2.

1. Bus 1..m allocated to 1..1 Route
2. Route 1..1 owns 1..m stages
3. Driver 1..m allocated to 1..1 stages
4. Route 1..1 passes through 1..m towns
5. Garages 0..1 allocated in 1..1 towns
6. Bus 1..m kept in 1..1 garage

4.

Bus – reg\_number(VARCHAR) , size(INT), pax\_capacity(INT), single\_or\_double(VARCHAR)

Reg\_number primary key (VARCHAR)

Garage\_number foreign key

Garages

Garage\_number primary key (INT)

T\_name foreign key

Towns

T\_name primary key (VARCHAR)

Route – avg\_number\_pax(INT)

Route\_number primary key (INT)

Reg\_number foreign key

Stages

Stage\_id primary key (VARCHAR)

Route\_number foreign key

Driver – emp\_name(VARCHAR), address(VARCHAR), telephone(INT)

Emp\_number primary key (INT)

Stage\_id foreign key

USE 1507012360\_bus\_db;

CREATE TABLE towns(

t\_name VARCHAR(50) PRIMARY KEY

);

CREATE TABLE garages(

garage\_number INT(99) AUTO\_INCREMENT PRIMARY KEY,

t\_name varchar(50) not null,

FOREIGN KEY(t\_name) REFERENCES towns(t\_name)

);

CREATE TABLE bus(

reg\_number VARCHAR(11) PRIMARY KEY,

size INT(6),

pax\_capacity INT(6),

single\_or\_double VARCHAR(6),

garage\_number INT(99),

FOREIGN KEY(garage\_Number) REFERENCES garages(garage\_number)

);

CREATE TABLE route(

route\_number INT(99) AUTO\_INCREMENT PRIMARY KEY NOT NULL,

avg\_number\_pax INT(100),

reg\_number VARCHAR(11),

FOREIGN KEY(reg\_Number) REFERENCES bus(reg\_number)

);

CREATE TABLE stages(

stage\_id VARCHAR(50) PRIMARY KEY NOT NULL,

route\_number INT(99),

FOREIGN KEY(route\_Number) REFERENCES route(route\_number)

);

CREATE TABLE drivers(

emp\_number INT(10) AUTO\_INCREMENT PRIMARY KEY NOT NULL,

emp\_name VARCHAR(50),

address VARCHAR(50),

telephone INT(7),

stage\_id VARCHAR(50),

FOREIGN KEY(stage\_id) REFERENCES stages(stage\_id)

);