

Abstract Data Type SQL Query:

-- Create ADT Object

```
create or replace type stdinfo_address as object (  
    street varchar(50),  
    city varchar(50),  
    states varchar(2),  
    zip int  
);
```

```
create or replace type stdinfo_contact as object (  
    phone_num varchar(10),  
    family_num varchar(10)  
);
```

-- Create table that contains the ADT Object Return Table

```
create table stdinfo (  
    fname varchar(20),  
    lname varchar(20),  
    stdAdd stdinfo_address,  
    stdCon stdinfo_contact  
);
```

-- Insert Values into the Table with ADT Object

```
insert into stdinfo values(  
    'Onkar',  
    'Malawade',  
    stdinfo_address('Talere','Kanakawali','MH',416801),  
    stdinfo_contact('7020767185','9518951121')  
);
```

```
insert into stdinfo values(  
    'Aditya',  
    'Shinde',  
    stdinfo_address('Shirgoan','Devgad','MH',416810),  
    stdinfo_contact('7020767186','4518951121')  
);
```

```
insert into stdinfo values(  
    'Rahul',  
    'Khadekar',  
    stdinfo_address('Sakharpa','Ratangiri','MH',415801),  
    stdinfo_contact('7020767185','9518951121')  
);
```

```
insert into stdinfo values(  
    'Vishal',  
    'Jogale',  
    stdinfo_address('Sakharpa','Ratangiri','MH',415801),  
    stdinfo_contact('7020547185','9515451121')  
);
```

```
insert into stdinfo values(  
    'Aditya',  
    'Main',  
    stdinfo_address('Sakharpa','Ratangiri','MH',415801),  
    stdinfo_contact('7020767985','95187951121')  
);
```

```
insert into stdinfo values(  
    'Saurabh',
```

```
'Shukla',  
stdinfo_address('Rankala','Kalhapur','MH',456781),  
stdinfo_contact('7078945185','9517541121')  
);
```

-- Select Values from an ADT Object and Table

```
select s.fname,  
       s.lname,  
       s.stdAdd.city,  
       s.stdAdd.street,  
       s.stdAdd.zip,  
       s.stdAdd.states,  
       s.stdCon.phone_num,  
       s.stdCon.family_num  
from stdinfo s;
```

Output:

FNAME	LNAME	STDADD.CITY	STDADD.STREET	STDADD.ZIP	STDADD.STATES	STDCON.PHONE_NUM	STDCON.FAMILY_NUM
Onkar	Malawade	Kanakawali	Talere	416801	MH	7020767185	9518951121
Aditya	Shinde	Devgad	Shirgoan	416810	MH	7020767186	4518951121
Rahul	Khadekar	Ratangiri	Sakharpa	415801	MH	7020767185	9518951121
Vishal	Jogale	Ratangiri	Sakharpa	415801	MH	7020547185	9515451121
Saurabh	Shukla	Kalhapur	Rankala	456781	MH	7078945185	9517541121