

Implementation of Cursors in PL-SQL

1. Implicit Cursors

```
create table customer1(ID int, name varchar(10), salary int);
```

```
insert into customer1 values(1, 'AAA', 2000);
```

```
insert into customer1 values(2, 'BBB', 3000);
```

```
insert into customer1 values(3, 'CCC', 4000);
```

```
select * from customer1;
```

```
DECLARE
```

```
    total_rows number(2);
```

```
BEGIN
```

```
    UPDATE customer1
```

```
    SET salary = salary + 500;
```

```
    IF sql%notfound THEN
```

```
        dbms_output.put_line('no customers selected');
```

```
    ELSIF sql%found THEN
```

```
        total_rows := sql%rowcount;
```

```
        dbms_output.put_line( total_rows || ' customers selected
```

```
');
```

```
    END IF;
```

```
END;
```

Output:

```
3 customers selected'
```

2. Explicit Cursors

```
create table customer2(ID int, name varchar(10), address varchar(20));
```

```
insert into customer2 values(1, 'AAA', '2000');
```

```
insert into customer2 values(2, 'BBB', '3000');
```

```
insert into customer2 values(3, 'CCC', '4000');
```

```
select * from customer2;
```

```
DECLARE
```

```
  c_id customer2.id%type;
```

```
  c_name customer2.name%type;
```

```
  c_addr customer2.address%type;
```

```
  CURSOR c_customers is
```

```
    SELECT id, name, address FROM customer2;
```

```
BEGIN
```

```
  OPEN c_customers;
```

```
  LOOP
```

```
    FETCH c_customers into c_id, c_name, c_addr;
```

```
    EXIT WHEN c_customers%notfound;
```

```
    dbms_output.put_line(c_id || ' ' || c_name || ' ' || c_addr);
```

```
  END LOOP;
```

```
  CLOSE c_customers;
```

```
END;
```

Output

Statement processed.

1 AAA 2000

2 BBB 3000

3 CCC 4000