Hópverkefni 1 Kolbeinn og Ágúst  
  
Entities:

1. Busses
2. Routes
3. Drivers
4. Towns
5. Garage
6. Stage

Relationships:

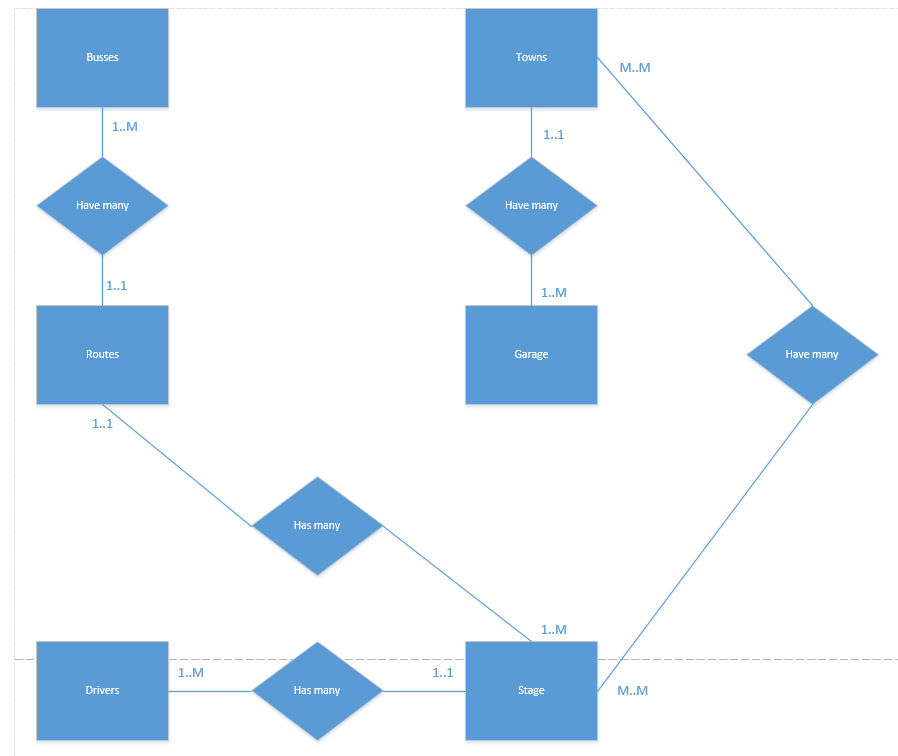
1. Busses M-1 Routes
2. Stage 1-M Drivers
3. Routes 1-M Stage
4. Towns 1-M Garage
5. Stage M-M Towns

Attributes:

