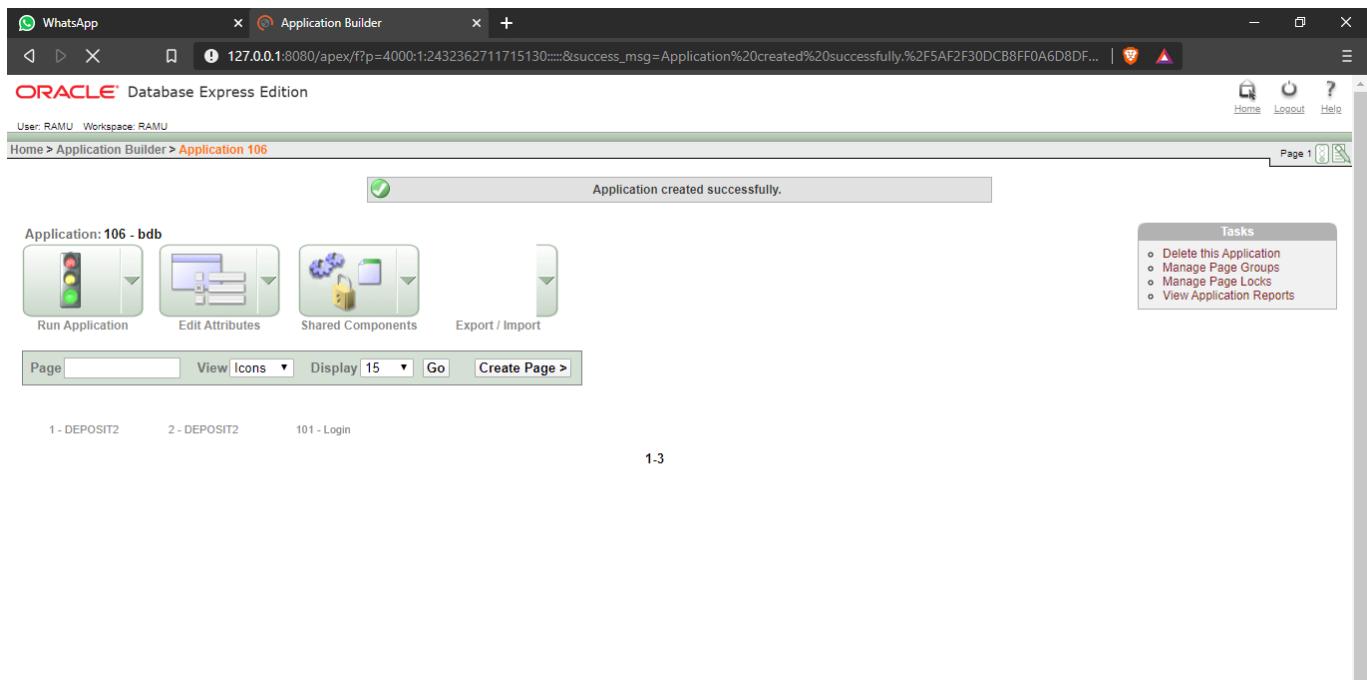
Tabs:

- No Tabs
- One Level of Tabs
- Two Levels of Tabs

Language: en-us Application Express 2.1.0.0.39 Copyright © 1999, 2006, Oracle. All rights reserved.







WhatsApp Application Builder DEPOSIT2 127.0.0.1:8080/apex/f?p=106:2:2432362711715130::NO:: Logout

DEPOSIT2 > DEPOSIT2 RAMU

DEPOSIT2

[Cancel](#) [Delete](#) [Create](#)

Dactno: actno20sbi21
Dname: Ramu
Damt: 80000

[Edit Application](#) [Edit Page 2](#) [Create](#) [Session](#) [Debug](#) [Show Edit Links](#)

WhatsApp Application Builder DEPOSIT 127.0.0.1:8080/apex/f?p=106:1:2432362711715130::::&success_msg=Action%20Processed.%2F950B9FEA426EB3C6768F96FCE3054346%2F Logout

DEPOSIT2 RAMU

Action Processed.

DEPOSIT2

[Reset](#) [Create](#)

Search: Display: 15 [Go](#)

	Damt	Dname	Dactno
1	70000	Mohanraj	actno20sbi21
2	80000	Ramu	actno20sbi22
3	10000	Rocky	actno20sbi24

[Spread Sheet](#)

1 - 3

[Edit Application](#) [Edit Page 1](#) [Create](#) [Session](#) [Debug](#) [Show Edit Links](#)

WhatsApp Application Builder Page Definition (DEPOSIT2) 127.0.0.1:8080/apex/f?p=4000:4150:2432362711715130::NO:1,4150:FB_FLOW_ID,FB_FLOW_PAGE_ID,F4000_P1_FLOW,F4000_P4150_GOTO_PA... Home Logout Help

ORACLE Database Express Edition User: RAMU Workspace: RAMU Home > Application Builder > Application 106 > Page Definition Page 1 Name: DEPOSIT2 Last Updated: 3 minutes ago

Page 1 View Definition Go < > Delete Copy Edit Attributes Create >

Regions Page Rendering Computations Page Processing Shared Components

Display Point: Page Template Body (3)
Report: DEPOSIT2 (10)
Display Point: Region Position 01
Breadcrumb: Breadcrumbs (1)

Computations

Validations

Processes

Breadcrumbs

Branches

After Processing

Tabs Tab Set: TS1
DEPOSIT2

Lists of Values Report Row Per Page

Lists

Theme 5. Opal

Templates

Page One Level Tabs
Region Breadcrumb Region
Region Reports Region
Label: Optional Label with Help
Button Button
Image Button
Breadcrumb: Breadcrumbs Menu
Report Standard, Alternating Rows Colors

Security

Navigation Bar Logout

WhatsApp Application Builder Create Button 127.0.0.1:8080/apex/www_flow.accept Home Logout Help

ORACLE Database Express Edition User: RAMU Workspace: RAMU Home > Application Builder > Application 106 > Page Definition > Create Button

Create Button Cancel < Previous Next >

Page: 1 - DEPOSIT2
Region: DEPOSIT2

* Button Name: DEPOSIT [Cancel] [Next] [Previous] [Apply] [Submit] [Delete] [Finish] [Create]
* Label: Deposit

Button Type:
 HTML Button
 Image
 Template Driven
 Button is Reset

Action:
 Submit Page and Redirect to URL
 Redirect to URL without submitting page

Language: en-us Application Express 2.1.0.0.39 Copyright © 1999, 2008, Oracle. All rights reserved.



