

Δεύτερη Εργασία

[\(sql queries link\)](#)

Ζήτημα Πρώτο

1.

```
create table campdata(  
  custId integer,  
  fname varchar(50),  
  lname varchar(50),  
  cID integer,  
  country varchar(50),  
  bookID integer,  
  bookDate Date,  
  campCode char(3),  
  CampName varchar(50),  
  empno integer,  
  catCode char(1),  
  category varchar(50),  
  unitCost numeric(4,2),  
  startDate Date,  
  overnights integer,  
  persons integer  
);
```

2.

```
create table country(  
  cID integer,  
  country varchar(50),  
  PRIMARY KEY (cID)  
);
```

```
= create table customers(  
    custId integer,  
    fname varchar(50),  
    lname varchar(50),  
    PRIMARY KEY (custId)  
);
```

```
= create table camps(  
    campCode char(3),  
    CampName varchar(50),  
    PRIMARY KEY (campCode)  
);
```

```
= create table category(  
    catCode char(1),  
    category varchar(50),  
    PRIMARY KEY (catCode)  
);
```

```
= create table timeData(  
    startDate Date,  
    dayD integer,  
    monthD integer,  
    yearD integer,  
    Primary Key (startDate)  
);
```

```

create table bookings(
    customerId integer,
    countryId integer,
    campCode char(3),
    categoryCode char(1),
    startDate Date,
    bookID integer,
    unitCost numeric(4,2),
    overnights integer,
    persons integer,
    empno integer,
    PRIMARY KEY (customerId, campCode, startDate, empno),
    FOREIGN KEY (customerId) REFERENCES customers(custId),
    FOREIGN KEY (countryId) REFERENCES country(cID),
    FOREIGN KEY (campCode) REFERENCES camps(campCode),
    FOREIGN KEY (categoryCode) REFERENCES category(catCode),
    FOREIGN KEY (startDate) REFERENCES timeData(startDate)
);

```

3.

```

[-] Insert Into country
    SELECT distinct cID, country from campdata;

[-] Insert Into customers
    SELECT distinct custId, fname, lname from campdata;

[-] Insert Into camps
    SELECT distinct campCode, CampName from campdata;

[-] Insert Into category
    SELECT distinct catCode, category from campdata;

```

```

Insert Into timeData
select distinct startDate,
        datepart(day, startDate),
        datepart(month, startDate),
        datepart(year, startDate)
FROM campdata

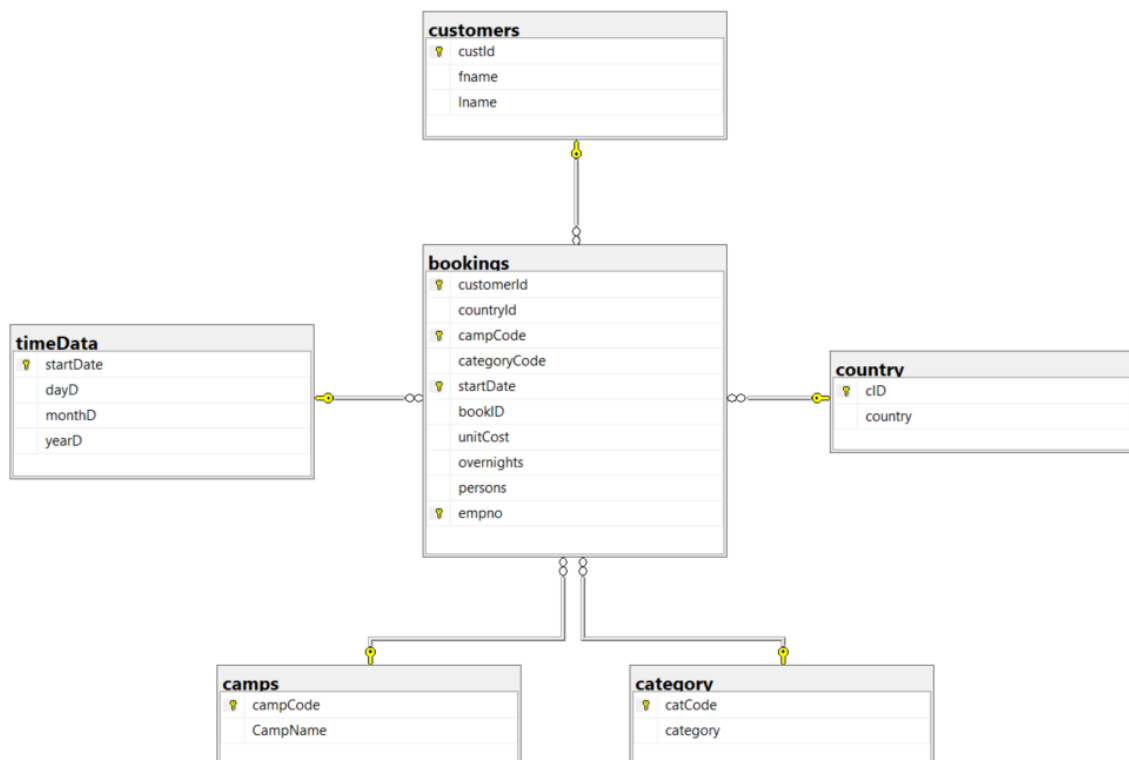
```

```

Insert into bookings
Select custId, cID, campCode, catCode, startDate, bookID, unitCost, overnights, persons, empno
From campdata

