

1. create database cochesBD;

```
mysql> create database cochesBD;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| agenciaviajes |
| almacens1 |
| cochesbd |
| colegio2023 |
| empresa2017bae |
| information_schema |
| mysql |
| performance_schema |
| pruebitilla |
| sys |
+-----+
10 rows in set (0.01 sec)
```

2.

```
create table Coche(
CodCoche integer auto_increment primary key,
Matricula varchar(8) unique not null,
Marca varchar(15),
Color varchar(20) default 'blanco',
Precio decimal(10,2),
FechaMatricula date,
Garantia boolean default true,
constraint check (Precio > 6000 and Precio < 200000),
constraint check (FechaMatricula > '2010-01-01')
);
```

```
create table Cliente(
CodCliente varchar(5) primary key,
Nombre varchar(30),
Apellidos varchar(60),
Telef char(10),
FechaNac date,
Ciudad varchar(50) default 'Las Palmas G.C.',
Email varchar(50)
);
create table Alquiler(
IdCoche integer,
IdCliente varchar(5),
FechaIni date default (curdate()),
HoraIni time not null,
PrecioDia decimal,
FechaDev date,
constraint alquiler_pk primary key (IdCoche, IdCliente, FechaIni),
constraint alquiler_limite_precio check (PrecioDia > 8.5 and PrecioDia < 200.6),
```

constraint alquiler_fk_coche foreign key (IdCoche) references Coche(CodCoche) on update cascade,
 constraint alquiler_fk_cliente foreign key (IdCliente) references Cliente(CodCliente) on update cascade
);

```
mysql> create table Coche(
-> CodCoche integer auto_increment primary key,
-> Matricula varchar(8) unique not null,
-> Marca varchar(15),
-> Color varchar(20) default 'blanco',
-> Precio decimal(10,2),
-> FechaMatricula date,
-> Garantia boolean default true,
-> constraint check (Precio > 6000 and Precio < 200000),
-> constraint check (FechaMatricula > '2010-01-01')
-> );
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> create table Cliente(
-> CodCliente varchar(5) primary key,
-> Nombre varchar(30),
-> Apellidos varchar(60),
-> Telef char(10),
-> FechaNac date,
-> Ciudad varchar(50) default 'Las Palmas G.C.',
-> Email varchar(50)
-> );
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> create table Alquiler(
-> IdCoche integer,
-> IdCliente varchar(5),
-> FechaIni date default (curdate()),
-> HoraIni time not null,
-> PrecioDia decimal,
-> FechaDev date,
-> constraint alquiler_pk primary key (IdCoche, IdCliente, FechaIni),
-> constraint alquiler_limite_precio check (PrecioDia > 8.5 and PrecioDia < 200.6),
-> constraint alquiler_fk_coche foreign key (IdCoche) references Coche(CodCoche)
-> on update cascade,
-> constraint alquiler_fk_cliente foreign key (IdCliente) references Cliente(CodCliente)
-> on update cascade
-> );
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> describe Coche;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| CodCoche | int | NO | PRI | NULL | auto_increment |
| Matricula | varchar(8) | NO | UNI | NULL | |
| Marca | varchar(15) | YES | | NULL | |
| Color | varchar(20) | YES | | blanco | |
| Precio | decimal(10,2) | YES | | NULL | |
| FechaMatricula | date | YES | | NULL | |
| Garantia | tinyint(1) | YES | | 1 | |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql> describe Cliente;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| CodCliente | varchar(5) | NO | PRI | NULL | |
| Nombre | varchar(30) | YES | | NULL | |
| Apellidos | varchar(60) | YES | | NULL | |
| Telef | char(10) | YES | | NULL | |
| FechaNac | date | YES | | NULL | |
| Ciudad | varchar(50) | YES | | Las Palmas G.C. | |
| Email | varchar(50) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql> describe Alquiler;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| IdCoche | int | NO | PRI | NULL | |
| IdCliente | varchar(5) | NO | PRI | NULL | |
| FechaIni | date | NO | PRI | curdate() | DEFAULT_GENERATED |
| HoraIni | time | NO | | NULL | |
| PrecioDia | decimal(10,0) | YES | | NULL | |
| FechaDev | date | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

3. alter table coche
 drop Color,
 add column Nplazas integer,
 add column Automatico boolean,
 add column Combustible varchar(1),
 add constraint check (Combustible in ('G', 'D', 'E', 'H'))
 ;

```
mysql> alter table coche
-> drop Color,
-> add column Nplazas integer,
-> add column Automatico boolean,
-> add column Combustible varchar(1),
-> add constraint check (Combustible in ('G', 'D', 'E', 'H'))
-> ;
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> describe coche;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| CodCoche | int | NO | PRI | NULL | auto_increment |
| Matricula | varchar(8) | NO | UNI | NULL | |
| Marca | varchar(15) | YES | | NULL | |
| Precio | decimal(10,2) | YES | | NULL | |
| FechaMatricula | date | YES | | NULL | |
| Garantia | tinyint(1) | YES | | 1 | |
| Nplazas | int | YES | | NULL | |
| Automatico | tinyint(1) | YES | | NULL | |
| Combustible | varchar(1) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

4.