WhatsApp Application Builder Page Definition (DEPOSIT2) 127.0.0.1:8080/apex/www_flow.accept

ORACLE Database Express Edition

User: RAMU Workspace: RAMU

Home > Application Builder > Application 106 > Page Definition

Page 1 View Definition Go < >

Button created.

Name: DEPOSIT2 Last Updated: RAMU, 0 seconds ago

Regions
Display Point: Page Template Body (3)
Report: DEPOSIT2 (10)
Display Point: Region Position 01
Breadcrumb: Breadcrumbs (1)

Buttons
Region: DEPOSIT2
10: REJECT
10: DEPOSIT
10: CREATE (Redirect)
Item: P1_GO

Items
Region: DEPOSIT2
10: P1_REPORT_SEARCH Text Field (always submits page when Enter pressed)
20: P1_ROWS Select List
30: P1_GO button

Computations

Processes

Page Processing

Shared Components

- Tabs**
Tab Set: TS1
DEPOSIT2
- Lists of Values**
Report Row Per Page
- Breadcrumbs**
Breadcrumb
- Lists**
- Theme**
5. Opal
- Templates**
 - Page: One Level Tabs
 - Region: Breadcrumb Region
 - Region: Reports Region
 - Label: External Label with Help
 - Button: Button
 - Button: Button
 - Breadcrumb: Breadcrumbs Menu
 - Report: Standard, Alternating Rows Colors
- Security**

WhatsApp Application Builder Create Button 127.0.0.1:8080/apex/www_flow.accept

ORACLE Database Express Edition

User: RAMU Workspace: RAMU

Home > Application Builder > Application 106 > Page Definition > Create Button

Create Button

Page: 1 - DEPOSIT2 Region: DEPOSIT2

Button Name: WITHDRAW [Cancel] [Next] [Previous] [Apply] [Submit] [Delete] [Finish] [Create]

Label: Withdraw

Button Type:

- HTML Button
- Image
- Template Driven
- Button is Reset

Action:

- Submit Page and Redirect to URL
- Redirect to URL without submitting page

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

WhatsApp Application Builder Page Definition (DEPOSIT2) 127.0.0.1:8080/apex/www_flow.accept

ORACLE Database Express Edition

User: RAMU Workspace: RAMU

Home > Application Builder > Application 106 > Page Definition

Page 1 View Definition Go < >

Button created.

Regions
Display Point: Page Template Body (3)
• Report: DEPOSIT2 (10)
Display Point: Region Position 01
• Breadcrumbs: Breadcrumbs (1)

Buttons
Region: DEPOSIT2
• 10: DEPOSIT
• 20: DEPOSIT
• 10: WITHDRAW
• 10: CREATE (Redirect)
• Item: P1_GO

Items
Region: DEPOSIT2
• 10: P1_REPORT_SEARCH Text Field (always submits page when Enter pressed)
• 20: P1_ROWS Select List
• 30: P1_GO button

Computations

Processes

Page Processing
Computations
Validations
Processes
After Submit
• 10: Reset Pagination
• 20: Reset report search
Branches
After Processing
• 10: Go To Page 1 (Unconditional)

Shared Components
Tabs
Tab Set: TS1
• DEPOSIT2
Lists of Values
• Report Row Per Page
Breadcrumbs
• Breadcrumb
Lists
Theme
• 5. Opal
Templates
• Page: One Level Tabs
• Region: Breadcrumb Region
• Region: Reports Region
• Label: Optional Label with Help
• Button: Button
• Breadcrumbs: Breadcrumbs Menu
• Report: Standard, Alternating Rows Colors
Security

(1) WhatsApp Application Builder Edit Page Process 127.0.0.1:8080/apex/f?p=4000:4312:2432362711715130::NO:4312:F4000_P4312_ID:848909719608432

* Name: DEPOSIT Type: PL/SQL anonymous block

Process Point
* Sequence: 30
Process Point: On Submit - After Computations and Validations
Run Process: Once Per Page Visit (default)

Source
* Process [Download Source]

```

declare
d deposit2.damt%type;
cursor c1 is
select damt from deposit2 where dactno=:p2_dactno;
begin
open c1;
fetch c1 into d;
d:=d+2000;
update deposit2 set damt=d where dactno=:p2_dactno;
close c1;
end;

```

Messages
Process Error Message

(1) WhatsApp

Application Builder

Edit Page Process

127.0.0.1:8080/apex/f?p=4000:4312:2432362711715130::NO:4312:F4000_P4312_ID:849721839611892

Page F4312

Name WITHDRAW

Type PL/SQL anonymous block

Process Point

* Sequence 40

Process Point: On Submit - After Computations and Validations

Run Process Once Per Page Visit (default)

Source

Process [Download Source]

```
declare
d deposit2.damt%type;
cursor c1 is
select damt from deposit2 where dactno=:p2_dactno;
begin
open c1;
fetch c1 into d;
d:=d-3000;
update deposit2 set damt=d where dactno=:p2_dactno;
close c1;
end;
```

Messages

Process Error Message

Process Success Message

Tasks

- Find Items
- Undo Process Source

WhatsApp

Application Builder

Edit Page Process

127.0.0.1:8080/apex/f?p=4000:4312:2432362711715130::NO:4312:F4000_P4312_ID:848909719608432

Expression 1

Expression 2

When Button Pressed (Process After Submit When this Button is Pressed)

- No Button Condition -
- No Button Condition -
- *P1.GO
- CREATE
- DEPOSIT**
- RESET
- WITHDRAW

Configuration

Build Option

- No Build Option -

Comments

Comments

Language: en-us

Application Express 2.1.0.00.39
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WhatsApp Application Builder Edit Page Process

127.0.0.1:8080/apex/f?p=4000:4312:2432362711715130::NO:4312:F4000_P4312_ID:849721839611892

Expression 1

Expression 2

When Button Pressed (Process After Submit When this Button is Pressed)

WITHDRAW

- No Button Condition -
- *P1_GO
- CREATE
- DEPOSIT
- RESET
- WITHDRAW**

Configuration

Build Option

- No Build Option -

Comments

Comments

Language: en-us Application Express 2.1.0.00.39
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This screenshot shows the Oracle Application Express Application Builder interface. It displays a configuration page for a process named 'WITHDRAW'. The 'When Button Pressed' dropdown is set to 'WITHDRAW'. Below it, a list of conditions includes 'No Button Condition', '*P1_GO', 'CREATE', 'DEPOSIT', 'RESET', and 'WITHDRAW', with 'WITHDRAW' being the selected option. The page also includes sections for 'Configuration' (with 'Build Option' set to 'No Build Option') and 'Comments' (with a text area for notes). At the bottom, it shows the language as 'en-us' and the application version as 'Application Express 2.1.0.00.39 Copyright © 1999, 2008, Oracle. All rights reserved.'