```

4.



Ζήτημα Δεύτερο

1.

```
/*query1*/
select TOP 100 coun.country, cus.fname, cus.lname,
SUM(b.unitCost*b.persons*b.overnights) as totalValueOfBookings
from country as coun, customers as cus, bookings as b
where coun.cID = b.countryId AND cus.custId = b.customerId
group by b.customerId, cus.fname, cus.lname, coun.cID ,coun.country
order by totalValueOfBookings DESC
GO
```

2.

```
/*query2*/
select camps.CampName, category.category,
SUM(b.unitCost*b.persons*b.overnights) as totalValueOfBookings
from camps, category, timeData, bookings as b
where camps.campCode = b.campCode AND category.catCode = b.categoryCode
AND timeData.startDate = b.startDate AND timeData.yearD = 2000
Group By camps.campCode, category.catCode, camps.CampName, category.category
order by camps.CampName, category.category
GO
```

3.

```
/*query3*/
select camps.campName, timeData.monthD, SUM(b.unitCost*b.persons*b.overnights) as totalValueOfBookings
from camps, bookings as b, timeData
Where camps.campCode = b.campCode AND timeData.startDate = b.startDate AND timeData.yearD = 2018
Group By camps.campCode, camps.CampName, timeData.monthD
Order By camps.campCode, timeData.monthD
GO
```

4.

```
/*query4*/
select timeData.yearD, camps.campCode, category.catCode, SUM(persons)
from camps, timeData, category, bookings as b
Where camps.campCode = b.campCode AND category.catCode = b.categoryCode
AND timeData.startDate = b.startDate
Group by Rollup (timeData.yearD, camps.campCode, category.catCode)
GO
```

5.


```

/*query5*/
CREATE VIEW personsPerCamp2017 AS
select camps.campCode, camps.CampName, SUM(b.persons) as persons2017
from camps, bookings as b, timeData
Where camps.campCode = b.campCode AND timeData.startDate = b.startDate
AND timeData.yearD = 2017
Group by camps.campCode, camps.CampName

CREATE VIEW personsPerCamp2018 AS
select camps.campCode, camps.CampName, SUM(b.persons) as persons2018
from camps, bookings as b, timeData
Where camps.campCode = b.campCode AND timeData.startDate = b.startDate
AND timeData.yearD = 2018
Group by camps.campCode, camps.CampName

select personsPerCamp2018.CampName
From personsPerCamp2017, personsPerCamp2018
where personsPerCamp2017.campCode = personsPerCamp2018.campCode
AND personsPerCamp2018.persons2018 > personsPerCamp2017.persons2017

```

Ζήτημα Τρίτο

```

/*ex3 query*/
select yearD, cID, catCode, SUM(bookings.overnights)
from country, category, timeData, bookings
Where bookings.countryId = country.cID AND bookings.categoryCode = category.catCode
AND bookings.startDate = timeData.startDate
Group By CUBE(yearD, cID, catCode)
order by yearD desc, cID desc, catCode desc

```

a.

Σε κάθε κελί του κύβου θα βρίσκεται το άθροισμα των **overnights** (διανυκτερεύσεων) με βάση το **group by**. Για παράδειγμα το (2000, ALL, ALL) περιλαμβάνει όλες/συνολικές διανυκτερεύσεις που έγιναν το 2000. Το (2019, 10, C) δείχνει τις διανυκτερεύσεις που έγιναν στην χώρα με κωδικό 10 το 2019 στην κατηγορία camp C.

b.

Ο κύβος περιέχει τα εξής group by:

- clD, catCode, yearD
- clD, catCode
- clD, yearD
- catCode, yearD
- clD
- catCode
- yearD
- none

Ζήτημα Τέταρτο

Country Index

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