insert into coche (Matricula, Marca, Precio, Nplazas, Combustible) values

('4578KHG', 'Peugeot', 15000, 5, 'G'),
 ('9952BAE', 'Audi A1', 25000, 4, 'G'),
 ('8000RAE', 'Seat Ibiza', 7000, 5, 'D');

insert into cliente (CodCliente, Nombre, Apellidos, Email) values

('CL001', 'Juan', 'Naranjo Gil', 'jnaranjo@gmail.com'),
 ('CL002', 'Ana', 'Mena Rojas', NULL),
 ('CL003', 'Rosa', 'Del Monte Verde', NULL);

```
mysql> insert into coche (Matricula, Marca, Precio, Nplazas, Combustible) values
-> ('4578KHG', 'Peugeot', 15000, 5, 'G'),
-> ('9952BAE', 'Audi A1', 25000, 4, 'G'),
-> ('8000RAE', 'Seat Ibiza', 7000, 5, 'D');
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> insert into cliente (CodCliente, Nombre, Apellidos, Email) values
-> ('CL001', 'Juan', 'Naranjo Gil', 'jnaranjo@gmail.com'),
-> ('CL002', 'Ana', 'Mena Rojas', NULL),
-> ('CL003', 'Rosa', 'Del Monte Verde', NULL);
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> select Matricula, Marca, Precio, Nplazas, Combustible from coche;
+-----+-----+-----+-----+-----+
| Matricula | Marca | Precio | Nplazas | Combustible |
+-----+-----+-----+-----+-----+
| 4578KHG | Peugeot | 15000.00 | 5 | G |
| 9952BAE | Audi A1 | 25000.00 | 4 | G |
| 8000RAE | Seat Ibiza | 7000.00 | 5 | D |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select CodCliente, Nombre, Apellidos, Email from cliente;
+-----+-----+-----+-----+
| CodCliente | Nombre | Apellidos | Email |
+-----+-----+-----+-----+
| CL001 | Juan | Naranjo Gil | jnaranjo@gmail.com |
| CL002 | Ana | Mena Rojas | NULL |
| CL003 | Rosa | Del Monte Verde | NULL |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

5. alter table cliente

add column Avalista varchar(5);

alter table cliente

add constraint cliente_avalista foreign key (Avalista) references Cliente(CodCliente)
 references Cliente(CodCliente) on update cascade;

```
mysql> alter table cliente
-> add column Avalista varchar(5);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table cliente
-> add constraint cliente_avalista foreign key (Avalista) references Cliente(CodCliente)
-> on update cascade;
Query OK, 3 rows affected (0.06 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> describe cliente;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| CodCliente | varchar(5) | NO | PRI | NULL | |
| Nombre | varchar(30) | YES | | NULL | |
| Apellidos | varchar(60) | YES | | NULL | |
| Telef | char(10) | YES | | NULL | |
| FechaNac | date | YES | | NULL | |
| Ciudad | varchar(50) | YES | | Las Palmas G.C. | |
| Email | varchar(50) | YES | | NULL | |
| Avalista | varchar(5) | YES | MUL | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

6.

update coche

set FechaMatricula = '2005-06-15'
 where Matricula = '4578KHG';

update coche

set FechaMatricula = '2015-06-15'
 where Matricula = '4578KHG';

```
mysql> update coche
-> set FechaMatricula = '2005-06-15'
-> where Matricula = '4578KHG';
ERROR 3819 (HY000): Check constraint 'coche_chk_2' is violated.

mysql> update coche
-> set FechaMatricula = '2015-06-15'
-> where Matricula = '4578KHG';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from coche;
+-----+-----+-----+-----+-----+-----+-----+-----+
| CodCoche | Matricula | Marca | Precio | FechaMatricula | Garantia | Nplazas | Automatico | Combustible |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 4578KHG | Peugeot | 15000.00 | 2015-06-15 | 1 | 5 | NULL | G |
| 2 | 9952BAE | Audi A1 | 25000.00 | NULL | 1 | 4 | NULL | G |
| 3 | 8000RAE | Seat Ibiza | 7000.00 | NULL | 1 | 5 | NULL | D |
+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

7.

update cliente

set Email = lcase(concat(Nombre,substr(Apellidos,1,1),'-',year(curdate()),'@gmail.com'))
 where Email IS NULL;

```
mysql> update cliente
-> set Email = lcase(concat(Nombre,substr(Apellidos,1,1),'-',year(curdate()),'@gmail.com'))
-> where Email IS NULL;
Query OK, 2 rows affected (0.00 sec)
Rows matched: 2 Changed: 2 Warnings: 0

mysql> select * from cliente;
+-----+-----+-----+-----+-----+-----+-----+
| CodCliente | Nombre | Apellidos | Telef | FechaNac | Ciudad | Email | Avalista |
+-----+-----+-----+-----+-----+-----+-----+
| CL001 | Juan | Naranjo Gil | NULL | NULL | Las Palmas G.C. | jnaranjo@gmail.com | NULL |
| CL002 | Ana | Mena Rojas | NULL | NULL | Las Palmas G.C. | anam-2024@gmail.com | NULL |
| CL003 | Rosa | Del Monte Verde | NULL | NULL | Las Palmas G.C. | rosad-2024@gmail.com | NULL |
+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

8.

9. delete from coche
where Combustible = 'D';

```
mysql> delete from coche
-> where Combustible = 'D';
Query OK, 1 row affected (0.01 sec)

mysql> select * from coche;
+-----+-----+-----+-----+-----+-----+-----+-----+
| CodCoche | Matricula | Marca | Precio | FechaMatricula | Garantia | Nplazas | Automatico | Combustible |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 4578KHG | Peugeot | 15000.00 | 2015-06-15 | 1 | 5 | NULL | G |
| 2 | 9952BAE | Audi A1 | 25000.00 | NULL | 1 | 4 | NULL | G |
+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

10.
rename table
Coche to Coches,
Cliente to Clientes,
Alquiler to Alquileres;

```
mysql> rename table
-> Coche to Coches,
-> Cliente to Clientes,
-> Alquiler to Alquileres;
Query OK, 0 rows affected (0.05 sec)

mysql> show tables;
+-----+
| Tables_in_cochesbd |
+-----+
| alquileres |
| clientes |
| coches |
+-----+
3 rows in set (0.00 sec)
```