WhatsApp Application Builder DEPOSIT2

127.0.0.1:8080/apex/f?p=106:1:2432362711715130::::

Logout

DEPOSIT2

RAMU

DEPOSIT2

Reset Create

Search Display 15 Go

	Damt	Dname	Dactno
1	70000	Mohanraj	actno20sbi21
2	80000	Ramu	actno20sbi22
3	9000	Rocky	actno20sbi24

Spread Sheet 1 - 3

Deposit Withdraw

Edit Application Edit Page 1 Create Session Debug Show Edit Links

This screenshot shows the Oracle Application Express Application Builder interface displaying a page titled 'DEPOSIT2'. The page has a header with 'DEPOSIT2' and 'RAMU'. It features a table with columns 'Damt', 'Dname', and 'Dactno', containing three rows of data: (70000, Mohanraj, actno20sbi21), (80000, Ramu, actno20sbi22), and (9000, Rocky, actno20sbi24). Below the table are buttons for 'Deposit' and 'Withdraw'. At the bottom, there is a navigation bar with links for 'Edit Application', 'Edit Page 1', 'Create', 'Session', 'Debug', and 'Show Edit Links'.

The screenshot shows a web browser window with the URL 127.0.0.1:8080/apex/f?p=106:1:2432362711715130::. The title bar says "DEPOSIT2". The page header includes "DEPOSIT2" and "RAMU" with a "Logout" link. The main content area is titled "DEPOSIT2" with "Reset" and "Create" buttons. It features a search bar with "Search" and "Display 15" dropdown, and a "Go" button. Below is a table with columns "Damt", "Dname", and "Dactno". The data rows are:

Damt	Dname	Dactno
70000	Mohanraj	actno20sbi21
80000	Ramu	actno20sbi22
11000	Rocky	actno20sbi24

Below the table is a "Spread Sheet" section with a "1 - 3" indicator, "Deposit" and "Withdraw" buttons, and a toolbar with "Edit Application", "Edit Page 1", "Create", "Session", "Debug", and "Show Edit Links".

This screenshot is identical to the one above, showing the same browser window with the URL 127.0.0.1:8080/apex/f?p=106:1:2432362711715130::, title "DEPOSIT2", and the same table data.

10. BUS RESERVATION

SAMPLE INPUT AND OUTPUT:

The screenshot shows the Oracle Database Express Edition Application Express Login page. The URL in the address bar is `127.0.0.1:8080/apex/f?p=4550:11:829233841025192::NO::`. The page title is "Database Login". It contains fields for "Username" (set to "system") and "Password" (redacted). A "Login" button is present, along with a link "Click here to learn how to get started". On the right, there is a "Links" panel with links to License Agreement, Documentation, Forum Registration, Discussion Forum, and Product Page. At the bottom, it shows "Language: en-us" and "Application Express Copyright © 1999, 2006, Oracle. All rights reserved."

The screenshot shows the Oracle Database Express Edition Home page for user "SYSTEM". The URL in the address bar is `127.0.0.1:8080/apex/f?p=4500:1000:1024822408274152`. The page title is "Oracle Database Express Edition". It features a navigation bar with "Home", "Logout", and "Help". Below the navigation, there are four main icons: "Administration", "Rowser", "SQL", and "Utilities". The "Administration" menu is expanded, showing "Storage", "Memory", "Database Users", "Monitor", "About Database", "Change My Password", "Manage Login Message", and "Manage HTTP Access". Under "Database Users", "Create User" is highlighted. To the right, there is a "Links" panel and a "Usage Monitor" section displaying storage, memory, sessions, and users statistics. At the bottom, it shows "Language: en-us" and "Application Express 2.1.0.0.39 Copyright © 1999, 2006, Oracle. All rights reserved."

Create Database User

User: SYSTEM

Home > Administration > Manage Database Users > Create Database User

Create Database User

* Username: **rocky**

* Password: *********

* Confirm Password: *********

Expire Password:

Account Status: **Unlocked**

Default Tablespace: **USERS**

Temporary Tablespace: **TEMP**

User Privileges

Roles:

- CONNECT
- RESOURCE
- DBA

Direct Grant System Privileges:

- CREATE DATABASE LINK
- CREATE MATERIALIZED VIEW
- CREATE PROCEDURE
- CREATE PUBLIC SYNONYM
- CREATE ROLE
- CREATE SEQUENCE
- CREATE SYNONYM
- CREATE TABLE
- CREATE TRIGGER
- CREATE TYPE
- CREATE VIEW

[Check All](#) [Uncheck All](#)

Database Users

All database objects are owned by a database user. Use this page to create a new user and define privileges. Use SQL Commands to manage additional user attributes.

