

Short Note for Lecture 1

1. Create a type and table

Type is same as class in oop. Also, we create table to store objects. use type to declare blue print

Type >> table >> objects

```
CREATE TYPE student_t AS OBJECT
```

```
(
```

```
    Sno CHAR(50),
```

```
    Sname VARCHAR2(50),
```

```
    Addr VARCHAR2(50)
```

```
)
```

```
/
```

```
CREATE TABLE students FROM student_t;
```

```
SELECT * FROM tab; - View all tables
```

```
SELECT type_name FROM user_types; - view all types
```

```
DESC student_t; - get type description/details
```

```
DESC students; get table details
```

"/" this forward slash says to execute the previous query



2.Create Objects in the table

Insert into command use to create objects.not save data to table only objects

```
INSERT INTO students VALUES (student_t('s123','Ishara','Galle'))
```

/

Show details in the table

```
Select * from students
```

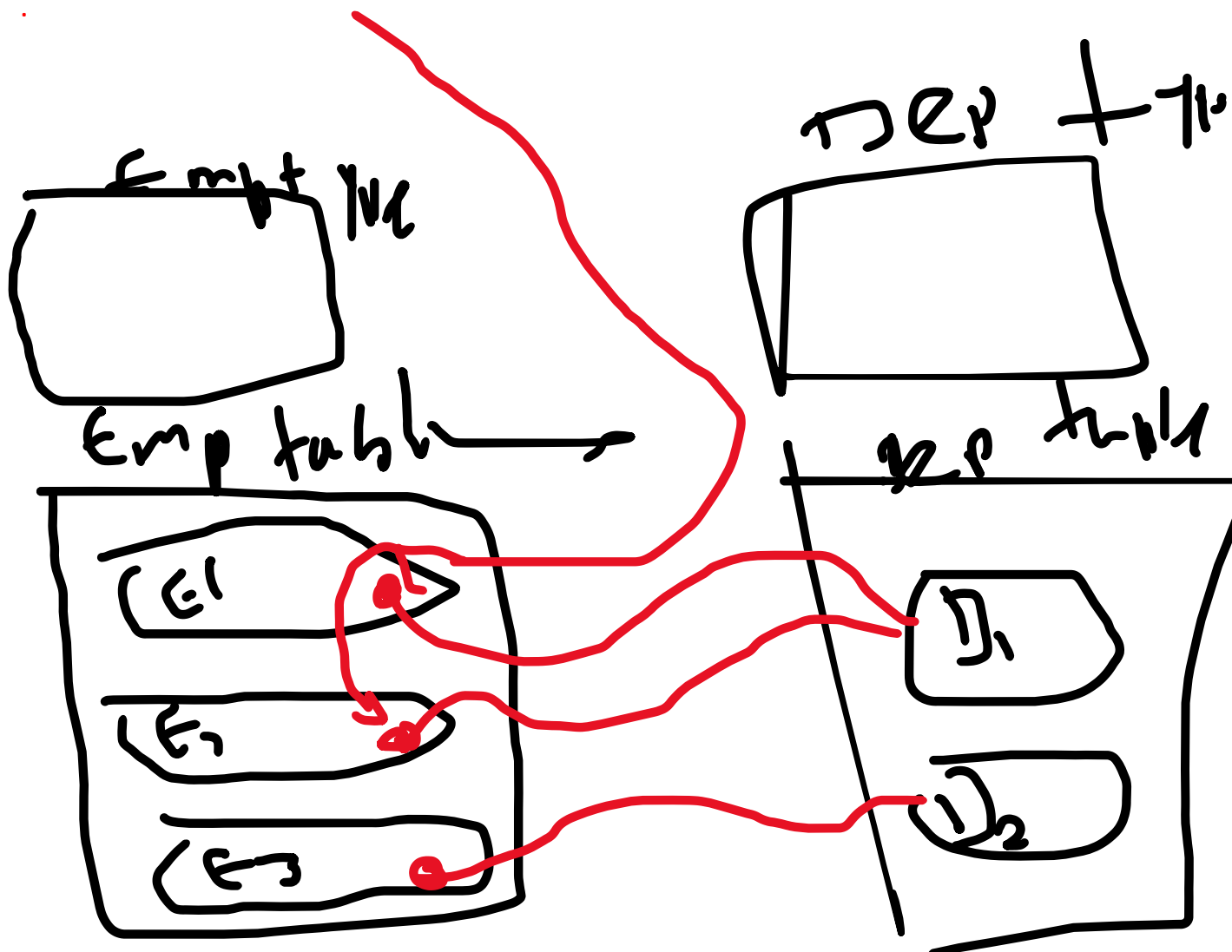
Or

```
Select value(s) from students s
```

Get specific columns.

```
Select s.sno, s.addr FROM students s
```

Object ID is like a pointer. Use to create relationships between objects



Create a object reference to one type object to another

dept

Create type dept_t as object

(

Dno char(5),

Dname varchar2(50)

)

CREATE TABLE dept of dept_t

(

PRIMARY KEY (dno) //if we want we can add a primary key while we are creating tables

)

emp

Create type emp_t as object

(

Eno char(5),

Ename varchar2(50),

Department REF dept_t //store dept_t type object ids

)

CREATE TABLE emp of emp_t

(

PRIMARY KEY (eno) //if we want we can add a primary key while we are creating tables

)

INSERT INTO dept VALUES (dept_t('D1','IT'))

INSERT INTO dept VALUES (dept_t('D2','SE'))

```

INSERT INTO emp VALUES (emp_t('E100','Ishara','Galle',(  

                                                                    SELECT Ref(d)  

                                                                    FROM dept d  

                                                                    WHERE d.dno = 'D1'  

                                                                    )))

```

This sub query give the D1's object refference id in department type

Ex -

```

0000280209A73C3FD13A31498DAF404930FCF10B07A73EE226192F468A872B  

B667A061385E0041B9890000

```

3.Retreive data

```

SELECT e.eno, e.ename, e.workdept.dname  

FROM emp e  

WHERE e.ename = 'Ishara'

```

Or

```

SELECT e.eno, e.ename  

FROM emp e  

WHERE e.workdept.dname = 'IT'

```

Incomplete Types