

## CMPE 341 LAB 2

### EXERCISE- 1

**This Lab Exercise covers the following topics:**

- Creating and Managing Table (DDL)
  - Primary Key, Foreign Key
  - Manipulating Data (DML)
1. Create a Database of an Architecture Firm. There are 3 tables in database; Architects, Customers and Design. Here are the attributes for the tables:

**Architects** ( SSN, Name, Surname, Start\_date )

*Start\_date takes the current date if it is not*

*assigned.* **Customers**( SSN, Name, Surname,  
Telephone, e-mail) *Telephone can not be null and  
e-mail should be unique.*

**Design**( ArchitectSSN, CustomerSSN, MeterSquare, Price)

( *ArchitectSSN as foreign key comes from the Architects table, CustomerSSN as foreign key comes from Customers Table. Also ArchitectSSN and CustomerSSN are primary keys for Design Table*)

```
create table
Architects ( SSN
number primary key,
Name varchar2(20),
Surname
varchar2(30),
Start_date date default sysdate
)
```

```
create table
Customers( SSN
number(11),
Name varchar2(20),
Surname
varchar2(30),
Telephone varchar2(10) not
null, e_mail varchar2(30),
unique(e_mail),
primary key(SSN)
)
```

```
Create table Design (
ArchitectSSN
number(11),
```

**CustomerSSN**  
**number(11),**  
**MeterSquare**  
**number(10),            Price**  
**number(10),**  
**primary key (ArchitectSSN, CustomerSSN),**  
**foreign key (ArchitectSSN) references**  
**Architects(SSN), foreign key (CustomerSSN)**  
**references Customers(SSN)**  
**)**

2. Insert records (rows) into tables using the values below.

- a. Architect with  
**Name:** Darren **Surname:** Corrado **SSN:**123123123 **Start\_date:**
- b. Design with  
**ArchitectSSN:**123123123 **CustomerSSN:** 234234234 **MeterSquare:** 150  
**Price:**500000
- c. Customer with  
**SSN:** 234234234 **Name:** Cody **Surname:** Gilbreth **Telephone:**  
 6140001000  
**e-mail:** cgilbreth@gmail.com

**insert into Architects values ( 123123123, 'Darren', 'Corrado',**  
**NULL) insert into Customers values (**  
**234234234, 'Cody', 'Gilbreth', '6140001000',**  
**'cgilbreth@gmail.com')**  
**insert into Design values (123123123, 234234234, 150, 50000)**

3. Show the structure (Describe) the table customers.  
**Desc customers**