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Database Users

User: SYSTEM

Home > Administration > Manage Database Users

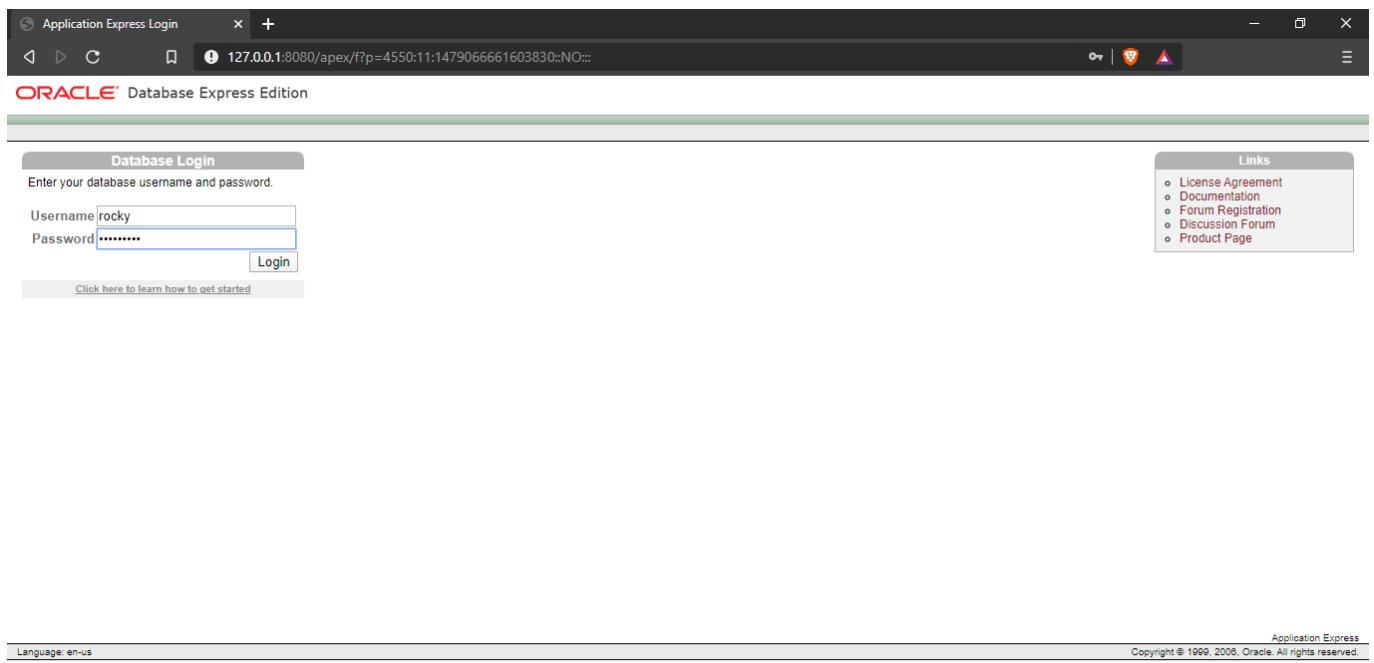
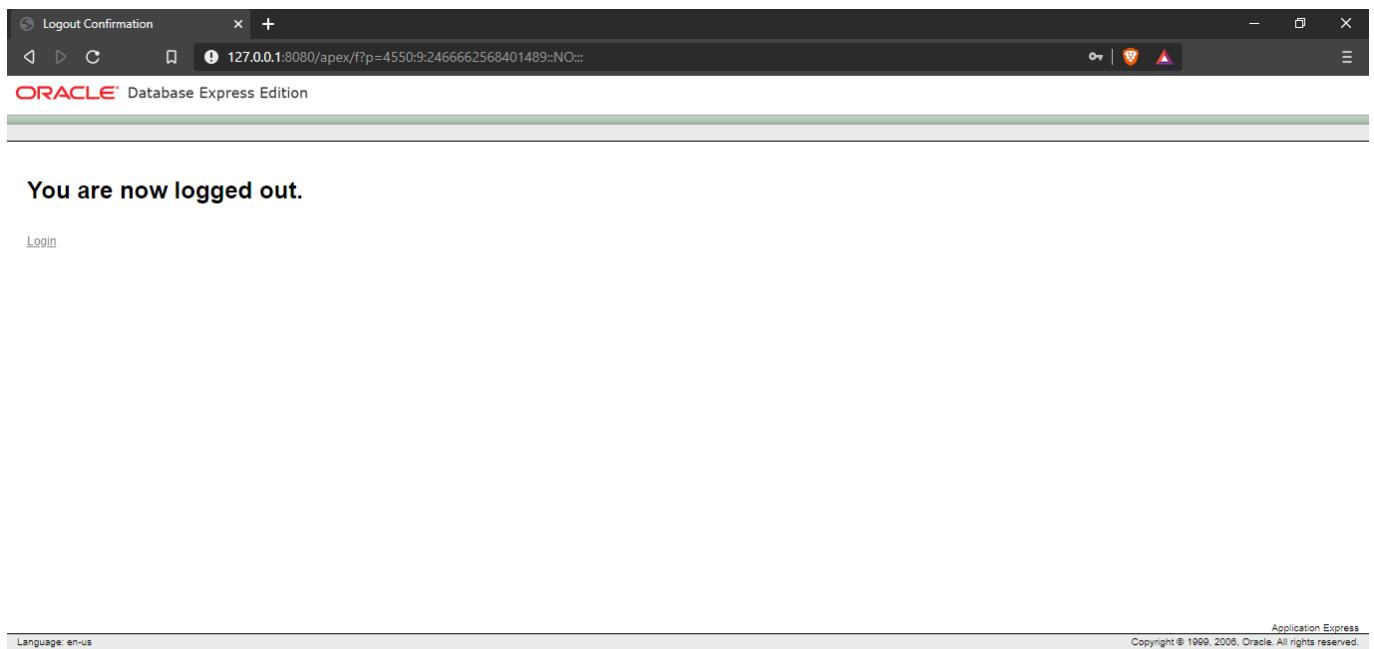
User Created.

Search Username: View: Show: Display: Go

HR  MOHAN  RAMU  ROCKY 

1.4

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The screenshot shows the Oracle Database Express Edition Home page. The URL is 127.0.0.1:8080/apex/f?p=4500:1000:19964465323212. The top navigation bar includes links for Logout and Help. On the left, there are icons for Administration, Object Browser, Utilities, and Application Builder. The Object Browser icon is selected, and its sub-menu is open, showing options like Create (with Table highlighted), View, Index, Sequence, Type, Package, Procedure, Function, Trigger, Database Link, Materialized View, and Synonym. To the right, there is a 'Links' panel with links to License Agreement, Getting Started, Learn more, Documentation, Forum Registration, Discussion Forum, and Product Page. A 'Usage Monitor' panel displays storage (680MB), memory (802MB), sessions (7 Total, 2 Active), and users (12 Internal, 4 Database, 16 Total). Log Archiving is set to Off. At the bottom, it says Application Express 2.1.0.0.39 and Copyright © 1999, 2006, Oracle. All rights reserved.

