#1

create table passports (

passport\_id int primary key auto\_increment,

passport\_number varchar(20) unique

);

create table people (

person\_id int primary key auto\_increment,

first\_name varchar(20) not null,

salary decimal (10,2),

passport\_id int unique,

constraint fk\_people\_passports

foreign key(passport\_id)

references passports(passport\_id)

);

insert into passports

values

(101,'N34FG21B'),

(102,'K65LO4R7'),

(103,'ZE657QP2');

insert into people (first\_name, salary, passport\_id)

values

('Roberto',43300.00,102),

('Tom',56100.00,103),

('Yana',60200.00,101);

#2

create table manufacturers (

manufacturer\_id int primary key auto\_increment,

name varchar(20) not null,

established\_on date

);

create table models (

model\_id int primary key auto\_increment,

name varchar(20) not null,

manufacturer\_id int,

constraint fk\_models\_manufacturers

foreign key(manufacturer\_id)

references manufacturers(manufacturer\_id)

);

insert into manufacturers (name, established\_on)

values

('BMW','1916-03-01'),

('Tesla','2003-01-01'),

('Lada','1966-05-01');

insert into models

values

(101,'X1',1),

(102,'i6',1),

(103,'Model S',2),

(104,'Model X',2),

(105,'Model 3',2),

(106,'Nova',3);

#3

create table students (

student\_id int primary key auto\_increment,

name varchar(30) not null

);

create table exams(

exam\_id int primary key auto\_increment,

name varchar(30) not null

);

insert into students (name)

values

('Mila'),

('Toni'),

('Ron');

insert into exams (exam\_id,name)

values

(101,'Spring MVC'),

(102,'Neo4j'),

(103,'Oracle 11g');

create table students\_exams(

student\_id int,

exam\_id int,

constraint pk\_students\_exams

primary key (student\_id,exam\_id),

constraint fk\_studens\_exams\_students

foreign key (student\_id)

references students(student\_id),

constraint fk\_students\_exams\_exams

foreign key (exam\_id)

references exams(exam\_id)

);

insert into students\_exams

values

(1,101),

(1,102),

(2,101),

(3,103),

(2,102),

(2,103);

#4

create table teachers (

teacher\_id int primary key auto\_increment,

name varchar(20) not null,

manager\_id int

);

insert into teachers

values

(101,'John', NULL),

(102,'Maya', 106),

(103,'Silvia', 106),

(104,'Ted', 105),

(105,'Mark', 101),

(106,'Greta', 101);

alter table teachers

add constraint fk\_teachers\_managers

foreign key (manager\_id)

references teachers(teacher\_id);

#5

create table cities (

city\_id int primary key auto\_increment,

name varchar(50)

);

create table customers (

customer\_id int primary key auto\_increment,

name varchar(50),

birthday date,

city\_id int,

constraint fk\_customers\_cities

foreign key (city\_id)

references cities (city\_id)

);

create table orders (

order\_id int primary key auto\_increment,

customer\_id int,

constraint fk\_orders\_customers

foreign key (customer\_id)

references customers(customer\_id)

);

create table item\_types(

item\_type\_id int primary key auto\_increment,

name varchar(50)

);

create table items (

item\_id int primary key auto\_increment,

name varchar(50),

item\_type\_id int,

constraint fk\_items\_item\_types

foreign key (item\_type\_id)

references item\_types(item\_type\_id)

);

create table order\_items (

order\_id int,

item\_id int,

constraint pk\_order\_items

primary key order\_items (order\_id,item\_id),

constraint fk\_order\_items\_orders

foreign key (order\_id)

references orders (order\_id),

constraint fk\_order\_items\_items

foreign key (item\_id)

references items (item\_id)

);

#6

create table majors(

major\_id INT PRIMARY KEY AUTO\_INCREMENT,

name VARCHAR(50)

);

CREATE TABLE students(

student\_id INT PRIMARY KEY AUTO\_INCREMENT,

student\_number VARCHAR(12),

student\_name VARCHAR(50),

major\_id INT,

CONSTRAINT fk\_students\_majors

FOREIGN KEY (major\_id)

REFERENCES majors(major\_id)

);

CREATE TABLE payments(

payment\_id INT PRIMARY KEY AUTO\_INCREMENT,

payment\_date DATE,

payment\_amount DECIMAL(8,2),

student\_id INT,

CONSTRAINT fk\_payments\_students

FOREIGN KEY (student\_id)

REFERENCES students(student\_id)

);

CREATE TABLE subjects(

subject\_id INT PRIMARY KEY AUTO\_INCREMENT,

subject\_name VARCHAR(50)

);

CREATE TABLE agenda(

student\_id INT,

subject\_id INT,

CONSTRAINT pk\_agenda

PRIMARY KEY (student\_id,subject\_id),

CONSTRAINT fk\_agenda\_students

FOREIGN KEY (student\_id)

REFERENCES students (student\_id),

CONSTRAINT fk\_agenda\_subjects

FOREIGN KEY (subject\_id)

REFERENCES subjects (subject\_id)

);

#9

SELECT Mountain\_Range, Peak\_Name, Elevation

FROM Mountains

JOIN Peaks ON Mountains.Id = Peaks.Mountain\_Id

WHERE Mountain\_Range = 'Rila'

ORDER BY Elevation DESC;