Practice 4

Ex. 1

Reader(ID, LastName, FirstName, Address, BirthDate)
Book (ISBN, Title, Author, PagesNum, PubYear, PubName)
Publisher (PubName, PubKind)
Category (CategoryName, ParentCat)
Copy (ISBN, CopyNumber, Shelf, Position)
Borrowing (ReaderNr, ISBN, CopyNumber, ReturnDate)
BookCat (ISBN, CategoryName)

a)
SELECT LastName FROM Reader WHERE Address = "%Moscow%"

b)
SELECT Author, Title, Publisher.PubKind FROM Book
INNER JOIN Publisher on Book.PubName = Publisher.PubName
WHERE Publisher.PubKind = 'Science' OR Publisher.PubKind = 'Reference'

c)
SELECT Author, Title from Book INNER JOIN Borrowing
ON Borrowing.ISBN = Book.ISBN INNER JOIN Reader ON
Reader.ID = Borrowing.ReaderNr AND
Reader.FirstName = 'Ivan' AND Reader.LastName = 'Ivanov'

d)
SELECT Book.ISBN from Book INNER JOIN BookCat ON
BookCat.ISBN = Book.ISBN AND BookCat.CategoryName = 'Mountain'
INNER JOIN Category ON BookCat.CategoryName = Category.CategoryName
AND ParentCat != 'Travel'

e)
SELECT LastName, FirstName FROM Reader
INNER JOIN Borrowing ON Borrowing.ReaderNr = Reader.ID
AND Borrowing.ReturnDate != null

Ex. 2

City (Name, Region)
Station (Name, #Tracks, CityName, Region)
Train (TrainNr, Length, StartStationName, EndStationName)
Connection (FromStation, ToStation, TrainNr, Departure, Arrival)

A)
```
 SELECT * FROM Trains.Connection
INNER JOIN Trains.Station
ON Connection.FromStation = (
SELECT Station.Name FROM Trains.Station WHERE Station.CityName = "Moscow")
AND Connection.ToStation = (
SELECT Station.Name FROM Trains.Station WHERE Station.CityName = "Tver" OR
Station.CityName = "Sankt-Pererburgs")
```

B)
```
SELECT * FROM Trains.Connection
INNER JOIN Trains.Station
ON Connection.FromStation = (
SELECT Station.Name FROM Trains.Station WHERE Station.CityName = "Moscow")
AND Connection.ToStation = (
SELECT Station.Name FROM Trains.Station WHERE Station.CityName = "Tver" OR
Station.CityName = "Sankt-Pererburgs")
AND day(Connection.Departure) = day(Connection.Arrival)
```

C)
```
SELECT * FROM Trains.Connection
INNER JOIN Trains.Station
ON Connection.FromStation = (
SELECT Station.Name FROM Trains.Station WHERE Station.CityName = "Moscow")
AND Connection.ToStation = (
SELECT Station.Name FROM Trains.Station WHERE Station.CityName = "Tver")
AND day(Connection.Departure) = day(Connection.Arrival)

SELECT * FROM Trains.Connection
INNER JOIN Trains.Station
ON Connection.FromStation = (
SELECT Station.Name FROM Trains.Station WHERE Station.CityName = "Moscow")
AND Connection.ToStation = (
```

SELECT Station.Name FROM Trains.Station WHERE Station.CityName = "Tver")