The screenshot shows the Oracle Database Express Edition Object Browser. The URL is 127.0.0.1:8080/apex/f?p=4500:1001:19964465323212:CREATE:NO::OB_CURRENT_TYPE:TABLE. The top navigation bar includes links for Home, Logout, and Help. The main area shows a 'Table' creation dialog. On the left, there is a sidebar with buttons for Columns, Primary Key, Foreign Key, Constraints, and Confirm. The main dialog has tabs for 'Create Table' (selected) and 'Next >'. It shows a table structure with columns: tid (NUMBER), pname (VARCHAR2(4000)), bus_no (NUMBER), source (VARCHAR2(4000)), destination (VARCHAR2(4000)), and ticket (NUMBER). There are dropdown menus for adding more columns ('- Select Datatype -'). Buttons at the bottom include 'Cancel' and 'Add Column'.

Oracle Object Browser

ORACLE Database Express Edition

User: ROCKY

Home > Object Browser

Table

Primary Key

Table name: BUS_RESERVATION

Primary Key:

- No Primary Key
- Populated from a new sequence (selected)
- Populated from an existing sequence
- Not populated

* Primary Key Constraint Name: BUS_RESERVATION_PK

* Sequence Name: BUS_RESERVATION_SEQ

* Primary Key: TID(NUMBER)

Primary Key

A primary key allows each row in a table to be uniquely identified.

If you select to populate your primary key from a new sequence, you will be prompted to enter the new sequence's name. If you select to populate your primary key from an existing sequence, you will be prompted to select the sequence. Both these methods result in the generation of a trigger against your table. You can also select to not populate your primary. This is the only method that allows you to define a composite primary key which is a primary key made up of more than one column.

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Oracle Object Browser

ORACLE Database Express Edition

User: ROCKY

Home > Object Browser

Table

Foreign Key

Foreign Keys

Foreign Key Columns Referenced Table Referenced Columns Action

Add Foreign Key

Name: BUS_RESERVATION_fk

Disallow Delete (selected)

Select Key Column(s): TID, PNNAME, BUS_NO, SOURCE, DESTINATION

Key Column(s):

References Table:

Foreign Key

A foreign key establishes a relationship between a column or columns in one table and a primary or unique key in another table.

To define a foreign key:

- Select one or more columns and click the Add icon.
- Select the table name that has the corresponding primary key.
- Select the corresponding primary key column or columns and click the Add icon.
- Select Disallow Delete to block delete of rows from the referenced table when there are dependent rows in this table.
- Select Cascade Delete to delete the dependent rows from this table when the corresponding parent table row is deleted.
- Select Set to Null on Delete to set foreign key column values to null when the corresponding parent table row is deleted.
- Click Add.

You can define more than one foreign key on this page but only those displayed in the report at the top of the page will be included in the resulting create table statement.

Oracle Object Browser

127.0.0.1:8080/apex/f?p=4500:1001:1080640798857568::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: ROCKY

Home > Object Browser

Table

Constraints

Constraint Name Type Column(S)/Check

Add Constraint

Check Unique

Name: BUS_RESERVATION_ck1

Available Columns Example Check Constraints

Constraints

Primary Key Foreign Key

Columns

Cancel < Previous Finish

Constraints

Check Constraint A check constraint is a validation check on one or more columns within the table. No value can be inserted or updated in a table which violates an enabled check constraint.

Unique Constraint A unique constraint designates a column or a combination of columns as a unique key. To satisfy a unique constraint, no two rows in the table can have the same values for the specified columns.

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Oracle Object Browser

127.0.0.1:8080/apex/f?p=4500:1001:1080640798857568::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: ROCKY

Home > Object Browser

Create Table

Please confirm your request.

Schema: ROCKY

Table name: BUS_RESERVATION

SQL

Cancel Create

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The screenshot shows the Oracle Database Express Edition home page. At the top, there are links for Administration, Object Browser, SQL, and Utilities. The Utilities section has a dropdown menu for Application Builder, which is currently open, showing options like Create Application, View Applications, Demonstrations, Application Administration, Import, and Export. A sub-menu for 'Create Application' is also open, with 'Create Application' highlighted. On the right side of the page, there are sections for Links (including License Agreement, Getting Started, Learn more, Documentation, Forum Registration, Discussion Forum, and Product Page), Usage Monitor (showing Storage at 680MB and Memory at 802MB), Sessions (7 Total, 1 Active), Users (12 Internal, 4 Database, 16 Total), and Log Archiving (Off). The bottom of the page includes language settings (Language: en-us) and copyright information (Application Express 2.1.0.0.39, Copyright © 1999, 2006, Oracle. All rights reserved).

The screenshot shows the 'Create Application' wizard, Step 1: Name. The title bar says 'Create Application'. The main area has a 'Create Application' button, a 'Cancel' button, and '< Previous / Next >' buttons. A note says 'Enter an application name and an unique application ID. Then, select an application creation method and a schema.' Below this, there is a 'Name' field containing 'BUS_RESERVATION' with a red asterisk indicating it is required. There is also an 'Application' field with '104' and a note 'From scratch' or 'Based on existing application design model'. A 'Schema' dropdown is set to 'ROCKY'. On the left, there is a vertical navigation bar with tabs: Method, Name (selected), Pages, Tabs, Shared Components, Attributes, User Interface, and Confirm.

Create Application

User: ROCKY Workspace: ROCKY

Home > Create Application

Method
Name
Pages
Tabs
Shared Components
Attributes
User Interface
Confirm

Create Application

Add pages to your application by selecting a page type and clicking Add Page.

Add Page

Select Page Type:

- Blank
- Report
- Form
- Tabular Form
- Report and Form

Action:

Add Page

Add Page
Select the type of page you wish to create.

- Blank creates a page with no built-in functionality.
- Report creates a page that contains the formatted result of a SQL query. You can choose to build a report based on a table you select, or based on a custom SQL SELECT statement or a PL/SQL function returning a SQL SELECT statement that you provide.
- Form creates a form to update a single row in a database table.
- Tabular Form creates a form to perform update, insert, and delete operations on multiple rows in a database table.
- Report and Form builds a two page report and form combination. On the first page, users select a row to update. On the second page users can update the selected table or view.

