

RDBMS FUNDAMENTALS

ASSIGNMENT 11:

Compose SQL statements to BEGIN a transaction, INSERT a new record into the 'orders' table, COMMIT the transaction, then UPDATE the 'products' table, and ROLLBACK the transaction.

CREATE TABLE CUSTOMER

```
CREATE TABLE customer (  
    cid NUMBER PRIMARY KEY,  
    cname VARCHAR(20),  
    region VARCHAR(20)  
);
```

INSERT VALUES TO CUSTOMER TABLE

```
INSERT INTO customer VALUES(1, 'DEEPIKA NAIK', 'North');  
INSERT INTO customer VALUES (2, 'KIRAN NAIK, 'North');  
INSERT INTO customer VALUES (3, 'PRIYANKA', 'South');  
INSERT INTO customer VALUES (4, 'AISHWARYA', 'East');  
INSERT INTO customer VALUES (5, 'RAHUL', 'North');
```

DISPLAY CUSTOMER TABLE

```
SELECT * FROM customer;
```

CREATE TABLE ORDER

```
CREATE TABLE orders (  
    oid NUMBER PRIMARY KEY,  
    odate DATE,  
    ovalue DECIMAL(10,2),
```

```
        cid NUMBER REFERENCES customers(cid)
    );

INSERT VALUES TO ORDER TABLE

INSERT INTO order VALUES(101,'10-JAN-24',100.00,1),
INSERT INTO order VALUES(102,'20-MAR-24',150.00,2),
INSERT INTO order VALUES(103,'1-AUG-24',200.00,1),
INSERT INTO order VALUES(104,'25-JAN-24',50.00,3),
INSERT INTO order VALUES(105,'10-JUNE-24',300.00,4),
INSERT INTO order VALUES(106,'10-JUNE-24',300.00,5),
```

DISPLAY ORDER TABLE

```
SELECT * FROM order;
```

CREATE TABLE PRODUCT

```
CREATE TABLE product(
    pid NUMBER PRIMARY KEY,
    pname VARCHAR(20),
    price NUMBER(10,2)
);
```

INSERT VALUES TO THE PRODUCT TABLE

```
INSERT INTO product VALUES(1,'Product A',50.00);
INSERT INTO product VALUES(2,'Product B',100.00);
INSERT INTO product VALUES(3,'Product C',70.00);
INSERT INTO product VALUES(4,'Product D',300.00);
INSERT INTO product VALUES(5,'Product E',60.00);
```

DISPLAY PRODUCT TABLE

```
SELECT * FROM product;
```

INSERT NEW RECORD INTO THE ORDER TABLE

```
INSERT INTO order VALUES(107,TO_DATE('08-MAY-2024','DD-MM-YYYY'),250.00,5);
```

COMMIT THE TRANSACTION

```
COMMIT;
```

UPDATE THE PRODUCT TABLE

```
UPDATE product
```

```
SET price = price*10
```

```
WHERE pid=1;
```

ROLLBACK THE TRANSACTION

```
ROLLBACK;
```

COMMIT : Commits the transaction, making the insert operation permanent.

UPDATE : Updates the price of a product with pid=1

ROLLBACK : Rolls back the transaction, undoing the update operation

AFTER COMMIT

The screenshot shows the Oracle Database Express Edition console in a Firefox browser. The user is SYSTEM. The SQL Commands window contains the following commands:

```
insert into order1 values(107,to_date('08-MAY-2024','DD-MY-YYYY'),250.00,5);
commit;
select * from order1;
create table product(pid number primary key, pname varchar(20), price number(10,2));
insert into product values(1,'Product A', 50.00);
insert into product values(2,'Product B',100.00);
insert into product values(3,'Product C', 70.00);
insert into product values(4,'Product D', 300.00);
```

The Results window shows the output of the `select * from order1;` command:

OID	ODATE	OVALUE	CID
101	10-JAN-24	100	1
102	20-MAR-24	150	2
103	01-AUG-24	200	1
104	25-JAN-24	50	3
105	10-JUN-24	300	4
106	10-JUN-24	300	5
107	08-MAY-24	250	5

7 rows returned in 0.00 seconds

BEFORE ROLLBACK

The screenshot shows the Oracle Database Express Edition console in a Firefox browser. The user is SYSTEM. The SQL Commands window contains the following commands:

```
insert into product values(1,'Product A', 50.00);
insert into product values(2,'Product B',100.00);
insert into product values(3,'Product C', 70.00);
insert into product values(4,'Product D', 300.00);
insert into product values(5,'Product E', 60.00);
SELECT * FROM PRODUCT;
update product set price=price*10 where pid=1;
rollback;
```

The Results window shows the output of the `SELECT * FROM PRODUCT;` command:

PID	PNAME	PRICE
1	Product A	50
2	Product B	100
3	Product C	70
4	Product D	300
5	Product E	60

5 rows returned in 0.00 seconds

AFTER UPDATING THE PRODUCT

The screenshot shows the Oracle Database Express Edition interface in a Firefox browser. The SQL Commands window contains the following code:

```
insert into product values(1,'Product A', 50.00);
insert into product values(2,'Product B',100.00);
insert into product values(3,'Product C', 70.00);
insert into product values(4,'Product D', 300.00);
insert into product values(5,'Product E', 60.00);
SELECT * FROM PRODUCT;
update product set price=price*10 where pid=1;
```

The Results window displays the following table:

PID	PNAME	PRICE
1	Product A	500
2	Product B	100
3	Product C	70
4	Product D	300
5	Product E	60

5 rows returned in 0.00 seconds

AFTER ROLLBACK

The screenshot shows the Oracle Database Express Edition interface in a Firefox browser. The SQL Commands window contains the following code:

```
insert into product values(1,'Product A', 50.00);
insert into product values(2,'Product B',100.00);
insert into product values(3,'Product C', 70.00);
insert into product values(4,'Product D', 300.00);
insert into product values(5,'Product E', 60.00);
SELECT * FROM PRODUCT;
update product set price=price*10 where pid=1;
rollback;
```

The Results window displays the following table:

PID	PNAME	PRICE
1	Product A	50
2	Product B	100
3	Product C	70
4	Product D	300
5	Product E	60

5 rows returned in 0.00 seconds