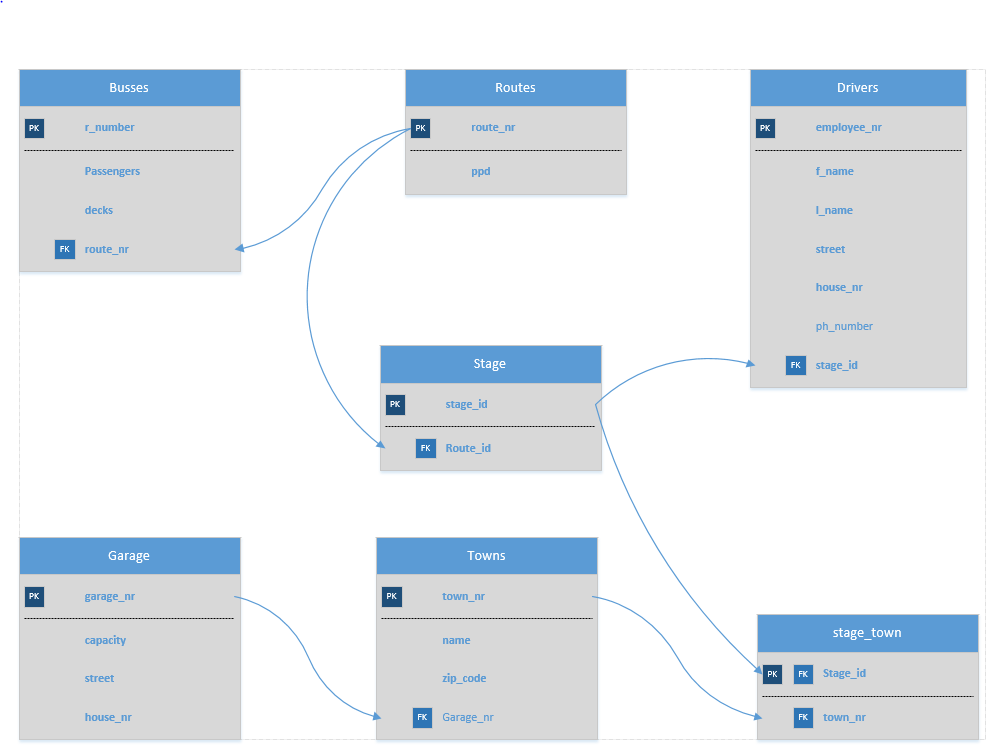
1. Busses
   1. r\_number (primary key)
   2. passengers
   3. decks
   4. route\_nr (foreign key)
2. Routes
   1. route\_nr (primary key)
   2. ppd
3. Drivers
   1. employee\_nr
   2. f\_name
   3. l\_name
   4. street
   5. house\_nr
   6. ph\_number (NULL)
   7. stage\_id (foreign key)
4. Towns
   1. town\_nr (primary key auto\_increment)
   2. name
   3. zip\_code
   4. Garage\_nr (foreign key) (NULL) -
5. Garage
   1. nr (primary key auto\_increment)
   2. capacity
   3. street
   4. house\_nr
6. Stage
   1. Stage\_id (primary key auto increment)
   2. Route\_id (foreign key) –
7. Stage\_Town
   1. Stage\_id (primary and foreign key)-
   2. Town\_nr (foreign key)-

Data types:

|  |  |  |
| --- | --- | --- |
| Attribute | Data type | Size |
| Route\_nr | Int | Default |
| Ppd | Int | Default |
| Employee\_nr | Int | default |
| F\_name | Varchar | 18 |
| L\_name | Varchar | 18 |
| Street\_name | Varchar | 25 |
| House\_nr | Int | default |
| Phone\_nr | Varchar | 20 |
| Stage\_id (foreign key) | Int | default |
| R\_number | char | 5 |
| Passengers | Int | Default |
| Decks | Int | Default |
| Route\_nr (foreign key) | Int | Default |
| Garage\_nr | Int | Default |
| Capacity | Int | Default |
| Street\_name | varchar | 25 |
| House\_nr | Int | Default |
| Town\_nr | Int | Default |
| Town\_name | Varchar | 25 |
| Zip\_code | Char | 3 |
| Garage\_number (foreign key) | Int | Default |
| Stage\_id | Int | Default |
| Route\_id (foreign key) | Int | Default |
| Stage\_nr (foreign key) | Int | Default |
| Town\_nr (foreign key) | Int | default |

ER diagram:  


ER mapping:



create database 0908002640\_bus\_db;

use 0908002640\_bus\_db;

create table Routes(

route\_nr int auto\_increment primary key,

ppd int not null

);

create table Drivers(

employee\_nr int auto\_increment primary key,

f\_name varchar(18) not null,

l\_name varchar(18) not null,

street\_name varchar(25) not null,

house\_nr int not null,

phone\_nr varchar(20) NULL,

stage\_id int not null,

foreign key(stage\_id) references Stage(stage\_id)

);

create table Busses(

r\_number char(5) primary key,

passengers int not null,

decks int not null,

route\_nr int not null,

foreign key (route\_nr) references Routes(route\_nr)

);

create table Garage(

garage\_nr int auto\_increment primary key,

capacity int not null,

street\_name varchar(25) not null,

house\_nr int not null

);

create table Towns(

town\_nr int auto\_increment primary key,

town\_name varchar(25) not null,

zip\_code char(3) not null,

garage\_number int null,

foreign key(garage\_number) references Garage(garage\_nr)

);

create table Stage(

stage\_id int auto\_increment primary key,

route\_id int not null,

foreign key(route\_id) references Routes(route\_nr)

);

create table Stage\_Town(

stage\_nr int auto\_increment primary key,

town\_nr int not null,

foreign key(stage\_nr) references Stage(stage\_id),

foreign key(town\_nr) references Towns(town\_nr)

);