Analysis Pages
Report pages include the **Include Analysis Pages** check box. Select this option and follow the wizard prompts to create additional summary reports and charts.

Language: en-us

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Create Application

User: ROCKY Workspace: ROCKY

Home > Create Application

Method
Name
Pages
Tabs
Shared Components
Attributes
User Interface
Confirm

Create Application

Add pages to your application by selecting a page type and clicking Add Page.

Add Page

Select Page Type:

- Blank
- Report
- Form
- Tabular Form
- Report and Form

Action: Add a report with an edit form on a second page

Table Name:

Include Analysis Pages

Add Page
Select the type of page you wish to create.

- Blank creates a page with no built-in functionality.
- Report creates a page that contains the formatted result of a SQL query. You can choose to build a report based on a table you select, or based on a custom SQL SELECT statement or a PL/SQL function returning a SQL SELECT statement that you provide.
- Form creates a form to update a single row in a database table.
- Tabular Form creates a form to perform update, insert, and delete operations on multiple rows in a database table.
- Report and Form builds a two page report and form combination. On the first page, users select a row to update. On the second page users can update the selected table or view.

Analysis Pages
Report pages include the **Include Analysis Pages** check box. Select this option and follow the wizard prompts to create additional summary reports and charts.

Language: en-us

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Oracle Database Express Edition

User: ROCKY Workspace: ROCKY

Home > Create Application

Create Application

Page	Page Name	Page Type	Source Type	Source
1	BUS RESERVATION	Report	Table	BUS_RESERVATION
2	BUS RESERVATION	Form	Table	BUS_RESERVATION

Add Page

Select Page Type:

- Blank
- Report
- Form
- Tabular Form
- Report and Form

Action: Add a report with an edit form on a second page

Subordinate to Page - Top Level Page -

Table Name:

Include Analysis Pages

Add Page

Add Page

Select the type of page you wish to create:

- Blank creates a page with no built-in functionality.
- Report creates a page that contains the formatted result of a SQL query. You can choose to build a report based on a table you select, or based on a custom SQL SELECT statement or a PL/SQL function returning a SQL SELECT statement that you provide.
- Form creates a form to update a single row in a database table.
- Tabular Form creates a form to perform update, insert, and delete operations on multiple rows in a database table.
- Report and Form builds a two page report and form combination. On the first page, users select a row to update. On the second page users can update the selected table or view.

Analysis Pages

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Language: en-us

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Oracle Database Express Edition

User: ROCKY Workspace: ROCKY

Home > Create Application

Create Application

Application: 105 Name: BUS_RESERVATION

Tabs:

- No Tabs
- One Level of Tabs
- Two Levels of Tabs

Language: en-us

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Oracle Database Express Edition

User: ROCKY Workspace: ROCKY

Home > Create Application

Create Application

Shared components are common application elements that can be displayed or applied across multiple pages in an application. To save time or maintain consistency between applications, it is possible to copy the shared components from an existing application.

Copy Shared Components from Another Application:

Yes
 No

Method
Name
Pages
Tabs
Shared Components
Attributes
User Interface
Confirm

Language: en-us

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Oracle Database Express Edition

User: ROCKY Workspace: ROCKY

Home > Create Application

Create Application

* Authentication Scheme:
Database Account

* Language:
English (United States) (en-us)

* User Language Preference Derived From:
Use Application Primary Language

Method
Name
Pages
Tabs
Shared Components
Attributes
User Interface
Confirm

Language: en-us

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Oracle Database Express Edition

User: ROCKY Workspace: ROCKY

Home > Create Application

Create Application

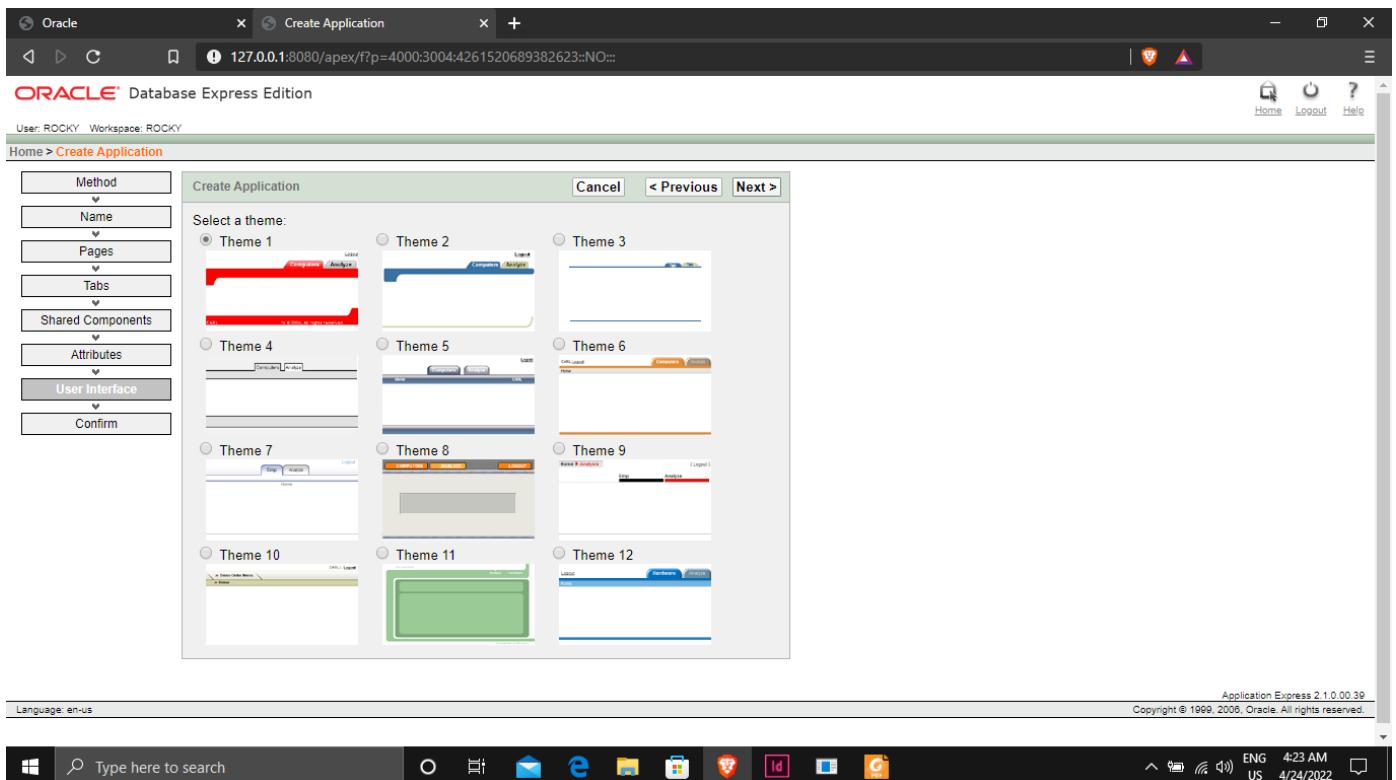
Select a theme:

