Код для создания таблиц:

```sql
CREATE TABLE City (
        Name VARCHAR(40),
        Population  INT,
        Area  INT,
        Country VARCHAR(40),
        PRIMARY KEY(Name)
      );
CREATE TABLE Country (
        Name VARCHAR(40),
        Population  INT,
        Area  INT,
        Capital VARCHAR(40),
        PRIMARY KEY(Name)
      );
CREATE TABLE Festival (
        Name VARCHAR(40),
        City  VARCHAR(40),
        Places INT,
        Country VARCHAR(40),
        Organizer VARCHAR(40),
        PRIMARY KEY(Name)
      );
CREATE TABLE FestivalOrganizer (
        Name VARCHAR(40),
        AccreditationCountry  VARCHAR(40),
        PRIMARY KEY(Name,AccreditationCountry)
      );
```

Код для заполнения таблиц:

```sql
INSERT INTO Country VALUE ('Russia', 142200000, 17098242,'Moscow');
INSERT INTO Country VALUE ('Denmark', 5532531, 43094,'Copenhagen');
INSERT INTO Country VALUE ('Finland', 5502138, 338145,'Helsinki');
INSERT INTO Country VALUE ('Germany', 81757600, 357022,'Berlin');
INSERT INTO Country VALUE ('Iceland', 318452, 103000,'Reykjavik');
INSERT INTO Country VALUE ('Italy', 60200060, 301318,'Roma');
INSERT INTO Country VALUE ('Japan', 127387000, 377873,'Tokyo');
INSERT INTO Country VALUE ('France', 62793432, 551500,'Paris');
INSERT INTO Country VALUE ('Netherlands', 17110000, 41526,'Amsterdam');
INSERT INTO Country VALUE ('Canada', 33740000, 9984670,'Ottawa');

INSERT INTO City VALUE ('Moscow', 12108257, 1091,'Russia');
INSERT INTO City VALUE ('Copenhagen', 518574, 456,'Denmark');
INSERT INTO City VALUE ('Tokyo', 13051965, 2187,'Japan');
INSERT INTO City VALUE ('Helsinki', 588941, 715,'Finland');
INSERT INTO City VALUE ('Paris', 2233818, 105,'France');
INSERT INTO City VALUE ('Amsterdam', 790044, 219,'Netherlands');
INSERT INTO City VALUE ('Ottawa', 883391, 2790,'Canada');
INSERT INTO City VALUE ('Roma', 2870493, 1287,'Italy');
INSERT INTO City VALUE ('Reykjavik', 118814, 275,'Iceland');
INSERT INTO City VALUE ('Berlin', 3490800, 892,'Germany');
INSERT INTO City VALUE ('Kagoshima', 606153, 547,'Japan');
INSERT INTO City VALUE ('Samara', 1170910, 382,'Russia');
INSERT INTO City VALUE ('Munich', 1526149, 310,'Germany');

INSERT INTO Festival VALUE ('Ultra', 'Moscow', 2,'Russia','SuperOrg');
INSERT INTO Festival VALUE ('Tomorrowland', 'Roma', 2, 'Italy','MadBird');
INSERT INTO Festival VALUE ('ElectDaisy','Berlin',2,'Germany','MadBird');
INSERT INTO Festival VALUE ('JazzHeritage', 'Paris',2,'France','SamIzdat');
INSERT INTO Festival VALUE ('Essence', 'Paris', 2,'France','SamIzdat');
INSERT INTO Festival VALUE ('RockTokyo', 'Tokyo',2,'Japan','JapOrganize');
INSERT INTO Festival VALUE ('Summerfest', 'Ottawa',2,'Canada','SuperOrg');
INSERT INTO Festival VALUE ('Maazine','Helsinki',2,'Finland','YoungHome');
INSERT INTO Festival VALUE ('Donaunselfest','Roma',2,'Italy','YoungHome');
INSERT INTO Festival VALUE ('OknaOtkroi','Moscow',2,'Russia','SamIzdat');
```

```
INSERT INTO FestivalOrganizer VALUE ('SuperOrg','Russia');
INSERT INTO FestivalOrganizer VALUE ('SamIzdat','Russia');
INSERT INTO FestivalOrganizer VALUE ('MadBird','Italy');
INSERT INTO FestivalOrganizer VALUE ('MadBird','Germany');
INSERT INTO FestivalOrganizer VALUE ('SuperOrg','Canada');
INSERT INTO FestivalOrganizer VALUE ('YoungHome','Finland');
INSERT INTO FestivalOrganizer VALUE ('YoungHome','Italy');
INSERT INTO FestivalOrganizer VALUE ('JapOrganize','Japan');
INSERT INTO FestivalOrganizer VALUE ('MadBird','Iceland');
INSERT INTO FestivalOrganizer VALUE ('SamIzdat','France');
```

