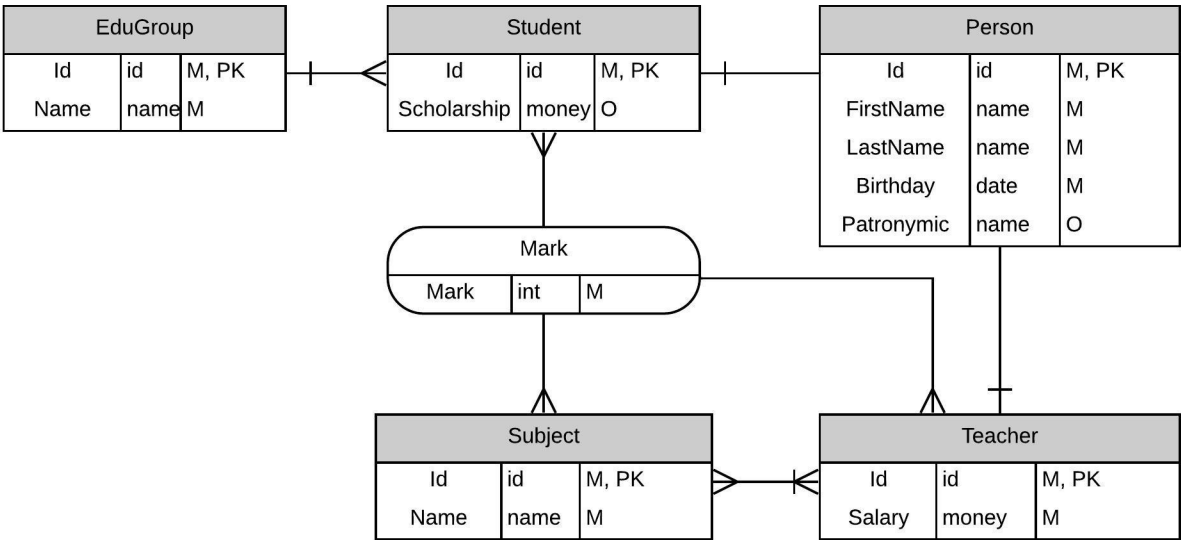
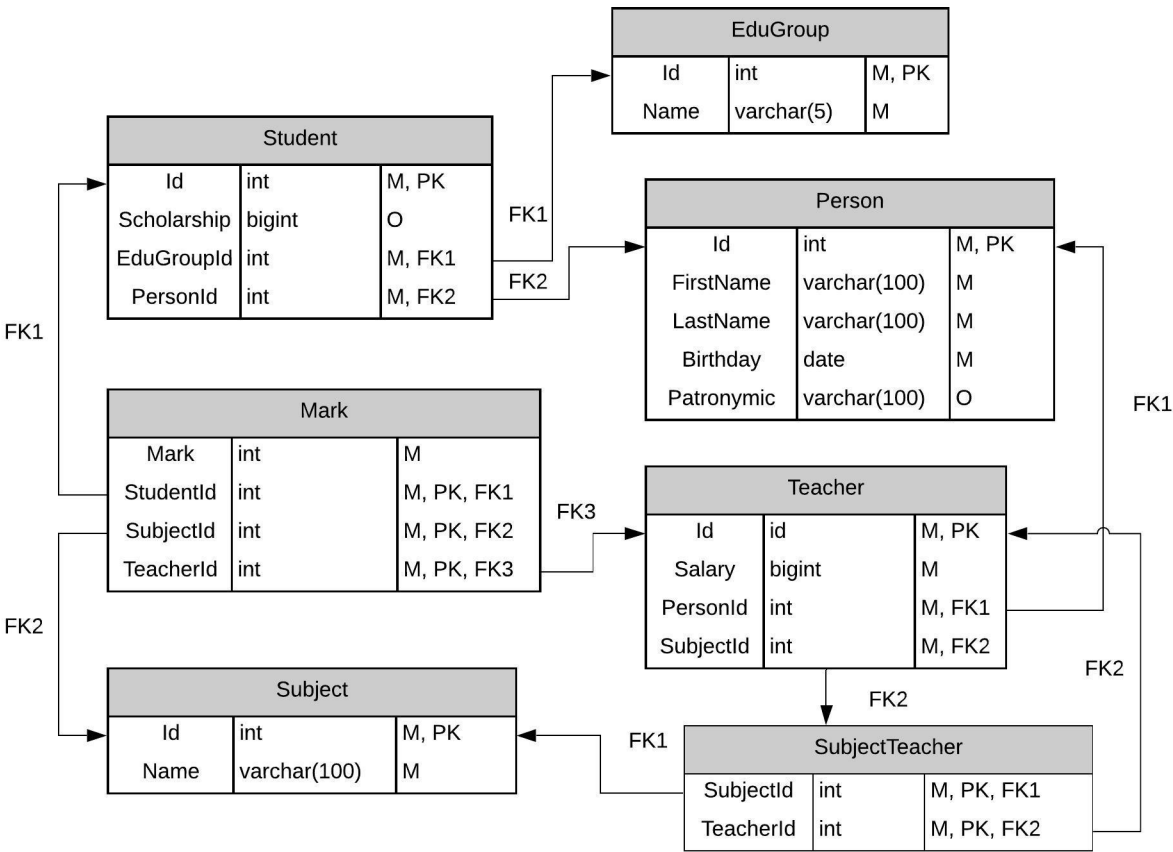