- Theme 1
- Theme 2
- Theme 3
- Theme 4
- Theme 5
- Theme 6
- Theme 7
- Theme 8
- Theme 9
- Theme 10
- Theme 11
- Theme 12

Cancel < Previous Next >

Language: en-us

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Oracle Database Express Edition

User: ROCKY Workspace: ROCKY

Home > Create Application

Create Application

You have requested to create an application with the following attributes. Please confirm your selections.

Application	105
Name	BUS_RESERVATION
Parsing Schema	ROCKY
Default Language	en-us
Tabs	One Level of Tabs
Default Authentication Scheme	

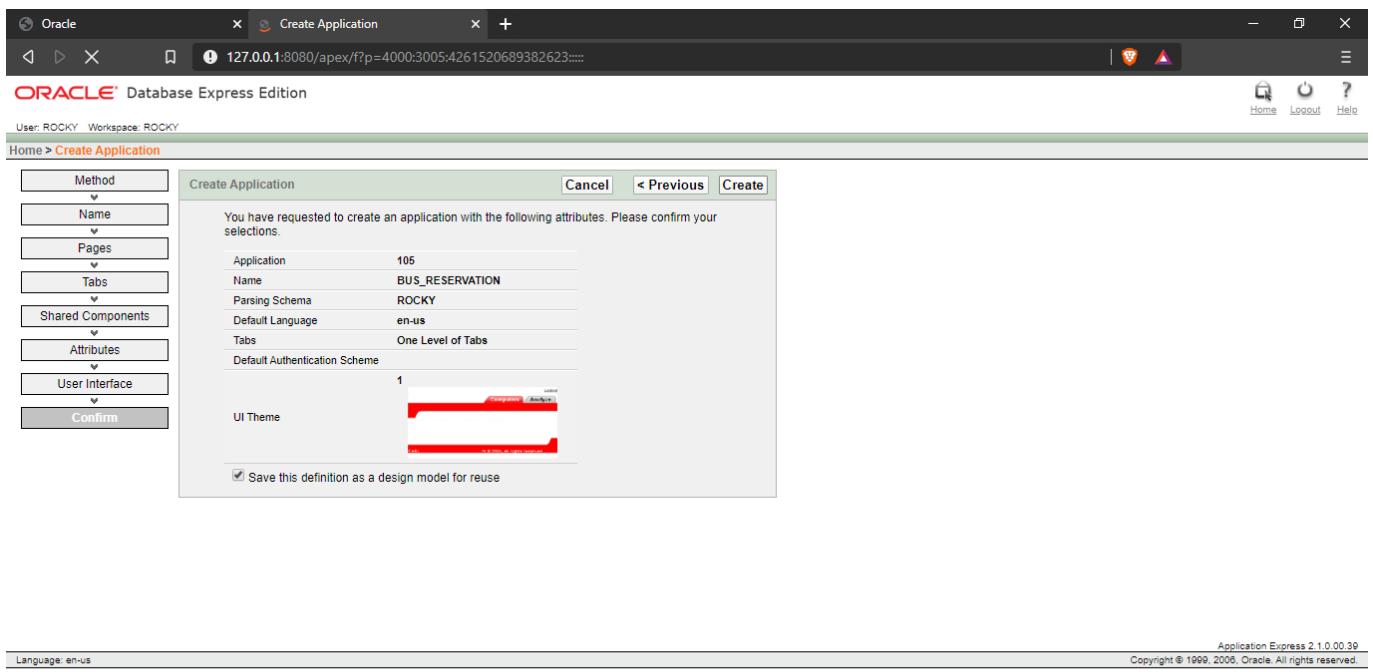
UI Theme

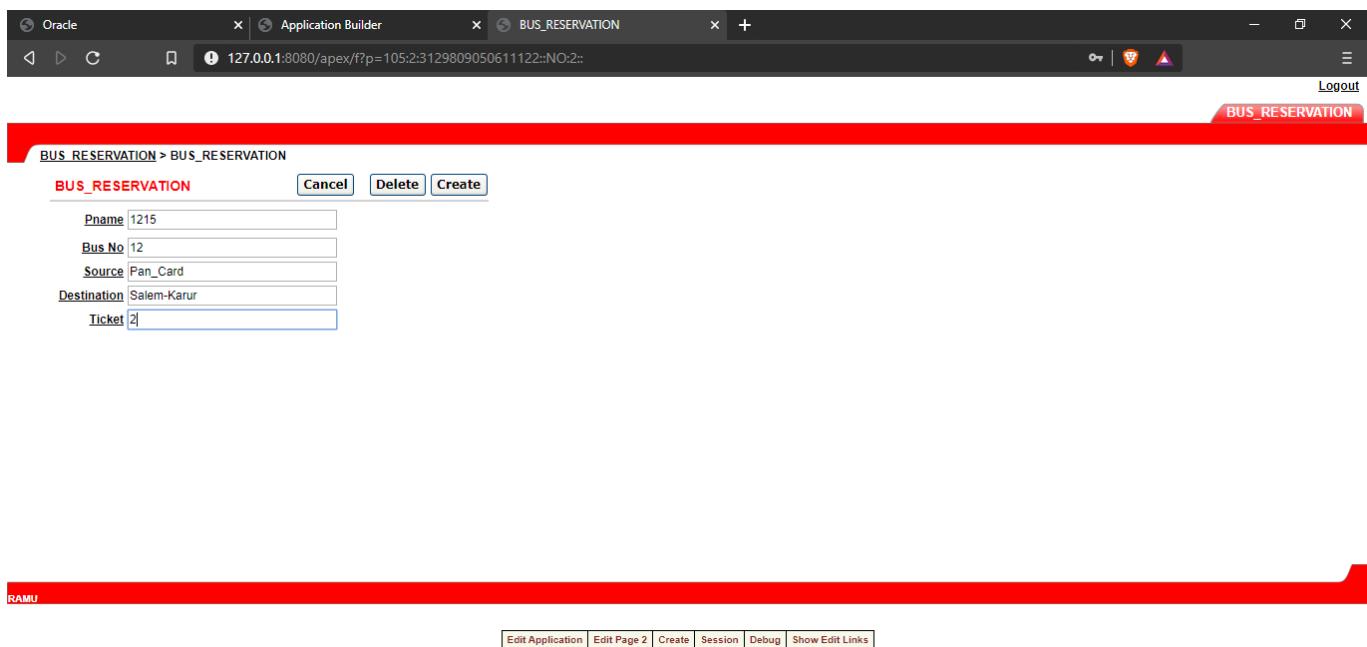
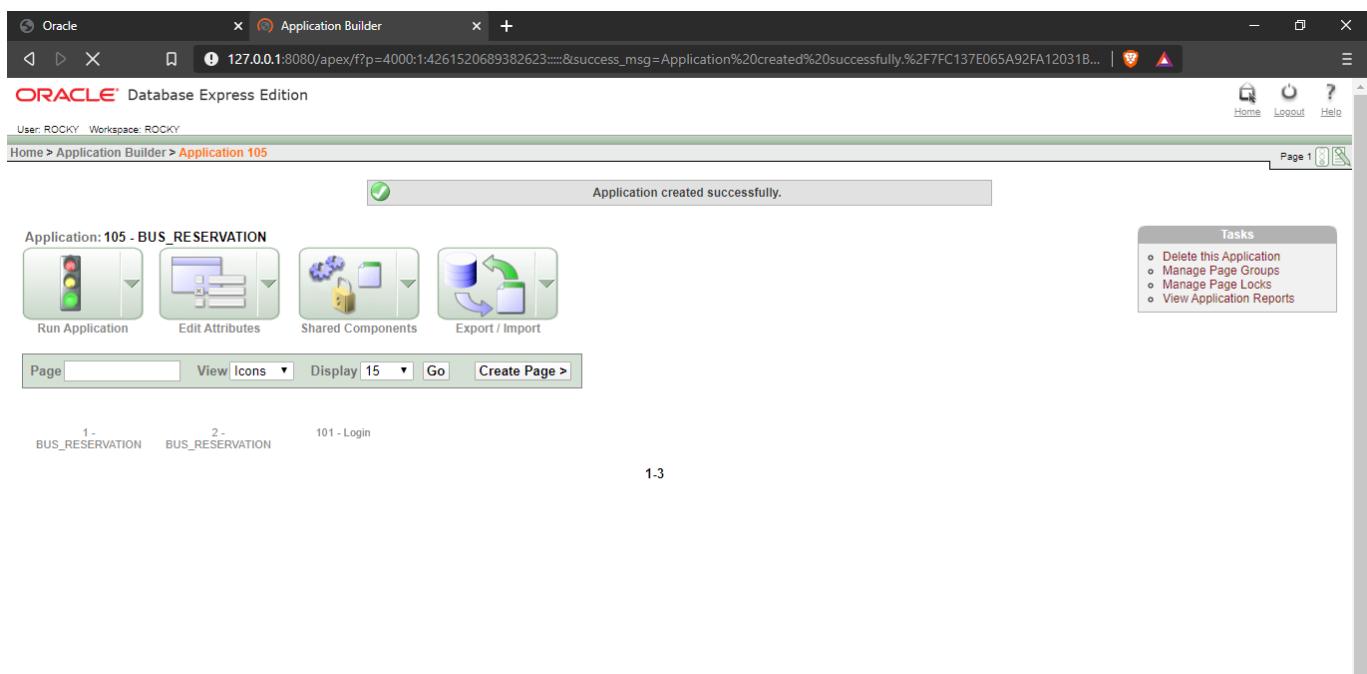
Save this definition as a design model for reuse

Cancel < Previous Create

Language: en-us

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Oracle Application Builder BUS_RESERVATION

127.0.0.1:8080/apex/f?p=105:1:3129809050611122::&success_msg=Action%20Processed.%2FF23283700411F380EABE45F7646EC59%2F

Logout BUS_RESERVATION

BUS_RESERVATION

Action Processed.