Код для добавление внешних ключей:

```
ALTER TABLE City ADD CONSTRAINT FOREIGN KEY (Country)
REFERENCES Country(Name);

ALTER TABLE Country ADD CONSTRAINT FOREIGN KEY (Capital)
REFERENCES City(Name);

ALTER TABLE Festival ADD CONSTRAINT FOREIGN KEY (City)
REFERENCES City(Name);

ALTER TABLE Festival ADD CONSTRAINT FOREIGN KEY (Country)
REFERENCES Country(Name);

ALTER TABLE FestivalOrganizer ADD CONSTRAINT FOREIGN KEY (AccreditationCountry)
REFERENCES Country(Name);

ALTER TABLE Festival ADD CONSTRAINT FOREIGN KEY (Country,Organizer)
REFERENCES FestivalOrganizer(AccreditationCountry,Name);
```

Результаты:
1) SHOW CREATE TABLE <tableName>

```
| Country | CREATE TABLE `Country` (
  `Name` varchar(40) NOT NULL,
  `Population` int(11) DEFAULT NULL,
  `Area` int(11) DEFAULT NULL,
  `Capital` varchar(40) DEFAULT NULL,
  PRIMARY KEY (`Name`),
  KEY `Capital` (`Capital`),
  CONSTRAINT `country_ibfk_1` FOREIGN KEY (`Capital`) REFERENCES `City` (`Name`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1 |

| City  | CREATE TABLE `City` (
  `Name` varchar(40) NOT NULL,
  `Population` int(11) DEFAULT NULL,
  `Area` int(11) DEFAULT NULL,
  `Country` varchar(40) DEFAULT NULL,
  PRIMARY KEY (`Name`),
  KEY `Country` (`Country`),
  CONSTRAINT `city_ibfk_1` FOREIGN KEY (`Country`) REFERENCES `Country` (`Name`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1 |

| Festival | CREATE TABLE `Festival` (
  `Name` varchar(40) NOT NULL,
  `City` varchar(40) DEFAULT NULL,
  `Places` int(11) DEFAULT NULL,
  `Country` varchar(40) DEFAULT NULL,
  `Organizer` varchar(40) DEFAULT NULL,
  PRIMARY KEY (`Name`),
  KEY `City` (`City`),
  KEY `Country` (`Country`,`Organizer`),
  CONSTRAINT `festival_ibfk_1` FOREIGN KEY (`City`) REFERENCES `City` (`Name`),
  CONSTRAINT `festival_ibfk_2` FOREIGN KEY (`Country`) REFERENCES `Country` (`Name`),
  CONSTRAINT `festival_ibfk_3` FOREIGN KEY (`Country`, `Organizer`) REFERENCES `FestivalOrganizer` (`AccreditationCountry`, `Name`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1 |

| FestivalOrganizer | CREATE TABLE `FestivalOrganizer` (
  `Name` varchar(40) NOT NULL,
  `AccreditationCountry` varchar(40) NOT NULL,
  PRIMARY KEY (`Name`,`AccreditationCountry`),
  KEY `AccreditationCountry` (`AccreditationCountry`),
  CONSTRAINT `festivalorganizer_ibfk_1` FOREIGN KEY (`AccreditationCountry`) REFERENCES `Country` (`Name`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1 |
```

2) SELECT * FROM <tableName>

```
[mysql> SELECT * FROM Country;
+-------------+------------+----------+------------+
| Name        | Population | Area     | Capital    |
+-------------+------------+----------+------------+
| Canada      |   33740000 |  9984670 | Ottawa     |
| Denmark     |    5532531 |    43094 | Copenhagen |
| Finland     |    5502138 |   338145 | Helsinki   |
| France      |   62793432 |   551500 | Paris      |
| Germany     |   81757600 |   357022 | Berlin     |
| Iceland     |     318452 |   103000 | Reykjavik  |
| Italy       |   60200060 |   301318 | Roma       |
| Japan       |  127387000 |   377873 | Tokyo      |
| Netherlands |   17110000 |    41526 | Amsterdam  |
| Russia      |  142200000 | 17098242 | Moscow     |
+-------------+------------+----------+------------+
10 rows in set (0,00 sec)

[mysql> SELECT * FROM City
[    -> ;
+-------------+------------+------+-------------+
| Name        | Population | Area | Country     |
+-------------+------------+------+-------------+
| Amsterdam   |     790044 |  219 | Netherlands |
| Berlin      |    3490800 |  892 | Germany     |
| Copenhagen  |     518574 |  456 | Denmark     |
| Helsinki    |     588941 |  715 | Finland     |
| Kagoshima   |     606153 |  547 | Japan       |
| Moscow      |   12108257 | 1091 | Russia      |
| Munich      |    1526149 |  310 | Germany     |
| Ottawa      |     883391 | 2790 | Canada      |
| Paris       |    2233818 |  105 | France      |
| Reykjavik   |     118814 |  275 | Iceland     |
| Roma        |    2870493 | 1287 | Italy       |
| Samara      |    1170910 |  382 | Russia      |
| Tokyo       |   13051965 | 2187 | Japan       |
+-------------+------------+------+-------------+

[mysql> SELECT * FROM Festival;
+---------------+----------+--------+---------+------------+
| Name          | City     | Places | Country | Organizer  |
+---------------+----------+--------+---------+------------+
| Donaunselfest | Roma     |      2 | Italy   | YoungHome  |
| ElectDaisy    | Berlin   |      2 | Germany | MadBird    |
| Essence       | Paris    |      2 | France  | SamIzdat   |
| JazzHeritage  | Paris    |      2 | France  | SamIzdat   |
| Maazine       | Helsinki |      2 | Finland | YoungHome  |
| OknaOtkroi    | Moscow   |      2 | Russia  | SamIzdat   |
| RockTokyo     | Tokyo    |      2 | Japan   | JapOrganize|
| Summerfest    | Ottawa   |      2 | Canada  | SuperOrg   |
| Tomorrowland  | Roma     |      2 | Italy   | MadBird    |
| Ultra         | Moscow   |      2 | Russia  | SuperOrg   |
+---------------+----------+--------+---------+------------+

[mysql> SELECT * FROM FestivalOrganizer;
+-------------+----------------------+
| Name        | AccreditationCountry |
+-------------+----------------------+
| SuperOrg    | Canada               |
| YoungHome   | Finland              |
| SamIzdat    | France               |
| MadBird     | Germany              |
| MadBird     | Iceland              |
| MadBird     | Italy                |
| YoungHome   | Italy                |
| JapOrganize | Japan                |
| SamIzdat    | Russia               |
| SuperOrg    | Russia               |
+-------------+----------------------+
10 rows in set (0,00 sec)
```

