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Roll number: 31

Experiment no: 2

Experiment title: Implement inheritance in ORDBMS for a given dataset

1. Create type name_ty with following attributes: fname, lname varchar
create or replace type name_ty as object (fname varchar(20), lname varchar(20))
not final

Type created.

2. Create type addr_ty with following attributes: city varchar, pin int
create or replace type addr_ty as object (city varchar(20), pincode int) not final

Type created.

3. Create type employee with following attributes: emp id int, name, address
create or replace type employee as object (id int, name name_ty, address addr_ty) not final

Type created.

4. Create type fulltime_emp under type employee with following attribute: salary int
create or replace type fulltime under employee(salary int)

Type created.

5. Create type parttime_emp under type employee with following attributes: rate int, hours int
create or replace type parttime under employee(rate int, hours int)

Type created.

6. Create table Fulltime of type fulltime_emp.
create table ft of fulltime
Table created.

7. Create table Parttime of type parttime_emp.
create table pt of parttime
Table created.

8. Insert the following data to Fulltime table:
insert into ft values(1, name_ty('Rahul', 'Kumar'), addr_ty('pune', 411234), 50000)
insert into ft values(2, name_ty('Aniket', 'Sharma'), addr_ty('Kolhapur', 410123), 70000)
insert into ft values(3, name_ty('Abhi', 'Verma'), addr_ty('Kolhapur', 410124), 40000)
insert into ft values(4, name_ty('Rohan', 'Kumar'), addr_ty('mumbai', 416605), 60000)
1 row(s) inserted.

9. Insert the following data to Parttime table:
insert into pt values(5, name_ty('Vibhuti', 'mitra'), addr_ty('sangli', 410298), 1000, 8)
insert into pt values(6, name_ty('Ketaki', 'Bhave'), addr_ty('Kolhapur', 410222), 500, 7)
insert into pt values(7, name_ty('Mahesh', 'Kumbhar'), addr_ty('pune', 416289), 2000, 5)
insert into pt values(8, name_ty('Raj', 'Patil'), addr_ty('pune', 409256), 800, 4)
1 row(s) inserted.

10. Print the record of all Fulltime employees.
select f.id, f.name.fname, f.name.lname, f.address.city, f.address.pincode, f.salary from ft f

ID	NAME.FNAME	NAME.LNAME	ADDRESS.CITY	ADDRESS.PINCODE	SALARY
1	Rahul	Kumar	pune	411234	50000
2	Aniket	Sharma	Kolhapur	410123	70000
3	Abhi	Verma	Kolhapur	410124	40000
4	Rohan	Kumar	mumbai	416605	60000

11. Print the record of all Parttime employees.

```
select p.id, p.name.fname, p.name.lname,  
p.address.city, p.address.pincode, p.rate, p.hours  
from pt p
```

ID	NAME.FNAME	NAME.LNAME	ADDRESS.CITY	ADDRESS.PINCODE	RATE	HOURS
5	Vibhuti	mitra	sangli	410298	1000	8
6	Ketaki	Bhave	Kolhapur	410222	500	7
7	Mahesh	Kumbhar	pune	416289	2000	5
8	Raj	Patil	pune	409256	800	4

12. Retrieve the record of all fulltime employees staying in Kolhapur.

```
select f.id, f.name.fname, f.name.lname,  
f.address.city, f.address.pincode, f.salary from ft f  
where f.address.city = 'Kolhapur'
```

ID	NAME.FNAME	NAME.LNAME	ADDRESS.CITY	ADDRESS.PINCODE	SALARY
2	Aniket	Sharma	Kolhapur	410123	70000
3	Abhi	Verma	Kolhapur	410124	40000

13. Find all the employees whose rate is more than 500.

```
select p.id, p.name.fname, p.name.lname,  
p.address.city, p.address.pincode, p.rate, p.hours  
from pt p where p.rate > 500
```

ID	NAME.FNAME	NAME.LNAME	ADDRESS.CITY	ADDRESS.PINCODE	RATE	HOURS
5	Vibhuti	mitra	sangli	410298	1000	8
7	Mahesh	Kumbhar	pune	416289	2000	5
8	Raj	Patil	pune	409256	800	4

14. Change the salary of employee to 60000 whose current salary is 40000.

```
update ft f set f.salary = '60000' where f.salary =  
'40000'
```

1 row(s) updated.

15. Change the pincode of employee to 423512 whose hours are 7.

```
update pt p set p.address.pincode = '423512'  
where p.hours = '7'
```

1 row(s) updated.

16. Change the first name of fulltime employee to raunak whose last name is Sharma.

```
update ft f set f.name.fname = 'raunak' where  
f.name.lname = 'Sharma'
```

1 row(s) updated.

17. Change the city of employee to Mumbai whose rate is 800.

```
update pt p set p.address.city = 'Mumbai' where  
p.rate = '800'
```

1 row(s) updated.

18. Delete the record of fulltime employee with pincode 410123.

```
delete from ft f where f.address.pincode =  
'410123'
```

1 row(s) deleted.

19. Delete the record of parttime employee whose last name is bhave.

```
delete from pt p where p.name.lname = 'Bhave'
```

1 row(s) deleted.

20. Delete all the records of fulltime and parttime employees.

```
truncate table ft
```

```
truncate table pt
```

Table truncated.