Όνομα: Λάμπρος-Σταύρος Κουτσιούκης
Αριθμός Μητρώου: 3180090

Project B

Ζήτημα Πρώτο

1)

```sql
create table camp_data(
custID integer,
fname varchar(30),
lname varchar(30),
cID integer,
country varchar(30),
bookID int,
bookDate date,
campCode char(3),
campName varchar(50),
empno int,
catCode char(1),
category varchar(20),
unitCost varchar(20),
startDate date,
overnights int,
persons int,
);
```

2)

```sql
create table camp_reservations(
custID integer,
cID integer,
bookID integer,
campCode char(3),
catCode char(1),
empno integer,
startDate date,
overnights integer,
persons integer

primary key(custID, cID, bookID, campCode, empno, startDate),
foreign key(custID) references customers(custID),
foreign key(cID) references countries(cID),
foreign key(bookID) references bookings(bookID),
foreign key(campCode) references camps(campCode),
foreign key(catCode) references emp_categories(catCode),
foreign key(empno) references emplacements(empno),
```

```sql
);

create table customers(
custID integer primary key,
fname varchar(30),
lname varchar(30),
);

create table countries(
cID integer primary key,
country varchar(30),
);

create table bookings(
bookID integer primary key,
bookDate date,
);

create table camps(
campCode char(3) primary key,
campName varchar(50),
);

create table emp_categories(
catCode char(1) primary key,
category varchar(20),
unitCost numeric(4,2),
);

create table emplacements(
empno integer primary key,
category varchar(20),
);
```

3)
```sql
insert into customers
select distinct custID, fname, lname
from camp_data


insert into countries
select distinct cID, country
from camp_data


insert into bookings
select distinct bookID, bookDate
from camp_data


insert into camps
select distinct campCode, campName
```
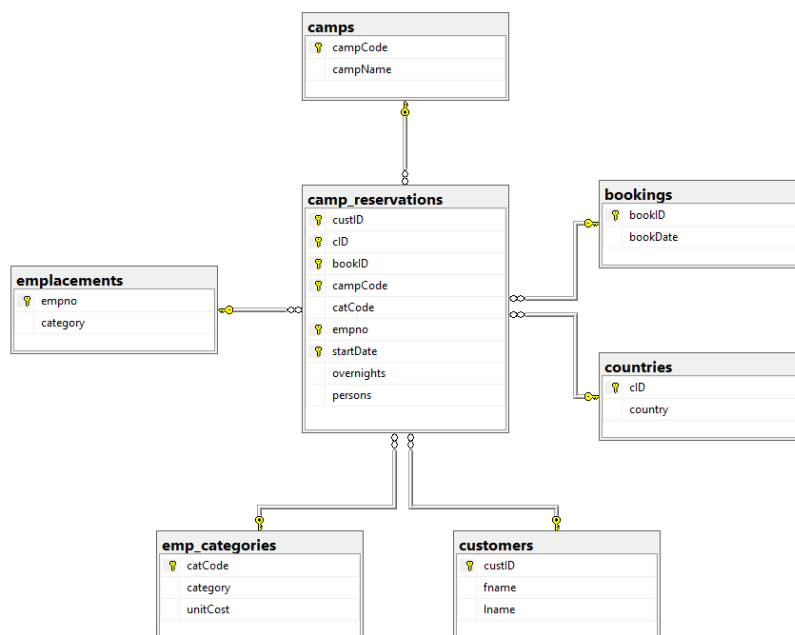
```sql
from camps


insert into emp_categories
select distinct catCode, category, unitCost
from camp_data


insert into emplacements
select distinct empno, category
from emplacements



insert into camp_reservations
select custID, cID, bookID, campCode, catCode, empno, startDate, overnights,
persons
from camp_data
```

4)

Ζήτημα Δεύτερο

1)

```sql
select top 100 country, fname, lname, sum(rev) as total_revenue
from(
select country, fname, lname, (unitCost * overnights * persons) as
rev
from camp_reservations, customers, countries, emplacements,
emp_categories
where camp_reservations.custID = customers.custID and
camp_reservations.cID = countries.cID and camp_reservations.empno =
emplacements.empno and camp_reservations.catCode =
emp_categories.catCode) as t
group by country, fname, lname
order by total_revenue desc
```

2)

```sql
select campName, category, sum(rev) as total_revenue
from(
select campName, category, (unitCost * overnights * persons) as rev
from(
select *
from camp_reservations
where startDate like '2000-%') as t, camps, emp_categories
where t.campCode = camps.campCode and t.catCode =
emp_categories.catCode) as t2
group by category, campName
```

3)

```sql
select campName, month(startDate) as month, sum(rev) as
total_revenue
from(
select campCode, startDate, (unitCost* overnights* persons) as rev
from(
select *
from camp_reservations
where startDate like '2018-%'
) as t2 , emp_categories
where t2.catCode = emp_categories.catCode) as t, camps
where t.campCode = camps.campCode
group by month(startDate), campName
```

5)

```sql
select t2018.campName
from(
select campName, sum(rev) as total_revenue
from(
select campName, (unitCost * overnights * persons) as rev
from(
select *
```

```
from camp_reservations
where startDate like '2017-%') as t1, camps, emp_categories
where t1.campCode = camps.campCode and t1.catCode =
emp_categories.catCode) as t2
group by campName) as t2017
join(
select campName, sum(rev) as total_revenue
from(
select campName, (unitCost * overnights * persons) as rev
from(
select *
from camp_reservations
where startDate like '2018-%') as t1, camps, emp_categories
where t1.campCode = camps.campCode and t1.catCode =
emp_categories.catCode) as t2
group by campName) as t2018
on t2017.campName = t2018.campName
where t2017.total_revenue < t2018.total_revenue
```

Ζήτημα Τρίτο

```
select campName, category, count(category) as category_preference
from camp_reservations, camps, emp_categories, countries
where country = 'Austria'
group by country, category, campName with cube
```

a) Το κάθε κελί του κύβου περιέχει το πόσες κρατήσεις της εκάστοτε κατηγορίας έχουν γίνει για κάθε κατασκήνωση από κάθε χώρα.

b) group by (country, category, campName),
          (country, category, ALL),
          (country, ALL, ALL),
          (ALL, category, campName),
          (ALL, category, ALL),
          (ALL, ALL, campName),
          (ALL, ALL, ALL)

Ζήτημα Τέταρτο

RowID	GER	ITA	FRA	ESP	SWE	DEN	NED	AUT	BEL	FIN
69	0	0	0	1	0	0	0	0	0	0
70	0	0	0	1	0	0	0	0	0	0
71	0	0	0	0	0	1	0	0	0	0
72	0	0	0	0	0	0	0	1	0	0
73	0	0	0	0	0	0	0	1	0	0
74	1	0	0	0	0	0	0	0	0	0
75	1	0	0	0	0	0	0	0	0	0
76	1	0	0	0	0	0	0	0	0	0