Запросы:

1) Вывести информацию по стране, передаваемой в качестве параметра в where (Germany), включающую в себя все города для этой страны с их населением.

```
SELECT City.name,City.population
FROM Country JOIN City ON Country.name=City.Country
WHERE Country.name='Germany';
```

```
+--------+------------+
| name   | population |
+--------+------------+
| Berlin |    3490800 |
| Munich |    1526149 |
+--------+------------+
```

2) Вывести сумму площади по городам в рамках каждой страны.

```
SELECT Country.name,SUM(City.Area)
FROM Country JOIN City ON Country.name=City.Country
GROUP BY Country.name;
```

```
+-------------+----------------+
| name        | SUM(City.Area) |
+-------------+----------------+
| Canada      |           2790 |
| Denmark     |            456 |
| Finland     |            715 |
| France      |            105 |
| Germany     |           1202 |
| Iceland     |            275 |
| Italy       |           1287 |
| Japan       |           2734 |
| Netherlands |            219 |
| Russia      |           1473 |
+-------------+----------------+
```

3) Вывести все фестивали, которые проводятся в стране с наибольшим населением.

```
SELECT Festival.name
FROM Country JOIN Festival ON Festival.Country=Country.name
WHERE Country.Population=
(SELECT MAX(Country.Population) FROM Country);
```

```
+-----------+
| name      |
+-----------+
| OknaOtkroi |
| Ultra     |
+-----------+
```

4) Вывести все фестивали, которые проводятся в городах с населением большим, чем N (N выбрать самостоятельно, в зависимости от ваших данных).

```
SELECT Festival.name
FROM Festival JOIN City ON City.name=Festival.City
WHERE City.Population>1000000;
```

```
+--------------+
| name         |
+--------------+
| ElectDaisy   |
| OknaOtkroi   |
| Ultra        |
| Essence      |
| JazzHeritage |
| Donaunselfest |
| Tomorrowland |
| RockTokyo    |
+--------------+
```

5) Рассчитать среднее население городов в странах, в городах которых проходят 3 крупнейших фестиваля. Крупнейшим считается фестиваль в городе с населением большим, чем во всех остальных городах.

```
//Вспомогательные представления
CREATE VIEW FestCity AS
SELECT City.name,City.Population
FROM City JOIN Festival ON Festival.City=City.Name
WHERE City.Population<
(SELECT MAX(City.Population)
FROM City JOIN Festival ON Festival.City=City.Name);

CREATE VIEW FestCityless AS
SELECT * FROM FestCity
WHERE FestCity.Population<
(SELECT MAX(FestCity.Population) FROM FestCity);

CREATE VIEW FestCitylessx2 AS
SELECT * FROM FestCityless
WHERE FestCityless.Population<
(SELECT MAX(FestCityless.Population) FROM FestCityless);

//Сам запрос
SELECT Country.name, AVG(City.Population)
FROM Country JOIN City ON Country.name=City.Country
WHERE City.Name IN
(SELECT City.name
FROM City JOIN Festival ON Festival.City=City.Name
WHERE City.name NOT IN
(SELECT FestCitylessx2.name FROM FestCitylessx2))
GROUP BY Country.name;

//Удаляем вспомогательные представления
DROP VIEW FestCity;
DROP VIEW FestCityless;
DROP VIEW FestCitylessx2;
```

```
+---------+---------------------+
| name    | AVG(City.Population) |
+---------+---------------------+
| Germany |          3490800.0000 |
| Japan   |         13051965.0000 |
| Russia  |         12108257.0000 |
+---------+---------------------+
```