Модель сущность-связь



Физическая модель



Создание

```
create table Person (  
    Id int,  
    FirstName varchar(100) not null,  
    LastName varchar(100) not null,  
    Birthday date not null,  
    Patronymic varchar(100) null,  
    primary key (Id)  
);  
  
create table EduGroup (  
    Id int,  
    name varchar(5) not null,  
    primary key (Id)  
);  
  
create table Student (  
    Id int,  
    Scholarship bigint null,  
    EduGroupId int,  
    PersonId int,  
    primary key (Id),  
    UNIQUE(PersonId),  
    foreign key (EduGroupId) references EduGroup (Id),  
    foreign key (PersonId) references Person (Id)  
);  
  
create table Subject (  
    Id int,  
    Name varchar(100) not null,  
    primary key (Id)  
);  
  
create table Teacher (  
    Id int,  
    Salary bigint not null,  
    SubjectId int,  
    PersonId int,  
    UNIQUE(PersonId),  
    primary key (Id),  
    foreign key (PersonId) references Person (Id)  
);  
  
create table Mark (  
    Mark int not null,  
    StudentId int,  
    SubjectId int,  
    TeacherId int,  
    primary key (StudentId, SubjectId, TeacherId),  
    foreign key (StudentId) references Student (Id),  
    foreign key (SubjectId) references Subject (Id),  
    foreign key (TeacherId) references Teacher (Id)  
);  
  
create table SubjectTeacher (  
    SubjectId int,  
    TeacherId int,  
    primary key (SubjectId, TeacherId),  
    foreign key (SubjectId) references Subject (Id),  
    foreign key (TeacherId) references Teacher (Id)  
);  
  
alter table Teacher  
    add foreign key (SubjectId, Id) references SubjectTeacher (SubjectId, TeacherId);
```

Заполнение

```
insert into EduGroup  
    (Id, name) values  
    (1, 'М3437'),  
    (2, 'М3435');  
  
insert into Person  
    (Id, FirstName, LastName, Patronymic, Birthday) values  
    (1, 'Владислав', 'Сайфулин', null, '25-05-1998'),  
    (2, 'Егор', 'Тимошенко', 'Евгеньевич', '31-01-1999'),  
    (3, 'Александр', 'Волков', 'Михайлович', '24-12-1998'),  
    (4, 'Георгий', 'Корнеев', 'Александрович', '23-02-1981'),  
    (5, 'Павел', 'Маврин', 'Юрьевич', '26-11-1984');  
  
insert into Student  
    (Id, PersonId, EduGroupId, Scholarship) values  
    (1, 1, 1, 1000),  
    (2, 2, 1, null),  
    (3, 3, 2, 1500);  
  
insert into Subject  
    (Id, Name) values  
    (1, 'Базы данных'),  
    (2, 'Алгоритмы и структуры данных');  
  
insert into Teacher  
    (Id, PersonId, SubjectId, Salary) values  
    (1, 4, null, 1000000),  
    (2, 5, null, 500000),  
    (3, 1, null, 0);  
  
insert into SubjectTeacher  
    (SubjectId, TeacherId) values  
    (1, 1),  
    (2, 2),  
    (2, 1);  
  
insert into Mark  
    (StudentId, SubjectId, TeacherId, Mark) values  
    (1, 2, 2, 95),  
    (3, 1, 1, 80),  
    (2, 2, 1, 60),  
    (1, 1, 2, 80);  
  
update Teacher  
    set SubjectId = 1 where Id = 1;  
update Teacher  
    set SubjectId = 2 where Id = 2;
```