Reset Create

Search Display 15 Go

Pname	Ticket	Source	Destination	Bus No
1215	2	Pan_Card	Salem-Karur	12
Mohanraj	1	Aadhar_Card	Salem-Namakkal	54

Spread Sheet 1 - 2

RAMU

Edit Application Edit Page 1 Create Session Debug Show Edit Links

Oracle Application Builder BUS_RESERVATION

127.0.0.1:8080/apex/f?p=105:2:3129809050611122::P2_TID:1

Logout BUS_RESERVATION

BUS RESERVATION > BUS_RESERVATION

BUS_RESERVATION Cancel Delete Apply Changes

Pname Mohanraj

Bus No 54

Source Aadhar_Card

Destination Salem-Namakkal

Ticket 1

RAMU

Edit Application Edit Page 2 Create Session Debug Show Edit Links

Oracle Application Builder BUS_RESERVATION

127.0.0.1:8080/apex/f?p=105:1:312980905061112::::&success_msg=Action%20Processed.%2FF23283700411F380EABE45F7646EC59%2F

[Logout](#)

BUS_RESERVATION

Action Processed.

BUS_RESERVATION [Reset](#) [Create](#)

Search Display: 15 [Go](#)

Pname	Ticket	Source	Destination	Bus No
1215	2	Pan_Card	Salem-Karur	12

[Spread Sheet](#)

1 - 1

RAMU

[Edit Application](#) [Edit Page 1](#) [Create](#) [Session](#) [Debug](#) [Show Edit Links](#)

