

Appendix to Second Term Test Fall 2003

November 5th 2003

```
create table continent (  
  name char(32) not null,  
  area real,  
  constraint continent_pk primary key (name)  
);
```

```
create table country (  
  name varchar(64) not null,  
  continent char(32),  
  population integer default 0,  
  constraint country_pk primary key (name),  
  constraint country_fk foreign key (continent)  
    references continent  
);
```

```
create table province (  
  name varchar(64) not null,  
  country varchar(64) not null,  
  capital varchar(64),  
  population integer default 0,  
  constraint province_pk primary key (name, country),  
  constraint province_fk foreign key (country) references country  
);
```

```
create table city(  
  name varchar(64) not null,  
  country varchar(64) not null,  
  province varchar(64) not null default '',  
  constraint city_pk primary key (name, province, country),  
);
```

Information on the database

```
>db2 "select count(*) as Number_Of_Continent from Continent "
```

```
NUMBER_OF_CONTINENT
```

```
-----
```

```
5
```

```
1 record(s) selected.
```

```
>db2 "select count(*) as Number_Of_Country from Country"
```

```
NUMBER_OF_COUNTRY
```

```
-----
```

```
234
```

```
1 record(s) selected.
```

```
>db2 "select count(*) as Number_Of_Province from Province"
```

```
NUMBER_OF_PROVINCE
```

```
-----
```

```
1449
```

```
1 record(s) selected.
```

```
>db2 "select count(*) as Number_Of_City from City"
```

```
NUMBER_OF_CITY
```

```
-----
```

```
3128
```

```
1 record(s) selected.
```

From the 234 countries in the database only 64 have at least one province.

Also from the 3,128 cities in the database 524 do not have a value for the province attribute.